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|  |  | *Outlines* |
| *of Economic* |
| *History* |
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      2. *Economic History of World Population*. 1962.
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      4. *Clocks and Culture*, *1300-1700*. 1967. Rpt. 2003 with introduction by Anthony Grafton.
      5. *Literacy and Development in the West*. 1969.
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      9. *The Technology of Man*: *A Visual History*. 1980.
      10. *The Monetary Policy of Fourteenth Century Florence*. 1982.
      11. *Before the Industrial Revolution*: *European Society and Economy*, *1000-1700*. 1994.
2. **introduction**
   1. “The earth is covered with a thin film of matter called life . . . [Life is] one-billionth . . . of the planet . . .” (Qtd. from H. Brown, *The Chal­lenge of Man*’*s Future*, New York: 1954. 3.) (Cipolla 17)
   2. sources of energy
      1. Energy is measured in calories. A calorie is the heat required to raise one kilogram of water one degree centigrade. (To convert calories to electricity: 860 calories = 1 kilowatt hour.) (Cipolla 33)
      2. classification of energy sources
         1. Animate (physiological) energy is generated in living things and is “divided into bio­tic and muscular energy . . .” (Cipolla 53)
         2. Inanimate (physical) energy is “de­rived from wind, water, wood, peat, fossil fuels, . . . tidal motion, heat of the earth, radioactive elements, etc.” (Cipolla 53)
            1. Inexhaustible inanimate energy includes wind, water, and direct sunlight. “Direct” “is used here because water-power, wind, and wood are in essence converted solar en­ergy.” (Cipolla 53)
            2. Exhaustible inanimate energy includes “coal, lignite, petro­leum, and natural gas. . . . [These] were formed from carbon dioxide and water in living organ­isms by the influence of solar radia­tion. [53] They are ‘stored sun­light’.” (Cipolla 53-54)
   3. converters of energy
      1. A “converter” converts unusable to usable energy. (Cipolla 34)
         1. example: a steam engine “transforms heat energy into mechanical energy . . .” (Cipolla 34)
         2. The output “is always less than the energy input.” (Cipolla 34)
         3. “The cost of useful energy produced by a converter is deter­mined by [variables:] the technical effi­ciency of the converter, its cost of produc­tion, its dura­bility . . ., the cost of operating it, and the prevailing price of the source of energy it uses.” (Cipolla 35)
      2. The principal converters have been humans and plants and animals.
         1. humans as converters
            1. Most of our “energy intake is lost in the form of heat, part is used in chemi­cal processes, and part (about 10 per cent) leaves the body as waste product.” (Cipolla 33)
            2. “Only a minor portion finally appears as nervous and me­chan­ical activity.” (Cipolla 33)

Mental work requires 7-8 calories per hour. (Cipolla 33)

For sustained mechanical activity, “the maximum of human efficiency to be expected is about 18 per cent of the energy input.” (Cipolla 34)

* + - 1. plants and animals as converters
         1. Photosynthesis trans­forms “light, water, carbon diox­ide, and minerals into . . . the three main components of human food, i.e. carbo­hy­drates, proteins, and fats.” (Cipolla 36)
         2. Edible animals “can assimi­late plants or parts of plants that man cannot himself digest . . . animal proteins are of greater nutritive value than carbo­hydrates . . .” (Cipolla 36)
         3. “. . . animals and plants are not very efficient converters. As with man, most of the energy-input is actually used up by them in the process of staying alive.” (Cipolla 36)
         4. “By eating plants man gets only a fraction of their original energy input; by eating animals he gets only . . . a frac­tion of a fraction [36] . . . to produce a given number of calo­ries, beef needs ten times as much land as does corn.” (Cipolla 36-37)
         5. Draught animals, too, are inefficient: the mechanical en­ergy they supply is only about 3-5% of the energy in the feed. (Cipolla 37)
  1. capital
     1. “Man needs capital to trap energy [and] to exploit obtained energy for productive purposes. Capital accumulation is a necessary con­dition for any society . . .” (Cipolla 59)
     2. “Capital is made possible by saving. Only by forgoing present consumption can a society shift resources to the production of capital equipment.” (Cipolla 60)
     3. “In a hunting economy, the capital needs are very limited: a few bones [as] weapons—and (in more developed cultures) bows, arrows, and stone implements.” (Cipolla 59)
     4. “In an agricultural economy the capital needed is of quite a different quality and magnitude: stocks of seeds, fertilizers, ploughs and other implements, draught animals, silos, mills, boats, wagons, and so forth.” (Cipolla 59)
     5. “In an indus­trial economy, capital needs are still more complex and much lar­ger: machinery, railways, chemical and atomic plants, dams, re­search laboratories, and so forth.” (Cipolla 59)
     6. “The greater the produc­tion, the greater the volume of capital needed. [But also,] the greater the production, the greater the possi­bility of capital formation.” (Cipolla 59)
  2. economic revolutions
     1. There have been three basic types of economic organization: hunt­ing-fishing-gather­ing, agricultural, and industrial. (Cipolla 28)
        1. Bewteen hunting-and-gathering and agriculture was the neolithic revolution (c. 7000 bc). (Cipolla 29)
        2. Between agriculture and industry was the industri­al revolution (c. 1750 ad). (Cipolla 29)
     2. Historians have detected other economic revolutions:
        1. an “urban revolution” in early historic times (Cipolla 28)
        2. a “commercial revolution” in Europe in the 1000s ad (Cipolla 28)
        3. a “sort of industrial revolution” in Holland in the 1000s (Cipolla 28)
        4. an “industrial revolution” in England in the 1200s (Cipolla 28-29)
     3. But only the neolithic and industri­al revolutions changed the economy fundamentally. (Cipolla 29)

1. **hunting, fishing, and gathering economy**
   1. For all but 1% of humanity’s existence [18], “knowledge was basi­cal­ly limited to what was edible and what was not.” (Cipolla 37)
   2. The only animal domesticated before the neolithic revolution was the dog (domesticated in palaeolithic times). (Cipolla 37 n 2)
   3. fire
      1. Discoveries at Choukoutien (China) suggest that fire was mastered in Asia c. 400,000 bc. The earliest remains of fire thus far discovered in Europe (England and Spain) date from c. 225,000 bc. (Cipolla 38)
      2. Fire was used
         1. for protection: from predatory animals
         2. for warmth: this allowed humans to advance into previously in­hos­pi­table areas
         3. for cooking (a later development: late Pleisto­cene): this allowed humans to convert inedible plants to edible food, thus increas­ing their disposable energy (Cipol­la 38)
   4. Only two “bio­logical converters,” plants and animals, were natu­rally available. Improvements in hunting and killing techniques and in preparing tools increased humans’ efficiency in exploiting them. (Cipolla 39)
   5. “By a.d. 1780 the hunting stage [was] abandoned by nearly all mankind.” [24] Today, a pure hunting economy only remains in:
      1. the tundra and coniferous forest zone from Norway across North Eur­asia (Cipolla 23)
      2. the bushmen of South Africa (Cipolla 24)
      3. the aborigines of Australia (Cipolla 24)
      4. These have survived “because what they had no one else wanted . . .” (Cipolla 24)
   6. mortality
      1. *Homo erectus* (780,000-680,000)
         1. Out of 22 Sinanthropi (*Homo erectus pekinensis*), 15 died before age 14, 3 died between 15 and 29, 3 more died be­tween 40 and 50, and 1 survived beyond 50. (Cipolla 74)
      2. Neanderthals (250,000-40,000)
         1. H.V. Vallois (“La Durée de la vie chez l’homme fossile.” *Anthropo­logie* 47 [1937] 525) analyzed the fossil remains of 187 European Neanderthals. More than a third died by age 20; most died between 20 and 40; and almost all of the remaining 16 died between 40 and 50. (Cipolla 74)
      3. anatomically modern humans (100,000-present)
         1. “Evidence col­lected for hunting-stage societies of historic times generally ag­rees with these findings [for *Homo erectus*].” (Cipolla 74)
         2. “Paleolithic populations had very high mortality rates. Since the species survived, we must admit that primitive man also had a very high fertility rate.” (Cipolla 73)
         3. “. . . most of the fossil remains of prehistoric man clearly indicate a violent death,” and the same is true for stone-age populations of historic times. (Cipolla 74)
            1. “. . . the most frequent causes of death were in­fanticide, war, and headhunting.” (Cipolla 74)
            2. But “The low density of population was in a way a protection against epidemics.” (Cipolla 74)

Also, “primitive man was more resistant to noxious infections by bacteria than is true today.” (75 n 2)

Nevertheless, illness and starva­tion must have taken a heavy toll, especially among infants. (Cipolla 75)

* 1. population size
     1. “. . . density among hunting and food-gathering peoples is far too great if it is as much as . . . 2.5 per square mile.” (Cipolla 73)
     2. In 10,000 bc (eve of the neolithic revolu­tion), the maximum population was 20 million. The minimum was “around 2 mil­lion. The actual popula­tion probably ranged between 5 and 10 million people.” (Cipolla 95)

1. **agricultural economy**
   1. What was needed was the know-how to make the two biological converters, plants and animals, artificially available.
   2. “Neolithic revolution” refers to the domestication of plants and ani­mals. [8] After it, humans more efficiently used plants for food and fuel, and they more efficiently used ani­mals for food. They also now used animals for mechanical energy. [46] (Cipolla 8, 46)
   3. Kathleen M. Kenyon (“Earliest Jericho.” *Antiquity* 33 (1959) 9): development from mesolithic to neolithic “took place at Jericho in a period covering approximately the eighth millenium b.c.” (Qtd. in Cipolla 19)
   4. spread of the neolithic revolution
      1. eastward
         1. Iraq and Iran
            1. Two village farm communities in the Zagros mountains, Jarmo (Iraq) and Tepe Sarab (Iran), date back to 7000-6500 bc. The villagers domesti­cated goats (perhaps also dogs, cattle, and horses), and they grew barley and two kinds of wheat. (Cipolla 19)
            2. At the Belt Cave (N Iran, shore of the Caspian Sea), c. 6600 the cave dwellers were still hunters; but c. 5800 they domesticated goats and sheep, and by 5300 they made pottery, reaped grain, and kept pigs and (a little later) cows. (Cipolla 19)
            3. The neolithic revolution reached Belu­chistan (areas of Iran, Afghanistan, and Pakistan) before 3300 bc. (Cipolla 21)
         2. SE Asia, China
            1. The neolithic revolution was certainly in China by 5000 bc. (Cipolla 21)
            2. We do not know whether it occurred by immigra­tion or independent discov­ery. (Cipolla 21)
      2. westward
         1. Africa
            1. In the Nile Valley (shore of Lake Fayyum), silos date back to 4500 bc. (Cipolla 22)
            2. The revolution reached the Sudan c. 3500 and Kenya c. 3000. (Cipolla 22)
         2. Europe
            1. “The Danube and the Mediterranean were the roads . . .” (Cipolla 23)
            2. The revolution invaded Greece c. 7000 bc.
            3. It reached the British Isles and Scandinavia around 4000. (Cipolla 23)
      3. the Americas
         1. In the Bat Cave of New Mexico, radiocarbon has dated primi­tive cobs of domesti­cated maize to c. 3650 bc. (Cipolla 21)
         2. In La Perra Cave in Mexico, radiocarbon has dated similar cobs to c. 2500 bc. (Cipolla 21)
         3. In the Chi­cama and Viru Valleys of North Peru, farming communi­ties who did not know maize and were pre-pottery appeared around 2200 bc. (Cipolla 20)
         4. We do not know whether the neolithic revolution occurred in the Americas by immigration or indepen­dent discov­ery. (Cipolla 21)
   5. consequences
      1. a larger and more dependable food supply (Cipolla 39)
      2. mechanical energy (draught animals) (Cipolla 39)
      3. population expansion (Cipolla 40)
         1. The neolithic revolution caused a “demographic explosion” [84], which further diffused the neolithic revolution. [95] (Cipolla 84, 95)
            1. c. 7000 bc: the number of humans worldwide was 2-20 million. (Cipolla 98)
            2. ad 1750: it was c. 750 million. (Cipolla 98)
         2. Birth rates are high in all agricultural societies: 35-50 per 1000. (Cipolla 76)
            1. So the rate of growth is .5-1% per year. (Cipolla 76)
         3. Death rates are also high, but normally lower than birth rates: 30-40 per 1000. (Cipolla 76)
            1. In normal times, 200-500 of every 1000 infants died within a year; many of the rest died before age 7. 77 “The high toll of infants and youth dras­tically cut down . . . ‘agricul­tural’ life expectancy [which] at birth generally averages twenty to thirty-five years. Also those who reach the age of five have little chance of surviving beyond fifty.” (Cipolla 80)
            2. In abnormal times (famines, epidemics, and wars), death rates have sudden peaks to 150, 300, or even 500 per 1000. (Cipolla 77)

“. . . the sudden disappear­ance of a fifth of the population or a third or even half [is] a recurrent catas­trophe of local experience.” (Cipolla 77)

The Black Death of the 1300s ad was exceptional only for its geographical extension. (Cipolla 77)

* + - 1. calories per day
         1. “. . . most of the agricultural soci­eties of the past must generally have had an overall *per capita* consumption of energy below 15,000 calories per day—possibly less than 10,000.” (Cipolla 47)
         2. “And most of the actual consumption was put to food and warmth.” (Cipolla 47)
      2. Since the main sources of energy remained plants and ani­mals, the supply of land was an ultimate limit to the expan­sion of any ag­ri­cultural society. (Cipolla 46)
      3. Also, “The diffu­sion of slavery was just one of the consequences of this general scarcity of other forms of avail­able energy.” (Cipolla 47)
      4. “An agricul­tural level of activity cannot support very much more than one milliard [= billion] people on the earth.” (Cipolla 54)
    1. villages (Cipolla 40)
       1. The neolithic population explosion resulted “in a multi­plication of settlements rather than in the enlarge­ment of the settlement unit. In prehis­toric Europe the largest Neolith­ic village yet known—Bar­kaer, in Jut­land—can­not have included more than 300 or 400 people.” (Cipolla 97)
    2. towns
       1. When the first towns appeared, they were “often nothing more than collect­ing centres of agricul­tural rents.” (Cipolla 29)
       2. “. . . the most highly developed Eur­o­pean soci­eties of the Middle Ages remained fundamentally agrari­an. . . . the famous [medieval] mer­chants and bankers were gen­er­ally part-time land­lords (as most of the artisans and sailors were part-time peas­ants) . . .” (Cipolla 29)
       3. Even in the 1500s, “in Europe an average town num­bered from 5 to 20 thousand people . . .” (Cipolla 98)
       4. Until the industrial revolu­tion, “towns with more than 100 thousand people remained ex­tremely rare.” (Cipolla 98)
    3. civilizations
       1. river valley civilizations
          1. 3500 bc Mesopotamia (Tigris and Euphrates Rivers)
          2. 3200 writing (Sumer)
          3. 3100 Egypt (Nile River)
          4. 2500 India (Indus River)
          5. 1700 China (Yellow River)
       2. American civilizations (none north of Mexico)
          1. 1500 bc Mayans (Yucatan, Guatemala)

ad 200 cities

700 climax

1400s dying

* + - * 1. 1300-400 bc Olmecs (Gulf of Mexico)
        2. 200 bc writing (Central America)
        3. ad 1000 Toltecs (from Mexico; conquer Mayans)
        4. 1200-1500 Aztecs (Mexico; establish Mexico City in ad 1325)
        5. 1476-1534 Incas (Peru)
  1. specialization (Cipolla 40)
     1. an upper class free from the continual search for food (Cipolla 40)
     2. leisurely speculation (Cipolla 40)
  2. technological developments during the agricultural period
     1. farming tools
        1. The hoe and the wooden plough (which could only work “light soils”) were developed between 6000-3000 bc. (Cipolla 40-41)
        2. Iron ploughshares (after 1400 bc) opened “heavy soils” to cultivation. “The Greek and Italian civilizations would not have been possible without these developments.” (Cipolla 41)
        3. ability to work metals
           1. “By 3000 b.c. iron ores were occasionally smelted in Mesopo­tamia. Iron objects dated 3000 b.c. have been found in Sumerian Ur and in Middle Egypt.” (Cipolla 41)
           2. “After 1400 b.c. iron was smelted and worked on a large scale.” (Cipolla 41)
        4. “Mention should also be made here of tools such as the lever, the hammer, the tongs, the saw, the potter’s wheel, the loom, the various types of gears, etc. . . . they were of great impor­tance in improving man’s use of his own ener­gy.” (Cipolla 43)
     2. irrigation
     3. artificial fertilization
     4. land rotation
        1. “Three-field crop rotation was probably already known in classi­cal Greece as early as the fourth century b.c.” (Cipolla 41)
     5. domesticated plants
        1. Maize, for example, evolved in 6000 years “from a small wild grass bearing tiny ears no larger than a modern strawberry into one of the world’s most productive cereals.” (Cipolla 40)
     6. draught animals
        1. c. 3500 bc: the Sumerians used the wheel. (Cipolla 42)
           1. by 2500 bc: wheeled carts. (Cipolla 42)
           2. c. 1500 bc: wheeled carts spread to Egypt. (Cipolla 42)
           3. 1300s ad: but forward steering was discovered late. (Cipolla 42)
        2. by 3000 bc: horses and oxen were harnessed to carts and ploughs, but harnessing was inefficient throughout antiqui­ty. (Cipolla 42)
           1. “A strap attached to the yoke above the withers passed around the animal’s neck. When the horse leaned forward to pull, the strap cut into its wind-pipe, hampered its breath­ing, and reduced its power.” (Cipolla 42)
           2. “Another way of harnessing oxen was by tying the yoke to the horns, but this . . . put the neck of the animal under a well-nigh intolerable strain.” (Cipolla 42)
           3. The Chinese invented a rigid col­lar resting on the shoulders in the 3000s bc, but it did not reach Europe until the 500s ad and was not every­where till the 1100s. (Cipolla 43)
        3. c. 400 bc: the iron horseshoe, attached by nails, “was invented by the Celtic inhabitants of the Alps . . . Without it a horse or ox working on hard and rocky ground wore out its feet rapidly, and a minor foot injury might permanently disable . . .” (Cipolla 43)
     7. Most of these developments increased “the efficiency of the plant and animal converters . . . the human species spent [43] cen­turies and millenia in improving the basic Neolithic discovery.” (Cipolla 43-44)
     8. Three new energy converters, however, provided new sources of energy, the energy of water and wind—though none was extensively used until recently. (Cipolla 44)
        1. sailing boats
           1. Sailing boats were first known in Middle Egypt c. 3500 bc. (Cipolla 44)
           2. But until the late 1400s navigation relied mostly on man­power (as in Roman and Viking galleys), and the sail re­mained a secondary source of energy. (Cipolla 45)
        2. water mill
           1. This was invented between c. 50-1 bc, but it was not gener­ally adopted until the 200s ad, when slave labor grew scarce. (Cipolla 44)
           2. “In medieval Europe water-mills were no longer used only for grinding grain and pressing olives but were also applied to other productive activities such as cloth and paper making, and iron production. The use of the water-mills in cloth production accounted for an extraordinary growth in textile manufac­turing in thirteenth-century England.” (Cipolla 44)
        3. wind mill
           1. This “was known in the Near and Far East . . . in classical times.” (Cipolla 44)
           2. “It became widely used in Europe” only after 1200. (Cipolla 44)
        4. 80-85% “of the total energy income at any time before the Industrial Revolution must have been derived from plants, animals, and men.” (Cipolla 46)
     9. “It was a slow but irresistible accumulation of knowledge, enriched day by day by experience . . . and transmitted from generation to generation . . .” (Cipolla 41)
  3. capital
     1. Because household income in a farming society is low, saving is low. (Cipolla 60)
     2. Moreover, saved resources were mostly used for “Temples, pyramids, mansions, jew­ellery, warfare, and so forth . . .” (Cipolla 60)
     3. Because farming societies have inade­quate transport systems, they “must keep inventories in much larger proportion [especially for] famines. Such inventories are a form of investment, [but] invest­ment of a ‘developmental’ character is very small . . .” (Cipolla 60)
     4. “. . . an agricultural society cannot industrialize by increasing beyond the ‘critical minimum’ the total volume of wooden ploughs or hoe-sticks produced, any more than hunters can become farmers by increasing their output of flaked stones and arrows. . . . the active population must acquire new skills . . . new skills may mean that further capital is needed for investment in education.” (Cipolla 61)
     5. In agricultural societies, “people can hardly afford to satisfy anything but the more elementary needs—food, clothing, and housing . . . [So most] resources are employed in agriculture, tex­tile manufacture, and building. Of these three sectors, ag­ri­culture . . . absorbs the greatest quota of available capital and labour.” (Cipolla 61)
     6. “On the fringe, there is always some trade—in one form or another—­heavily concen­trated on agricultural products (grains, wine, spices, timber, etc.) and textiles. In terms of labour employed, trade is generally a minor sector, and merchants a minori­ty.” (Cipolla 62)
        1. But “where trade flourished, demographic and economic levels were the highest attainable within the range of agricultural possibili­ties.” (Cipolla 62)
        2. “Actually, almost all the great agricultural civilizations of the pre-industrial past were founded on the expansion of the mer­cantile sector.” (Cipolla 62)
        3. “And it was an exaggerated expansion of this sector in seventeenth- and eighteenth-century England that created the material preconditions for the emergence of the Industrial Revolu­tion.” (Cipolla 62)

1. **industrial economy**
   1. The industrial revolution occurred in the late 1700s ad. (Cipolla 24)
   2. Ten mil­lenia separate the neolithic and industrial revolutions. (Cipolla 40)
   3. “Consid­er­ing that the Neolithic Revolution diffused into Europe between 5000 b.c. and 2000 b.c., and assuming for a generation a period of about twenty-five years, slightly more than 150 generations sepa­rate each European from his ‘nasty and brutish’ ancestor.” (Cipolla 112)
   4. In the neolithic revolution, humans came to control biological conver­ters; in the industri­al revolution, they came to control inanimate con­verters. (Cipolla 47)
      1. Before the industrial revolution, 80% of the things humans used were derived from plants and animals, 20% from minerals. (Cipolla 63)
      2. After the industrial revolution, the situa­tion reversed: the key sectors were “the chemi­cal, the metal­lurgical, and the mechanical.” (Cipolla 63)
   5. causes of the industrial revolution
      1. the scientific revolution (1500s-1600s): “systematic inves­tigation of phenom­ena . . . had become a fundamental cultural trait of early modern Europe since the days of the Renaissance.” (Cipolla 48)
      2. “In England these cultural developments happened to coincide with a shortage of [timber,] large supplies of coal, and the existence of very active entrepreneurial groups created by a prolonged growth of commercial and maritime activities.” (Cipolla 48)
   6. development of the industrial revolution
      1. “It all started with steam.” (Cipolla 48)
         1. c. 1765: James Watt began experi­menting. (Cipolla 48)
         2. after 1785: commercial use of steam. (Cipolla 48)
         3. “Steam engines were used in metallurgical and textile activities as well as in mining coal and in surface transportation.” (Cipolla 48)
      2. “In its turn, more coal meant more machine power.” (Cipolla 48)
         1. 1800: world production of coal was c. 15 million tons per year. (Cipolla 48)
         2. 1860: world production of coal was c. 132 million tons per year. (Cipolla 48)
         3. 1900: world production of coal was c. 701 million tons per year. (Cipolla 49)
         4. 1950: world production of coal was c. 1454 million tons per year. (Cipolla 49)
      3. “. . . growth in the supply of energy stimulated economic growth, which in turn stimulated education and scientific research leading to the discovery of new sources of energy.” (Cipolla 49)
         1. petroleum products
            1. 1850: James Young, Scottish chemist, “established the basis for the making of petrol.” (Cipolla 49)
            2. c. 1885: “in Germany, Benz’s and Daimler’s motor-cars took successfully to the roads.” (Cipolla 49)
         2. electricity
            1. c. 1850: Faraday’s researches in electricity began.
            2. “By 1870 practi­cal types of generators were already available producing either direct or alternat­ing current. In those years Edison invented the incandescent lamp.” (Cipolla 49)
         3. “Man turned to the sun, the tides, earth-heat, tropical waters, and atmospheric electricity.” [49] Now he has atomic energy. (Cipolla 49-50)
      4. High energy output not only provides energy for consumption (heat­ing, lighting, cars, appliances) but also for production: “more en­ergy available per worker [means] higher productivity of labour.” (Cipolla 52)
      5. proportion of “coal, liquid and gaseous fuels, and water-power to aggregate energy consumption” in the US (Cipolla 53)
         1. 1850: less than 10% of the total
         2. 1950: more than 95%
      6. “Humanity is today consuming more coal in a single year than had been generated in a hundred centuries . . . alternative sources of energy that can substitute for fossil fuel must be found, if mankind is not to revert to an agricultural level of activity dramatically reducing not only its levels of living but also its numbers.” (Cipolla 54)
   7. decreased importance of agriculture
      1. 1750: “the world’s active population” doing agri­culture was over 80%. (Cipolla 24)
      2. 1950: “the world’s active population” doing agri­culture was c. 60%. (Cipolla 24-25)
      3. Soon “the proportion of farmers in the world will be no larger than the proportion of hunters in the late eighteenth century.” (Cipolla 25)
      4. Because industrial societies can satisfy higher human needs (trans­portation, medical care, education, amusements, etc.), [62] “expen­diture on food—although increasing in absolute terms—de­creases as a percentage of total private expenditure. . . . [Thus there is] a general decline in the relative importance of agricul­ture . . .” (Cipolla 62-63)
      5. Other sectors “lose their depen­dence on agricul­ture.” (Cipolla 63)
         1. “The building industry substitutes steel and cement for timber.” (Cipolla 63)
         2. “The textile industry substitutes artificial fibres (rayon, dacron, etc.) for natural ones.” (Cipolla 63)
         3. “The pharmaceutical indus­try substitutes chemical products for spices and herbs.” (Cipolla 63)
   8. capital and industrial societies
      1. Instead of construction and inventories, capital “took more and more the form of machinery and producer durable equipment . . .” (Cipolla 64)
      2. 1900: food and textiles were 44% of US manufac­turing produc­tion. (Cipolla 69)
      3. 1955: food and textiles were 19% of US manufac­turing produc­tion. (Cipolla 69-70)
      4. 1900: metal products were 10% of US manufac­turing produc­tion. (Cipolla 70)
      5. 1955: metal products were 41% of US manufac­turing produc­tion. (Cipolla 70)
      6. 1900: chemi­cals were 5% of US manufac­turing produc­tion. (Cipolla 70)
      7. 1955: chemi­cals were 13% of US manufac­turing produc­tion. (Cipolla 70)
      8. 1962: metal products and chemi­cals are 54% of US produc­tion. (Cipolla 70)
   9. population
      1. In normal times (no famine, epidemic, or war), progress in nutri­tion, medicine, and sanitation have brought the death rate in industrial societies below 15 per 1000. (Cipolla 82)
      2. life expectancy in Western Europe (Cipolla 83)
         1. 1900: age 47
         2. 1950: age 67
      3. infant deaths in the US
         1. 1900: 162 per 1000 (Cipolla 81)
         2. 1950: 33 per 1000 (Cipolla 81)
      4. Also, the recurrent peaks of the death rate found in agricultural societies (see above, p. 5) almost totally disappear, because two of the three main causes are now controlled (epidemics and famines—we have yet to master war). (Cipolla 81)
      5. The sharp decease in the death rate caused a “demographic explosion.” (Cipolla 84)
         1. ad 1750: 750 million humans on earth (Cipolla 98)
         2. 1850: 1.2 billion (Cipolla 98)
         3. 1900: 1.6 billion (Cipolla 98)
         4. 1950: 2.5 billion (Cipolla 98)
         5. “The demographic explosion . . . started in Europe—because the Industrial Revolution started there.” (Cipolla 101)
            1. 1750: “the popu­la­tion of Europe (including European Rus­sia) must have been around 145 million people.” (Cipolla 101)
            2. 1850: 265 million (Cipolla 101)
            3. 1900: 400 million (Cipolla 101)
            4. 1950: 550 million (Cipolla 101
            5. Cau­ca­sians were “about 22 per cent of the human species in 1800, and about 35 per cent in 1930.” (Cipolla 104)
   10. colonialism
       1. “Under the push of internal demographic pressure and with the advantage of technological superiority—[including] superior military power—the Europeans . . . set­tled in the Americas and Australia. And they came to con­trol Africa and Asia.” (Cipolla 101)
       2. 1846-1930: “over 50 mil­lion Europeans sought new homes overseas,” mostly in the United States. (Cipolla 102)
       3. 1930: 20 million persons born in Europe were liv­ing outside it. (Cipolla 102)
          1. North America: 14 million
          2. Latin America: 5 mil­lion (mostly Argenti­na and Brazil)
          3. Australia and South Africa: 1 mil­lion
       4. “European expansion often assumed crude tones of exploita­tion and oppression.” (Cipolla 102)
       5. But “it was less cruel and bloody than most other ‘expan­sions’ in human history.” (Cipolla 102)
       6. Europeans also set about “build­ing railroads, creat­ing towns and harbours, opening canals, settling desert areas, bringing new lands under cultivation, and building factories, hospitals, missions, and universi­ties.” (Cipolla 102)
   11. higher standard of living
       1. A key factor was that, for a long time, industrial production grew more rapidly than the population. (Cipolla 94)
       2. Higher standards of living “compete with the natural propensity to have children.” (Cipolla 94)
   12. A consequence of the industrial revolution is that “Every aspect of life has to be geared to the new modes of produc­tion.” (Cipolla 107)
       1. economy
          1. “Individual saving gives way to collective social services . . .” (Cipolla 107)
          2. There are “new types of ownership and manage­ment [and] different distribu­tions of income . . .” (Cipolla 107-108)
       2. family
          1. “The family nucleus is losing its strength . . .” (Cipolla 110)
          2. “. . . but it will not disappear altogether.” (Cipolla 110)
       3. education
          1. “The all-rounded philosophical education of the few is set aside in favour of the technical training of [107] the many.” (Cipolla 107-08)
          2. It is now economically feasible to provide education to everyone. (Cipolla 111)
          3. But “The mass schools of the ‘industrial’ world tend to teach ‘techniques’ that leave the spirit barren. The intel­lectuals that proliferate from the ‘indus­trial’ mass univer­sities more and more [are] drab figures . . .” (Cipolla 109)
       4. arts
          1. “The uneducated or semi-educated masses can increas­ingly influ­ence culture and a wave of vulgari­ty can pervade phi­losophy and art. I am fully convinced that this is a price that we are inescapably bound to pay.”
       5. quality of life vs. quantity of life
          1. “Improvement in quality of the human species is not necessarily alternative to a growth in quantity. A larger population may mean greater possibilities in the division of labour and economies of scale. These possibilities may contribute to the growth of *per capita* income, to better levels of living, and to better education.” (Cipolla 115)
          2. “But beyond certain points, quantity and quality may well become competitive.” (Cipolla 115)
2. **agricultural economies today**
   1. “Europe, North America, and Russia have reached . . . the demographic equilibrium of ‘industrial’ type—with low death- and low birth-rates.” (Cipolla 104)
   2. But “Asia, South America, and Africa are under­going a demographic growth of unprecedented magni­tude.” (Cipolla 104)
   3. “If the Industrial Revolution brought around more mouths to be fed [in Europe], it also somehow gave the means to feed them.” (Cipolla 105)
      1. “When it gave them no possibility of being fed at home it gave them the possibil­ity to [ex­pand] all over the globe.” (Cipolla 105 n 4)
      2. “But for present-day agricul­tur­al societies, “there are no “empty” spaces left to go to.” (Cipolla 106)
      3. In India, for example, 75% of calories are from grains. (Cipolla 105 n 1)
         1. 1918: “India had about 315 million people. The average annual quantity of food grain avail­able to the Indian population was then about 20 ounces *per capita*.” (Cipolla 104)
         2. 1945: “India’s population had increased to about 400 million people. The average daily quantity of food-grains avail­able *per capita* had corre­sponding­ly fallen to about 15 ounces.” (Cipolla 104)
   4. With industrialization, “new tastes, new values, new ideals have to emerge . . . when ‘industrializa­tion’ occurs gradu­al­ly, these socio-cultural changes take place in a balanced process with economic changes. But when, as in many backward areas today, ‘industrialization’ is artificially speeded up, the socio-cultural environment may show a much greater degree of resistance to change than the economic structure.” (Cipolla 108)
   5. Even in 1950, 76% of Africans worked in agricul­ture, 73% of Asians, 45% of Soviets, 38% of Europeans, and 13% of North Americans—of the total world population, 59%. (Cipolla 30)
   6. Today, industrial societies “feel a humanitarian urge to give med­i­cal assistance to societies [87] that basically are still agricul­tural. The consequences of such action are appalling.” In Sri Lanka, when the mal­arial mosquito population was sprayed with DDT in 1946-1947, the death rate fell from 20 to 14 per 1000—a decline that took 70 years in Eng­land. But Sri Lanka’s birth rate has re­mained over 40 per 1000: it has an “agricul­tur­al” birth rate but an “industrial” death rate. (Cipolla 87-88)

Economic History and Economic Development

Cameron, Rondo E., and Larry Neal. *A Concise Economic History of the World: From Paleolithic Times to the Present*. 4th ed. Oxford: OUP, 2003.

1. **preface**
   1. “My revisions, completed just as the twentieth century ended in December 2000, were never seen by Rondo—he passed away on January 1, 2001, in his seventy-fifth year.” (Cameron and Neal xv)
   2. Cameron was “Known among economic historians for his trailblazing work on the role of financial institutions in promoting the spread of industrialization . . .” (Cameron and Neal xv)
   3. *A Concise Economic History of the World* “has been translated into thirteen languages . . .” (Cameron and Neal xv)
   4. Larry Neal is professor at Urbana, Illinois. (Cameron and Neal xvi)
2. **introduction**
   1. “. . . uneven economic development. Only war and peace, population pressure, and environmental salubrity and thus the survival of the human race—are issues of similar magnitude.” (Cameron and Neal 3)
   2. “Because of unequal economic development, revolutions and coups d’état have occurred; totalitarian governments and military dictatorships have deprived whole nations of political liberty . . . Millions have died miserably and unnecessarily of starvation . . .” (Cameron and Neal 3)
   3. “. . . why do not the poor ones adopt the methods and policies that have made the others rich?” (Cameron and Neal 3)
      1. “. . . there is no general agreement on *which* methods were responsible . . .” (Cameron and Neal 3)
      2. “. . . it is by no means certain that similar methods and policies would produce the same results in the different geographical, cultural, and historical circumstances of today’s low-income nations.” (Cameron and Neal 3)
      3. “. . . scholars and scientists have not yet produced a theory of economic development that is operationally useful and generally applicable.” (Cameron and Neal 3)
   4. historical study of economic development
      1. “The historical approach . . . can focus, as other approaches cannot, on the *origins* of the presently existing unequal levels of development. A correct diagnosis of the origins of the problem does not, in itself, guarantee an effective prescription, but without such a diagnosis one can scarcely hope to remedy the problem. Second, by focusing on [3] instances of growth and decline in the past, the historical approach isolates the *fundamentals* of economic development, undistracted by arguments over the efficacy or desirability of particular policies for specific current problems. In other words, it is an aid to objectivity and clarity of thought.” (Cameron and Neal 3-4)
      2. “Policymakers . . . frequently [say] that the contemporary situation is unique and therefore history is irrelevant to their concerns. Such an attitude . . . implicitly denies the uniformity of nature, including human behavior and the behavior of social institutions—an assumption on which all scientific inquiry is founded.” (Cameron and Neal 4)
      3. “This book is offered as an introduction to the study of both economic history and economic development. [However,] for a complete understanding of the problem of economic development other methods of study and observation must be employed as well.” (Cameron and Neal 4)
      4. “In this general survey of the economic development of humankind from prehistoric times to the present, certain “lessons of history” are highlighted. Although some historians believe their function is to “let the facts speak for themselves” . . .” (Cameron and Neal 4)
3. **development and underdevelopment**
   1. The high-income industrialized economies are the United States, western Europe, Japan, Canada, Australia, and New Zealand. They are less than 14% of the world’s population but produce almost 77% of its economic output. (Cameron and Neal 4)
   2. Other high-income countries are mainly “urban enclaves such as Hong Kong and Singapore, the small Gulf oil states, or small islands concentrating on money laundering, all of which cater to the demands of the industrialized world. Clearly, the key to high per capita [4] income is to create a modern industrial economy or to find a way to provide important services to such economies.” (Cameron and Neal 4-5)

1999 average annual income (GNP per capita)

(in 1999 dollars; purchasing power parity)

(World Bank. *World Development Indicators*, *2000*. New York, 2000.) (Cameron and Neal 5 table 1-1)

|  |  |  |  |
| --- | --- | --- | --- |
| *High-Income Economies* | | *Lower-Middle Income* | |
| United States | $29,605 | Russian Federation | $6,271 |
| Norway (richest in Europe) | c. $26,000 | Turkey | $6,177 |
| Canada | $23,582 | Colombia | 55,954 |
| Japan | $23,257 | Thailand | $5,757 |
| western Europe as a whole | almost $23,000 | El Salvador | $4,069 |
| Germany | $22,169 | China | $3,345 |
| France | $21,175 | Egypt | $3,263 |
| Israel | $20,585 | Indonesia | $2,626 |
| United Kingdom | $20,906 |  |  |
| Spain | $16,212 |  |  |
| *Upper-Middle Income* | | *Low-Income Economies* | |
| South Korea | $14,806 | Bolivia | $2,245 |
| Portugal | $14,701 | India | $2,217 |
| Greece | $13,943 | Ghana | $1,823 |
| Argentina | $11,524 | Bangladesh | $1,430 |
| Hungary | $10,814 | Tanzania ($100 less than 1993) | $480 |
| Poland | $7,980 | Sierra Leone (poorest) | $425 |
| Brazil | $6,524 |  |  |

(In the US in 2019, average individual income was $35,977; median household income was $68,703.) (Kopestinsky, Alex. “What Is the Average American Income in 2021?” *PolicyAdvice*.*net*. 22 Aug. 2021.)

* 1. 1998: 156 nations have average incomes under $9,360
     1. $760-$9,360: 93 nations
     2. under $760: 63 nations
     3. Nations under $9,360 are “poor,” “low income,” or “underdeveloped” (“or, euphemistically, “less developed” or “developing””). (Cameron and Neal 5)
  2. Other measures of development and underdevelopment range from life expectancy “to how easy it is to communicate with others or travel to another place.” (Cameron and Neal 5)

“Table 1-2. Indicators of Economic Development, Selected Countries

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | *Crude Birth*  *Rate* (*1998*)a | *Crude Death*  *Rate* (*1998*)a | *Life Expectancy at Birth* (*1998*) | *Physicians per 1,000 Population* (*1997*) | *Energy Consumption*  *per Capita*b |
| *High-Income Economies* |  |  |  |  |  |
| United States | 14 | 9 | 77 | 2.70 | 8.076 |
| Switzerland | 11 | 9 | 79 | — | 3,699 |
| United Kingdom | 12 | 11 | 77 | — | 3,863 |
| Spain | 9 | 9 | 78 | — | 2,729 |
| Japan | 10 | 7 | 81 | — | 4,084 |
| *Middle-Income Economies* |  |  |  |  |  |
| Bolivia | 32 | 9 | 62 | 1.30 | 548 |
| Costa Rica | 22 | 4 | 77 | 1.44 | 769 |
| Belarus | 9 | 13 | 68 | — | 2,449 |
| Hungary | 10 | 14 | 71 | 3.50 | 2.492 |
| Indonesia | 23 | 8 | 65 | — | 693 |
| Mexico | 28 | 5 | 72 | 1.30 | 1.501 |
| *Low-Income Economies* |  |  |  |  |  |
| Chad | 45 | 16 | 48 | — | — |
| China | 16 | 8 | 70 | 1.99 | 907 |
| Ethiopia | 45 | 20 | 43 | — | 287 |
| India | 27 | 9 | 63 | — | 479 |
| Honduras | 33 | 5 | 69 | 0.79 | 532 [6] |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | *Distribution of Gross Domestic Product by Sector* (*%*) | | | *Urban*  *Population,*  *% of Total* (*1998*) | *Telephones* (*1998*)a | *TVs*a | *Adult Illiteracy,* [*sic*] (*1990*) | *Educational Expenditure, % of GDP* |
|  | *Agriculture* | *Industry* | *Services* |
| “*High-Income Economies* |  |  |  |  |  |  |  |  |
| United States | 2 | 26 | 72 | 77 | 644 | 847 | — | 22 |
| Switzerland | — | — | — | 68 | 661 | 535 | — | 28 |
| United Kingdom | — | — | — | 89 | 542 | 642 | — | 39 |
| Spain | — | — | — | 77 | 403 | 506 | 3 | — |
| Japan | 2 | 37 | 61 | 78 | 503 | 707 | — | — |
| *Middle-Income Economies* |  |  |  |  |  |  |  |  |
| Bolivia | 17 | 28 | 55 | 61 | 69 | 116 | 16 | 22 |
| Costa Rica | 15 | 24 | 61 | 47 | 161 | 387 | 5 | — |
| Belarus | 14 | 44 | 42 | 70 | 227 | 314 | 1 | 35 |
| Hungary | 6 | 34 | 60 | 63 | 304 | 437 | 1 | 43 |
| Indonesia | 16 | 44 | 40 | 38 | 25 | 134 | 15 | 18 |
| Mexico | 5 | 26 | 69 | 74 | 97 | 254 | 10 | 16 |
| *Low-Income Economies* |  |  |  |  |  |  |  |  |
| Chad | 38 | 15 | 46 | 23 | 1 | 1 | 62 | — |
| China | 19 | 50 | 31 | 31 | 56 | 272 | 18 | 8 |
| Ethiopia | 56 | 7 | 38 | 16 | 3 | 5 | 65 | — |
| India | 27 | 26 | 46 | 27 | 19 | 69 | 45 | 15 |
| Honduras | 23 | 30 | 47 | 50 | 37 | 90 | 27 | — |

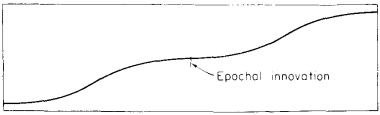
a Per 1,000 population.

*Sources*: World Bank, *World Development Indicators 2000* (New York, 2000); World Bank, *The Hunum Development Statistical Database 1999* (New York. 2000).” (Cameron and Neal 6-7)

* + 1. “As a consequence of high death rates, life expectancy ranges from forty to sixty-nine years in the underdeveloped [5] nations of Africa, Asia, and Latin America, whereas it is well over seventy years in western Europe and North America. Most of the difference is explained by much higher rates of infant mortality in poor countries.” (Cameron and Neal 5-6)
    2. health care facilities: number of people per physician
       1. Austria 345
       2. United States: 370
       3. Bolivia: 769
       4. Iraq: 1,818
       5. Nepal: 25,000
       6. Niger: 33,000 (Cameron and Neal 8)
    3. number of passenger automobiles per 1,000 people
       1. United States: 767
       2. France: 530
       3. the 63 low-income economies: 9
       4. the world as a whole: 116 (Cameron and Neal 8)

1. **growth**, **development**, **and progress**
   1. growth
      1. Gross domestic product (GDP, “the total of all goods and services produced within the territory of a country”), national income, and gross national product (GNP): “the difference in these concepts can be ignored because the three aggregates almost always move together in the same direction.” (Cameron and Neal 8)
      2. “Growth in total output may occur either because the inputs of the factors of production (land, labor, and capital) increase or because equivalent quantities of the inputs are being used more efficiently. If population is increasing, there may be growth in total output but not in output per capita; indeed, the latter may even decrease if the rate of population growth exceeds that of output. For welfare comparisons, economic growth is meaningful only if it is measured in terms of output per capita.” (Cameron and Neal 8)
      3. A difficulty: “national income [is] given in monetary units, but values of monetary units are notoriously unstable and frequently difficult to compare.” (Cameron and Neal 8)
   2. development
      1. “Economic *development*, as the term is used in this book, means economic growth accompanied by a substantial structural or organizational change in the economy, such as a shift from a local subsistence economy to markets and trade or the growth of manufacturing and service outputs relative to agriculture. The structural or organizational change may be the “cause” of growth but not necessarily; sometimes the causal sequence moves in the opposite direction, or the two changes may be the joint product of still other changes within or outside the economy.” (Cameron and Neal 9)
      2. “Economic growth . . . is a reversible process—that is, it may be followed by decline. Logically, economic development is equally reversible . . . [Usually after decline] economic *retrogression* takes place—a reversion to simpler forms of organization, though not usually identical with those that formerly existed.” (Cameron and Neal 9)
   3. progress
      1. “Although they are widely regarded as “good things,” both growth and development are, in principle, value-free terms in that they can be measured and described without reference to ethical norms. Such is clearly not the case with the term economic *progress* . . . an increase in material well-being might be regarded as harmful to the spiritual nature of human beings . . . nuclear warfare and [poisoning] the environment, although manifestations of economic growth, can scarcely be regarded as signs of progress.” (Cameron and Neal 9)
      2. Also, “an increase in per capita income tells us nothing about the distribution of that income. What constitutes a “good” or “bad” distribution of income is a normative question . . . In the following, growth and development are described and analyzed without reference to the term *progress*.” (Cameron and Neal 9)
2. **factors of production** (“determinants of economic development,” “determinants of output,” Cameron and Neal 10)
   1. “Classical economics evolved the tripartite classification of the “factors of production”—land, labor, and capital. (Sometimes a fourth factor is included—[9] entrepreneurship, the effort or talent involved in combining or organizing the other three.) . . . an economy’s total output is determined by the quantity of the production factors employed. This classification [is] extremely useful [but] too limited. It assumes that tastes, technology, and social institutions (e.g., the forms of economic, social, and political organization, the legal system, and even religion) are given and fixed or, what amounts to the same thing, have no bearing on the process of production. . . . Indeed, changes in technology and in social institutions are the most dynamic sources of change in the whole economy. They are thus the deep wellsprings of economic development.” (Cameron and Neal 9-10)
   2. “Economic statics” is “analyzing an economy at a given time . . .” (Cameron and Neal 10)
   3. “Comparative statics or dynamics” is “analyzing an economy . . . at successive points in time . . .” (Cameron and Neal 10)
   4. “. . . it is permissible to regard such factors as tastes, technology, and social institutions as parameters (i.e., constants) of a system within which the quantities and prices of conventional production factors are the principal variables” if one restricts oneself to “analyzing an economy at a given time (economic statics), or even at successive points in time, provided the intervals are not great . . .” (Cameron and Neal 10)
   5. But “In moving from short-term economic analysis to the study of economic development, however, the parameters become the major variables. A broader classification of the determinants of output is therefore necessary for analyzing economic change in historical time.” (Cameron and Neal 10)
   6. “population, resources, technology, and social institutions” (Cameron and Neal 10)
      1. “Of course, these four factors are not single variables; each one is a cluster of variables.” (Cameron and Neal 10)
      2. *population*: “It is not sufficient to think of population in terms of numbers alone; the age and sex distribution, the biological characteristics (size, strength, health, etc., of the members), the level of acquired skills (see more, later, on the concept of “human capital”), and the rate of labor force participation, among other features, have a bearing on a population’s economic performance.” (Cameron and Neal 10)
      3. *resources*: “Resources is the “land” of classical economics writ large. The term embraces not merely the amount of land, the fertility of the soil, and conventional natural resources, but also climate, topography, availability of water, and other features of the natural environment, including location.” (Cameron and Neal 10)
      4. *technology*
         1. “In recent centuries technological innovation has been the most dynamic source of economic change and development. Little more than a century ago the automobile, airplane, radio, and television, not to mention computers and numerous instruments of destruction, did not exist . . . [But] methods of agricultural production in some parts of the world remain essentially unchanged from biblical times.” (Cameron and Neal 10)
         2. “. . . the resources available to a society set the effective upper limits to its economic achievements. Technological change, however, allows those limits to be expanded, both through the discovery of new resources and by more efficient use of the conventional factors of production, especially human labor.” (Cameron and Neal 11)
         3. “The continental United States today supports a population of more than 270 million at one of the highest material standards of living ever achieved. Before the Europeans came [to the US,] the same area, whose inhabitants employed a stone-age technology, could support only a few million with difficulty.” (Cameron and Neal 11)
         4. technological change’s effect on population in Europe
            1. Europe in 1300: c. 80 million
            2. Europe in 1360: 50 million
            3. Europe in 1750: 150 million “after a long period of steady but undramatic technological and organizational change . . .” (Cameron and Neal 11)
            4. Europe in 1990: 500 million “after a mere two centuries of economic growth based on modern technology . . .” (Cameron and Neal 11)
      5. *social institutions*
         1. “. . . social institutions, including values and attitudes [are] sometimes also called the “sociocultural context,” or the “institutional matrix” of economic activity.” (Cameron and Neal 11)
         2. major institutions
            1. “. . . the social structure (number, relative size, economic basis, and fluidity of social classes) . . .” (Cameron and Neal 11)
            2. “. . . the nature of the state or other political regime . . .” (Cameron and Neal 11)
            3. “. . . and the religious or ideological proclivities of the dominant groups or classes and (if different) of the masses.” (Cameron and Neal 11)
         3. lesser institutions
            1. “. . . voluntary associations (business firms, labor unions, farmers’ groups) . . .” (Cameron and Neal 11)
            2. “. . . the educational system . . .” (Cameron and Neal 11)
            3. “. . . family structure (extended or nuclear) . . .” (Cameron and Neal 11)
         4. Social institutions provide “continuity and stability, without which societies would disintegrate; but in performing this function they may serve as barriers to economic development by fettering human labor, withholding resources from rational exploitation (e.g., India’s sacred cows), or inhibiting innovation and the diffusion of technology.” (Cameron and Neal 11)
         5. “But institutional innovation is also a possibility, with consequences not unlike those of technological innovation, permitting a more efficient or intensive use of both material resources and human energy and ingenuity. Some historical examples are the institutional innovations of organized markets, coined money, patents, insurance, and the various forms of business enterprise, such as the modern corporation.” (Cameron and Neal 11)
         6. “. . . the analysis of their [social institutions’] interactions with other relevant variables is the most difficult and frustrating aspect of the study of economic history. . . . With the present state of knowledge there is no systematic a priori approach . . .” (Cameron and Neal 11)
         7. Marxist theory
            1. “Marxist scholars claim to have found the key to not only the process of economic development but also the evolution of humanity. According to them, the “mode of production” (roughly equivalent to technology in the schema outlined previously) is the key element; all the rest—social structure, nature of the state, dominant ideology, and so on—is mere “superstructure.” The dynamic element is furnished by the struggle between social classes for control of the means of production.” (Cameron and Neal 12)
            2. “While some aspects of the Marxist analysis are useful in understanding economic history, the system as a whole is oversimplified and, in the hands of its practitioners, overly dogmatic. One of its weakest points, in view of its emphasis on mode of production, is that it furnishes no satisfactory explanation of the process of technological change. It also errs in regarding social institutions as being determined exclusively by the economic substructure.” (Cameron and Neal 12)
         8. the institutionalist theory
            1. “For a forceful and comprehensive exposition, see Clarence Ayres, *The Theory of Economic Progress* (Chapel Hill, NC, 1944, 1978).” (Cameron and Neal 12 n. 3)
            2. “A somewhat similar but less ideological theory views economic development as the product of a permanent tension or struggle between technological change and social institutions. According to this theory, sometimes called the institutionalist theory, technology is the dynamic, progressive element, whereas institutions uniformly resist change. This theory offers a number of brilliant insights into the process of historical change, but it, too, regards technological change as an automatic or quasi-automatic process and oversimplifies the relationship between institutions and technology. Like the Marxist theory, it also regards the ultimate outcome as predictable.” (Cameron and Neal 12)
3. **production and productivity**
   1. “*Production* is the process by which the factors of production are combined to produce the goods and services desired by human populations. Production can be measured in physical units (or units of identical services) or in value—that is, monetary—terms. One can compare the output of, say, two apple orchards in terms of the number of bushels produced by each; comparing the output of an apple orchard and an orange grove in these terms is much less meaningful. To get a useful comparison in that case, it is necessary to convert the physical measure into value terms, that is, to multiply the number of bushels of each by the respective prices to arrive at their aggregate values.” (Cameron and Neal 12)
   2. “*Productivity* is the ratio of the useful output of a production process to the inputs of the factors of production. As in the case of production, it can be measured in physical units—x bushels of wheat per acre, y widgets per man-hour—or in value terms. To measure *total factor* productivity—that is, the combined productivity of all factors—value terms are necessary.” (Cameron and Neal 12)
   3. “The productivity of the factors of production depends on a host of elements.” (Cameron and Neal 13)
      1. “Some land is naturally more fertile than other land.” (Cameron and Neal 13)
      2. “Some workers are stronger or more skillful than others.” (Cameron and Neal 13)
      3. “The productivity of capital is in part a function of the technology it embodies; a mechanical tractor (in proper working order) is more productive than an equivalent value of ox-drawn plow teams, and a hydroelectric generator is more productive than an equivalent value of simple waterwheels.” (Cameron and Neal 13)
      4. “Moreover, certain *combinations* of the factors of production increase productivity. For example, the fertility of the soil is increased by the addition of fertilizer—that is, capital. Workers furnished with appropriate machines are more productive than those who work with their bare hands or with simple tools. In most instances literate workers are more productive than illiterate ones.” (Cameron and Neal 13)
   4. human capital
      1. Human capital is “a most important special combination of the factors of production . . .” (Cameron and Neal 13)
      2. “Human capital [is] *not* slaves, although they were once regarded as capital . . .” (Cameron and Neal 13)
      3. Human capital “results from investments in knowledge and ability or skill. The investment can take the form of formal schooling or training (a college education is a considerable investment), an apprenticeship, or “learning on the job” (i.e., practice)” (Cameron and Neal 13)
      4. “. . . differences in levels of human capital per capita between the most and least advanced economies are among the most striking . . .” (Cameron and Neal 13)
   5. “. . . increased inputs of the conventional factors of production account only in small part for increased output in advanced economies. In other words, the productivity of *all* factors of production has increased greatly. What accounts for those increases? Various answers to that question have been advanced; it is clear that among the most important determinants are advances in technology, improvements in organization at both the macro and micro levels (including so-called “economies of scale”), and especially increased investments in human capital.” (Cameron and Neal 13)
   6. the law of diminishing returns
      1. The law of diminishing returns “might more accurately be stated as the law of diminishing marginal productivity.” (Cameron and Neal 13)
      2. “Imagine a cultivated field of 100 acres. (The exact size is irrelevant.) A single worker employing a given technology, whether simple or complex, is able to produce *some* output—let us say 10 bushels of grain. The addition of a second worker permits a simple division of labor, which more than doubles production to perhaps 25 bushels; that is, the marginal product is 15. A third worker may raise output still more, to 45 bushels, for a marginal product of 20; and so on. In other words, as more workers are added, up to a point, the marginal product increases. Eventually, however, as more and more workers are added they get in each other’s way, trample on the crop, and so on, and the marginal product *declines*: that is the concept of the law of diminishing returns.” (Cameron and Neal 13)
      3. “Now let us transfer the lesson of this simplistic example to the case of a whole society. Remember that the example assumed fixed resources (100 acres) and a given technology (no productivity-enhancing innovations). If, at some point in time, the society is underpopulated relative to its resources, its population and per capita income [13] will be able to grow even without technical or institutional change for a time. Eventually, however, as it fully uses its resources, the increase in numbers will result in diminishing marginal productivity, hence declining real incomes. In this situation only a significant productivity-enhancing innovation (technical or institutional, or both) could relieve the dilemma.” (Cameron and Neal 13-14)
      4. Malthus
         1. “In 1798 the Reverend Thomas R. Malthus, an English clergyman turned economist, published his famous *Principle of Population*. In it he assumed that “the passion between the sexes” would cause populations to grow at a “geometric ratio” (2, 4, 8, . . .) but that food supply would grow in an “arithmetic ratio” (1, 2, . . .). In the absence of “moral restraint” such as celibacy and late marriage (he did not foresee artificial contraception), he concluded, the law of diminishing returns and the “positive checks” on population of war, famine, and pestilence would condemn the great majority of people to a bare subsistence standard of living. Now, some 200 years later, it appears that Malthus was wrong, at least for industrializing nations. The other thing that Malthus did not foresee, of course, was the host of productivity-enhancing technological and institutional innovations that have repeatedly postponed the operation of the law of diminishing returns. For many countries, however, especially now on the continent of Africa, the population checks of war, famine, disease, and natural disaster are still a grim reality.” (Cameron and Neal 14)
4. **economic structure**
   1. “The pioneering work on economic structure is Colin Clark’s *Conditions of Economic Progress* (London, 1940, 1957). Simon Kuznets made major contributions to the elaboration of the concept, notably in *Modern Economic Growth: Rate*, *Structure*, *and Spread* (New Haven, 1966), and *The Economic Growth of Nations: Total Output and Production Structure* (Cambridge, MA, 1971).” (Cameron and Neal 14 n. 4)
   2. “Economic structure (not to be confused with social structure, although the two are related) deals with the relationships among the various sectors of the economy, especially the three major sectors known as primary, secondary, and tertiary.” (Cameron and Neal 14)
   3. “The primary sector includes those activities in which products are obtained directly from nature: agriculture, forestry, and fishing.” (Cameron and Neal 14)
   4. “The secondary sector includes those activities in which the products of nature are transformed or processed: that is, manufacturing and construction.” (Cameron and Neal 14)
   5. “The tertiary, or service, sector deals not with products or material goods at all, but with services; these cover a wide range, from domestic and personal services (cooks, maids, barbers, etc.) to commercial and financial (retail clerks, merchants, bankers, brokers, etc.) to professional (doctors, lawyers, educators) to governmental (postal workers, bureaucrats, politicians, the military, etc.).” (Cameron and Neal 14)
   6. “There are some ambiguities and anomalies. For example, mining logically belongs in the primary sector, but it is frequently regarded as secondary; similarly, transportation, a service, is also often treated as part of the secondary sector. Hunting, the most important activity of paleolithic times, is now regarded as a recreational activity—consumption rather than production.” (Cameron and Neal 14)
5. **economic structural change**
   1. “. . . until less than a century ago, agriculture was the principal occupation of the vast majority of the human race. As a perusal of Table 1-2 will show, this is still the case for the low-income nations. This [14] was true because productivity was so low that mere survival required concentrating on the production of foodstuffs.” (Cameron and Neal 14-15)
   2. “A few hundred years ago . . . agricultural productivity began to rise, slowly at first and then more rapidly. As it rose, fewer workers were needed for the production of subsistence goods and could be spared for other productive activities. Thus began the process of industrialization, which extended from the late Middle Ages to the mid-twentieth century (in western Europe and North America; it is still continuing in much of the rest of the world). The proportion of the labor force engaged in agriculture fell from 80 or 90 percent of the total to less than 50 percent by the end of the nineteenth century in the most advanced industrial nations and to less than 10 percent more recently. Concomitantly, the proportion of total income, or GDP, originating in agriculture also fell, even though in absolute terms the total value of agricultural production increased manyfold.” (Cameron and Neal 15)
   3. “Meanwhile, as the percent of the labor force engaged in agriculture fell, that in the secondary sector rose . . . in highly industrialized nations, manufacturing and related occupations employ between 30 and 50 percent of the labor force, with the remainder divided between the primary and tertiary sectors. As the share of the labor force in the secondary sector rose, so did that of income originating in that sector.” (Cameron and Neal 15)
   4. “The twin processes of shifts in the proportions of the labor force employed and of income originating in the two sectors are major examples of *structural change* in the economy. Since about 1950 the most advanced economies have experienced a further structural change, from the secondary to the tertiary sector.” (Cameron and Neal 15)
   5. why structural change occurred
      1. “The shift from agriculture to secondary activities involved two major processes.” (Cameron and Neal 15)
         1. “On the supply side, increasing productivity, as already explained, made it possible to produce the same amount of output with less labor (or more output with the same amount of labor).” (Cameron and Neal 15)
         2. “On the demand side a regularity of human behavior called Engel’s Law . . . came into play. [It is “named for Ernst Engel, a nineteenth-century German statistician, not Friederich Engels . . .”] Based on numerous family budget studies, Engel’s Law states that as a consumer’s income increases, the proportion of income spent on food declines. (This, in turn, may be related to the law of diminishing marginal utility, namely, the more one has of a given commodity, the less one values any single unit of it.)” (Cameron and Neal 15)
      2. “The second structural change now underway, the relative shift from commodity production (and consumption) to services, involves a corollary of Engel’s Law: as income increases, the demand for all commodities increases, but at a lower rate than income, with an increased demand for services and leisure partly replacing the demand for commodities.” (Cameron and Neal 15)
      3. “Changes in technology, with increased productivity, and in tastes are basically responsible for such structural changes, but the immediate motivating force for the changes is usually change in relative prices (and wages). This is also true for many other economic changes, such as the rise of new industries and the decline of old ones or the shift of production from one geographic area to another. The prices of commodities and services are determined by the interaction of supply and demand . . . A high relative price indicates that supply is scarce in relation to demand; a low relative price indicates the opposite. As a [15] general rule, the factors of production move to uses for which they are best rewarded, that is, those for which their prices are highest. The importance of relative scarcity and relative prices as dynamic elements in economic change will become evident in the historical cases considered later.” (Cameron and Neal 15-16)
6. **the logistics of economic growth**
   1. “In ordinary usage the term *logistics* refers to the organization of supplies for a large group of people, such as an army. But *logistic* (singular) is also a mathematical formula. The logistic curve derived from it has the form of an elongated S and is sometimes called the S-curve . . .” (Cameron and Neal 16)

 (Cameron and Neal 16 figure 1-1)

* 1. “Biologists also call it the growth curve because it describes rather accurately the growth of many subhuman populations, such as a colony of fruit flies in a closed container with a constant food supply.” (Cameron and Neal 16)
  2. “The curve has two phases, one of accelerating growth followed by a deceleration phase; mathematically, at its limit the curve asymptotically approaches a horizontal line that is parallel to the asymptote of origin.” (Cameron and Neal 16)
     1. “Asymptote”: in math, “A line considered a limit to a curve in the sense that the perpendicular distance from a moving point on the curve to the line approaches zero as the point moves an infinite distance from the origin. [Ultimately from Greek *asumptōtos*, not intersecting : *a*-, not . . . + *sumptōtos*, intersecting (from *sumpiptein*, to converge: *sun*-, *syn*- + *piptein*, *ptō*-, to fall).]” (*American Heritage Dictionary of the English Language*. 3rd ed. New York: Houghton Mifflin, 1996.)
  3. “. . . logistic curves can also roughly describe many social phenomena, especially the growth of human populations.” (Cameron and Neal 16)
     1. 10,000-1000 bc: “the population of the present-day Near and Middle East definitely grew after the advent of agriculture in the neolithic period, and the populations of the great river valleys (the Nile, Tigris-Euphrates, Indus, and Yellow River in China) likewise grew rapidly after the introduction of irrigation agriculture.” (Cameron and Neal 17)
     2. 900-400 bc: “it seems likely that the growth of the Greek population between the ninth and fifth century b.c. followed a logistic pattern . . .” (Cameron and Neal 16)
     3. 50 bc-200 ad: ““it seems likely that the growth of . . . the population of the Mediterranean basin in the era of the *pax romana* (ca. 50 b.c.-200 a.d.)” followed the logistic curve. (Cameron and Neal 16)
     4. “In the case of Europe, [three] long-period surges of population growth have been identified, each being followed by a period of relative stagnation or even decline.” (Cameron and Neal 16)
        1. 900-1350 (the “first logistic”): “The first of these began in the ninth or tenth century, probably reached peak rates in the twelfth century, began to slow down in the thirteenth, and was abruptly terminated by the Great Plague of 1348, when Europe lost a third or more of its total population.” (Cameron and Neal 16)
        2. 1450-1700 (“second logistic”): “After a century of relative stagnation, the population began to grow again around the middle of the fifteenth century, reached peak rates in the sixteenth century, and again leveled off or possibly even declined in the seventeenth century.” (Cameron and Neal 16)
        3. 1750-1914 (“third logistic”): “Toward the middle of the eighteenth century the process got underway again, this time much more powerfully, and continued at unprecedented rates until interrupted by the world wars and related misfortunes of the first half of the twentieth century.” (Cameron and Neal 16)
        4. 1950-present (“fourth logistic”): “There is evidence of a fourth logistic, this time on a world scale, beginning after World War II.” (Cameron and Neal 16)
     5. “Some scholars believe the three identifiable European logistics were, in fact, worldwide and related to climatic variations. The population of China, for example, seems to have kept pace with that of Europe.” (Cameron and Neal 16)
  4. “economic growth accompanying the growth of population” (Cameron and Neal 17)
     1. “. . . each accelerating phase of population growth in Europe was accompanied by economic growth, in the sense that both total and per capita output were increasing. (If per capita output merely remained constant as the population grew, the total output, of course, would increase; but we are warranted in making the stronger statement.)” (Cameron and Neal 17)
     2. There was “both physical and economic expansion of European civilization during each of the accelerating phases of population growth.” (Cameron and Neal 17)
        1. 1000-1300: “. . . European civilization expanded from the heartland of feudalism between the Loire and Rhine rivers to the British Isles, the Iberian peninsula, Sicily, and southern Italy, into central and eastern Europe, and even to Palestine and the eastern Mediterranean temporarily during the Crusades. In each locale, the institutions of feudalism were adapted to local conditions and customs, creating a variety of economic systems.” (Cameron and Neal 17)
        2. 1450-1600: “maritime exploration, discovery, and conquest took Europeans to Africa, the Indian ocean, and the Western Hemisphere.” (Cameron and Neal 17)
        3. 1800s: “through migration, conquest, and annexation, Europeans established their political and economic hegemony throughout the world.” (Cameron and Neal 17)
  5. “There is also evidence that conditions of life for ordinary men and women were becoming increasingly difficult in the decelerating phases of the first two logistics (the first halves of the fourteenth and seventeenth centuries, respectively), suggesting a decline in or at least stagnation of per capita incomes.” (Cameron and Neal 17)
  6. “By the seventeenth century, however, the variety of institutional arrangements in Europe created some pockets of prosperity in the midst of overall decline; for example, cities grew rapidly in the Low Countries and northern Italy. In the third logistic [1750-1914] the opportunity for large-scale emigration from Europe in the late nineteenth and early twentieth centuries palliated the condition of the masses; even so, a number of countries experienced localized subsistence crises, of which the Irish famine of the 1840s was the most dramatic. In the light of these observations Adam Smith’s remark [of 1776], written in the accelerating phase of the third logistic, to the effect that the position of the laborer was happiest in a “progressive” society, dreary in a stationary one, and miserable in a declining one, takes on a new significance.” (Cameron and Neal 17)
  7. “. . . the final phases of all the logistics, and the intervals of stagnation or depression that followed, witnessed the spread of social tension, civil unrest and disorder, and the outbreak of unusually fierce and destructive wars. . . . there is no obvious theoretical reason that the decline of population growth should have resulted [17] in the breakdown of international relations. Possibly the wars were simply fortuitous occurrences that ended periods of growth that were already waning.” (Cameron and Neal 17-18)
  8. “. . . notable periods of intellectual and cultural ferment were also related somehow to the logistic.” (Cameron and Neal 18)
     1. “. . . the “Golden Ages” . . . of Mesopotamia and Egypt . . . were periods of population growth and ended with civil strife and internecine warfare . . .” (Cameron and Neal 18)
     2. “. . . the “Golden Ages” of Greece and Rome . . . were periods of population growth and ended with civil strife and internecine warfare (the Peloponnesian War, the decline of Rome).” (Cameron and Neal 18)
     3. “. . . the accelerating phases of each period of population growth in Europe witnessed outbursts of intellectual and artistic creativity followed by a proliferation of monumental architecture—medieval cathedrals, baroque palaces, and the nineteenth-century Gothic revival.” (Cameron and Neal 18)
     4. “The origins of the Renaissance were in the great depression of the late Middle Ages, and the century of genius that included Galileo, Descartes, Newton, Leibnitz, and Locke spanned the interval of stagnation and upheaval between the second and third European logistics. . . . it is possible that periods of crisis in human affairs, when the established order appears to be breaking down, may stimulate the best intellects in a variety of fields to reexamine accepted doctrines.” (Cameron and Neal 18)
  9. “A possible explanation for the correlation of population growth/stagnation/decline with income movements can be fashioned by analyzing the interaction of the fundamental determinants of economic development . . . with a given technology the resources available to a society set the upper limits to its economic achievements, including the size of its population. Technological change, by increasing productivity and opening up new resources, has the effect of raising the ceiling, as it were, thereby permitting further growth in population. Eventually, however, without further technological change, the phenomenon of diminishing returns sets in, the society encounters a new ceiling on production, and population again levels off (or declines) until a new “epochal innovation” (the phrase is that of Simon Kuznets, a Nobel Prize winner in economics; see Chapter 8) again increases productivity and opens up still newer resources. Figure 1-2 presents a simplified representation of the relationship between population and epochal innovations.” (Cameron and Neal 18)
     1.  (“epochal innovation,” Cameron and Neal 18 figure 1-2)

Ancient Times (Cameron and Neal)

1. **paleolithic humans**
   1. “Hominoid remains recently found in Kenya, in proximity to what may have been very crude stone tools, have been estimated to be almost 20 million years old.” (Cameron and Neal 20 n.1)
   2. “Humans, the tool-using animals, may have appeared on earth as long ago as 2 million years . . .” [20] “*Homo sapiens*, the species to which all existing races belong, is thought to be only about 250,000 years old, but it was preceded by *Homo erectus* and *Homo habilis*.” [20 n. 1] (Cameron and Neal 20, 20 n. 1)
   3. “The earliest humans, forerunners of *Homo sapiens*, were probably omnivorous creatures who supplemented their basic diet of tubers, berries, and nuts with insects, fish, mollusks (where available), the flesh of small game, and possibly carrion.” (Cameron and Neal 20)
   4. “Their crude tools . . . would have been used mainly for digging, scraping, and pounding—that is, as extensions or modifications of the human hand. . . . Stones formerly used for pounding were chipped or flaked to make rough cutting edges; straight sticks were given pointed ends to serve as primitive spears. Special types of stones, such as flint and obsidian, were discovered to be especially suitable for toolmaking, and bones, horns, and ivory entered the toolmakers’ list of materials. In the beginning this technological evolution was probably as slow as biological evolution itself, but it must have been accelerated in the last 50,000 years or so. Toward the end of the last (Würm) glaciation, some 20,000 to 30,000 years ago, late paleolithic humans had reached a relatively advanced state of technological, and probably also social, development. They made a great variety of chipped and flaked stone tools, including knives, awls, and chisels, and used bones, horns, and shells for fishhooks and needles . . . For weapons they had lances, spears, harpoons, slings, and bows and arrows. By this time humans were primarily carnivorous hunters . . . among their [20] favorite prey were the wild horses, bison, reindeer, and mammoths that abounded at that time.” (Cameron and Neal 20-21)
   5. For paleolithic tools, see: Gardner, Helen. *Art through the Ages*. 3rd ed. Harcourt Brace Jovanovich, 1948, 1975. (Cameron and Neal 21)
   6. “The unit of social organization was the band or tribe, consisting of about half a dozen families. It was essentially migratory, following the game, but usually limited its migrations to a given geographical area, and might return at periodic intervals to a ceremonial center such as a sacred grove or cave. Contact between bands or tribes was probably rare, but not so rare as to prevent the diffusion of social traits and techniques. and perhaps some primitive barter trade including the exchange of women.” (Cameron and Neal 21)
   7. “Marriage and kinship rules had evolved, and incest was universally tabooed. . . . [There was] a primitive calendar . . .” (Cameron and Neal 21)
   8. The cave paintings of northern Spain and southwestern France [date] from about 20,000 years ago . . . The most common subjects are the animals they hunted . . .” (Cameron and Neal 21)
   9. “The seventeenth-century philosopher Thomas Hobbes described life in the state of nature as “nasty, brutish, and short,” but that was pure speculation on his part. Recent discoveries . . . suggest that paleolithic hunter-gatherers may have enjoyed better health than the earliest agriculturists. Even so, they lived close to the margin of subsistence. Given the nature of their economy, they were subject to recurrent rounds of feast and famine, depending on the movement of game and the luck of the hunt. In periods of famine all but the strongest perished, and in prolonged famines entire communities perished or migrated. Indeed, one of the remarkable features of humans, prehistoric and modern, is their mobility. Their self-regulating metabolisms (ability to sweat) enabled early humans to travel incredibly long distances [21] in search of food or warmer climates. . . . migrating groups encountered new disease environments, parasites, or predators. The most dangerous of predators, of course, were always other groups of humans also in search of better situations.” (Cameron and Neal 21, 23)
   10. By 10,000 bc, “virtually every inhabitable part of the earth, from the Arctic to South Africa, Australia, and the Tierra del Fuego, had been occupied, however thinly or tentatively. Population densities no doubt varied in proportion to the flora and fauna that served as their means of subsistence, with the higher densities in tropical and subtropical areas . . . the world population of *Homo sapiens* at the end of the paleolithic era could not have exceeded 20 million and more likely was in the range of 10 million inhabitants.” (Cameron and Neal 23)
2. **the neolithic revolution**
   1. The neolithic revolution lacked the suddenness of a revolution. “The changes were so gradual that the people experiencing them were probably unaware, or at best dimly aware, of them, and without written records they could have no notion of the significance of the transition.” (Cameron and Neal 24)
   2. “The retreat of the last continental glaciers [was] about 10,000 or 12,000 years ago . . .” In Eurasia and North America, climate change caused “the disappearance of many of the mammals that made up the basic food supply of the late paleolithic hunters. The hairy mammoth and the woolly rhinoceros became extinct, and the reindeer migrated northward to its present habitat. North Africa and central Asia became more arid, forcing their inhabitants to migrate and adopt new ways of life, while huge forests grew north of the Alps and great grasses covered the highland areas at the eastern end of the Mediterranean.” (Cameron and Neal 23)
   3. “Whether or not they were directly related to the climatic changes, important technological changes also occurred . . . in the Near and Middle East.” (Cameron and Neal 23)
      1. “Some scholars assert that a rather nebulous mesolithic, or transitional, era occurred between the end of the ice age and the full establishment of neolithic cultures in the Near and Middle East by the beginning of the sixth millennium [6000] b.c.” (Cameron and Neal 23)
      2. “Grinding and polishing of stone replaced the older methods of chipping and flaking. The neolithic, or new stone, age had arrived.” (Cameron and Neal 23)
   4. the invention of agriculture and the domestication of animals
      1. “It is not even certain that they occurred in conjunction with one another, although it seems likely . . .” (Cameron and Neal 23)
      2. “The most probable site is somewhere on the so-called Fertile Crescent, the belt of land (perhaps more fertile then than now) extending along the eastern end of the Mediterranean, arching across the hills of northern Syria and Iraq, and down the valleys of the Tigris and Euphrates to the [23] Persian Gulf. One hypothesis, as plausible as any, is that the domestication of plants was the work of women in the hills of northern Iraq or Kurdistan. The wild ancestors of wheat and barley grew naturally in the area. The women, left behind in temporary camps while their men hunted sheep and goats in the nearby mountains, harvested the wild seeds and eventually began to cultivate them. This hypothesis is reinforced by the fact that sheep and goats were probably the first animals to be domesticated (except for the dog, which may have been associated with paleolithic hunters). The process (for it almost certainly was not a unique event) may have begun as early as 8000 b.c. or even earlier.” (Cameron and Neal 23-24)
      3. “Grain was probably first consumed in the form of gruel or porridge, but primitive querns and mortars for grinding grain into meal or flour have been found in some of the earliest archaeological sites, evidence that the art of baking was discovered almost as early as the invention of agriculture.” (Cameron and Neal 25)
      4. earliest agricultural tools
         1. “The first was a primitive sickle or reaping knife—typically a blade of flint chips or teeth attached to a wood or bone handle—used in harvesting the seeds of wild grasses and eventually those of cultivated grains.” (Cameron and Neal 25)
         2. “hoe culture”: “The first instruments of cultivation were plain digging sticks and simple hoes made by attaching a stone blade to a wooden handle. This type of agriculture, which subsequently spread to many parts of the world and still persists in some remote areas, is frequently referred to as “hoe culture.”” (Cameron and Neal 25)
      5. “. . . by 6000 b.c. settled agriculture, involving cultivation of wheat and barley and tending of sheep, goats, pigs, and possibly cattle, was well established throughout the area from western Iran to the Mediterranean and across the Anatolian highlands to both sides of the Aegean Sea.” (Cameron and Neal 24)
      6. “It is possible that the cultivation of rice in Southeast Asia may have begun as early as that of wheat in the Middle East.” (Cameron and Neal 24)
      7. “Jared Diamond has argued persuasively that the spread of productivity-enhancing innovations for early humans occurred most naturally and most prolifically in the Eurasian land mass. First of all, its huge size and diversity gave rise to many more plant and animal species from which cultivable crops and domesticable animals could be found than for any other continent. Second, its east-west orientation meant that once success was achieved anywhere in the land mass with a crop (wheat) or animal (goat), that same success could be replicated almost anywhere along the same latitude. As the dominant migration routes were along the east-west axis of the continent, all innovations tended to end up either in the western end of Europe or eastern China.” (Cameron and Neal 24)
      8. effects
         1. “For the first time people were able to establish relatively permanent settlements.” (Cameron and Neal 24)
         2. “. . . as migratory bands settled in one location they would replace such temporary shelters as tents of skins or windbreaks made of boughs with more permanent and comfortable abodes: dugouts or pit houses at first, followed by sod houses, and eventually (the typical dwelling of the peasant villagers in the Near and Middle East) houses of sun-dried mud brick. Experience in making bricks needed for dwellings may have led to the use of clay for pots, and thus to pottery.” (Cameron and Neal 25)
         3. Stability and greater productivity let them “accumulate greater stores of material goods, or wealth . . .” (Cameron and Neal 24)
         4. “. . . the population grew wherever neolithic agriculture was diffused.” (Cameron and Neal 26)
         5. Stability and greater productivity let them “devote more time to nonsubsistence activities, such as art and religion.” (Cameron and Neal 24)
         6. “The greater reliability of their food supply (fluctuations were at least annual rather than daily) no doubt introduced an element of psychological as well as physical stability into personal and social relationships.” (Cameron and Neal 24)
      9. “. . . pastoralism as a possible transitional stage” between the paleolithic and the neolithic. (Cameron and Neal 24)
      10. “Hunting and farming were complementary activities for many generations . . . As [agriculture] became more efficient and productive, the economic importance of hunting receded, but it never lost its symbolic significance: the transition from hunter to warrior to ruler was a natural one.” (Cameron and Neal 24)
      11. “Insofar as one can speak of motivation, the changes were simply a process of adaptation to a mostly hostile environment. Custom and tradition governed both social relationships and methods of production, and the idea of deliberate invention in either area could scarcely have entered the mind of neolithic humans.” (Cameron and Neal 24)
   5. “Cattle, if not domesticated before 6000 b.c., came into the fold soon afterward.” (Cameron and Neal 25)
   6. “Lentils and peas, as well as various root crops, were cultivated in Anatolia well before [6000 bc].” (Cameron and Neal 25)
   7. “By the sixth millennium grain was also fermented to make a kind of mead or ale.” (Cameron and Neal 25)
   8. ““Although no evidence survives, it seems likely that basketry preceded pottery.” (Pottery was in the 5000s.) (Cameron and Neal 25)
   9. 6000: “Pottery, more fragile but requiring less labor to produce than stone containers, was invented about [6000]: pottery also provided a new esthetic outlet and was widely used for ornamental and ceremonial as well as utilitarian purposes.” (Cameron and Neal 25)
   10. wheel: “As potters refined their art they invented the potter’s wheel, which almost certainly preceded the use of wheels for transport.” (Cameron and Neal 25)
   11. textiles
       1. Pottery “almost certainly preceded the manufacture of textiles (spinning and weaving) . . .” (Cameron and Neal 25)
       2. “There is no clear evidence that woolen cloth was manufactured before the middle of the third millennium [2500], but, given the early domestication of sheep and goats and the fact that the technique of making woolen yarn is simpler than that for linen, wool was probably the first substitute for the skins and furs that clothed paleolithic humans.
       3. 6000: “there is evidence that linen cloth was being made by the beginning of the fifth millennium (which also suggests the domestication of flax).” (Cameron and Neal 25)
   12. division of labor
       1. “The sedentary existence of the peasant village permitted a finer division of labor than that determined by age and sex. . . . specialization leads to greater efficiency and technological progress.” (Cameron and Neal 25)
   13. metallurgy
       1. 5000s: “some gold and copper objects have been found that date from the sixth millennium . . .” (Cameron and Neal 25)
       2. 4000-2000: “regular production of copper did not begin until the fifth or perhaps even the fourth millennium, and [25] bronze (an alloy of copper and tin) came even later. Copper ore occurs in the mountains of Anatolia, the southern Caucasus, Cyprus, and northern Iran. Copper may have been accidentally smelted by potters using copper oxide for painting their pots, which were fired at high temperatures in closed kilns. Whatever the method of its discovery, however, copper smelting was widely practiced in the Near and Middle East by the middle of the fourth millennium, and tools, weapons, and ornaments of copper and bronze were added to (but did not wholly replace) those of stone, clay, and other materials.” (Cameron and Neal 25-26)

Babylone

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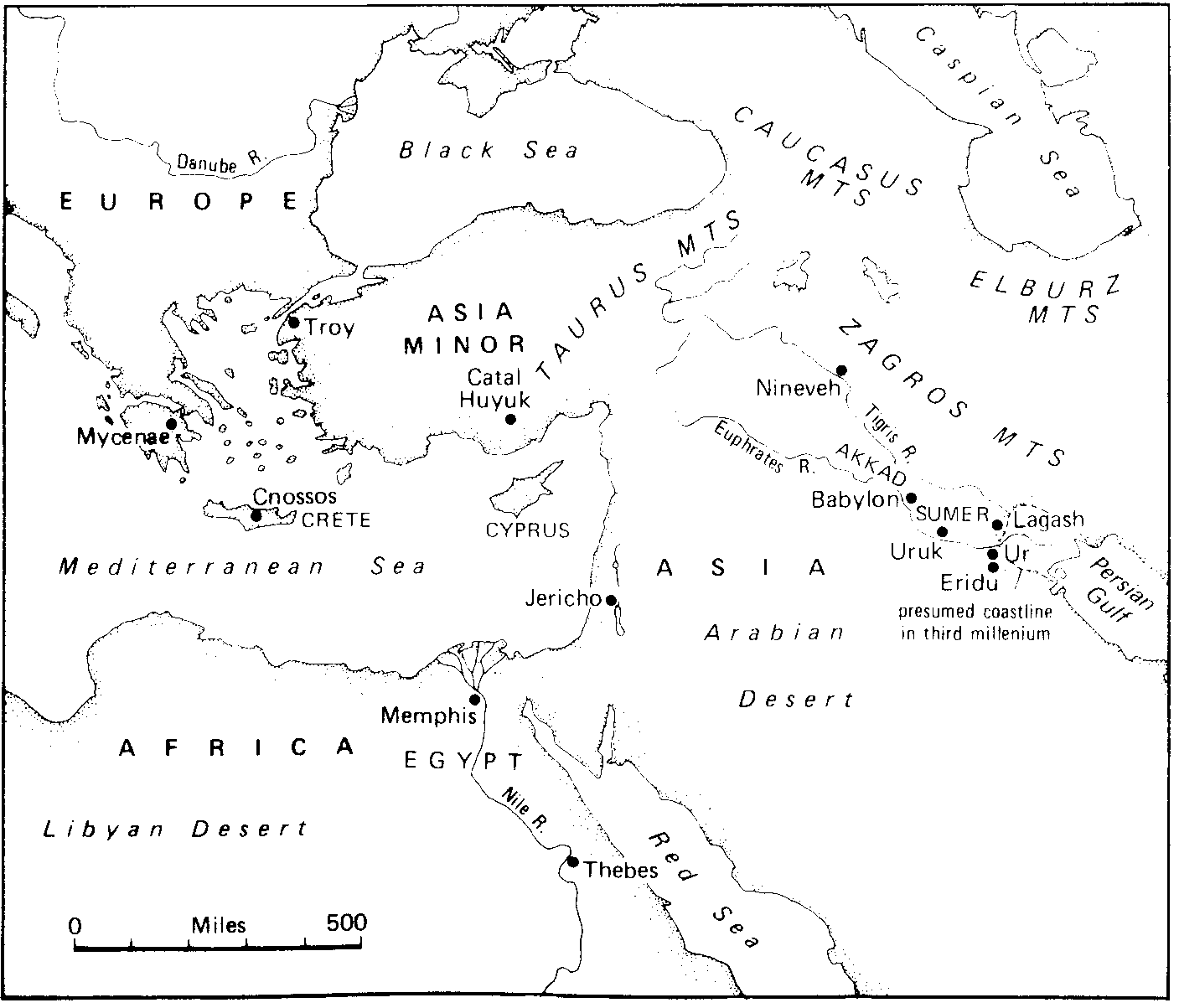
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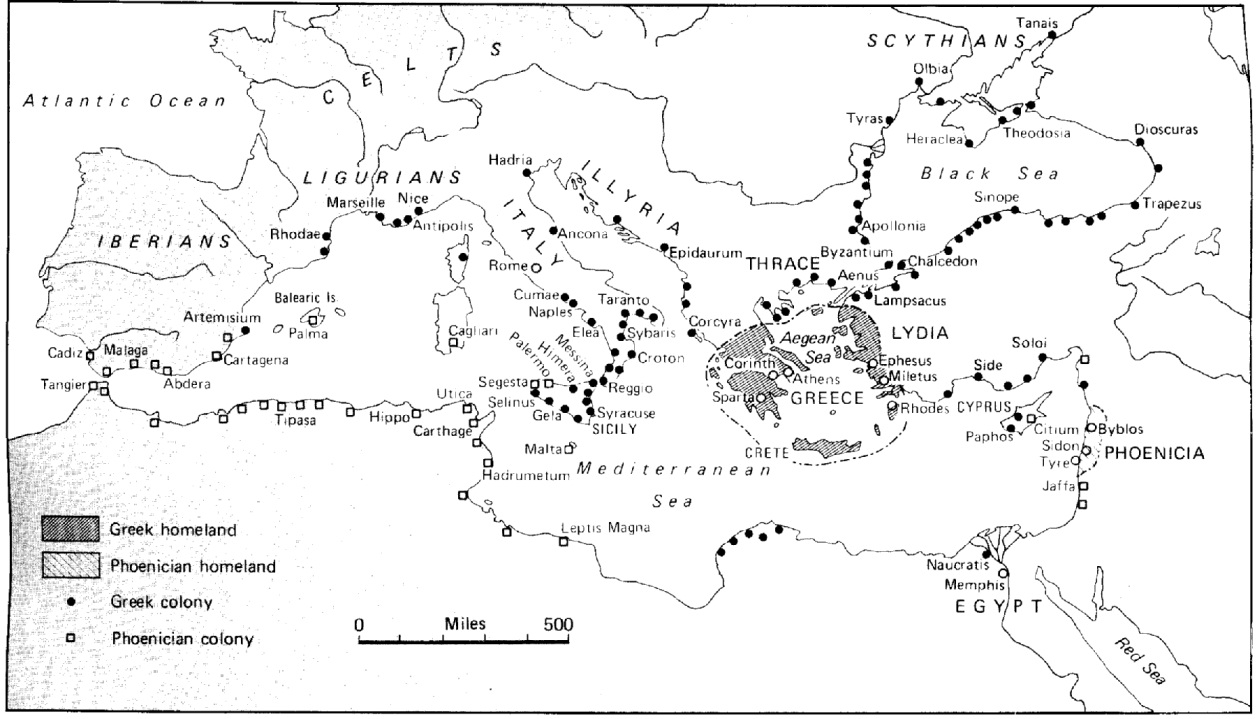
in third millenium .

* 1. trade
     1. 7000s: “some form of trade had been practiced in late paleolithic and early neolithic times: the mining of flint stones and the manufacture of stone axes and other weapons had become specialized crafts by the eighth millennium, as evidenced by the widespread distribution of implements that can be identified as coming from particular mines or mining areas. Unfortunately, we do not know who the agents of this commerce were. The trade in stone implements may have been carried on by migratory hunters, that in metals by nomadic pastoral tribes, but this is just speculation. After the rise of city-states and empires, organized expeditions were sent out for trading and raiding.” (Cameron and Neal 26)
     2. “. . . for long-distance trade in highly localized commodities, such as flint stones or metal, some form of organized exchange was necessary. We don’t know what the terms of trade were for such exotic goods, or how they were determined . . .” (Cameron and Neal 26)
     3. “Within individual communities the terms of exchange were probably determined by custom . . .” (Cameron and Neal 26)
  2. “Ploughs pulled by oxen or donkeys belonged to a later stage of development, first making their appearance in the great river valleys” c 4000-2000 bc. (Cameron and Neal 25)
  3. diffusion of agriculture
     1. 4000s: “Agriculture reached the Nile valley before 4000 b.c. . . .” (Cameron and Neal 26)
     2. 3000s: “Agriculture reached . . . the Indus valley within the next millennium.” (Cameron and Neal 26)
     3. by 2500: “By about 2500 b.c. it had penetrated the Danube valley, the western Mediterranean, southern Russia, and possibly China. Modifications were sometimes introduced in the course of diffusion because of differences in resources and climate.” (Cameron and Neal 26)
        1. “In northern China, for example, millet and soy beans became the staple food crops.” (Cameron and Neal 26)
        2. “In Southeast Asia the basis of farming was first the taro root and later (after about 1500 b.c.) rice. In the latter area the water buffalo was the most important domesticated animal.” (Cameron and Neal 26)
     4. 2000s: “In the arid steppe lands of southern Russia and central Asia, neolithic hoe cultures did not take root, but the inhabitants developed a pastoral way of life; it was probably in this area that the horse was domesticated sometime in the third millennium.” (Cameron and Neal 26)
  4. villages
     1. “The basic unit of economic and social organization in the early agricultural communities was the peasant village, consisting of from 10 to 50 families, with a total population between 50 and 300 persons. The peasant villages may be regarded as the logical, and perhaps in some cases the actual, successors of the late paleolithic hunting bands, although on the average they were substantially larger because of their better adaptation to the environment. Living conditions were slightly improved over those of hunting and gathering communities. The food supply was somewhat more regular and dependable, and dwellings were no doubt more comfortable; but because population tended to grow along with the means to support it, the peasants still lived [26] at the margin of subsistence. A natural disaster such as a drought, flood, or plague of insects could wreak havoc on an entire village or group of villages; and their settled existence and denser populations than those of hunting tribes made them more subject to epidemic disease.” (Cameron and Neal 26-27)
     2. “The average length of life probably did not exceed twenty-five years.” (Cameron and Neal 27)
     3. 6500: between “the neolithic peasant villages [and] the rise of more powerful city-states in the middle of the fourth millennium [were] cities . . .” (Cameron and Neal 27)
        1. “A city discovered at Catal Hüyük in Anatolia, dating from the middle of the seventh millennium, had closely set houses of uniform structure and dimensions built of clay and bricks, also of uniform dimensions, implying a well-organized division of labor. Obsidian, the raw material for most of its tools, was imported from volcanic deposits more than seventy miles distant.” (Cameron and Neal 27)
        2. “At Jericho, perhaps the oldest continuously occupied site in the world, with traces of neolithic settlement as early as 8000 b.c., a huge stone wall was erected by 7000 b.c. This achievement was certainly beyond the capacity of a simple agricultural village.” (Cameron and Neal 27)
        3. “There are traces of other such cities in the Aegean area and [27] elsewhere in the Near East, and undoubtedly other yet undiscovered urban sites must have existed before the rise of the great river valley civilizations in Mesopotamia and Egypt. The exact function and basis for the existence of these proto-cities has not yet been discovered. They probably served, however, as primitive manufacturing centers and commercial entrepôts for the surrounding agricultural communities. If so, their existence is evidence of a far more complex organization of the economy than was formerly believed possible for that time.” (Cameron and Neal 27-28)
  5. “Early cities and civilizations” (Cameron and Neal 27 figure 2-3)



* 1. Sumer
     1. “Before about 4500 b.c. Lower Mesopotamia . . . was much less densely populated than other inhabited regions of the Near and Middle East. Its marshy soil . . . was not suited to the primitive hoe culture of neolithic agriculture. Moreover, the land was virtually treeless and lacked building stone and mineral resources.” (Cameron and Neal 28)
     2. 4500-3500: “this unpromising area became the seat of the first great civilization known to history, that of Sumer, with large concentrations of people, bustling cities, monumental architecture, and a wealth of religious, artistic, and literary traditions that influenced other ancient civilizations for thousands of years. The exact sequence of events that led to this culmination is unknown, but it is clear that the economic basis of this first civilization lay in its highly productive agriculture.” (Cameron and Neal 28)
     3. “The natural fertility of the black alluvial soil was renewed annually by the silt left from the spring floods of the Tigris and Euphrates rivers. Harnessing its full productive powers, however, required an elaborate system of drainage and irrigation, which in turn required a large and well-disciplined work force as well as skilled management and supervision. The latter were provided by a class of priests and warriors who ruled a large, servile population of peasants and artisans. Through tribute, taxation, and slavery the rulers extracted the wealth that went into the construction of temples and other public buildings and the creation of works of art . . .” (Cameron and Neal 28)
     4. “The rise of civilization brought with it a far more complex division of labor and system of economic organization.” (Cameron and Neal 28)
        1. “Fulltime artisans specialized in the manufacture of textiles and pottery, metalworking, and other crafts.” (Cameron and Neal 28)
        2. “The professions of architecture, engineering, and medicine, among others, were born.” (Cameron and Neal 28)
        3. “Weights and measures were systematized, mathematics was invented, and primitive forms of science emerged.” (Cameron and Neal 28)
        4. “Since Sumer was virtually devoid of natural resources other than its rich soil, it traded with other, less advanced people, thereby contributing to the diffusion of Sumerian civilization.” (Cameron and Neal 28)
     5. “The scarcity of stone, for tools as well as for buildings, probably hastened the adoption of copper and bronze. Copper, at least, was already known before the rise of Sumerian civilization, but lack of demand for it among the neolithic peasant villages inhibited its widespread use. In the Sumerian cities, on the other hand, imported stone had to compete with imported copper, and the latter proved more economical as well as more effective in a variety of uses. It was imported by sea through the Persian Gulf from Oman, and downriver from the mountains of Anatolia and the Caucasus. Thereafter metallurgy was regarded as one of the hallmarks of civilization.” (Cameron and Neal 28)
     6. writing
        1. c. 3200 bc: “Sumer’s greatest contribution to subsequent civilizations, the invention of writing, likewise grew out of economic necessity. The early cities such as Eridu, Ur, Uruk, [28] and Lagash were temple cities; that is, both economic and religious organization centered on the temple of the local patron deity, represented by a priestly hierarchy. Members of the hierarchy directed the labor of irrigation, drainage, and agriculture generally and supervised the collection of the produce as tribute or taxation. The need to keep records of the sources and uses of this tribute led to the use of simple pictographs on clay tablets, sometime before 3000 b.c.” (Cameron and Neal 28-29)
        2. 2800: “By about 2800 b.c. the pictographs had been stylized into the cuneiform system of writing, a distinctive characteristic of Mesopotamian civilization. It is one of the few examples in history of a significant innovation issuing from a bureaucratic organization.” (Cameron and Neal 29)
        3. “Although writing originated in response to the need for administrative record-keeping, it soon found many other religious, literary, and economic uses. In a later phase of development, after the strict temple-centered organization of the economy had given way to greater freedom of enterprise, clay tablets recorded the details of contracts, debts, and other commercial and financial transactions.” (Cameron and Neal 29)
     7. spread of civilization
        1. “. . . the expeditions of the Mesopotamian city-states and empires. The latter were usually state-sponsored, and [32] it was not always easy to distinguish a trading from a raiding mission. Rulers of neighboring states also engaged in the ritual exchange of gifts, a disguised form of barter. Given the high cost of land transport, however—goods were carried by pack animals and human porters—such commerce was limited to commodities of high value in relation to their bulk, such as gold, silver, and precious stones, luxury cloth, spices and perfumes, and art and religious objects. (The only apparent exception to this rule, the traffic in copper and bronze, was not really an exception because metals destined primarily for the weapons and ornaments of the ruling classes commanded a much higher relative price than they do today.) Mesopotamian civilizations established contacts through the Indian Ocean with both Egypt and the Indus valley at a very early date. but these routes do not appear to have carried large-scale or sustained traffic because of both the lack of suitable complementary trading goods and the hazards of navigation in the monsoon region.” (Cameron and Neal 32-33)
        2. “From its earliest seat at the head of the Persian Gulf, Mesopotamian civilization spread northward into Akkad, whose principal center was the city of Babylon, and subsequently into the upper reaches of the Tigris and Euphrates valleys.” (Cameron and Neal 29)
        3. “Through their trading expeditions in search of raw materials, especially metal and perhaps other commodities, the Mesopotamian city-states stimulated the nascent civilizations of Egypt, the eastern Mediterranean and Aegean area, Anatolia, and the Indus valley. The initial response of distant communities to Mesopotamian trade expeditions was probably to organize themselves more effectively for defense, but eventually some became regular trade partners and maintained overland trade routes. Of these, Egypt and the Indus valley were, like Mesopotamia itself, riverine civilizations that owed their existence to the control and use of the flood waters of the great rivers along which they lay.” (Cameron and Neal 29)
        4. India: “Little is known about the early development of the Indus valley civilization, although it apparently had contacts with Mesopotamia by both land and sea.” (Cameron and Neal 29)
        5. Egypt
           1. “Egypt, near the end of the fourth millennium, was still in a neolithic stage of development, but its contacts with Mesopotamia—especially those of Upper Egypt via the Persian Gulf, Indian Ocean, and Red Sea route—stimulated a rapid development in all aspects of civilization. By the middle of the third millennium Egyptian civilization had reached a stage of maturity in its government, art, religion, and economy that remained virtually unaltered until the beginning of the Christian era . . .” (Cameron and Neal 29)
           2. Egypt “probably had 5 million inhabitants as early as 2500 b.c. . . .” (Cameron and Neal 40)
           3. Egypt “probably had [7.5 million inhabitants] in the first century a.d. . . .” (Cameron and Neal 40)

1. **the economic foundations of empire**
   1. “Before the rise of the first great urban civilizations the social structure of the neolithic peasant villages appears to have been relatively simple and uniform. Custom and tradition, as interpreted by a council of elders, governed relations among members of the community. The concept of property would have been vague, at best. Private ownership of tools, weapons, and ornaments was no doubt recognized, but land and livestock were probably owned collectively. (In economic terminology, land was not scarce, and hence would not command a premium, or rent.) Although some individual or individuals in each village may have been accorded special status because of wisdom, strength, courage, or other leadership qualities, it does not appear that there were any privileged or leisured classes; the obligation of all to work was dictated by both technology and resources.” (Cameron and Neal 30)
   2. development of stratified social structure
      1. “In the early temple cities of Sumer, . . . the social structure was definitely hierarchical. The masses of peasants and unskilled workers, probably amounting to 90 percent or more of the total population, lived in a state of servitude, if not outright slavery; they had no rights, property or other. The land belonged to the temple (or to its deity) and was administered by the deity’s representatives, the priests. At a somewhat later date—but not later than the beginning of the third millennium [3000]—a warrior class, led by chiefs or kings, asserted its authority in conjunction with or over that of the priests. Unfortunately, the details of this transition from a relatively undifferentiated society to a stratified society are unknown.” (Cameron and Neal 30)
      2. “According to Marxist theory, it resulted from the creation of the institution of private property out of the former communal property, which allowed one segment of society to live from the labor of the others—“the exploitation of man by man.”” (Cameron and Neal 30)
      3. “Although it is true that the priest and warrior classes did not engage in economically productive activities (except to the extent that their directive and supervisory functions were necessary), and in that sense exploited the peasants and workers, one may fairly doubt that the institution of private property was closely associated with the phenomenon.” (Cameron and Neal 30)
         1. “Certain parcels of land, or a portion of its produce, were frequently designated for the support of particular officials and warriors, and private ownership of tools, weapons, and other personal possessions was no doubt recognized, but private property was not an absolute right.” (Cameron and Neal 30)
         2. But “nowhere in ancient civilization did private property, in the modern sense, constitute the legal foundation of society or state. Some form of collective or state ownership of land was the general rule.” (Cameron and Neal 30)
      4. “More likely, the root of class differentiation and formal political organization was ethnic or tribal differences. Significantly, Sumerian, the first written language, was unrelated to any of the neighboring Semitic languages—unrelated, in fact, to any [30] other known language. Possibly the organizers of the earliest Sumerian city-states were alien conquerors who imposed themselves on a preexisting neolithic population. In any event, it is clear from subsequent developments that the riches of the riverine city-states were tempting prizes that repeatedly drew their more primitive neighbors from the surrounding hills and deserts to invade and conquer or pillage the Sumerian cities. In some instances the invaders merely seized what they could conveniently carry away and departed; in others they slaughtered or subjugated the existing ruling class and established themselves as rulers over the servile population. The numerous references in ancient mythology to conflicts among the gods probably reflect the struggle for mastery among the various warrior tribes, each with its own deity. Such successions of ruling classes mattered little to the peasant populations, except when they became accidental victims of violence or one group of rulers was more ruthless and efficient than another in extracting tribute and taxation.” (Cameron and Neal 30-31)
   3. “As the early city-states expanded in proximity to one another, disputes over boundaries and water rights became additional sources of conflict and conquest. The earliest written records from the classical Sumerian civilization of the third millennium contain numerous references to the succession of dynasties that ruled the various cities. Economic considerations were not, of course, the only motivating influences in these struggles. The lust for power, dominion, and magnificence soon overtook mere economic motivations.” (Cameron and Neal 31)
   4. “. . . the first great world empire [was that] of Sargon of Akkad (ca. 2350-2300 b.c.) [29] . . . Sargon the Great not only brought all of the city-states of Sumer and Akkad under one central administration but also extended his conquests to Iran, northern Mesopotamia, and Syria, thus ruling virtually all of the civilized world of his time except Egypt.” (Cameron and Neal 29, 31)
   5. “. . . the economic bases of these ancient empires [Babylonian, Persian, Roman, etc.] lay in the booty, tribute, and taxation that the conquerors could wring from the conquered and from the peasant masses.” (Cameron and Neal 31)
   6. 3000-1 bc: technological development
      1. “. . . there were few major breakthroughs . . .” (Cameron and Neal 31)
         1. “Almost all of the major elements of technology that served ancient civilizations—domesticated plants and animals, textiles, pottery, metallurgy, monumental architecture, the wheel, sailing ships, and so on—had been invented or discovered before the dawn of recorded history.” (Cameron and Neal 31)
         2. “The most notable technological achievement of the second millennium (ca. 1400-1200 b.c.), the discovery of a process for smelting iron ore, was probably made by a barbarian or semi-barbarian tribe in Anatolia or the Caucasus Mountains. Significantly, the principal use of iron in ancient times was for weapons, not tools.” (Cameron and Neal 31)
            1. “According to a conventional classification, the Iron Age began about 1200 b.c., but throughout classical antiquity objects and implements of iron were rare and expensive [iron was more expensive than copper and bronze until the middle ages], and iron was virtually monopolized for weapons and decorations for the small ruling classes. Even copper and bronze, though somewhat more plentiful, seldom entered the daily lives of common people.” (Cameron and Neal 69)
         3. “Other innovations, such as chariots and specialized fighting ships, were even more directly related to the art of war and conquest.” (Cameron and Neal 31)
      2. There were “many minor technical improvements . . .” (Cameron and Neal 31)
         1. “During Hellenistic times and under the Roman Empire scores of treatises were written on various aspects of agriculture and related occupations (the famous library in Alexandria contained fifty manuscripts devoted solely to the art of baking bread!), designed to inform wealthy landowners and their stewards how to increase the yields of their estates.” (Cameron and Neal 31)
         2. “The peculiarities of climate, topography, [31] and soil in the Mediterranean basin determined optimum agricultural methods, which evolved gradually and imperfectly through many centuries of trial and error.” (Cameron and Neal 31-32)
      3. agricultural organization
         1. “The wealth of the great riverine civilizations was based on irrigation agriculture, which required a high degree of organization and discipline of the labor force.” (Cameron and Neal 32)
         2. “Elsewhere (for example, in North Africa and southern Spain) irrigation sometimes supplemented other methods, but for the most part it was uneconomic if not impossible for generalized use. Instead, the technique of “dry farming” (as it came to be known in nineteenth-century America) evolved. Given the light, shallow soils and the long, dry summers that characterize most of the area, arable land had to be plowed frequently but lightly to hold and use the moisture that collected during the rainy winter season. To maintain the fertility of the soil, with no artificial fertilizers and scarce natural manure, fields were planted only every other year (biennial rotation with fallow); moreover, to reduce unwanted growth that would rob the fallow of its nutrients, it too had to be plowed, usually three or four times but, optimally, up to nine times per season. Numerous variations of this basic pattern occurred, especially in the areas where horticulture, arboriculture, and viticulture flourished. In general, however, all of them were highly labor intensive, that is, requiring much labor per unit of land. This severely limited the size of units that could be exploited by independent proprietors or single tenants, and accordingly left little surplus for taxation. On the other hand, where the terrain was suitable and the supply of labor adequate, large estates using gang labor of either cheap servile workers (an agricultural proletariat) or slaves could be profitable to both the owner and the government. From earliest times to the later Roman Empire, the latter system gained ground at the expense of the former, especially in the most fertile regions.” (Is the “former” slaves and the “latter” workers? Or is the former dry farming by individuals and the latter large estates?) (Cameron and Neal 32)
      4. “In spite of the near-stagnation of technology, the economic achievements of the ancient empires were considerable.” (Cameron and Neal 32)
         1. “Organized expeditions, whether for trade or conquest, diffused the existing elements of technology more widely and brought new resources into the ambit of the economy.” (Cameron and Neal 32)
         2. “Explicit formulation of civil law, even if drawn up for the enlightened self-interest of the ruler or the ruling class, contributed to smoother functioning of the economy and society.” (Cameron and Neal 32)
         3. “Most important of all, perhaps, establishing order and common laws over larger and larger areas facilitated the growth of trade and, with it, regional specialization and division of labor. The outstanding example of this tendency is, of course, the Roman Empire.” (Cameron and Neal 32)
2. **trade and development in the Mediterranean world**
   1. 800 bc-200 ad: “the classical civilization of the Mediterranean world achieved a level of economic development that was not surpassed, at least in Europe, until the twelfth or thirteenth century. (Ancient China was different, and exceptional.) Given the absence of notable technological progress in the era, the explanation for this achievement should be sought in the extensive division of labor made possible by a highly developed network of trade and markets. Trade was not a new phenomenon, of course; allusion has been made to the traffic in stone tools and weapons in neolithic times and to the expeditions of the Mesopotamian city-states and empires.” (Cameron and Neal 32)
   2. Phoenicians
      1. c. 3000 bc: already the Phoenicians served as intermediaries between Mesopotamia and Egypt. They “monopolized the commerce of Egypt for long periods, in a sense serving as the pharoahs’ [*sic*] agents or contract merchants.” (Cameron and Neal 33)
      2. “The Phoenicians were the first specialized sailors and merchants . . .” (Cameron and Neal 33)
      3. “. . . according to their own traditions, they came to the Mediterranean from either the Persian Gulf or the Red Sea, which raises the possibility that they (or their forerunners) may have been the early intermediaries between Sumer and Upper Egypt via the Indian Ocean.” (Cameron and Neal 33)
      4. “Among their commercial articles were copper from Cyprus and the fabled cedars of Lebanon. In connection with their commerce the Phoenicians also developed a number of processing industries, including the manufacture of their famous purple dye. The word *Phoenicia*, in fact, comes from the Greek, meaning “land of the purple [dye].”” (Cameron and Neal 33)
      5. “The Phoenicians organized themselves politically into autonomous city-states, of which the most famous were Sidon and Tyre. Dependent, to a large extent, on the goodwill or tolerance of their more powerful neighbors, they experienced fluctuations of fortune, but for almost three millennia, until their cities were overrun by the armies of Alexander the Great, they were among the foremost mercantile peoples in ancient civilization. Their commercial activities led them to develop the alphabet as a more efficient substitute for hieroglyphic or cuneiform writing . . . the Greeks and the Romans adopted [the alphabet], along with other of their commercial techniques.” (Cameron and Neal 33)
      6. “To foster trade as well as to relieve population pressure in their narrow homeland, they established colonies along the North African coast and in the western Mediterranean on Sicily, Sardinia, the Balearic Isles, and the coast of Spain. One of the Phoenician colonies, Carthage, later founded an empire of its own and struggled with Rome for hegemony in the western Mediterranean. Daring sailors as well as skillful merchants, the Phoenicians sailed in the Atlantic to obtain tin from Cornwall, and may have circumnavigated the continent of Africa.” (Cameron and Neal 33)
      7. Phoenician and Greek colonization (Cameron and Neal 34 figure 2-4)



* 1. the Greeks
     1. “The other great maritime traders of the Mediterranean were the Greeks. Unlike the Phoenicians, the Greeks were originally cultivators, but the rocky, mountainous character of their adopted homeland (they had come from the north) soon drove them to the sea to supplement the meager produce of their agriculture. Their excellent [33] natural harbors and the numerous islands of the adjacent Aegean Sea also encouraged this departure.” (Cameron and Neal 33, 35)
     2. “As early as the Mycenaean period [1400-1100 bc], Greek merchants could be found throughout the Aegean and eastern Mediterranean and as far west as Sicily . . .” (Cameron and Neal 35)
     3. The *Iliad* “likely reflects an episode of commercial rivalry between the Greeks and the city of Troy, which commanded the entrance to the Black Sea, just as the legend of Jason and the Golden Fleece probably reflects a pioneering venture to the Black Sea in search of wool.” (Cameron and Neal 35)
     4. 1100-800 bc: “a “dark age” [was] occasioned by a new wave of invasions from the north . . .” (Cameron and Neal 35)
     5. colonization
        1. 800 bc: “By that time the Aegean was already a Greek lake, with Greek settlements on the coast of Asia Minor as well as on the islands. The pressure of population on limited resources was probably at least partly responsible for the settlement of the islands and the adjacent coast of Asia Minor; but even these measures did not relieve the pressure.” (Cameron and Neal 35)
        2. 750 bc: “In the middle of the eighth century the Greeks undertook massive organized ventures in colonization that resulted in the foundation of Greek cities throughout the Mediterranean, as far west as present-day Marseilles, and on the Black Sea coasts as well. The concentration of Greek cities in southern Italy and Sicily was so great that the area became known as Magna Graecia (“Greater Greece”).” (Cameron and Neal 35)
     6. 800 bc: “. . . Greek commerce and civilization revived around the beginning of the eighth century b.c.” (Cameron and Neal 35)
        1. “The colonization movement served economic purposes other than relieving population pressure at home (and incidentally relocating political dissidents). Many new cities were located in fertile agricultural regions and could thus supply grain and other agricultural products to the mother city. They also served as markets or trade centers for the processed and manufactured wares of the mother city, thus introducing the indigenous neighboring populations (mostly neolithic cultivators) to civilization by means of the market system. The founding cities did not generally attempt to maintain political control over their colonies, but ties of kinship and commercial relations kept them closely affiliated.” (Cameron and Neal 35)
        2. “In these circumstances the cities of the Greek mainland (and those of Asia Minor as well) became more specialized in commerce and industry.” (Cameron and Neal 35)
           1. “Grain made way for grapes and olives, which, by nature, were better suited to the Greek soil and climate, and their final products—wine and oil—had a much higher value per unit of weight.” (Cameron and Neal 35)
           2. “Greek craftsmen, especially potters and metal workers, became highly skilled, and their wares commanded a premium throughout the area of classical civilization.” (Cameron and Neal 35)
           3. “Greek sailors and merchants also became carriers for other, non-seafaring peoples such as the Egyptians.” (Cameron and Neal 35)
           4. “Some cities, such as Athens, concentrated a number of commercial and financial functions within their boundaries in much the same way as Antwerp, Amsterdam, London, and New York did in subsequent eras. Banking, insurance, joint-stock ventures, and a number of other economic institutions that are associated with later epochs already existed in embryonic form in classical Greece; indeed, they had roots in ancient Babylon.” (Cameron and Neal 35)
     7. coinage
        1. “Money and coinage, of course, are not identical. Before the invention of metallic coins many other commodities had served as standards of value, the most fundamental function of money, and also as media of exchange. In an actual exchange it was not necessary for the standard of value to be physically present or to be a part of the exchange, as long as the commodities involved could be valued in relation to [35] it. On this basis barter and even credit transactions had long preceded the use of coined money. The latter, nevertheless, greatly simplified commercial transactions and permitted the extension of the market system to many individuals and groups who would otherwise have remained isolated in a closed subsistence economy.” (Cameron and Neal 35-36)

**B**

* + - 1. 600s bc: “The earliest surviving coins, dating from the seventh century b.c., came from Asia Minor.” (Cameron and Neal 36)
      2. “As with most inventions of ancient times, the inventor of coins is unknown to history. . . . Moralistic legends ascribe the invention to both Midas, a king of Phrygia who had the “golden touch,” and Croesus, a fabulously wealthy king of Lydia who was executed by Cyrus the Great by being forced to swallow molten gold; but more likely the first coins were struck by some enterprising merchant or banker of one of the Greek cities on the coast as a form of advertising. In any event, their potential for both profit and prestige was quickly recognized by governments, which arrogated the coining of money as a state monopoly. The effigy of a ruler or the symbol of a city (the owl of Athens, for example) stamped on a coin testified not only to the purity of the metal but also to the glory of its issuer.” (Cameron and Neal 36)
      3. “The earliest coins were apparently made of electrum, a natural alloy of gold and silver that was found in the alluvial [“Sediment deposited by flowing water, as in a riverbed, flood plain, or delta,” *American Heritage Dictionary of the English Language*, 3rd ed. (New York: Houghton Mifflin, 1996)] valleys of Anatolia, [*sic*] but because of the variability in proportions of the two metals in electrum, the pure metals were preferred . . . Although both gold and silver coins were struck, silver was both more plentiful and more practical for commerce. The leading role of Athens in fifth-century commerce as well as culture also contributed to the predominance of silver, at least among the Greeks . . . Athens’ state-owned silver mines at Laurium, on the Attic peninsula, provided the resources for the construction of the triremes. This new type of warship was decisive in the struggle of the Greeks against Persian encroachment, and it subsequently allowed Athens to dominate the Delian League to such an extent that the Aegean and surrounding territories effectively became an Athenian empire. Silver from Laurium also helped finance Athens’ pesistently [*sic*] unfavorable balance of trade (shipping and financial services were also important sources of earnings), and thus indirectly aided in the construction of the great public buildings and monuments for which Athens became famous. The Athenian Golden Age, in fact, was made possible by the silver of Laurium.” (Cameron and Neal 36)
    1. “The Greek cities exhausted themselves in internecine struggles, but the conquests of Alexander the Great spread Greek (or Hellenistic) culture throughout the Near and Middle East. Although Alexander’s empire disintegrated after his death, the cultural and economic unity remained. The Greek language was spoken from Magna Graecia to the Indus River. Greeks manned the civil services of the successor states, and the Greek merchants established their precincts in all important cities. Alexandria—probably the largest city in the world before the rise of Rome, with a population of over 500,000—was virtually a Greek city, and the most important emporium of the age. Through its markets passed not only the traditional exports of Egypt (wheat, papyrus, linen cloth, glass, etc.) but also hundreds of staple and exotic products from many parts of the world, including elephants, ivory, and ostrich feathers from Africa; carpets from Arabia and Persia; amber from the Baltic; cotton from India; and silk from China. The mere number of these commodities testifies to the scale and extent of commercial organization.” (Cameron and Neal 36)
    2. “The Grecian empire was essentially maritime, building on the tradition established by the Phoenicians before them. It persisted as long as it did by maintaining access to strategic ports along the shores of the Mediterranean [37] Sea, which paralleled the Eurasian land mass in its east-west orientation. As long as the sea lanes were open, Greek cities could supply themselves with food and supplies even if shortfalls occurred in their hinterlands. Warships could be held in reserve until needed, assured of adequate manpower in time of war by the supply of sailors and oarsmen available in the merchant fleet. In contrast to maritime empires, land-based empires such as Persia had to maintain a standing army in defense of their perimeters. As their perimeters expanded, their military requirements multiplied, making them increasingly vulnerable to economic shocks. The Romans, by making the interior support routes of their empire essentially the Mediterranean shipping lanes, managed to combine the best features of the maritime and land-based empires that had preceded them.” (Cameron and Neal 37, 39)

1. **Roman civilization**
   1. “The Roman Empire at its peak, about 117 a.d.” (Cameron and Neal 38 figure 2-7)



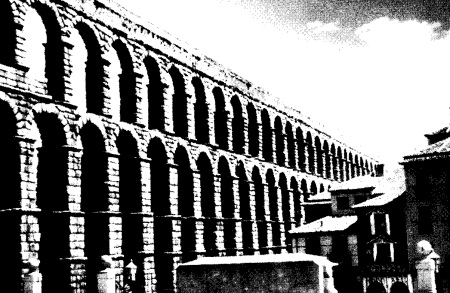
* 1. “The apogee of classical civilization, at least in its economic aspects, occurred during the first and second centuries of the Christian era, under the dominance of Rome . . . Rome had already absorbed Hellenistic culture before mastering the Mediterranean, and with the latter feat it inherited—or appropriated—Hellenistic economic achievements and institutions as well.” (Cameron and Neal 37)
  2. “The Romans were originally an agricultural people, mostly small farmers with a high regard for property rights. In the course of their expansion they became increasingly concerned with military and administrative affairs, but their traditional attachment to the soil lingered. Commerce, on the other hand, did not rate highly in the Roman system of values; it was left in the hands of inferior social classes, foreigners, and even slaves. Nevertheless, the Roman legal system, initially adapted to an agrarian regime but gradually modified by the incorporation of Greek elements, allowed considerable freedom of enterprise and did not penalize commercial activities. In particular, it provided for strict enforcement of contracts and property rights and prompt (and usually equitable) settlement of disputes. As Roman law spread, in the wake of the conquering legions, it provided a uniform, coherent legal framework for economic activity throughout the empire. (Some regions, notably Egypt, were subject to special regimes in which their traditional customs and usages were retained.)” (Cameron and Neal 39)
  3. The Roman economy “was made possible by the highly developed commercial network and the fine division of labor that supported it.” (Cameron and Neal 39)
  4. “Rome’s greatest contribution to economic development was the *pax romana*, the long period of peace and order in the Mediterranean basin that allowed commerce to develop under the most favorable conditions. Although Roman legions were almost constantly involved in conquering new territory, punishing an upstart neighbor, or suppressing a native rebellion, before the third century these disturbances normally took place on the periphery of the empire and rarely disturbed the most active commercial routes. Piracy and brigandage, which had been serious threats to commerce even in the Hellenistic era, were almost completely eliminated.” (Cameron and Neal 39)
  5. “The famed Roman [39] roads were designed for strategic rather than commercial use; wheeled vehicles other than chariots were rarely used, and not at all for long-distance transportation. Yet the roads did facilitate communications and the transportation of light merchandise. The major artery of transportation, however, was the Mediterranean, which flourished as never before—and rarely since—as a highway for commercial traffic.” (Cameron and Neal 39-40)
  6. “Since feeding such a concentrated population [1 million people in Rome at its height] from local resources was manifestly impossible, great fleets were organized to bring wheat from Sicily, North Africa, and Egypt. (These shipments also provided the occasion for one of the major exceptions to the rule of free enterprise; grain was distributed free to as many as 200,000 families of the Roman proletariat. To guard against nondeliveries, which might provoke riots, the government granted special privileges to the agents charged with providing grain, and at times even undertook the task itself.) Although no other city could compare in size or magnificence with Rome at its zenith, many ranged in size from 5,000 to 100,000, and a few, such as Alexandria, were much larger. Probably no sizable area of the world was so highly urbanized again until the nineteenth century.” (Cameron and Neal 39)
  7. population
     1. “The city of Rome alone may have had a population in excess of 1 million people at its height.” (Cameron and Neal 39)
     2. “One major consequence of the *pax romana* was population growth. Estimates of the population of the empire at its height range from 60 million to more than 100 million, with the more recent estimates favoring the latter figure. Unfortunately there are no reliable estimates of the population of the same area at an earlier date, such as the time of Alexander or that of Greek colonization in the eighth century b.c.” (Cameron and Neal 40)
     3. “It is likely . . . that the population of the empire at the death of Marcus Aurelius (180 a.d.) was at least double that of the same area at the death of Julius Caesar (44 b.c.). Growth was most marked in the western Mediterranean, including Italy, because the East was already well populated.” (Cameron and Neal 40)
     4. “In the era of Phoenician and Greek colonization much arable land in the West was totally uninhabited; even during the period of Roman expansion in Italy many areas of the peninsula were sparsely populated. Gaul, which later became one of the largest Roman provinces, with more than 10 million inhabitants, probably had fewer than half that number at the time of the Roman conquest. North Africa and Spain also experienced both prosperity and population growth in the first half of the imperial period.” (Cameron and Neal 40)
  8. average standard of living
     1. “. . . the average standard of living improved concurrently with demographic growth . . . [Improvement] both permitted and encouraged population growth.” (Cameron and Neal 40)
        1. But the extent of improvement is difficult to measure. “. . . one can (with adequate statistical data) compare the purchasing power of the wages of distinct populations in terms of grain or bread, for example, or perhaps the average caloric intake of foodstuffs. But how does one evaluate the relative contributions to material or psychic well-being of Roman circuses and modern transistor radios and television; of travel by foot (even on Roman roads!) and travel by subway, private automobile, or jet aircraft; or of different types of housing, which vary in comfort and convenience with the climatic conditions as well as with their construction characteristics? Moreover, statistics (even if accurate) about “average” or “typical” peasants or urban workers tell us nothing about the relative distribution of income.” (Cameron and Neal 40)
        2. “A distinguished economist, Colin Clark, has estimated that the real earnings of a typical free artisan in Rome in the first century a.d. were approximately equivalent to those of a typical British factory worker in 1850 and to those of an Italian worker in 1929. By extrapolation, this implies that Roman artisans were substantially better off economically than millions of peasants and urban dwellers in Asia, Africa, and Latin America are today.” (Cameron and Neal 40)
     2. slavery
        1. “. . . slaves were numerous in the expansive phase of the empire, when war captives and hostages were plentiful, but much less so in later periods when the empire was on the defensive.” (Cameron and Neal 40)
        2. The ratio of slaves to free people “was also affected by the rate of manumission and the relative birth rates of the slave and free populations; generally, birth rates among [40] slaves are not as high as those of free people.” (Cameron and Neal 40-41)
        3. “Some slaves were no doubt well treated by their masters, especially literate Greeks and others who served as tutors, scribes, household servants, and business agents; but the great majority were employed in agriculture and as common laborers and received little more than bare subsistence.” (Cameron and Neal 41)
        4. “The relative numbers of slaves also affected the price of free labor; freemen rarely worked in such unpleasant and unsafe occupations as mining, but in other areas they might have to compete with the subsistence standards of slaves.” (Cameron and Neal 41)
     3. life expectancy
        1. “Another possible measure of material well-being is the average length of life. [Statistics] reveal little about the relative incidence of disease and other causes of death among different social classes. In general, however, the average length of life in the best years of the empire appears to have been about twenty-five years—a slight improvement over earlier societies but still considerably below all but the very poorest societies in recent times.” (Cameron and Neal 41)
     4. decline and fall
        1. “The “best years of the empire” constituted a transitory period.” (Cameron and Neal 41)
        2. “Even before the death of Marcus Aurelius (180 a.d.), a number of problems foreshadowed the decline of the empire and the economy on which it rested.” (Cameron and Neal 41)
           1. “Germanic incursions from the north” (Cameron and Neal 41)
           2. “localized labor shortages” (Cameron and Neal 41)
           3. “gradual monetary inflation” (Cameron and Neal 41)
           4. “the inefficiency and corruption of the imperial government” (Cameron and Neal 41)
           5. “pirates” (Cameron and Neal 41)
        3. “All of these problems increased in severity in the third century, especially the inflation resulting from the continual debasement of the coinage by a treasury whose expenses always exceeded its revenue. The inflation, however, was symptomatic of more fundamental economic problems caused by the increased extent of the empire and the rising costs of defending its expanding perimeters in the north and the east.” (Cameron and Neal 41)
        4. “The Emperor Diocletian decreed price and wage controls in his Edict of 301 a.d., and he reorganized the bureaucracy and the fiscal system. His reforms and those of his successor Constantine shored up the imperial structure for a time, but they did not deal with the fundamental problems; in fact, they exacerbated them.” (Cameron and Neal 41)
        5. “Economically, the twin pillars of the Roman Empire were agriculture and commerce. Agricultural surpluses (production in excess of that required to maintain the cultivator and his family), though small in terms of the individual cultivator, bulked large when collected and concentrated through taxation. They provided the resources that supported the army, the imperial bureaucracy, and the urban population. Effective marshaling of these surpluses, however, depended on the unimpeded flow of commerce throughout the empire. Barbarian invasions and depredations interfered with this commerce, but perhaps even greater problems were the inefficiency and corruption of the imperial government itself. Pirates again infested the Mediterranean, and robber bands controlled the mountain passes. On occasion the army itself preyed on peaceful commerce.” (Cameron and Neal 41)
        6. incipient feudalism
           1. “Taxation grew steadily heavier, but its burden varied inversely with the benefits government conferred.” (Cameron and Neal 41)
           2. “Many great estates, the property of the nobility, were exempt from taxation, leaving the burden increasingly on those least able to bear it.” (Cameron and Neal 41)
           3. “During the inflation of the third century, when tax revenues fell consistently below the expenditures of the army and the bureaucracy, the government resorted to levies in kind, which Diocletian transformed into a regular system of contribution. Although this drastic measure achieved its purpose in the short run, it subverted the very nature of [41] the economic system of the empire. Production for the market declined. Cultivators, even small proprietors, fled the land and placed themselves under the protection of the great lords, whose tax-exempt estates grew accordingly. Moreover, as trade declined and populations of towns and cities dwindled for lack of provisions, the great estates became more self-sufficient, not only retaining their own food production but instituting metalworking, clothmaking, and other trades as well, thus depriving the towns of their function. It was a vicious spiral of contraction.” (Cameron and Neal 41-42)
           4. “Diocletian’s attempt to fix wages and prices by imperial edict failed almost completely, in spite of the severe penalties it imposed for infractions. In 332 the government resorted to an even more drastic measure, binding cultivators to the soil they tilled and making all occupations and offices—those of farmers, artisans, tradesmen, even municipal officials—compulsorily hereditary. As with the requisitioning of supplies in kind, the measure had some short-run success, but it was even more subversive of the economic system. The economy reverted to a primitive subsistence basis as population declined, towns and cities were deserted, and the villas of the great estates came more and more to resemble fortified castles. By the end of the fourth century [400] the empire in the west was a hollow shell that gradually collapsed under its own weight.” (Cameron and Neal 42)
        7. “The fall of the Roman Empire and the decline (or retrogression) of classical economy were not identical, in spite of their intimate relationship.” (Cameron and Neal 42)
           1. “Had the economy been able to meet the demands made on it by the increasingly parasitic imperial bureaucracy and army, the empire might have lasted for another thousand years—as, indeed, the Eastern or Byzantine Empire did.” (Cameron and Neal 42)
           2. “Conversely, if the empire, the institutional framework within which the economy functioned, had continued to provide efficient protection from both internal and external threats to peaceful productive activities and an effective administration of justice, there is no obvious reason the economy could not have performed as well under the Severi or Diocletian as under the Antonines.” (Cameron and Neal 42)
           3. “A still more fundamental reason for . . . the decline of Rome [is] the lack of technological creativity. This technological sterility stands in sharp contrast to the cultural brilliance of at least some periods of ancient civilization [in] art and literature [and] in philosophy, mathematics, and some branches of science.” (Cameron and Neal 42)

“Some of the properties of steam were known to the ancients, although the only applications were in producing toys and devices to mystify the credulous . . .” (Cameron and Neal 42)

“. . . the waterwheel and windmill were invented at least as early as the first century b.c., but were not widely adopted until the European Middle Ages.” (Cameron and Neal 42)

“Roman engineering ingenuity manifested itself in roads, aqueducts, and domed buildings, but not in labor-saving machinery. Clearly, it was not lack of intelligence that prevented the ancients from contributing more to the progress of technology.” (Cameron and Neal 42)

“Roman aqueduct, in Segovia, Spain . . .” (Cameron and Neal 43 figure 2-7)



“The explanation appears to lie in the socioeconomic structure and the nature of the attitudes and incentives that it generated.” (Cameron and Neal 42)

“Most productive work was done either by slaves or by servile peasants whose status differed little from that of slaves. Even if they had had an opportunity to improve technology, they would have reaped few if any benefits, either in terms of higher incomes or reduced labor.” (Cameron and Neal 42)

“Members of the small privileged classes devoted themselves to war, government, the cultivation of the fine [42] arts and sciences, and conspicuous consumption. They lacked both the experience and the inclination to experiment with the means of production, since labor carried the stigma of menial status.” (Cameron and Neal 42-43)

“Aristotle [384-322 bc], who had perhaps the most encyclopedic knowledge of any ancient philosopher or scientist, believed that the distinction between masters and slaves was biologically determined. For him, it was a part of the natural order of the universe that slaves should labor to provide their masters with the leisure to develop the arts of civilization.” (Cameron and Neal 43)

“Archimedes [287?-212 bc] was a scientific genius who frankly disdained practical application of science; his one concession to practicality was to design a mechanical catapult for the (unsuccessful) defense of his native Syracuse against the Romans.” (Cameron and Neal 43)

“Even St. Paul wrote that “masters and slaves must accept their present stations, for the earthly kingdom could not survive unless some men were free and some were slaves.” (I can’t find this passage. For Paul on slavery, see 1 Cor 7:23; Eph 6:5-9; Col 3:22-4:1; 1 Tim 6:1-2; Titus 2:9-10.—Hahn) (Cameron and Neal 43)

“In view of such attitudes, it is scarcely surprising that little serious thought should have been given to devising methods for lightening the burden of labor or improving the status of the servile masses. A society based on slavery may produce great masterworks of art and literature, but it cannot produce sustained economic growth.” (Cameron and Neal 43)

Ancient Times (Landes)

Introduction

1. **causes of** “**the decline of disease and death**” (Landes xix)
   1. medicine
      1. “Medicine has made enormous strides since Nathan Rothschild’s time. But better, more efficacious medicine—the treatment of illness and repair of injury—is only part of the story.” (Landes xviii)
   2. cleanliness
      1. 28 July 1836: Nathan Rothschild of Frankfurt, “probably the richest man in the world, at least in liquid assets,” dies at 59, [xvii] probably of septicemia. “This was before the germ theory existed, hence before any notion of the importance of cleanliness.” (Landes xvii-xviii)
      2. “Much of the increased life expectancy . . . has come from gains in prevention, cleaner living rather than better medicine. Clean water and expeditious waste removal, plus improvements in personal cleanliness, have made all the difference. For a long time the great killer was gastrointestinal infection, transmitted from waste to hands to food to digestive tract . . . [In privies,] contact with wastes was fostered by want of paper for cleaning and lack of washable underclothing. . . . those religious groups that prescribed washing—the Jews, the Muslims—had lower disease and death rates . . .” (Landes xviii)
      3. “The principal product of the new technology that we know as the Industrial Revolution was cheap, washable cotton; and along with it mass-produced soap made of vegetable oils. For the first time, the common man could afford underwear . . .” (Landes xviii)
      4. c. 1900: commoners “often lived cleaner than the kings and queens of a century earlier.” (Landes xix)
   3. nutrition
      1. “The third element in the decline of disease and death was better nutrition.” (Landes xix)
      2. “This owed much to increases in food supply . . .” (Landes xix)
      3. But it owed “even more to better, faster transport. Famines, often the product of local shortages, became rarer . . .” (Landes xix)
      4. “. . . diet grew more varied and richer in animal protein [which meant] taller, stronger physiques. . . . [In] immigrant populations from poor countries into rich . . . children are taller . . . than their parents.” (Landes xix)
   4. “From these improvements, life expectancy has shot up, while the differences between rich and poor have narrowed. The major causes of adult death are no longer infection, especially gastrointestinal infection, but rather the wasting ailments of old age.” (Landes xix)
2. **technology**
   1. Advances in medicine, hygiene, and nutrition “exemplify a much larger phenomenon: the gains from the application of knowledge and science to technology.” (Landes xix)
   2. “Gains to knowledge have not been evenly distributed, even within rich nations. . . . [There are] sharp contrasts in disease rates and life expectancy. The people of the rich nations worry about their old age, which gets ever longer. They exercise to stay fit, measure and fight cholesterol, while away the time with television, telephone, and games . . . Meanwhile the people of [xix] poor countries . . . try to ensure a secure old age . . . by having lots of children who will grow up with a proper sense of filial obligation.” (Landes xix-xx)
3. **wealth inequality**
   1. Rich and poor “are often styled North and South, because the division is geographic; but a more accurate signifier would be the West and the Rest, because the division is also historic.” (Landes xx)
   2. “Here is the greatest single problem and danger facing the world of the Third Millennium. The only other worry that comes close is environmental deterioration, and the two are intimately connected [because wealth entails . . . not only production but also destruction.” (Landes xx)
   3. 1750
      1. The “gap between richest and poorest [nations] was perhaps 5 to 1 . . .” (Landes xx)
      2. “. . . the difference between Europe and, say, East or South Asia (China or India) was around 1.5 or 2 to 1.” (Landes xx)
   4. 2000
      1. The difference in income per capita between Switzerland and “the poorest nonindustrial country, Mozambique, is about 400 to 1.” (Landes xx)
      2. “If one calculates in real terms (PPP [purchasing power parity, used to compare the values of currencies]), the range in GDP (gross domestic product) is given in *Human Development Report 1996* as 80:1.” (Landes xx n. 3)
      3. “Some countries are not only *not* gaining; they are growing poorer, relatively and sometimes absolutely.” (Landes xx)
      4. “Others are barely holding their own.” (Landes xx)
      5. “Others are catching up.” (Landes xx)
      6. Rich countries must “help the poor become healthier and wealthier.” (Landes xx)
         1. “If we do not, they will seek to take what they cannot make . . .” (Landes xx)
         2. “. . . if they cannot earn by exporting commodities, they will export people.” (Landes xx)
4. **How did we get here**?
   1. “I propose to approach these problems historically [xx] . . . because the best way to understand a problem is to ask: How and why did we get where we are? How did the rich countries get so rich? Why are the poor countries so poor? Why did Europe (“the West”) take the lead in changing the world?” (Landes xx-xxi)
   2. “A historical approach does not ensure an answer.” (Landes xxi)
   3. Most explanations “fall into one of two schools.” (Landes xxi)
      1. “Some see Western wealth and dominion as the triumph of good over bad. The Europeans, they say, were smarter, better organized, harder working; the others were ignorant, arrogant, lazy, backward, superstitious.” (Landes xxi)
      2. Others “see Western wealth and dominion as the triumph of [bad over good]. . . . [Europeans] were aggressive, ruthless, greedy, unscrupulous, hypocritical; their victims were happy, innocent, weak—waiting victims and hence thoroughly victimized.” (Landes xxi)
      3. Both explanations “have elements of truth, as well as of ideological fantasy.” (Landes xxi)
   4. “A third school would argue that the West-Rest dichotomy is simply false. In the large stream of world history, Europe is a latecomer and free rider on the earlier achievements of others. That is patently incorrect. As the historical record shows, for the last thousand years, Europe (the West) has been the prime mover of development and modernity. . . . I prefer truth to goodthink.” (Landes xxi)

Nature’s Inequalities

1. **introduction**
   1. Bandyopadhyaya (*Climate and World Order* vi): “In countries like India, Pakistan, Indonesia, Nigeria and Ghana I have always felt enervated by the slightest physical or mental exertion, whereas in the UK, France, Germany or the US I have always felt reinforced and stimulated by the temperate climate, not only during long stays, but even during brief travels. [15] . . . In India and other tropical countries I have noticed farmers, industrial labourers, and in fact all kinds of manual and office workers working in slow rhythm with long and frequent rest pauses. But in the temperate zone I have noticed the same classes of people working in quick rhythm with great vigour and energy.” (Landes 15-16)
2. **geography as a discipline**
   1. Decades ago, “schools of economic and cultural geography flourished. In France, no one would think of doing a study of regional history without first laying out the material conditions of life and social activity.” (The French Historical School.) (Landes 3)
      1. In the US, “Ellsworth Huntington and his disciples were studying the ways that geography, especially climate, influenced human development.” (Landes 3)
      2. “. . . Huntington gave geography a bad name. . . . he attributed more and more to geography, starting with physical influences and moving on to cultural.” (Landes 3)
      3. “Yet . . . Huntington was simply echoing the tradition of moral geography. Philosophers easily linked environment with temperament (hence the long-standing contrast between cold and hot, between sober thoughtfulness on the one hand, ebullient pleasure seeking on the other); while [in the 1800s] the infant discipline of anthropology [showed] the effects of geography on the distribution of merit and wisdom . . . [Today,] Afro-American mythmakers contrast happy, creative “sun people” with cold, inhuman “ice people.”” (Landes 4)
   2. “That kind of self-congratulatory analysis . . . [lost] acceptability as people became sensitized and hostile to invidious group comparisons. . . . Geography had been tarred with a racist brush, and no one wanted to be contaminated.” (Landes 4)
      1. “Harvard simply abolished its geography department after World War II . . . Michigan, Northwestern, Chicago, Columbia—followed suit . . .” (Landes 4)
      2. Geography has “intellectual weaknesses . . .: the lack of a theoretical basis, the all-embracing opportunism (more euphemistically, the catholic openness) . . .” (Landes 4)
      3. “And yet, if by “racism” we mean the linking, whether for better or worse, of individual performance and behavior to membership in a group, especially a group defined by biology, no subject or discipline can be less racist than geography. [Geography] talks about anything but group-generated characteristics. No one can be praised or blamed for the temperature of the air, or the volume and timing of rainfall, or the lay of the land.” (Landes 4)
3. “My own sense is that geography is discredited [because it] tells an unpleasant truth, namely, that nature like life is [4] unfair, unequal in its favors; further, that nature’s unfairness is not easily remedied.” (Landes 4-5)
4. Yet “the rich countries lie in the temperate zones, particularly in the northern hemisphere; the poor countries, in the tropics and semitropics.” (Landes 5)
   1. John Kenneth Galbraith (“Conditions for Economic Change in Underdeveloped Countries.” *Journal of Farm Economics* 33 [Nov. 1951] 693): if “one marks off a belt a couple of thousand miles in width encircling the earth at the equator one finds within it *no* developed countries. . . . Everywhere the standard of living is low and the span of human life is short.” (Qtd. in Landes 5)
   2. Paul Streeten (“How Poor Are the Poor Countries?” In Seers and Joy, eds. *Development in a Divided World*. 78): “most underdeveloped countries lie in the tropical and semi-tropical zones, between the Tropic of Cancer and Tropic of Capricorn. Recent writers have too easily glossed over this fact and considered it largely fortuitous. This reveals the deep-seated optimistic bias with which we approach problems of development and the reluctance to admit the vast differences in initial conditions with which today’s poor countries are faced compared with the pre-industrial phase of more advanced countries.” (Qtd. in Landes 5)
5. “To be sure, geography is only one factor in play here. Some scholars blame technology and the rich countries that have developed it: they are charged with inventing methods suited to temperate climates, so that potentially fertile tropical soil remains fallow. Others accuse the colonial powers of disrupting the equatorial societies, so that they have lost control of their environment. Thus the slave trade, by depopulating large areas and allowing them to revert to bush, is said to have encouraged the tsetse fly and the spread of trypanosomiasis (sleeping sickness). Most writers prefer to say nothing on the subject.” (Landes 5)
6. “The historian may not erase or rewrite the past to make it more pleasing; and the economist, whose easy assumption that every country is destined to develop sooner or later, must be ready to look hard at failure. Whatever one may say [5] about the weakening of geographical constraints today in an age of tropical medicine and high technology, they have not vanished and were clearly more powerful earlier.” (Landes 5-6)
   1. L. Don Lambert compares the economist to “a doctor who focused only on well people and treated the ill by prescribing the “good life” of the well.” (“The Role of Climate” 339 and n. 1) (Landes 6 n. 9)

Climate

1. **introduction**
   1. “The world shows a wide range of temperatures and temperature patterns, reflecting location, altitude, and the declination of the sun. These differences directly affect the rhythm of activity of all species: in cold, northern winters, some animals simply curl up and hibernate; in hot, shadeless deserts, lizards and serpents seek the cool under rocks or under the earth itself.” (Landes 6)
   2. Mankind “avoids the extremes. . . . Only greed—the discovery of gold or petroleum—or the duties of scientific inquiry can overcome a rational repugnance for such hardship . . .” (Landes 6)
2. **heat**
   1. “In general the discomfort of heat exceeds that of cold.” (Landes 6)
      1. In the late 1700s, “English cultivators lived snug and warm thanks to coal fuel, [but] French peasants often kept to bed in winter, thereby aggravating their poverty by forced idleness.” (Landes 6 n. \*)
   2. Clothing, shelter, and fire “go back tens of thousands of years and account for the early dispersion of humanity from an African origin to colder climes.” (Landes 6)
   3. “Three quarters of the energy released by working muscle takes the form of heat, which the body” must release. (Landes 6)
      1. perspiration: but “Damp, “sweaty” climes reduce the cooling effect of perspiration . . .” (Landes 6)
      2. fans: “a servant or slave to work a fan [will] speed up evaporation. Fanning oneself may help psychologically, but the real cooling effect will be canceled by the heat produced by the motor activity.” (Landes 6)
   4. “The easiest way to reduce this waste problem is not to generate heat; in other words, keep still and don’t work. Hence such social adaptations as the siesta . . .” (Landes 6)
   5. slaves and women
      1. “Slavery makes other people do the hard work. It is no accident that slave labor has historically been associated with tropical and semitropical climes.” (Landes 7)
         1. Adam Smith (*Wealth of Nations* book 4 ch 7 part 2): “In all European colonies the culture of the sugar-cane is carried on by negro slaves. The constitution of those who have been born in the temperate climate of Europe could not, it is supposed, support the labour of digging the ground under the burning sun.” (Landes 7 n. \*)
      2. “The same holds for division of labor by gender: in warm lands particularly, the women toil in the fields and tend to housework, while the men specialize in warfare and hunting; or in modern society, in coffee, cards, and motor vehicles. The aim is to shift the work and pain to those not able to say no.” (Landes 7)
   6. air conditioning
      1. Before WWII, the US had air conditioning “in cinemas, doctors’ and dentists’ offices, and . . . the Pentagon.” (Landes 7)
      2. But “Air conditioning came in . . . really after World War II . . .” (Landes 7)
      3. Air conditioning “made possible the economic prosperity of the New South. Without it, cities like Atlanta, Houston, and New Orleans would still be sleepy-time towns.” (Landes 7)
      4. AC “redistributes the heat from the fortunate to the unfortunate. It needs and consumes energy, which generates heat in both the making and using . . .” (Landes 7)
      5. objection
         1. Blaut (*The Colonizer*’*s Model* 70): humans “can labor as effectively in the tropics as elsewhere if the bodies in question have had time to adjust to tropical conditions.” (Landes 7 n. †)
         2. But “Blaut is ideologically opposed to the notion that the favors of nature may be unequally distributed.” (Landes 7 n. †)
      6. “But air cooling is a costly technology, not affordable by most of the world’s poor.” (Landes 7)
3. **disease**
   1. introduction
      1. “Heat, especially year-round heat, . . . encourages . . . life forms hostile to man.” (Landes 7)
      2. “Insects swarm as the temperature rises, and parasites within them mature and breed more rapidly. . . . This rate of reproduction is the critical measure of the danger of epidemic: a rate of 1 means that the disease is stable—one [7] new case for one old. For infectious diseases like mumps or diphtheria, the maximum rate is about 8. For malaria it is 90.” (Landes 7-8)
      3. “Tropical countries, except at higher altitudes, do not know frost; average temperature in the coldest month runs above 18°C. As a result they are a hive of biological activity, much of it destructive to human beings. Sub-Saharan Africa threatens all who live or go there. We are only beginning to know the extent of the problem because of the appearance of new nations with armies and medical examinations for recruits. We now know for example that many people harbor not one parasite but several; hence are too sick to work and are steadily deteriorating.” (Landes 8)
      4. “Not until the second half of the nineteenth century did the germ theory of disease lay the basis for directed research and effective prevention and treatment.” (Landes 10)
   2. tropical diseases
      1. table 1.1: tropical diseases (World Health Organization, 1990) (Landes 10)

|  |  |  |  |
| --- | --- | --- | --- |
| *disease* | *number at risk* (*1*,*000*,*000*) | *number infected* (*1000*) | *countries affected* |
| malaria | 2,100 | 270,000 | 103 |
| leprosy | 1,600 | 10-12,000 | 121 |
| lymphatic filariasis | 900 | 90,000 | 76 |
| schistosomiasis | 600 | 200,000 | 76 |
| leishmaniasis | 350 | 12,000 | 80 |
| river blindness | 90 | 17,000 | 34 |
| Chagas’ disease | 90 | 16-18,000 | 21 |
| African sleeping  sickness | 50 | 25 | 36 |

* + 1. examples
       1. malaria
          1. Malaria is “the biggest killer worldwide . . .” (Landes 10)
          2. Before germ theory, “physicians attributed “fevers” to marshy miasmas . . . So the French in Algeria . . . undertook systematic drainage of swamps to get rid of bad air (*malaria*). [This] banished mosquitoes. Military deaths from malaria fell by 61 percent in the period 1846-48 to 1862-66 [10] . . . French policies . . . enabled millions of Algerians to live longer and healthier. (To which an Algerian Muslim might reply, drainage also increased the land available for European colonists.)” (Landes 10-11)
       2. schistosomiasis
          1. “Warm African and Asian waters . . . harbor a snail that is home to a worm (schistosome) that reproduces by releasing thousands of minute tailed larvae (*cercariae*) into the water to seek and enter a mammal host body through bites or scratches or other breaks in the skin. Once comfortably lodged in a vein, the larvae grow into small worms and mate. The females lay thousands of thorned eggs—thorned to prevent the host from dislodging them. These make their way to liver or intestines, tearing tissues as they go. The effect on organs may be imagined: they waste the liver, cause intestinal bleeding, produce carcinogenic lesions, interfere with digestion and elimination. The victim comes down with chills and fever, suffers all manner of aches, is unable to work, and is so vulnerable to other illnesses and parasites that it is often hard to say what is killing him.” (Landes 8)
          2. “We know this scourge as snail fever, liver fluke, or, in more scientific jargon, as *schistosomiasis* or *bilharzia*, after the physician who first linked the worm to the disease in 1852. It is particularly widespread in tropical Africa, but afflicts the whole of that continent, plus semitropical areas in Asia and, in a related form, South America. It poses a particular problem wherever people work in water—in wet rice cultivation, for example.” (Landes 8)
          3. “In recent decades, medical science has come up with a number of partial remedies, although the destructive power of these vermicides makes the cure almost as bad as the disease. The same for chemical attacks on the snail host: the molluscicides kill the fish as well as the snails.” (Landes 8)
       3. trypanosomiasis
          1. *Trypanosomiasis* is “a family of illnesses that includes nagana (an animal disease), sleeping sickness, and in South America Chagas’ disease.” (Landes 9)
          2. Trypanosomes are “parasitic protozoans so named because of their augur-shaped bodies; they arc borers.” (Landes 9)
          3. “We now know a hundred of these; there may be thousands.” (Landes 9)
          4. They can alter their antigens. “The body’s immune system cannot fight it, because it cannot find it. The only hope for resistance, then, is drugs—still in the experimental stage—and attacks on the vector.” (Landes 9)
          5. “In the case of African trypanosomiasis, the vector is the tsetse fly, a nasty little insect that would dry up and die without frequent sucks of mammal blood. Even today, with powerful drugs available, the density of these insects makes large areas of tropical Africa uninhabitable by cattle and hostile to humans. In the past, before the advent of scientific tropical medicine and pharmacology, the entire economy was distorted by this scourge: animal husbandry and transport were impossible; only goods of high value and low volume could be moved, and then only by human porters. Needless to say, volunteers for this work were not forthcoming. The solution was found in slavery, its own kind of habit-forming plague, exposing much of the continent to unending raids and insecurity. All of these factors discouraged intertribal commerce and communication and made urban life, with its dependence on food from outside, just about unviable. The effect was to slow the exchanges that drive cultural and technological development.” (Landes 9)

Some “see the slave trade as not indigenous but rather imported by the European demand for labor. This trade “changed trypanosomiasis from an endemic disease to which both humans and cattle had some immunity and exposure, which was kept in check by the relatively full occupation of lands into a devastating disease that, since the end of the last century, has indeed prevented the development of animal husbandry in some areas of Africa.”” (Blaut *Colonizer*’*s Model* 79-80) (Landes 9 n. \*)

“. . . there is abundant testimony to the existence of slavery in Africa long before the coming of the Europeans, as well as of an active slave trade by Arabs seeking captives for Muslim lands. Gordon, *Slavery*, pp. 105-27. On the other land, whatever the origins and effects of these earlier manifestations, the Atlantic trade certainly aggravated them. Cf. Law, “Dahomey and the Slave Trade”; and Lovejoy, “Impact.” Even here, however, Eltis, *Economic Growth*, p. 77, disagrees.” (Landes 9 n. \*)

* + 1. Public hygiene (preventing illness) and medicine (curing once ill) have dramatically raised life expectancy. (Landes 11)
       1. 1992: babies in low-income economies (over 1 billion people, excluding China and India) have a life expectancy of 56.
       2. 1992: babies in rich economies (828 million) have a life expectancy of 77.
       3. This 37.5% difference, “smaller than before, will get smaller yet as poor countries grow richer and gains in longevity in rich societies bump up against a biological ceiling and the environmental diseases of affluence.
       4. The biggest improvement is infant (under one year) mortality. (Landes 11)

|  |  |  |
| --- | --- | --- |
| infant deaths per 1000 live births (Landes 11)  (World Bank, *World Development Report 1991* and *World Development Report 1994*) | | |
|  | 1965 | 1992 |
| poor countries | 146 | 91 |
| India and China | 114 | India 79, China 31 |
| rich countries | 25 | 7 (“They can’t go much lower.”) |

* + - 1. “In the tropics, antibiotics, inoculations, and vaccinations save people, but often to live sickly lives.” (Landes 11)
    1. 1990: “most people with tropical illnesses lived in countries with average annual incomes of less than $400. Their governments were spending less than $4 per person on health care. No surprise, then, that pharmaceutical companies, which say it [11] costs about $100 million to develop a drug or vaccine and bring it to market, are reluctant to cater for that kind of customer.” (Landes 11-12)
    2. “Even in rich countries, the cost of medication can exceed patients’ resources and the tolerance of medical insurance.” (Landes 12)

1. **water**
   1. “Tropical areas generally average enough rainfall, but the timing is often irregular and unpredictable, the downpours anything but gentle. The drops are large; the rate of fall torrential. The averages mean nothing when one goes from one extreme to the other, from one year or season or one day to the next.” (Landes 13)
      1. “In northern Nigeria, 90 percent of all rain falls in storms of over 25 mm. per hour; that makes half the average monthly rainfall at Kew Gardens, outside London.” (Landes 13)
      2. In Java, ¼ “of the annual rainfall comes down at 60 mm. per hour.” (Landes 13)
   2. “In such climes, cultivation does not compete easily with jungle and rain forest: these treasure houses of biodiversity favor every species but man and his limited array of crops. The result is a kind of war that leaves both nature and man losers. Attempts to cut down valuable plants and timber take the form of wasteful, slashing hunts. Nor does the exuberance of the jungle offer a good clue to what is possible under cultivation. Clear and plant, and the unshaded sun beats down; heavy rains pelt the ground—their fall unbroken by leaves and branches—leach out soil nutrients, create a new kind of waste. If the soil is clayey, composed in large part of iron and aluminum oxides, sun plus rain bakes the ground into a hard coat of armor. Two or three years of crops are followed by an indefinite forced fallow. Newly cleared ground is rapidly abandoned, and soon the vines and tendrils choke the presumptuous dwellings and temples. Again towns cannot thrive, for they need to draw on food surpluses from surrounding areas. Urbanization in Africa today, often chaotic, rests heavily on food imports from abroad.” (Landes 13)
   3. “At the other extreme, dry areas turn to desert, and the sands of the desert become an implacable invader, smothering once fertile lands on the periphery. Around 1970, the Sahara was advancing into the Sahel at the rate of 18 feet an hour—in geological terms, a gallop. Such expansions of wasteland are a problem in all semi-arid climes: on the Great Plains of the United States (remember the Okies of Steinbeck’s *Grapes of Wrath*), in the Israeli Negev and the lands just east of the Jordan, in western Siberia. Less rainfall, and the crops die of thirst and the topsoil blows away. In temperate latitudes, however, the crops come back when rainfall picks up; tropical and semitropical deserts are less forgiving.” (Landes 13)
   4. “One answer to irregular moisture is storage and irrigation; but this is countered in these regions by incredibly high rates of evaporation. In the Agra region of India, for example, rainfall exceeds the current needs of agriculture for only two months in the year, and the excess held in the soil in those wet months dries up in only three weeks.” (Landes 14)
   5. “It is no accident, then, that settlement and civilization followed the rivers, which bring down water from catchment areas and with it an annual deposit of fertile soil: thus the Nile, the Indus, the Tigris and Euphrates. These centers of ancient civilization were first and foremost centers of nourishment—though the Bible reminds us that even the Egyptians had to worry about famine.” (Landes 14)
   6. “The Volta drains over 100,000 square kilometers in West Africa—half the area of Great Britain—but when low, averages at its mouth a meager flow of only 28 cubic meters per second, as against 3,500-9,800 at the peak. Drought in the Volta basin comes at the hottest and windiest time of year, and loss of water to evaporation is discouragingly high.” (Kamarck *Tropics and Economic Development* 16) (Landes 14)
   7. “Then we have the catastrophes—the so-called once-in-a-hundred-year floods and storms and droughts that happen once or twice every decade. In 1961-70, some twenty-two countries in “climatically hostile areas” (flood-prone, drought-prone, deserts) suffered almost $10 billion in damages from cyclones, typhoons, droughts, and similar disasters—almost as much as they got in loans from the World Bank, leaving just about nothing for development. The cyclone of 1970 in Bangladesh, which is a sea-level plain and easily awash, killed about half a million and drove twice that number from their homes. In India, which has been striving to achieve 2-3 percent annual growth in food crops, one bad growing season can lower output by over 15 percent.24 The impact of such unexceptional exceptions can be extremely costly even to rich societies, witness the losses due to Hurricane Andrew in 1992 and the great midwestern floods of 1993 and 1997 in the United States. For marginally poor populations living on the edge of subsistence, the effects are murderous. We know something about these if there are television cameras present; if not, who hears or sees the millions who drown and starve? And if they are unheard and unseen, who cares?” (Landes 14)
2. **habits and institutions**
   1. “Finally, habits and institutions can favor disease and thwart medical solutions.” (Landes 12)
   2. Look at AIDS in Africa. In contrast to other places, the disease afflicts women and men equally, originating overwhelmingly in heterosexual contacts. Epidemiologists are still seeking answers, but among the suggested factors are: widespread and expected male promiscuity; recourse to anal sex as a technique of birth control; and the persistent wound of female circumcision (clitorectomy), intended as a deterrent to sexual pleasure and appetite. None of these vectors is properly medical . . .” (Landes 12)
   3. “Aside from material constraints, modern medicine must also reckon with ideological and religious obstacles—everywhere, but more so in poorer, technically backward societies. Traditional nostrums and magical invocations may be preferred to foreign, godless remedies. A science-oriented Westerner will dismiss such practices as superstition and ignorance. Yet they may offer psychosomatic relief, and native potions, even if not chemically pure and concentrated, do sometimes work. That is why modern scientists and drug companies spend money exploring the virtues of exotic *materia medica*.” (Landes 12)
   4. “. . . anticolonist resentment and a sentimental attachment to indigenous culture [have] given rise to political and anthropological criticisms of tropical (modern) medicine and a defense, however guarded, of “alternative” practice.” (Landes 12)
      1. “. . . this literature argues . . . that Europe-drawn frontiers and European-style commercial agriculture have wiped out traditional barriers to disease vectors (bugs, parasites, etc.).” (Landes 12)
      2. “. . . medical tests and precautions may be seen as condescending and exploitative.” (Landes 13)
3. **conclusion**
   1. “No wonder that these zones [“poor climes”] remain poor; that many of them have been growing poorer . . .” (Landes 14)
   2. In Africa, “morbidity remains high, nourishment is inadequate, famine follows famine, and productivity stays low. Once able to feed its population, it can do so no longer. Foreign aid is primarily food aid. People there operate at a fraction of their potential.” (Landes 15)
   3. “Yet it would be a mistake to see geography as destiny. Its significance *can* be reduced or evaded, though invariably at a price. Science and technology are the key: the more we know, the more can be done . . .” (Landes 15)

China

Introduction

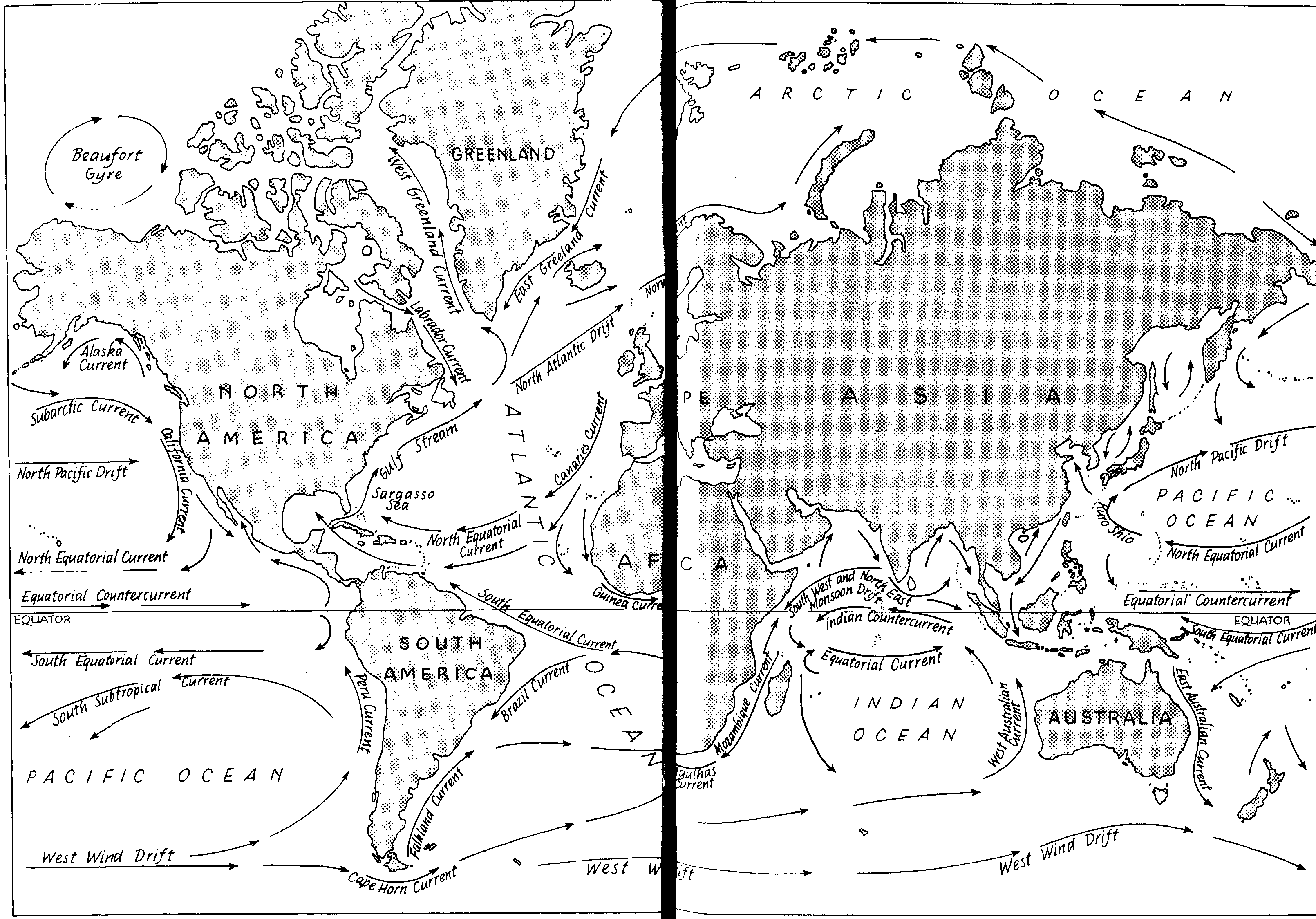
1. **introduction**
   1. March thinks “Asia” “reflects ideological and class interests . . .” March (*Idea of China* 29): “Our modern ‘Asia’ is perpetuated not for science but on behalf of those strata whose care is to maintain the ideal of western civilisation and who benefit from its sacred myths of individualism, private property, and aggressive defence of liberty.” (Landes 40 n. 14)
   2. In China, “agriculture teems . . . and mankind swarms.” (Landes 23)
   3. “Anyone who wants to understand world economic history must study China, the most precocious and long the most successful developer of all. Here is a country with some 7 percent of the earth’s land area that supports some 21 percent of the world’s population.” (Landes 23)
   4. “Some 65 percent of China is mountain, hill, and plateau.” (Leeming *Changing Geography* 11-12) (Landes 535 n. 7)
2. **neolithic revolution** (c. 8000-3000 bc)
   1. The neolithic revolution took “thousands of years to work itself out. Its focus had been the invention of agriculture and the domestication of livestock, both of which had enormously augmented the energy available for work. (All economic [industrial] revolutions have at their core an enhancement of the supply of energy, because this feeds and changes all aspects of human [40] activity.)” (Landes 40-41)
   2. “This shift away from hunting and gathering, bringing a leap in the supply of nourishment, permitted a substantial growth of population and a new pattern of concentrated settlement. It was the Neolithic revolution that made possible towns and cities, with all that they yielded in cultural and technical exchange and enrichment . . .” (Landes 41)
3. **river-valley civilizations**
   1. dictatorship
      1. “Along rivers, control of food fell inevitably to those who held the stream and the canals it fed. Centralized government appeared early, because the master of food was master of people. (The biblical account of Joseph and Pharaoh tells this process in allegory. In order to get food, the starving Egyptians gave up to Pharaoh first their money, then their livestock, then their land, then their persons [Genesis 47:13-22].) Nothing like this was possible in Europe.” (Landes 18)
   2. “Averages are deceiving. Monsoon rains, generous over time, vary a lot from season to season and year to year. Floods and droughts *are* the norm.” (Landes 21)
   3. population
      1. “In China and India, repair and replenishment [after monsoon rains] were that much more urgent. Even without catastrophe, the demand for labor in the rainy season and the big yields of wet cultivation promoted high densities of population—30 times that of Africa per unit of arable, 40 [21] times that of Europe, 100 times that of America.” (Landes 21-22)
      2. “Hence early and almost universal marriage, without regard to material resources.” (Landes 22)
      3. “In effect, this pattern of maximum reproduction enhanced political power, in terms both of combat fodder and of material for territorial expansion. [Untimately this was the cause] of Chinese aggrandizement over less prolific societies.” (Landes 22 n. \*)
   4. “Because of dependence on artifice, such societies were highly vulnerable.” (Landes 21 n. ‡)
      1. 1300s example: “the destruction . . . by Timur and his Tartar hordes of the cisterns and water delivery systems of Persia was never repaired and turned a once populous, fertile land into a waste. The kingdoms and peoples of that area never recovered.” (Landes 21 n. ‡)
4. **autocracy**
   1. “. . . the salient characteristic of despotism [was] that the ruler, who was viewed as a god or as partaking of the divine, thus different from and far above his subjects, could do as he pleased with their lives and things, which they held at his pleasure. And what was true for the ruler was true for his henchmen. The martial aristocracy typically had monopoly of weapons, and ordinary folk were careful not to offend [31] them, arouse their cupidity, or even attract their attention; to look them in the eye was an act of impudence that invited severest punishment.” (Landes 31-32)
   2. “Today, of course, we recognize that such contingency of ownership stifles enterprise and stunts development; for why should anyone invest capital or labor in the creation or acquisition of wealth that he may not be allowed to keep? In the words of Edmund Burke [*Tract on the Popery Laws*], “a law against property is a law against industry.” In Asian despotisms, however, such arrangements were seen as the very raison d’être of human society: what did ordinary people exist for, except to enhance the pleasure of their rulers?” (Landes 32)
   3. “Aristocratic (despotic) empires were characteristically squeeze operations: when the elites wanted more, they did not think in terms of gains in productivity. Where would these have come from? They simply pressed (and oppressed) harder . . . only societies with room for multiple initiatives, from below more than from above, could think in terms of a growing pie.” (Landes 32)
   4. “In China, even when the state did not take, it oversaw, regulated, and repressed. Authority should not have to depend on goodwill . . . [In 300 bc] a Chinese moralist [told] a prince how to rule, not by winning the affection of his subjects but by ensuring their obedience. A prince cannot see and hear everything, so he must turn the entire empire into his eyes and ears. . . . Such a system depends on the honesty and capacity of the living eyes and ears. The ruler is at the mercy of ambitious subordinates, whose capacity for deception and hypocrisy is unbounded. The weakness of autocracy is in the human raw material. Fortunately.” (Landes )
   5. Balazs (*La bureaucratie celeste* 22-23) calls the system “totalitarian”: “No private undertaking nor any aspect of public life could escape official regulation. In the first place there was a whole series of state monopolies . . . But the tentacles of the Moloch state, the omnipotence of the bureaucracy, extended far beyond that. . . . This welfare state superintended, to the minutest detail, every step its subjects took from the cradle to the grave.” (Qtd. in Landes 36)
   6. John Fairbank (*The United States and China* 47): oriental societies were “organized under centralized monolithic governments in which the [535] bureaucracy was dominant in almost all aspects of large-scale activity—administrative, military, religious, and economic—so that no sanction for private enterprise ever became established . . .” (Landes 536 n. 6)
   7. “Ecumenical empires did not fear flight, especially when, like China, they defined themselves as the center of the universe, the hearth and home of civilization, and everything outside as barbarian darkness. There was no other place to go, so that symbolic boundaries were enough, like the “willow palisade,” a low wall that ran from the Great Wall to the sea and separated China from the Mongol-Tartar lands to the north.” (Landes 36)
      1. The Qianlong Emperor (r. 1735-96): “In our erection of boundaries and regulation of people, . . . it is enough simply to tie a rope to indicate prohibition. . . . Insofar as the idea exists and the framework is there, there is no need to elaborate.” (Qtd. from Edmonds *Northern Frontiers* 55) (Qtd. in Landes 36)

China

1. **disease**
   1. Worm infestations “plagued China and India.” (Landes 20-21)
      1. Berg, Alan D. “Malnutrition and National Development.” *Foreign Affairs* 46.1 (Oct. 1967) 126-36. (See 126-29, effect “of disease and malnutrition for economic performance . . .” Landes 535 n. 4)
      2. Eric Jones (*The European Miracle* 6-7): “Faeces discharged into water made China the world reservoir of lung, liver and intestinal flukes and the Oriental schistosome, all serious causes of chronic illness. Human excreta were used as a fertiliser, and soil-transmitted helminth [parasitic worms] infestation was an occupational hazard for the farmer. According to Han Suyin there was ninety per cent worm infestation among children in Peking in the early twentieth century . . . this was the penalty for a dense population operating irrigation agriculture in a warm climate, with inadequate sources of fertiliser.” (Qtd. in Landes 21 n. \*)
      3. “India, with [public defecation], often in streams and rivers that also served for washing and drinking, may have been in even worse shape.” (Landes 21 n. \*)
2. **population**
   1. 1700 bc: “some peoples at the eastern end of the Asian steppe exchanged nomadic pastoralism for the higher yields of sedentary agriculture. From the beginning, their chiefs saw the link between numbers, food, and power. Their political wisdom may be inferred from (1) their mobilization of potential cultivators, assigned to (planted in) potentially arable soil; (2) their storage of grain to feed future armies; (3) their focus on food supply to fixed administrative centers (as against camps).” (Landes 23)
   2. ad 1-1000: “perhaps 60 million people crowded what was to become the northern edge of China—a huge number for a small territory. This number more or less held over the next millennium . . .” (Landes 23)
      1. “The Record of the Three Kingdoms” (c. ad 200): “Ts’ao Ts’ao said: “It is by strong soldiers and a sufficiency of food that a state is established. The men of Ch’in took possession of the empire by giving urgent attention to farming. Hsiao-wu made use of military colonies to bring order to the western regions. This is a good method used by former generations.” In this year he recruited commoners to farm state colonies around Hsu [in central Honan] and obtained a million measures of grain. Then he . . . marched out on campaign in every direction. There was no [23] need to expend effort on the transport of grain. In consequence he destroyed the swarms of bandits [the forces of rival political chiefs] and brought peace to the empire.” (Qtd. from Elvin *Pattern of the Chinese Past* 37) (Qtd. in Landes 23-24)
      2. “The Record of the Three Kingdoms” (c. ad 200): “it was desired to extend the area under cultivation and to amass a supply of grain that would make it possible to destroy the ‘bandits.’ [To do this,] it would also be necessary to excavate canals to provide water for irrigation, to make possible the accumulation of large supplies of grain for the troops, and to serve as routes for the transport of the government grain. . . . Within six or seven years thirty million measures of grain would be stockpiled on the Huai. This would be enough to feed 100,000 men for five years. Wu would thus be conquered and [Wei] arms prevail everywhere.” (Qtd. from Elvin *Pattern of the Chinese Past* 37) (Qtd. in Landes 24)
   3. 900-1200: population “almost doubled, to around 120 million.” (Landes 23)
   4. 1200s-1300s: “At that point came a setback, due largely to the pandemics also scourging Europe and the Middle East . . .” (Landes 23)
   5. 1400: “a trough of 65-80 million . . .” (Landes 23)
   6. 1650: 100-150 million
   7. 1750: 200-250 million
   8. 1800: 300 million
   9. 1850: 400 million
   10. 1950: 650 million
   11. 2000: 1.2 billion, “more than one fifth of the world total.” (Landes 23)
       1. “This extraordinary increase is the result of a long-standing (up to now) reproductive strategy: early, universal marriage and lots of children. That takes food, and the food in turn takes people. Treadmill.” (Landes 23)
       2. “This erratic seesaw of labor-hungry soil and food-hungry labor inevitably brought times and places of want, even famine. No room for animals.” (Landes 24)
          1. Shu Hsi (*Chin History*, c. ad 300): “The situation is especially bad in the San-Wei, and yet grazing lands for pigs, sheep, and horses are spread throughout this region. All of these should be done away with, so that provision may be made for those with no or little land. . . . All the pasturages should be removed, so that [men] may receive land from the bounty of the state.” (Qtd. from Elvin *Pattern of the Chinese Past* 39) (Qtd. in Landes 24)
   12. “State and the society were always striving for new land and higher yields, making and using people in order to feed people.” (Landes 24)
       1. Under Emperor T’ai-wu (424-52), “Families were listed, numbers were counted, labor duties and performance clearly recorded.” (Landes 24)
       2. Wei Shou (*Wei History*, 500s ad): under T’ai-wu, “They were also forbidden to drink wine, to attend theatrical entertainments, or to abandon agriculture for wine-making or trade.” (Qtd. from Elvin *Pattern of the Chinese Past* 45) (Qtd. in Landes 24)
       3. “No time, then, for fun or money. Only for growing food and making children.” (Landes 24)
3. **stages of China**’**s development**
   1. “Viewed over time, the treadmill process shows a number of stages . . .” (Landes 24)
   2. “1. The Chinese, or Han people, as they came to call themselves, started in the north, in the forests edging the barren inner Asian steppe. They cleared the land (by fire?) and worked it as hard as they could; but what with irregular rainfall and no trees to hold the soil, severe erosion soon killed the yield. They then moved, not into the open dry lands to the west, which could not support an already dense population, but south, on to the loess soils along the upper Yellow River.” (Landes 25)
      1. “Loess is a loose loam, ranging from clayey soil to sand, fertile if well watered, well suited to cereal crops. It was not the richest land within reach, but rich enough, and it possessed the virtue of being easy to work because it did not carry heavy timber and could be cleared and cultivated with nonmetal instruments.” (Landes 25 n. \*)
      2. “In the western parts of North China, the primary loess deposits run as much as 250 meters deep. The soil is fine and friable [crumbly, powdery], hence easily plowed.” (Bray “Swords into Plowshares” 23. Lattimore *Inner Asian Frontiers* 29-30.) (Landes 25 n. \*)
      3. “On the critical importance of ease of cultivation as against potential fertility in the early stages of agriculture, see above on the European experience.” (Landes 25 n. \*)
      4. “. . . agricultural anthropologist-archeologist Carl Sauer . . . stressed the impor­tance of a soil “amenable to few and weak tools,” and noted that the American Indians first cultivated poorer but more workable soils.” (Lattimore *Inner Asian Frontiers* 29-30) (Landes 25 n. \*)
      5. “Loess agriculture was a school for water control and irrigation technology.” (Landes 25)
   3. dry farming
      1. “2. . . . the next move [was] into the wetter, more fertile, but also more precarious river basin environment of the lower Yellow River and its branches.” (Landes 25)
      2. “Irregular precipitation upstream led to large variations in the volume of water, and the build-up of alluvial deposits at the great eastward bend had the Yellow River changing course all over the place as it splashed and poured into the Great Plain. Hence the nickname: China’s Sorrow.” (Landes 25 n. †)
      3. By 500 bc “the Chinese had learned to improve the supply and use of water by means of artificial devices and arrangements; were making use of draft animals (above all, the water buffalo) for plowing; were weeding intensively; and were putting down animal waste, including night soil, as fertilizer. All of this required prodigious labor, but the work paid off. Yields shot to a high of 1,100 liters of grain per hectare, which would have left a substantial surplus for the maintenance of nonfood producers. The Chinese energy system was in place.” (Landes 25)
      4. In the Yellow River basin “the Han came to know rice, a crop that yielded many more calories per area, although the traditional cereals—millet, sorghum, barley—remained important. Wheat came later.” (Landes 25)
   4. wet farming (?)
      1. “3. . . . between [ad 700-1300 was] a second agricultural revolution.” (Landes 25)
      2. “The Han people kept moving south, into [25] the Yangtze basin and beyond, pushing slash-and-burn, itinerant aboriginals aside or before. Most of these eventually found shelter in the mountains and other areas unsuited to intensive cultivation. They still live there—China’s largest minority.” (Landes 25-26)
      3. “In this wetter, warmer clime, mild winters and long summers permitted full double cropping: winter wheat, for example, harvested in May, and summer rice planted in June and harvested in October or November. Where conditions permitted, the Chinese went beyond this, over to rice gardening in submerged paddies. Taking quicker-growing varieties, they got three or more crops per year. To do this, they saved and applied every drop of dung and feces; weeded incessantly; and maximized land use by raising seedlings in nurseries (high density) and then transplanting the mature shoots (needing more space) to the rice fields. In economic terms, they substituted labor for land, using sixty and eighty persons per hectare where an American wheat farmer would use one, and obtaining yields double and triple the already good results achieved in dry farming—as much as 2,700 liters per hectare. At the maximum, a thousand people could live on the food produced by a square kilometer.” (Landes 26)
         1. Jones (*European Miracle*): “By the thirteenth century China thus had what was probably the most sophisticated agriculture in the world, India being the only conceivable rival.” (Qtd. in Landes 26)
      4. animals
         1. “All of this left little room for animals, except those needed for plowing and hauling and as mounts for the army.” (Landes 26)
         2. “The pig was another exception—China’s great scavenger and primary source of meat for the rich man’s table.” (Landes 26)
         3. “But few cattle or sheep: the Chinese diet knew little of dairy products or animal protein . . .” (Landes 26)
         4. “. . . wool clothing was largely unknown. When the British tried to sell their woolens to the Chinese, they were told their cloths were too scratchy for people used to cotton and silk.” (Landes 26)
   5. “4. Later innovations added marginally to the Chinese granary.” (Landes 26)
      1. 1600s-1700s: “new plants were taken from distant lands—peanuts, potatoes, sweet potatoes, yams. These grew well in dryer uplands, but in the last analysis, they were only a supplement to a rice complex that could no longer keep up with demand.” (Landes 26)
      2. “Ingenuity and labor can still increase farm output, if not of rice and cereals, then of accessory crops [including] increase in fish crop and savings in fertilizer.” (Berstein, Emily M. “Ecologists Improve Production in Chinese Farming Village.” *New York Times* [10 Aug. 1993] C4.) (Landes 26 n. \*)
   6. “5. The overwhelming concentration on rice yielded a mix of good and bad.” (Landes 26)
      1. “The appetite of rice for nutrients (particularly phosphate and [26] potash) is lower than that of other food staples . . .” (Landes 26-27)
      2. “Rice is a tough grain: it grows in diverse habitats and is the only cereal that will give good yields on poor soil year after year so long as it gets enough water.” (Landes 27)
      3. Rice requires more labor than other food staples. (Landes 27)
      4. “Its caloric yield per acre exceeds that of temperate zone grains such as wheat, rye, and oats . . .” (Landes 27)
      5. But “its protein . . . is only about half . . .” (Chang “Agricultural Potential” 338) (Landes 27)
         1. But see Debeir et al. (*In the Servitude of Power* 47): compared to wheat and corn, paddy (unhusked) rice is superior “because of the quality of its proteins and its richness in essential amino acids.” (Qtd. in Landes 27 n. 12)
      6. “. . . wading in water paddies and . . . use of human feces as fertilizer has meant high exposure to schistosomes and other nasty parasites, with loss to productivity and hence higher labor requirements.” (Landes 27)
4. **analysis**
   1. “This labor-intensive, water-intensive energy model had important consequences for Chinese history.” (Landes 27)
   2. “For one thing, reliance on the indigenous population meant that the Chinese never sought to incorporate foreign slaves into their workforce. (To be sure, many of their own population lived in bondage, though they were not chattel slaves.)” (Landes 27)
   3. “For another, they did expand by sheer force of numbers. It was very hard for sparsely distributed, less organized, and technically less advanced groups to keep the Chinese out.” (Landes 27)
   4. “At the same time, the management of water called for supralocal power and promoted imperial authority.” (Landes 27)
      1. “This link between water and power was early noted by European observers, going back to Montesquieu and reappearing in Hegel, later copied by Marx.” (Landes 27)
      2. “The most detailed analysis [was by] Karl Wittfogel, who gave to water-based rule the name of Oriental despotism, with all the dominance and servitude that that implies.” (Wittfogel, Karl A. *Oriental Despotism*: *A Comparative Study of Total Power*.) (Landes 27)
      3. Others have offered analogous arguments, prudently shorn of portentous social and cultural implications.” [27] Chi Ch’ao-ting (*Key Economic Areas in Chinese History*) shows that “he who controlled the big granaries held the key to the kingdom.” (Landes 27, 27 n. 14)
   5. anti-hydraulics
      1. “The hydraulic thesis has been roundly criticized by a generation of Western sinologists zealous in their political correctness (Maoism and its later avatars are good) and quick to defend China’s commitment to democracy.” (Landes 27)
      2. “One scholar sees in his [Wittfogel’s] thesis a lightly disguised program for neo-imperialism . . .” March (*The Idea of China* 94-95): “Clearly the action message of this theory is to recommend and justify intervention.”” (Landes 27)
      3. “The anti-hydraulics point to evidence . . .” (Landes 27)
         1. “the early centers of Chinese population did not rely much on irrigation”
         2. “much water was drawn from wells rather than brought in”
         3. “some aspects of water management were always locally conceived and financed”
      4. refutation
         1. Local activity does not contradict “the ultimate responsibility of the higher authorities in this domain, especially in conscripting and assigning labor for the larger tasks: the big dikes, dams, and canals, flood control, repair and relief. Such interventions went far beyond local possibilities.” (Landes 28)
         2. “The stakes were huge. . . . the more daring the alteration of nature, the greater the scope and cost of failure or catastrophe.” (Stevens “The High Risks of Denying Rivers Their Flood Plains”) (Landes 28)
         3. “. . . food surpluses . . . sustained the machinery of government.” (Landes 28)
   6. “Part of the brittleness of these empires . . . derived from their exploitative . . . character and the indifference of subjects to the identity of their rulers: one despot was the same as the next; one foreign clan as arrogant and predatory as another.” (Landes 39)
      1. “Why should the inhabitants of Persia care what happened to Darius at the hands of Alexander?” (Landes 39)
      2. “Or what happened nine hundred years later to the Sassanian monarchy at the hands of the Arabs?” (Landes 39)
      3. “Why should the tired, oppressed Roman “citizens” of the last days of empire care whether Rome fell?” (Landes 39)
      4. “Or the subject tribes of Mexico . . . care what happened to Moctezuma?” (Landes 39)
      5. “The classical Greeks (-5th [*sic*] century), who saw [39] themselves as the defenders of freedom against Asian tyranny, perceived this indifference as their secret weapon . . .” (Landes 39-40)
         1. Hippocrates (*Air Waters Places*): “Where there are kings, . . . men’s souls are enslaved and refuse to run risks readily and recklessly to increase the power of somebody else. But independent people, taking risks on their own behalf and not on behalf of others, are willing and eager to go into danger, for they themselves enjoy the prize of victory.” (Qtd. in Landes 40)

Europe

1. **introduction**
   1. “. . . far more favorable conditions [existed] in temperate zones; and within these, in Europe above all; and within Europe, in western Europe first and foremost.” (Landes 17)
2. **climate**
   1. “. . . Europe knows more than one climate.” (Landes 18)
      1. “Rainfall is heaviest [18] and most equable along the Atlantic, there where the moisture-laden west winds leave the water for land.” (Landes 18-19)
      2. “As one moves east toward the Polish and Russian steppe, climate becomes more “continental,” with wider extremes of both moisture and temperature.” (Landes 19)
      3. In Mediterranean lands, “temperatures are kind, but rain is sparser, more uneven. In Spain, Portugal, southern Italy, and Greece, the soil yields less, olive trees and grapes do better than cereals, pasture pays more than agriculture.” (Landes 19)
         1. “Some would argue that these geographical handicaps led to poverty, even to industrial retardation, in southern as against northern Europe.” (Tortella, “Patterns of Economic Retardation and Recovery in South-western Europe.”) (Landes 19)
         2. “We shall see later that other, cultural reasons may have been at least as important.” (Landes 18-19)
   2. temperature
      1. “Winter’s severity increases as one moves east into continental climes . . .” (Landes 17)
      2. disease
         1. Europe’s winters are “cold enough to keep down pathogens and pests. . . . even the milder versions . . .” (Landes 17)
         2. Europe’s diseases are “nothing like the disablers and killers found in hot lands. Parasitism is the exception.” (Landes 17)
            1. “Some have argued that this exemption accounts for the vulnerability of Europeans to epidemic plagues: they were not sufficiently exposed to pathogens to build up resistance.” (Landes 17)
      3. agriculture
         1. “Even in winter, West European temperatures are kind. . . . As a result, Europeans were able to grow crops year round.” (Landes 17)
   3. water
      1. currents
         1. map of ocean currents (80-81)



* + - 1. “This privileged European climate was the gift of the large warm current that we know as the Gulf Stream, rising in tropical waters off Africa, working its way westward across the Atlantic and through the Caribbean, then recrossing the Atlantic in a generally northeast direction. The clockwise rotation is produced by the spin of the earth in combination with water rising as it warms; in the southern hemisphere, equatorial currents go counterclockwise (see Map 1). In both hemispheres, equatorial currents proceed from east to west, bearing heat and rich marine life with them.” (Landes 18)
      2. “Normally north and south equatorial currents should be roughly equal in volume, but in the Atlantic, . . . the great eastward bulge of Brazil . . . splits the south equatorial current and sends roughly half of it northward to join its northern counterpart, producing a huge warm-water mass that washes finally against the coasts of Ireland and Norway (see Map 1). This geological good fortune gives western Europe warm winds and gentle rain, water in all seasons, and low rates of evaporation—the makings of good crops, big livestock, and dense hardwood forests.” (Landes 18)

1. **agriculture**
   1. “Even in winter, West European temperatures are kind. If one traces lines of equal temperature around the globe (isotherms), nowhere do they bend so far north as along Europe’s Atlantic coast. The mean winter temperature in coastal Norway . . . exceeds that in Vermont or Ohio, some 20 degrees closer to the equator. As a result, Europeans were able to grow crops year round.” (Landes 17)
   2. “They were assisted here by a relatively even rainfall pattern, distributed around the year and rarely torrential [17] . . . This is a pattern found only exceptionally around the globe.” (Landes 17-18)
   3. “Summer rain falls abundantly right across the Eurasian landmass . . .” (Landes 18)
   4. But not winter rain: “Precipitation coming off the Atlantic in the winter fails by the time it gets to the plains of Central and Eastern Europe. The landlocked steppes of Asia starve for water; hence such places as the Gobi Desert.” (Landes 18)
      1. “Southern and eastern China are saved by rains coming up from the seas off Indochina . . .” (Landes 18)
      2. The “southeastern United States [gets] moisture from the Gulf of Mexico.” (Landes 18)
   5. “This dependable and equable supply of water made for a different pattern of social and political organization from that prevailing in riverine civilizations.” (Landes 18)
2. **why Europe lagged river valleys**
   1. “. . . why was Europe so slow to develop, thousands of years after Egypt and Sumer? The answer, again, is geography: those hardwood forests.” (Landes 19)
      1. “. . . European crop yields *per area* or population *densities* were [not] higher than those in warm irrigation societies. The gains from animal fertilizer, plowing (which brings nutrients up from below), and fallow could not match the fertile silt of the Nile, the Euphrates, or the Indus; even less, the alluvial deposits of the Yellow and Yangtze rivers, and the multiple cropping made possible by year-round warmth.\*\*” (Landes 21)
      2. “The Yangtze alone deposits more silt than the Nile, Amazon, and Mississippi combined; and the Yellow River deposits three times that of the Yangtze—Link, “A Harvest,” p. 6.” (Landes 21 n. \*\*)
      3. “On the other hand, irregular interruptions in riverine cultivation, whether by want or excess of water or by enemy action against irrigation systems, could hurt far more than dry or wet spells in a rainy climate.” (Landes 21)
   2. Settlement of Europe “took place first along lakeshores (what we know as lacustrine settlements, often on stilts) and on grasslands—not necessarily the most fertile lands, but the ones accessible to primitive, nonferrous technology.” (Landes 19)
   3. “Not until people had iron cutting tools, in the first millennium before our era (b.c.e.), could they clear those otherwise fertile plains north of the Alps.” (Landes 19)
   4. Forest even gained “when population shrank in the centuries following the fall of Rome.” (Landes 19)
   5. “Only later could Europe grow enough food to sustain denser populations and the surpluses that support urban centers of cultural exchange and development. Even so, most of the forest remained . . .” (Landes 19)
      1. “The folk memory [of the forest] comes down to us in legend and tale, in *Little Red Riding Hood*, *Hansel and Gretel*, *Tom Thumb*, and other stories of woods and wolves and witches and danger close by.” (Landes 19)
      2. “As these tales make clear, . . . Europe knew famine and disease, long waves of cooling and warming, epidemics and pandemics. Peasants knew they could survive one and perhaps two bad crops, but after that came starvation. Here again the forest played a crucial role—source of berries, nuts, even acorns and chestnuts. And here too the steady water meant that farming was not marginal, that a dry spell would soon be followed by a return of rain and crops.” (Landes 19)
         1. “One has to look at the dry places, . . . where cultivation is a gamble and the land risks turning into desert—not only the areas south of the invasive Sahara, or the lands east of the Jordan River on the northern margin of the Arabian desert, but the American plains west of the 100th meridian, or the [19] Siberian steppe where Khrushchev tried to grow wheat, or the cotton lands around Lake Baikal—to get a sense of how narrow the edge where rains are fickle and rare.” (Landes 19-20)

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|  | http://www.revolvy.com/main/images/cache/07/52/e4/0752e4312770eb31e35cd8ae4f924985.png | “West of the 100th meridian, much of the US is semi-arid to arid, even desert in the far southwestern US. East of the 100th meridian, the climate is humid continental in the northern areas (locations above 40 north latitude), to humid temperate in the central and middle Atlantic coast regions, to humid subtropical in the Gulf and south Atlantic regions.” (“Climate”) |

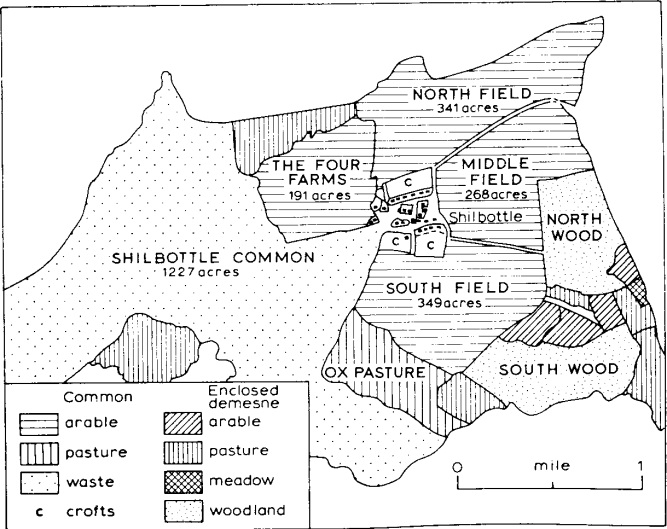
1. **livestock**
   1. “This favorable environment enabled Europeans to leave more of the land for forest and fallow and so raise livestock without seeking far for pasture. Their animals were bigger and stronger than those of other lands. The Mongolian pony, scourge of the steppe, stood tiny next to a European battle steed; the same for Arab mounts. Much of India could not breed horses at all because of the climate. Yet both small and large animals offered advantages. The Mongol and Tartar could move easily across their empty inland sea, striking fast and hard against the sedentary populations round. The European horse, carrying an armored warrior, amounted to a living tank, irresistible in charges, unbeatable in set combat.” (Landes 20)
   2. “The conflict between these two tactics gave rise to some of the greatest battles in history.” (Landes 20)
      1. 732: “Charles Martel, grandfather of Charlemagne and Frankish Mayor of the Palace, led an army of mounted knights against the Arab invaders near Tours and set a westward limit to what had seemed irresistible Muslim expansion.” (Landes 20)
         1. “Gibbon in *Decline and Fall of the Roman Empire*, “remarked that had the Arabs won, all of Europe would now be reading the Koran . . .” (Landes 20 n. \*)
      2. 1187: “the Saracen troops of Saladin let the European knights charge down at them at the Horns of Hattin, stepping aside at the last moment to let them through. By then the crusader mounts, which had been carrying their riders all day in the blazing sun, were exhausted. The Saracens had only to close and cut down the Europeans from the rear. So ended the crusading kingdom of Jerusalem and Christian feudal power in the Holy Land.” (Landes 20)
   3. “Larger animals meant an advantage in heavy work and transport.” (Landes 20)
      1. “. . . the horse is more powerful than the ox, that is, it moves faster and does more work in less time . . .” (Landes 20)
      2. “Dray horses could plow the clayey soils of the great northern plain . . . while moving fresh crops to urban markets.” (Landes 20)
      3. “Later on they would haul field guns to war and into combat.” (Landes 20)
   4. “European herds were typically larger and yielded lots of animal fertilizer (as against the human night soil employed in East Asia). This enabled more intensive cultivation and larger crops, which gave more feed, and so on in an upward spiral.” (Landes 20)
   5. nutrition
      1. “As a result, Europeans kept a diet rich in dairy products, meat, and animal proteins. They grew taller and stronger [20] . . . Healthier Europeans lived longer and worked closer to their potential.” (Landes 20-21)
2. **population**
   1. “The riverine civilizations maximized population; the Europeans focused on small households and strategies of undivided inheritance and interfamilial alliance.” (Landes 22)
      1. “. . . Christian and especially western Europe accepted celibacy, late marriage (not until one could afford it), and more widely spaced births.” (Landes 22)
      2. “Medieval Europeans saw children as a potential burden in time of need. Recall the stories of Hansel and Gretel and Tom Thumb—the children left in the forest to die far from the eyes of their parents.” (Landes 22)
   2. “So, numbers alone do not tell the story, and some would say that when health and animal support are factored in, Europe may have brought more energy to agriculture (per area of cultivation) than the much more numerous populations of Asia. Such peasant throngs, moreover, tempted Asian rulers to undertake ostentatious projects based on forced labor. These would one day be the wonder and scandal of European visitors—great tourist attractions—astonishing by the contrast between overweening wealth and grinding poverty.” (Landes 22)
      1. Jones (*The European Miracle* 5): “the religious and funerary monuments . . ., the luxury goods and skilled craftsmanship seemed merely to testify that political organisation could squeeze blood out of stones if the stones were numerous enough.” (Qtd. in Landes 22)
      2. “. . . these projects typically used armed overseers and entailed spectacularly high death rates. On the losses that went with construction of the Grand Canal and the Great Wall of China—we are talking of millions of dead—see [Jones *European Miracle* 9].” (Landes 22 †)
      3. Actually, “the Europeans also had their despotisms.” [22 n. \*\*] “For a more recent example, cf. the railway line (1840s) from St. Petersburg to Moscow—a corpse for every tie.” [23] (Landes 22 n. \*\*, 23)

Medieval Economic History

Medieval Europe

1. **economic development in medieval Europe**
   1. introduction
      1. “Under the influence of Renaissance authors, who belittled their immediate predecessors in their praise of the rediscovered glories of classical civilization, the Middle Ages have long been regarded as a period of both economic and cultural stagnation.” (Cameron and Neal 44)
      2. “In fact, medieval Europe experienced a flowering of technological creativity and economic dynamism that contrasts strongly with the routine of the ancient Mediterranean world. Moreover, the distinctive institutions created in the Middle Ages served as a framework for economic activity until recent times; medieval survivals in rural areas are still prominent features of the landscape, even in the formerly socialized economies of eastern Europe.” (Cameron and Neal 44)
   2. the agrarian basis
      1. “Until the advent of industrialism in the nineteenth century, agriculture everywhere constituted the most important sector of economic activity, in terms of both the value and volume of output and the proportion of the labor force engaged in it.” (Cameron and Neal 44)
      2. “From the ancient city-states of Sumer to the Roman Empire, urban institutions determined the character of the economy and society, even though most of the population was engaged in agricultural labor.” (Cameron and Neal 44)
      3. “Medieval Europe was unique among developed civilizations, however, in its agrarian orientation. . . . In medieval Europe, on the other hand, although the urban population grew in size and importance, especially in Italy and Flanders, agrarian and rural institutions set the tone.” (Cameron and Neal 44)
      4. The cause of the medieval economy’s distinctive character was “the political and social conditions that surrounded its origins . . .” (Cameron and Neal 44)
         1. “the growing burden of taxation” (Cameron and Neal 44)
         2. “the increasing inefficiency and corruption of the Roman Empire” (Cameron and Neal 44)
         3. “the final breakdown of central authority and the resulting anarchy” (Cameron and Neal 44)
         4. “the growth of large self-sufficient estates” (Cameron and Neal 44)
         5. “the decline of towns and interregional trade” (Cameron and Neal 44)
         6. “After the collapse of the empire barbarian tribes continued to roam and ravage; petty kingdoms rose and fell but were unable to maintain effective order for more than brief periods or to establish regular systems of taxation.” (Cameron and Neal 44)
         7. 700-900: “new hordes of invaders threatened the Franks and other Europeans . . .” (Cameron and Neal 45)
            1. “In 711 Muslims from North Africa invaded Spain and quickly overthrew its Visigothic kingdom: by 732 they had penetrated as far as central France before being turned back. Although the Franks drove the Muslims back across the Pyrenees, the latter conquered Sicily, Corsica, and Sardinia and turned the Mediterranean into virtually a Muslim lake.” (Cameron and Neal 45)
            2. “Later in the century the Vikings poured out of Scandinavia, dominated the British Isles, conquered Normandy, raided coastal and riverine sites as far inland as Paris, and even penetrated the Mediterranean.” (Cameron and Neal 45)
            3. “In the ninth century fierce Magyar tribesmen crossed the Carpathians into central Europe and raided, pillaged, and extracted tribute in northern Italy, southern Germany, and eastern France before settling down in the following century in their newly chosen homeland in the Hungarian plain.” (Cameron and Neal 45)
      5. “To meet these threats [listed above] the Frankish kings devised a system of military and political relationships, subsequently called feudalism, which they grafted onto the evolving economic system.” (Cameron and Neal 45)
         1. manorialism
            1. “Underlying the feudal system, but with older and quite different origins, was the form of economic and social organization called (in English) manorialism.” [“Since France was the classic home of the manor, the French terms *seigneurie* and *seigneurial­isme* (or, in bastardized anglicization, seignorialism) are frequently used. Other languages have similar but not identical terms, because of regional variations in the nature of the manor.” Cameron and Neal 45 n. 1] (Cameron and Neal 45)
            2. “Manorialism began to take shape under the later Roman Empire, when the *latifundia* (large farms) of Roman nobles were transformed into self-sufficient estates, and cultivators were bound to the soil either by legislation or by more direct and immediate economic and social pressures. The barbarian invasions modified the system, mainly by introducing tribal chieftains and warriors into the ruling class, and manorialism received its “definitive” stamp in the eighth and ninth centuries [700-900], during the Saracen, Viking, and Magyar invasions, when it became the economic basis of the feudal system.” (Cameron and Neal 45)
            3. “The earliest documentary evidence that provides direct information on the operation of the manorial system dates from the ninth century. By that time it was already well established in the areas between the Loire and Rhine rivers (northern France, the [45] southern Low Countries, and western Germany) and in the Po valley of northern Italy. Subsequently it spread, with modifications, to England with the Norman Conquest, to reconquered Spain and Portugal, to Denmark, and to central and eastern Europe. Some areas, such as Scotland, Norway, and the Balkans, were never effectively manorialized; even within the areas of manorial economy some regions, usually hilly or mountainous, maintained different forms of organization.” (Cameron and Neal 45-46)
            4. “It is useful . . . to construct a hypothetical, idealized manor for purposes of comparison (Fig. 3-1 shows an actual manor).” (Cameron and Neal 46)

“This map of the village of Shilbottle in Northumberland, England, dates from the early seventeenth century, but is representative of medieval times. Note the crofts (cottages with gardens) of the peasants surrounded by open fields and common (waste) land. The manor house is not shown, but the enclosed lord’s demesne is located in the lower right portion of the map.” (From: Baker, A. R. H., and R. A. Butlin, eds. *Studies of Field Systems in the British Isles*. Cambridge: Cambridge UP, 1973.) (Cameron and Neal 47 figure 3-1)



* + - * 1. divisions

“As an organizational and administrative unit, the manor consisted of land, buildings, and the people who cultivated the former and inhabited the latter.” (Cameron and Neal 46)

“Functionally, the land was divided into arable, pasture and meadow, and woodland, forest, or waste.” (Cameron and Neal 46)

“Legally, it was divided into the lord’s demesne (since the English word *domain* has a more general meaning, the anglicized French is preferred for this special meaning), peasant holdings, and common land.” (Cameron and Neal 46)

“The lord’s demesne, sometimes though not necessarily enclosed or separated from peasant land, might [46] account for 25 or 30 percent of the total arable land of the manor; it also included the manor house, barns, stables, workshops, gardens, and perhaps vineyards and orchards.” (Cameron and Neal 46-47)

“The manor house, frequently fortified, served as the residence of the lord or his agent.” (Cameron and Neal 47)

“In the case of very great lords owning many manors, the manor might be let to a lesser lord, or vassal, in fee; that is, the vassal was entitled to the benefits of lordship of the manor in return for military service. Religious establishments such as cathedrals and abbeys also owned manors, which might be let to vassals, managed directly by clerics, or entrusted to lay stewards or managers.” (Cameron and Neal 47)

“The feudal ideal was “no land without a lord, no lord without land,” but it was not universally realized. In principle the function of the lord was defense and the administration of justice; he might take a direct interest in supervising the exploitation of his demesne, but more often he left this to a steward or bailiff. In addition, he frequently had other perquisites, such as ownership of the local mill, oven, and winepress.” (Cameron and Neal 47)

“The land the peasants tilled for themselves lay in large open fields surrounding the manor house and village; the fields were divided into strips, with the holdings of a single peasant household consisting of possibly two dozen or more strips scattered throughout the fields of the manor.” (Cameron and Neal 47)

“The peasants lived in compact villages under the walls of the manor house or in its vicinity. . . . Villages were normally located in the vicinity of a stream, which provided a water supply and actuated the mill and perhaps a bellows for a forge or smithy. Unless the manor house contained a chapel (or sometimes even if it did), a simple church would complete the village scene.” (Cameron and Neal 47)

“Their [peasants’] cottages were simple one- or two-room affairs, sometimes with a loft that served as sleeping quarters. Construction might be of wood or stone, but was more often of mud and wattle, with earthen floor, no windows, and a thatched roof with a hole in it to serve as a chimney.” (Cameron and Neal 47)

“There might be auxiliary buildings for livestock and equipment, but in winter the livestock frequently shared the living quarters with the family.” (Cameron and Neal 47)

“Meadows, pastures (including *vaine pâture*, fallow fields used for grazing), and woodland or forests were normally held in common, although the lord supervised their use and maintained special privileges in the forests.” (Cameron and Neal 46-47)

* + - * 1. variations on the hypothetical manor

“There was no such thing as a typical manor. Variations, both geographical and chronological, were far too numerous.” (Cameron and Neal 46)

“In areas where manorialism was introduced from the outside, as it were, such as the Iberian peninsula, eastern Germany, and even England, its features were modified to take the soil, climate, terrain, and existing institutions into account.” (Cameron and Neal 47)

“. . . manorialism was nowhere the static institution sometimes pictured but was in a state of constant flux or evolution, usually gradual, almost imperceptible, but ineluctable.” (Cameron and Neal 47)

“Although the ideal might have been one manor, one village, frequently one manor encompassed several villages, or less frequently a single village was divided among two or more manors.” (Cameron and Neal 47)

“Sometimes the peasant subjects of the manor did not live in villages at all, but in scattered hamlets [“small village[s],” *American Heritage Dictionary of the English Language*, 3rd ed. (New York: Houghton Mifflin, 1996)] or even isolated farmsteads.” (Cameron and Neal 47)

“The two latter types of settlement were most often found in regions of infertile soil or hilly land, where the manorial form of organization existed either in a diluted form or not at all . . .” (Cameron and Neal 47)

Also, “in the Mediterranean basin, especially southern France and most of Italy, the small, square enclosed fields with isolated dwellings, typical of Roman times, persisted throughout the Middle Ages.” (Cameron and Neal 47)

* + - 1. feudalism
         1. Defense “required troops of mounted warriors, since the recent introduction of the stirrup (probably from central Asia) had made foot soldiers almost obsolete. Directly supporting such troops was impossible in the absence of an effective system of taxation and the virtual disappearance of a money economy.” (Cameron and Neal 45)
         2. “. . . domestic order and administration called for numerous local officials who, again, could not be paid directly by the state.” (Cameron and Neal 45)
         3. “The solution was to grant the warriors the income from great estates, many of which were confiscated from the church, in return for military service; the warriors—lords and knights—were also charged with maintaining order and administering justice on their estates. Great nobles—dukes, counts, and marquises—had many estates encompassing many villages; some of these they granted to lesser lords or knights, their vassals, in return for an oath of homage and fealty, similar to that which they gave the king; this procedure was called subinfeudation.” (Cameron and Neal 45)
    1. “The Frankish kingdom, based in the heartland of medieval Europe between the Loire and Rhine rivers, maintained its existence [44] longer than the others [petty kingdoms]; but without a regular system of taxation or permanent bureaucracy, it, too, depended on the uncertain loyalty of the great nobles and their retainers for the preservation of order and unity.” (Cameron and Neal 44-45)

1. **rural society**
   1. “There were various gradations of social status within the rural population.” (Cameron and Neal 48)
      1. “Significantly, town dwellers did not even figure in this hierarchy, although by the eleventh century at least they constituted a sizable category, certainly more numerous than either lords or clergy.” (Cameron and Neal 48)
   2. “In the fully developed theory of feudalism—which, characteristically, was not elaborated until the institution itself was on the verge of decline—society consisted of three “orders,” each with its assigned duty. . . . the lords fought, the clergy prayed, and the peasants worked.” (Cameron and Neal 48)
   3. lords
      1. “The lords provided protection and maintained order . . .” (Cameron and Neal 48)
      2. “The ruling class—that is, the feudal order in the strict sense—. . . probably accounted for less than 5 percent of the total population . . .” (Cameron and Neal 48)
      3. The ruling class “in principle formed a social pyramid ranging from the king at the apex down through the great nobles to the lowliest knights at the base. In fact, the situation was even more complicated, as many nobles held several manors (also called *benefices*), and thus were technically vassals of more than one lord. In extreme cases two nobles, even kings, might be vassals of one another with respect to particular estates. Nor surprisingly, such complexities frequently led to quarrels and strife, which have given the feudal age a somewhat unjustified reputation for lawlessness and violence.” (Cameron and Neal 48)
   4. clergy
      1. “. . . the clergy looked after the spiritual welfare of society . . .” (Cameron and Neal 48)
      2. “The clerical order . . . contained numerous social gradations.” (Cameron and Neal 48)
      3. “. . . there was the distinction between the regular clergy (i.e., the monastic orders), who withdrew from ordinary life into separate communities, and the secular clergy (priests and bishops), who participated more directly in the life of the community. In the early Middle Ages the regular clergy had greater prestige, but the status of the secular clergy improved with the revival of town life and the economic upswing from the tenth century onward, when bishops and archbishops played important roles in lay as well as religious life.” (Cameron and Neal 48)
      4. “Second, within both regular and secular clergy distinctions existed, based on the social status of the individuals entering the clergy. The younger sons of noble families were often destined, with or without the appropriate training, to become bishops or abbots from the time they took holy orders, whereas humbler folk could rarely aspire to more than a parish priesthood or a clerical office in a monastery. The opportunity for vertical mobility was somewhat greater within the church than in rural society generally, but much less than that offered by the new towns.” (Cameron and Neal 48)
   5. peasants
      1. “. . . the peasants labored to support the two higher orders.” (Cameron and Neal 48)
      2. “Even within the peasant population differences in status existed. Broadly speaking there were two categories, free and servile [slaves]; but these categories were not always distinct, and degrees of servility and freedom existed within them.” (Cameron and Neal 48)
      3. slaves
         1. “Chattel slavery, such as existed under the Roman Empire, gradually died out until, by the ninth century, almost the only remaining slaves were the household slaves of great nobles.” (Cameron and Neal 48)
      4. freemen
         1. the “truly free”: “Truly free men—free to move from one village to another, to acquire or dispose of land on their own initiative, to marry without their lord’s permission—were rarities among the medieval peasantry.” (Cameron and Neal 48)
         2. serfs
            1. “On the other hand, the class of freemen—peasant proprietors and tenant farmers—who also existed under the Roman Empire, was depressed almost to the status of servile workers.” (Cameron and Neal 48)
            2. “At the same time the power of the lords was [48] limited. Serfs were not the property of their masters, but *adscripti glebae*, that is, bound to the soil. Lords might come and go, but, except in periods of great stress, the peasant cultivators whether nominally free or servile would remain secure in their tenures, protected by the “custom of the manor” and occasionally by documentary evidence (e.g., the English copyholders).” (Cameron and Neal 48-49)
      5. “Two general tendencies in the social status of the peasantry are perceptible through the Middle Ages and early modern times—tendencies closely associated with the evolution of the manor.” (Cameron and Neal 49)
         1. 300-1100: “From the later Roman Empire to about the tenth or eleventh century, rights and obligations of the two extremes—freemen and slaves—were pressed closer and closer together.” (Cameron and Neal 49)
         2. 1100-1789: “Then, from about the twelfth century to the French Revolution, a progressive relaxation of the servile restrictions (not necessarily economic exactions) occurred, resulting in the withering away of the institution of serfdom in some areas of western Europe (much less in central Europe, and not at all in eastern Europe, where a contrary evolution occurred).” (Cameron and Neal 49)
2. **patterns of stability**
   1. cooperation and coercion
      1. “The organization of work on the manor involved a mixture of customary cooperation and coercion, with very little scope for individual initiative.” (Cameron and Neal 49)
      2. “The most important operations were plowing, sowing, and harvesting, which would involve almost all inhabitants of the village. Because of the open field system, and the fact that an individual peasant’s strips were scattered throughout the fields, the work had to be undertaken in common. Moreover, in the heavier soils, which were also normally the most fertile, a plow team required four, six, or even eight oxen; since peasants rarely owned more than one or two (many none at all), cooperation was required. Harvesting was also done in common, to allow the livestock to graze on the stubble.” (Cameron and Neal 49)
   2. livestock
      1. “The place of livestock in the medieval agrarian economy varied considerably from one region to another.” (Cameron and Neal 49)
      2. “Their most important function was as draft animals . . .” (Cameron and Neal 49)
         1. Oxen (“adult castrated bull[s],” *American Heritage Dictionary of the English Language*, 3rd ed. [New York: Houghton Mifflin, 1996]) were “the most common [and] were found in every part of Europe. . . . Oxen, unlike horses and mules, consumed mainly grass and hay, were docile, and were easy to raise, which accounts for their prevalence.” (Cameron and Neal 49)
         2. Horses were “used in northwestern Europe and in Russia from about the tenth century . . .” (Cameron and Neal 49)
         3. Donkeys and mules were “used principally in southwestern France and Spain . . .” (Cameron and Neal 49)
         4. Water buffaloes were “used in parts of Italy.” (Cameron and Neal 49)
      3. cows
         1. “Milk cows were, of course, necessary to breed oxen . . .” (Cameron and Neal 49)
         2. “. . . they provided the raw material for butter and cheese . . .” (Cameron and Neal 49)
         3. “. . . in the poorest regions [they] were also used as draft animals.” (Cameron and Neal 49)
      4. stock raising
         1. cattle outside the manorial system
            1. “In the “Celtic fringe” of Europe (Brittany, Wales, Ireland, and Scotland), outside the area of manorial economy where agriculture was little practiced, seminomadic tribes lived almost exclusively by their herds of cattle.” (Cameron and Neal 49)
            2. “In Scandinavia also, especially Norway and Sweden, stock raising was more important than tillage.” (Cameron and Neal 49)
         2. “In the principal manorialized areas . . . stock raising was definitely secondary to field agriculture.” (Cameron and Neal 49)
            1. In manors “poultry, cattle, sheep, and swine were raised for their meat products (and sheep for wool), and incidentally for the fertilizer they produced . . .” (Cameron and Neal 49)
            2. “It [stock raising] was most often practiced in northwestern Europe, whose moister climate provided better natural pastures. The large forests of that region also provided forage for cattle and horses, as well as for swine.” (Cameron and Neal 49)
            3. “In the south, in areas with a Mediterranean climate, stock raising [49] was much less important, and frequently took the form of transhumance [“Transfer of livestock from one grazing ground to another, as from lowlands to highlands, with the changing of seasons,” *American Heritage Dictionary of the English Language*, 3rd ed. (New York: Houghton Mifflin, 1996)] pasturing for sheep and goats: flocks wintered in the lowland areas and were driven to mountain pastures for the spring and summer. Sometimes the passage of the flocks damaged agricultural fields, and overgrazing in the mountains contributed to deforestation and soil erosion.” (Cameron and Neal 49-50)
   3. peasants’ work
      1. labor services
         1. “Most peasants were obliged to perform some labor services on the lord’s demesne, which (in principle) took precedence over work on their own strips.” (Cameron and Neal 50)
         2. “The extent and nature of the services varied from region to region (even from manor to manor), over time, and according to the social status of the peasant or the nature of his tenure. It was not uncommon for nominally free men to hold servile tenures, and occasionally a nominal serf might own a copyhold or leasehold. In general, those with servile tenures would be called on for more work, . . . and those with freeholds did less.” (Cameron and Neal 50)
         3. Those with servile tenures worked “perhaps three or four days a week on the average . . .” (Cameron and Neal 50)
         4. “Women spun yarn and wove cloth, either in the lord’s workshop or in their cottages . . .” (Cameron and Neal 50)
         5. “. . . children were used as servants in the lord’s household.” (Cameron and Neal 50)
         6. “Beginning in the tenth century a progressive movement developed, faster in some areas than others, to suppress labor services or commute them into money rents.” (Cameron and Neal 50)
      2. rent, fees, tithes
         1. “In addition to labor services, most peasants normally owed their lord other dues, rents, and fees, in money and in kind. Some of these were collected on a regular basis—a sheep or a few chickens at Christmas, for example, in addition to annual money rents—whereas others were due on special occasions, such as the assumption of a deceased peasant’s tenure by his heir or at his marriage. The nature and value of these exactions varied enormously. For thirteenth-century England the total of peasant dues and rents has been estimated at 50 percent of peasant income, but in some times and places it may have exceeded even that figure.” (Cameron and Neal 50)
         2. “Peasants were also obliged to use the lord’s mill, winepress, and oven, for which they paid a fee . . .” (Cameron and Neal 50)
         3. Peasants “were subject to the lord’s justice in the manorial court, which often involved payment of fines.” (Cameron and Neal 50)
         4. “They also paid a tithe (not necessarily a tenth) to the church . . .” (Cameron and Neal 50)
         5. They “were sometimes subjected to royal taxation as well.” (Cameron and Neal 50)
      3. “Peasants whose tenures were too small to support a family, as they often were, performed additional labor on the lord’s demesne (or, less frequently, for a more prosperous fellow peasant), for which they received wages denominated in money, although the actual payment was frequently in kind.” (Cameron and Neal 50)
   4. “The manorial system developed gradually over a period of several centuries, a period characterized by political uncertainty, frequent outbreaks of violence, declining commercial activity and occupational specialization, and primitive production techniques. Although not consciously designed, it maintained social stability and continuity and supported a sparse population at a low but tolerable level of living.” (Cameron and Neal 50)
3. **technological innovations**
   1. introduction
      1. “Apparently antithetical to individual initiative and hence to innovation, the system nevertheless evolved in response to the interplay of institutions and resources, giving rise to technological changes that increased productivity and stimulated population growth, thus altering the bases of its own existence.” (Cameron and Neal 50)
      2. “No single explanation exists for the numerous innovations in both techniques and products. For some innovators, the intention may have been merely to save their own labor or reduce its burden; but the ultimate effect was to make it more efficient. One would scarcely characterize medieval agriculture as individualistic, but in practice it was the individuals who, either alone or in cooperative groups, introduced or adopted innovations that usually benefited from them. This incentive for innovation was the big difference between ancient and medieval agriculture. Similarly, the introduction of new crops or specialization in the production of others reflected both the existence of incentives and the ability of the cultivators to respond to them.” (Cameron and Neal 54)
      3. “Whether produced for the direct consumption of the cultivators, for sale to urban consumers, or as raw materials for growing industries, [the introduction of new crops and specialization in their production] are indicative of both rising incomes and more diversified channels of production and distribution, hence of economic development.” (Cameron and Neal 54)
   2. major innovations: three-course crop rotation, heavy wheeled plow, draft horses
      1. “The most important innovation in medieval agricultural practice was the substitution of a three-course crop rotation for the classical two-course rotation of Mediterranean [50] agriculture.” (Cameron and Neal 50-51)
         1. “Before the power of Rome extended to northwestern Europe, settled agriculture was seldom practiced [51] there. The Gauls and various Germanic tribes depended primarily on their herds of cattle; when they planted field crops, they used a slash-and-burn technique to clear the ground, moving to a new location as soon as the fertility of the soil declined.” (Cameron and Neal 51-52)
         2. “The classical two-course rotation, in which fields were planted and left fallow in alternate years to maintain soil fertility and accumulate moisture, was adapted to the light soils and long dry summers of the Mediterranean basin.” (Cameron and Neal 51)
         3. “The Romans brought with them their two-course rotation, but their plows were unable to penetrate the heavy soils characteristic of northwestern Europe; consequently, they cultivated sandy or chalky hills with adequate natural drainage and avoided the heavier but more fertile soils of the plains and valleys.” (Cameron and Neal 52)
         4. “In the moister climate of northwestern Europe the alternative years of fallow to allow moisture to accumulate were unnecessary. Moreover, the deeper soils could tolerate a steadier pull on their nutrients, especially if the crops planted in them were varied. The first recorded instance of a regular three-course rotation occurs in northern France in the latter part of the eighth century; by the beginning of the eleventh century it was widely practiced throughout northwestern Europe.” (Cameron and Neal 52)
         5. “A typical rotation was a spring crop (oats or barley, sometimes peas or beans), which would be harvested in the summer; an autumn sowing of wheat or rye, the principal bread grains, which would be harvested the following summer; and a year of fallow to help restore fertility to the soil. This basic pattern, however, had many variations.” (Cameron and Neal 52)
         6. “The three-course rotation had several advantages.” (Cameron and Neal 52)
            1. “The most fundamental was the increased productivity of the soil: for any given quantity of arable land, one-third more could be planted in food crops. It also produced a larger yield per unit of labor and capital; it has been calculated that a plow team sufficient for 160 acres under two-course rotation could work 180 acres under three-course rotation, meaning an increased productivity of 50 percent in terms of the crops actually grown.” (Cameron and Neal 52)
            2. “The three-course rotation, with fall and spring sowing, also spread field work more evenly over the year . . .” (Cameron and Neal 52)
            3. “The three-course rotation . . . also reduced the risk of famine in the event of crop failure because, if necessary, wheat or rye could be planted in the spring.” (Cameron and Neal 52)
            4. “Finally, with more land available for food crops, it was possible to introduce new and more varied plants with favorable effects on nutrition.” (Cameron and Neal 52)
         7. “As a result of its superiority, the three-course rotation spread wherever soil and weather conditions were favorable; by the eleventh century it was in general use throughout northern France, the Low Countries, western Germany, and southern England. In the Mediterranean area, on the other hand, its appearance was exceptional; the classical two-course rotation remained in general use there for field crops until the nineteenth century, although with the growth of urban demand, especially in northern Italy, much land in the vicinity of cities was given over to steady, intensive cultivation of commercial crops, making generous use of urban manure.” (Cameron and Neal 52)
      2. the heavy wheeled plow
         1. The three-course crop rotation “was closely associated with two other significant innovations, the introduction of a heavy wheeled plow . . . and the use of horses as draft animals.” (Cameron and Neal 51)

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* + - 1. “. . . the lighter Mediterranean plow [left] . . . scratched the surface of the soil in small square plots . . .” (Cameron and Neal 51 figure 3-2)
      2. “The heavy wheeled plow [right], capable of turning the deep loam soils of northern Europe, can be compared with, whereas the former created ridges and furrows in long strips called “furlongs.” (From: Burke, James. *Connections*. London: Victoria and Albert Museum.) (Cameron and Neal 51 figure 3-2)
      3. “The exact place and date of origin of the heavy wheeled plow is still a matter for debate. It may have entered Gaul with the Franks, but if so, it was not widely used until field agriculture acquired more importance than stock raising. Its use required several oxen or other draft animals, and thus contributed to the cooperative nature of cultivation in the manorial system. Unlike the lighter, simpler Roman plow, the wheeled plow was capable of breaking and turning the heavy clay and loam soils of northwestern Europe, which made new resources available to its users.” (Cameron and Neal 52)
    1. horses vs. oxen
       1. The three-course crop rotation “was closely associated with two other significant innovations, the introduction of a heavy wheeled plow . . . and the use of horses as draft animals. The latter innovation, in turn, depended on other innovations in the harness and equipment for horses.” (Cameron and Neal 51)
       2. “Horses were not often used for plowing before the tenth century.” (Cameron and Neal 52)
          1. “Partly this was a matter of cost: horses were more expensive to breed than cattle, consumed more expensive feed, and were in demand by the well-to-do for both warfare and transport.” (Cameron and Neal 52)
          2. 800s: “But there was also a more fundamental reason. Before the Middle Ages the harness [52] used for horses was designed in such a way that it cut across the throat and interfered with breathing, thus reducing their effectiveness as draft animals. Sometime before the tenth century the horsecollar, which rested on the horses’s shoulders, was introduced in western Europe, probably from Asia.” (Cameron and Neal 52-53)
          3. “Soon afterward the practice of shoeing horses was also introduced, to protect their hooves, which were more delicate than those of oxen.” (Cameron and Neal 53)
       3. “Thereafter the use of horses as draft animals for plowing and carting spread, but without fully replacing oxen—far from it. There was no question of the physical superiority of the horse; it was both stronger and faster than the ox. On the other hand, it cost more to breed, to feed (horses required oats or a similar grain), and to equip. Contemporary authors calculated that a horse could do about as much work as three or four oxen, but cost three or four times as much to maintain. Its adoption therefore depended on a fine economic calculation and was practical only under certain circumstances. First, a dependable, not too costly supply of oats was needed; that ruled out most areas where the two-course rotation survived because of soil or climate (i.e., most of the Mediterranean basin). In addition, the size of the unit of exploitation had to be sufficiently large to keep the animal fully employed and sufficiently productive to make him worth his keep. In effect, horse husbandry was confined to northern France, Flanders, parts of Germany, and England, but did not completely replace oxen even in those areas.” (Cameron and Neal 53)
          1. “Horses were also used in parts of eastern Europe, especially Russia, but in a different system of cultivation and with somewhat different results.” (Cameron and Neal 53)
       4. “There is thus a close but not a perfect correspondence between the use of horses for plowing and the three-course rotation and wheeled plows. Significantly, those areas were among the most productive agriculturally in the Middle Ages—and still are today.” (Cameron and Neal 53)
  1. minor innovations and improvements
     1. iron
        1. “As a result of new sources of supply and improvements in metallurgy, iron was more plentiful and cheaper in medieval Europe than in the ancient Mediterranean; in addition to its use for knightly armor and weapons, it found increasing use in agricultural implements: not only in the iron cutting edges of wheeled plows, replacing the wooden tips of Mediterranean plows, but also in such simple tools as hoes, pitchforks, and especially axes.” (Cameron and Neal 53)
        2. “Sickles for reaping grain were improved, and the scythe was invented for cutting hay.” (Cameron and Neal 53)
        3. “The harrow, used to break up clods, smooth the surface of the soil, and sometimes cover seeds, had been known in ancient times, but its design was improved with iron parts and its use was far more widespread.” (Cameron and Neal 53)
     2. natural fertilizers
        1. “The value of animal manure for fertilizing the soil had long been known, but more intensive efforts were made to collect and conserve it.” (Cameron and Neal 53)
        2. “In addition, the practice of marling (adding chalk or lime to the soil) increased the fertility of certain kinds of soils, as did the addition of peat to others.” (Cameron and Neal 53)
        3. 1200s: “In the thirteenth century, in regions of intensive cultivation, the technique of “green manuring” (plowing under clover, peas, and other nitrogenous plants) was devised to maintain or increase the fertility of the soil.” (Cameron and Neal 53)
        4. “. . . vetches, turnips, and clover [were used] as fodder crops for intensive grazing and hence heavy manuring . . .” (Cameron and Neal 53)
        5. “Such techniques . . . made it possible to introduce a four-course and even more complicated rotations in regions of intensive cultivation.” (Cameron and Neal 53)
     3. innovations in crops and livestock
        1. “Although the science of genetics was far in the future, even simple peasants knew [53] they could grow larger horses, better milk cows, and sheep with longer wool by careful breeding.” (Cameron and Neal 53-54)
        2. “Over the course of the Middle Ages a number of crops were introduced in Europe, widely diffused, and specially cultivated.” (Cameron and Neal 54)
           1. “Rye, which became the standard bread grain for much of northern and eastern Europe, was one; it was scarcely known, if at all, in ancient times.” (Cameron and Neal 54)
           2. “Much the same can be said of oats, so vital to a horse-powered economy.” (Cameron and Neal 54)
           3. “Peas, beans, and lentils, all previously grown, became more widely diffused and more common with the greater opportunities for cultivation, thus providing more varied and balanced diets.” (Cameron and Neal 54)
           4. “Many garden vegetables and fruits from the Mediterranean and even Africa and Asia were acclimatized in northern Europe.” (Cameron and Neal 54)

“Improved varieties of fruits and nuts were obtained by the technique of grafting, probably an Arab or Moorish invention.” (Cameron and Neal 54)

“From Muslims in Spain and southern Italy, Europeans learned of cotton, sugar cane, citrus fruit, and, most important, rice, which became a staple crop in the Po valley and elsewhere in Italy.” (Cameron and Neal 54)

“Mulberry trees and the culturing of silk worms also came to northern Italy by way of Islamic and Byzantine civilizations.” (Cameron and Neal 54)

* + - * 1. “Lacking both olives and wine, northern Europeans learned to grow rape-seed for oil and hops for beer.” (Cameron and Neal 54)
        2. “With the growth of textile industries, the demand for woad [“An annual Old World plant (*Isatis tinctoria*) in the mustard family, formerly cultivated for its leaves that yield a blue dye. 2. The dye obtained from this plant.” (*American Heritage Dictionary of the English Language*. 3rd ed. New York: Houghton Mifflin, 1996.)], madder [“1. a. A southwest Asian perennial plant (Rubia tinctorum) having small yellow flowers, whorled leaves, and a red root. b. The root of this plant, formerly an important source of the dye alizarin. c. A red dye obtained from the roots of this plant. 2. Color. A medium to strong red or reddish orange.” (*American Heritage Dictionary of the English Language*. 3rd ed. New York: Houghton Mifflin, 1996.)], saffron [“1. a. A corm[*sic*]-producing plant (*Crocus sativus*) native to the Old World, having purple or white flowers with orange stigmas. b. The dried aromatic stigmas of this plant, used to color foods and as a cooking spice and dyestuff. 2. Color. A moderate or strong orange yellow to moderate orange.” (*American Heritage Dictionary of the English Language*. 3rd ed. New York: Houghton Mifflin, 1996.)], and other natural dyestuffs increased; some small regions specialized completely in these products, importing their foodstuffs from outside.” (Cameron and Neal 54)

1. **population growth**
   1. “The most striking evidence of [medieval economic development] was the growth of population and its consequences, the rise of cities and the physical expansion of European civilization.” (Cameron and Neal 54)
   2. c. 950: population growth begins. (“. . . the middle of the eleventh century [is] about a hundred years after the beginning of the demographic upswing in the West . . .”) (Cameron and Neal 57)
   3. statistics
      1. 1000: western Europe: c. 12-15 million. “(For this purpose western Europe may be regarded as consisting of northern Italy, France, Benelux [“An economic union of Belgium, the Netherlands, and Luxembourg, originally established as a customs union in 1948” (*American Heritage Dictionary of the English Language*. 3rd ed. New York: Houghton Mifflin, 1996)], the German Federal Republic, Switzerland, the United Kingdom, Ireland, and Denmark.” (Cameron and Neal 54)
      2. 1000: Christian Europe (add Norway, Sweden, most of eastern Europe, and Christians in Spain, but exclude the Byzantine Empire): c. 18-20 million. (Cameron and Neal 54)
      3. 1300: western Europe: c. 45-50 million. (Cameron and Neal 55)
      4. 1300: Europe as a whole: 60-70 million. (Cameron and Neal 55)
      5. “These figures imply a significantly higher density for western Europe than for the rest of the continent; in [54] fact, it was precisely in the areas of manorial economy, especially northern Italy and northern France, that the population densities were greatest.” (Cameron and Neal 54-55)
      6. “In western Europe the growth can be attributed almost entirely to natural increase; elsewhere, migration from western Europe and the conquest or conversion of non-Christian peoples helped swell the total.” (Cameron and Neal 55)
   4. birth and death rates
      1. birth and death rates defined
         1. “The mathematical condition for a stable total population is an equivalence of crude birth and death rates.” (Cameron and Neal 55)
         2. A birth rate “of 35 means that there were 35 live births . . . during the year for each 1,000 people alive at the midpoint of the year.” (Cameron and Neal 55)
         3. A “death rate of 35 means that there were 35 . . . deaths during the year for each 1,000 people alive at the midpoint of the year.” (Cameron and Neal 55)
         4. “If the birth rate rises or the death rate falls, the population grows.” (Cameron and Neal 55)
         5. “Human biologists estimate that the physiological maximum birth rate, under the most favorable conditions, is 50 to 55; but in fact such high rates are rarely encountered. There is no equivalent maximum for the death rate—a rate of 1,000 would mean total destruction of the population—but rates of 250 or even 500 might be experienced for very short periods during severe famines or epidemics.” (Cameron and Neal 55)
      2. birth and death rates in Western Europe
         1. “. . . the population of Europe . . . certainly fell between the second and seventh” centuries. (Cameron and Neal 55)
         2. “. . . the population of Europe was stable or falling before the tenth century . . .” (Cameron and Neal 55)
         3. “Partial evidence from western Europe as well as analogies from other traditional (i.e., predominantly agrarian) societies suggest that crude birth and death rates were in the vicinity of 35 to 40 per thousand per year. . . . If, on the average, the birth rate exceeds the death rate by only three per thousand—for example, a birth rate of 38 or 40 against a death rate of 35 or 37—the ensuing rate of population increase would be 0.3 percent per year, which is sufficient to produce the growth implied by the estimates given earlier.” (Cameron and Neal 55)
   5. causes of population growth (“i.e., a rise in the birth rate or a fall in the death rate”) (Cameron and Neal 55)
      1. “The most likely explanation is better nourishment as a result of larger, more stable, and more varied food supplies.” (Cameron and Neal 55)
         1. “Death from outright starvation is rare even in today’s poorest countries, and no doubt was in medieval Europe as well.” (Cameron and Neal 55)
         2. “But an undernourished population, whether because of insufficient total caloric intake or an unbalanced diet, is more susceptible to disease than a better nourished one. The increase in agricultural productivity as a result of the three-course rotation and other improvements in agricultural technology could easily account for a slight decline in the average death rate, which, if sustained for many years, would bring about a significant rise in population.” (Cameron and Neal 55)
         3. “. . . the average birth rate may have increased slightly as well. Well-nourished parents are more likely to bear healthy children with a greater chance of surviving the rigors of infancy; and favorable economic circumstances may have encouraged earlier marriages, hence a longer child-bearing period.” (Cameron and Neal 55)
      2. other factors
         1. “Insofar as warfare and pillage were less common and destructive, the security of life would have increased both directly and indirectly, through its effect on production.” (Cameron and Neal 55)
         2. “. . . the manufacture and use of soap grew significantly, at least in the thirteenth century—possibly a minor factor in reducing the death rate.” (Cameron and Neal 55)
         3. 900-1400: “The climate in northern Europe might have ameliorated [55] slightly between the tenth and fourteenth centuries, but if so the influence of this change would have been felt mainly through greater agricultural productivity.” (Cameron and Neal 55-56)
         4. “In short, it is to the latter that we should ascribe major importance in permitting the growth of population, and improvements in agricultural technology were mainly responsible for this.” (Cameron and Neal 56)
   6. distribution of the increased population
      1. “There was, above all, a notable increase in the urban population . . . But only a fraction of the total population, substantially less than half, was absorbed by the growing towns. Much the larger part remained in agriculture, distributing itself in three main ways.” (Cameron and Neal 56)
         1. “First, the average density of existing settlements increased. New land was cleared on the outskirts of fields already under cultivation and, at least in the thirteenth century and especially in the first half of the fourteenth century, the average size of plots was reduced as more villagers had to find a place in the by then saturated settlements.” (Cameron and Neal 56)
         2. “Second, and more important, formerly wild and unsettled land was cultivated.” (Cameron and Neal 56)
            1. “At the beginning of the tenth century villages in northwestern Europe (and even more so farther north and east) were widely scattered, with large tracts of virgin forest or wasteland in between. A major effort of clearing and reclamation, not unlike that engaged in by European colonists in America in later centuries, was needed to bring these lands into cultivation. A similar effort was undertaken to regain polderlands from the sea in Flanders, Zealand, and Holland. Most of these reclamation efforts were made at the instigation, or at least with the permission, of great lords in whose administrations the lands lay: but to attract settlers for the arduous work of clearing and reclamation, the lords were frequently obliged to renounce the possession of demesne land and labor service from the settlers. The latter thus became rent-paying, but otherwise economically independent, farmers.” (Cameron and Neal 56)
            2. “The movement to clear forest and reclaim marshes and other wastelands was encouraged and directly assisted by several religious orders, notably the Cistercian brotherhood of monks. Founded in the eleventh century, the Cistercians followed a discipline of extreme asceticism, hard work, and withdrawal from the world. They established their abbeys in the wilderness, and devoted their efforts to making them economically productive, admitting peasants as lay brothers to assist with the work. Under the leadership of Bernard of Clairvaux (St. Bernard), who joined the order in 1112, new chapter houses proliferated throughout France, Germany, and England. By 1152 a total of 328 chapters ranged geographically from the Yorkshire moors to Slavonic territory in eastern Germany.” (Cameron and Neal 56)
         3. “Finally, European civilization expanded geographically to accommodate its larger numbers.” (Cameron and Neal 56)
   7. geographic expansion of Europe
      1. “The gradual incorporation of Scandinavia into European civilization and economy is a different matter, because it did not involve a migration of people nor a forced imposition of European institutions. We can also regard the Norman conquest of England as a domestic matter among Europeans, but this was scarcely the case with the reconquest of the Iberian peninsula and Sicily from the Muslims, the *Drang nach Osten* of German settlers in eastern Europe, and least of all the establishment of feudal monarchies in the Near East during the Crusades.” (Cameron and Neal 56)
      2. the reconquest of Spain
         1. “Although the Franks drove the Muslims south of the Pyrenees in the eighth [56] century, and a few miniscule Christian kingdoms held out in the mountainous northern regions, for more than 400 years Islamic states and civilization dominated the greater part of the Iberian peninsula. The Muslim (mainly Moorish) inhabitants were skilled in agriculture, especially horticulture [“cultivating fruits, vegetables, flowers, or ornamental plants” (*American Heritage Dictionary of the English Language*. 3rd ed. New York: Houghton Mifflin, 1996)]; they revived and extended the Roman irrigation system and made southern Spain one of the most prosperous areas of Europe. The capital, Cordova, was the largest city in Europe west of Constantinople; it was a major intellectual center as well, serving as a bridge for the transmission of knowledge from the ancient world to the emerging civilization of Europe.” (Cameron and Neal 56-57)
         2. “The Christian reconquest of the peninsula got underway in earnest in the tenth century, coincident with the growth of European population, and by the thirteenth century nine-tenths of the peninsula was in Christian hands. The reconquest took on a crusading character, and many of the warriors who took part came from north of the Pyrenees. The kingdom of Portugal, for example, was created by Burgundian knights. To support them and settle the wasted territory, the conquerors brought northern peasants with them, encouraged the migration of others, and attempted to transplant the manorial system. The topography and climate of Iberia, so different from that of northern France, was not hospitable to this innovation, however; modifications were introduced, but the end result was a hybrid system that was less productive than either northern manorialism or intensive Moorish agriculture, which the Christian population was unable to maintain.” (Cameron and Neal 57)
      3. Sicily
         1. 1050-1100: “In the latter part of the eleventh century, when the Christian reconquest of Spain and Portugal was in full swing and Duke William of Normandy successfully asserted his claim to be king of England, other Norman warriors descended on far-off Sicily and undertook its conquest from the Muslims. Before it was conquered by the Muslims Sicily had been a part of the Byzantine empire; thus its conquest by the Normans brought it, for the first time, into the ambit of the Western economy. For a time after its conquest, with its medley of Greek, Arab, and Norman elements, it was one of the most prosperous areas in Europe.” (Cameron and Neal 57)
      4. Southern Italy
         1. “Normans from Sicily also wrested southern Italy, the last remaining Byzantine territory in the West, from Constantinople.” (Cameron and Neal 57)
      5. Eastern Europe
         1. “Perhaps the most striking evidence of the economic vitality of medieval Europe was the German expansion into what is now Poland, Czechoslovakia, Hungary, Romania, and Lithuania.” (Cameron and Neal 57)
         2. pre-900: “Before the tenth century that area had been sparsely populated, mainly by Slavic tribes employing primitive agricultural techniques along with hunting and gathering.” (Cameron and Neal 57)
         3. 800s: “Austria had been a part of Charlemagne’s empire, but in the ninth century invading Magyars conquered and pillaged it. In 955 German forces decisively defeated the Magyars, after which the latter settled down in the central Hungarian plain and Austria was resettled by colonists from Bavaria.” (Cameron and Neal 57)
         4. “German missionaries subsequently converted the Hungarians and western Slavs to the Roman church, and the (German) Holy Roman emperors asserted their sovereignty over much of eastern Europe.” (Cameron and Neal 57)
         5. c. 1050: “About the middle of the eleventh century—that is, about a hundred years after the beginning of the demographic upswing in the West—German colonists began spreading eastward across the Elbe River into what became eastern Germany, conquering or displacing the native Wendish (Slavic) population. In the following century, after the devastation wrought by nomadic Mongols, the rulers and the church in Hungary and Poland invited German settlers into their territories, granting them various immunities and allowing them to bring their own legal and economic institutions. [57] Finally, in the thirteenth century the Teutonic Knights were charged with conquering, Christianizing (and incidentally Germanizing) the still pagan lands of Prussia and Lithuania in the eastern Baltic region.” (Cameron and Neal 57-58)
      6. “The colonization of this vast region was accomplished in several ways, but much of it involved a rudimentary form of economic planning. Individuals called locators, whose function was not unlike that of a modern real estate developer, made contracts with a great landlord or local ruler to establish a village or group of villages, and perhaps a town. They then toured the more advanced, densely settled parts of Europe, especially western Germany and the Low Countries, to recruit colonists. For settlements in low-lying or marshy areas, such as near the mouths of rivers, colonists from Holland and Flanders who had experience in dyking and draining were preferred. Where forests had to be cleared or wasteland reclaimed, peasants from Westphalia and Saxony predominated. Town-dwelling artisans and traders were also recruited, as the colonization plans envisaged not only purely agricultural settlements but also networks of market towns. The rural settlers brought with them the manorial form of organization and the more advanced agricultural technology that went with it. Rents included both money and in-kind payments to the landlord (usually after the lapse of a stipulated number of years, while they made the land productive), but they had more land, fewer burdens, and greater freedom than in the regions from which they came. Locators usually received larger allotments of land than ordinary peasants; sometimes they settled down and became headmen in the villages they established, but frequently they sold their rights and moved on to repeat the process. Religious orders, especially the Cistercians and of course the Teutonic Knights, were also involved in the expansion. The Teutonic Knights founded numerous towns and cities, including Riga, Memel, and Königsberg, and engaged themselves in commercial activities.” (Cameron and Neal 58)
      7. “The overall economic results of this expansion may be summed up as a diffusion of more advanced technology, a significant increase in population through natural increase as well as immigration, a great extension of the cultivated area (new resources), and an intensification of economic activity.” (Cameron and Neal 58)
      8. intensification of economic activity
         1. c. 1250: “As early as the middle of the thirteenth century grain was being shipped from Brandenburg to the Low Countries and England via the Baltic and North seas . . .” (Cameron and Neal 58)
         2. “. . . subsequently Poland and East Prussia became major suppliers not only of grain but also of naval stores and other raw materials.” (Cameron and Neal 58)
         3. “Finally, although this consequence goes beyond the purely economic sphere, the German expansion tied eastern Europe more closely to the emerging civilization of the West.” (Cameron and Neal 58)
      9. “The Crusades, unlike the German push to the East, did not result in a permanent geographic expansion of European civilization; their causation was more complex, involving religious and political motivations to a greater extent than economic. Yet Pope Urban II, in advocating the first crusade in 1095, gave as one of his reasons Europe’s “overpopulation,” and without the vitality of a growing population and production Europeans would have been unable to mount the considerable military and economic effort the Crusades represented. Significantly, the crusading era ended with the long secular depression of the fourteenth century.” (Cameron and Neal 58)
      10. The Crusades “stimulated the growth of trade and production. Not only was it necessary to finance and supply the crusading armies, but temporary conquests by Christians in the eastern Mediterranean opened up new sources of supply and new markets for Western [58] merchants. It is not true, as was once believed, that the Crusades were responsible for the revival of trade—that had already occurred before the Crusades began; but they were intimately related to its extension and continued growth.” (Cameron and Neal 58-59)
2. **the revival of urban life**
   1. “The urban population had begun to decline even before the fall of Rome. During the early Middle Ages in northern Europe many urban sites were abandoned altogether; others remained as hollow shells housing a few lay or ecclesiastical administrators and their retainers. They drew their basic supplies from the immediately surrounding countryside, frequently from their own estates. Long-distance trade was confined largely to luxury goods, including slaves, destined for the courts of rich and powerful nobles, both secular and religious; its agents were foreigners, mainly Syrians and Jews, who were granted special protection and passes by their customers.” (Cameron and Neal 59)
   2. Italy
      1. “In Italy, although the cities suffered and shrank during the centuries of invasion and pillage, the urban tradition lingered. Before the eleventh century Italian political, cultural, and economic contacts with the Byzantine Empire (and, after the seventh century, with Islamic civilization) were as strong as or stronger than those with northern Europe. Italian cities were thus in a position to act as intermediaries between the wealthier, more advanced East and the poor and backward West, a position from which they profited . . .” (Cameron and Neal 59)
      2. “Urban growth began first in the port cities . . .” (Cameron and Neal 59)
         1. 500-900: “Amalfi, Naples, Gaeta, and other port cities in the southern half of the peninsula, which maintained their political affiliation with Constantinople but were sufficiently distant not to be unduly hampered by imperial regulation, were the principal intermediaries between the sixth and ninth centuries.” (Cameron and Neal 59)
         2. 500s on: “Venice, literally forced to the sea and to maritime trade by the Lombard invasion of the sixth century, which cut it off from its agricultural hinterland, developed rapidly as an entrepôt.” (Cameron and Neal 59)
         3. 900s: “Pisa and Genoa were similarly forced to the sea to defend themselves against Muslim raiders in the tenth century; their counterattack was so successful that they soon found themselves in command of the entire western Mediterranean.” (Cameron and Neal 59)
      3. “Urban growth [was not confined to] the port cities . . . for long.” (Cameron and Neal 59)
         1. “The Lombard and Tuscan plains formed the natural hinterlands of Venice, Genoa, and Pisa; they were also among the most fertile agricultural regions of Italy, and they, too, clung to the ancient urban tradition of Rome. With the increase of agricultural productivity and the growth of population that it engendered, many peasants migrated to the urban centers, old and new, where they took up new occupations in commerce and industry. Milan was the outstanding example in Lombardy, Florence in Tuscany; but there were many others, smaller but equally bustling (Fig. 3-3). The interaction between town and country was intense. The country provided the surplus population to people the towns, but once there the new urban inhabitants provided larger markets for the produce of the country.” (Cameron and Neal 59)
         2. “City-states of Northern Italy in 1200.” (Cameron and Neal 60 figure 3-3)

Bergamo

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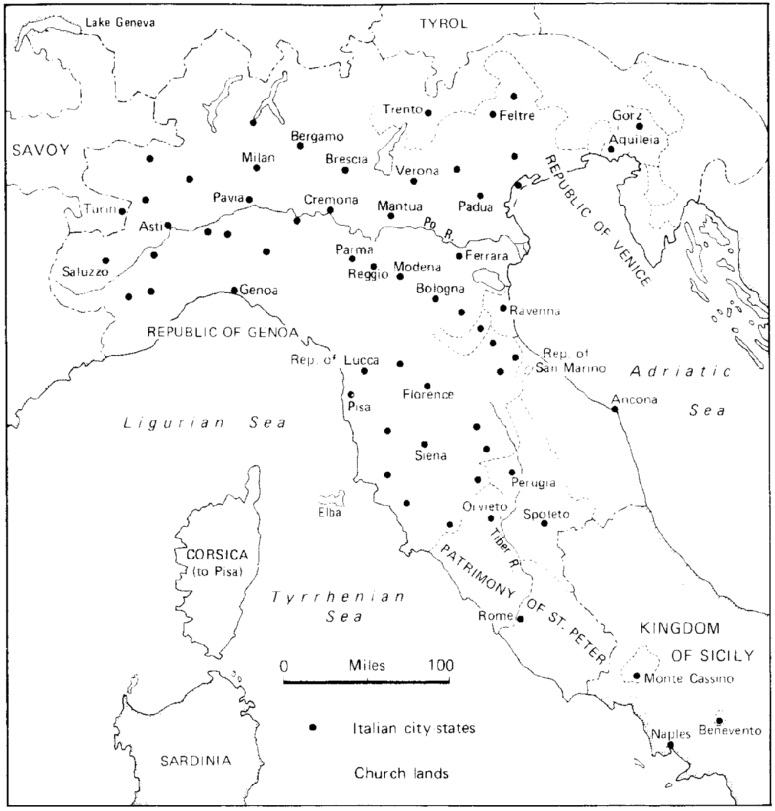
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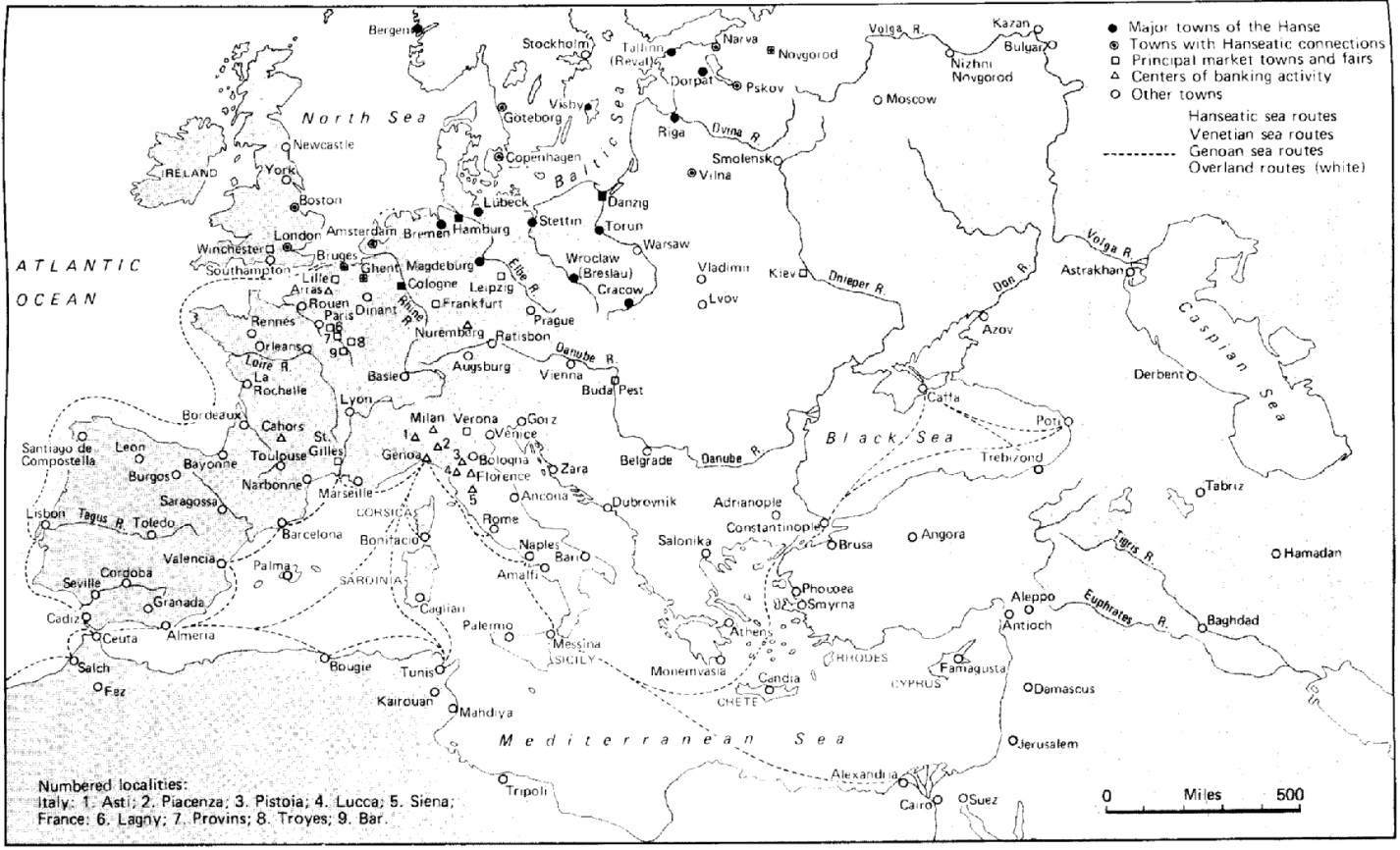
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* + - 1. “Under the pressure of market forces the manorial system, designed for rural self-sufficiency, began to disintegrate. As early as the tenth century tenant labor services were being replaced by money rents; shortly afterward feudal lords began to lease or sell their demesne lands to commercial farmers. The open fields of the manorial system were broken up, enclosed, and subjected to intensive tillage, frequently involving irrigation and heavy manuring. Many of the new [59] agricultural entrepreneurs were urban dwellers who applied to their lands, whether purchased or rented, the same careful calculations of cost and revenue that they had learned in business dealings.” (Cameron and Neal 59-60)
      2. free cities
         1. “As we have seen, the theorists of the feudal system made no provision for towns-people. Some kings and other great feudal lords tried to treat entire towns as vassals, but the exigencies of urban government, the demands of merchants for freedoms not possessed by other feudal subjects, and above all the pretensions of wealthy men of business did not easily fit into the feudal hierarchy. In the cities of northern Italy the more successful merchants banded together, sometimes with the cooperation of urban-dwelling lesser aristocrats who might also engage in trade, or at least lend money to those who did; they formed voluntary associations to attend to municipal affairs, to protect their common interests, and to settle disputes without recourse to the cumbersome feudal courts. In time these voluntary associations became urban governments, [60] called communes; they bargained with their feudal overlords for charters of freedom, or fought them for the same objective. As early as 1035 Milan won its freedom by force of arms. In Italy, moreover, unlike other parts of Europe, the cities proved strong enough to extend their power over the immediately surrounding countryside, similar to the Greco-Roman city-states of ancient civilization. A map of Italy north of the Tiber in the thirteenth century resembles a mosaic whose tiles are the territories of the communes. In 1176 a league of Lombard cities defeated the armies of the Emperor Frederic Barbarossa to confirm their freedom and independence.” (Cameron and Neal 60-61)
  1. elsewhere in Europe
     1. “Elsewhere in Europe urban development began later and was less intense than in northern Italy. Towns and cities grew—in the Low Countries, in the Rhineland, scattered across northern France, in Provence and Catalonia; the locators of Germany and eastern Europe even carried town plans with them into the wilderness—but with few exceptions they were neither as large nor as concentrated as the cities of northern Italy. Above all, they did not succeed to nearly the same extent in winning autonomy or independence from territorial princes.” (Cameron and Neal 61)
     2. populations c. 1300
        1. Milan: 200,000
        2. Venice, Florence, and Genoa: over 100,000
        3. several other Italian cities: 20,000-50,000
        4. “. . . few cities in northern Europe could reach” 50,000. (Cameron and Neal 61)
        5. “Paris, which combined the functions of territorial capital and seat of a great court, commercial and industrial town, and university center, may have equaled Milan in population, although some doubt its population exceeded 80,000.” (Cameron and Neal 61)
        6. 1377: London: 35,000-40,000
        7. 1377: Cologne: 35,000-40,000 (“by far the largest city in Germany”). (Cameron and Neal 61)
     3. the Low Countries
        1. “The only region that could compare with northern Italy, in terms of urban development, was the southern Low Countries, especially Flanders and Brabant. Although Ghent, the largest city, had only about 50,000 inhabitants at the beginning of the fourteenth century, the urban population as a whole may have constituted about one-third of the total, approximately the same as in northern Italy. There are other similarities as well. Not only did these two areas have the largest urban populations, but their overall densities were also the greatest in Europe. Their agriculture was the most advanced and intensive, and they contained the most important commercial and industrial centers.” (Cameron and Neal 61)
  2. “The question naturally arises, did men move to cities and turn to commerce and industry because there was no place for them on the land, or did the existence of towns and trade, with their potentially lucrative markets, stimulate the cultivators to greater production and productivity? There can be no definitive answer to this question; undoubtedly, there were reciprocal influences. But the fact that agriculture was always more intensive and productive in the vicinity of towns and cities than in the open countryside suggests an important role for urban demand and markets.” (Cameron and Neal 61)

1. “**development and nature of the market mechanism**” (Cameron and Neal 61)
   1. 800s: “In Carolingian times merchants were usually foreigners—“Syrians” (almost anyone from the Levant) and Jews.” (Cameron and Neal 65)
   2. 900s-1200s: “With the revival of commerce in the tenth century European merchants became more prominent, but until well into the thirteenth century merchants continued to be itinerant. It was a vigorous life, requiring physical stamina and courage as well as a head for business. By land, merchants frequently traveled in caravans, bearing their own arms or hiring armed guards to ward off bandits. By sea, they were also armed against pirates and had to contend with the possibility of shipwreck as well. It is scarcely surprising that such merchant voyages were called “adventures.”” (Cameron and Neal 65)
   3. luxury goods from the East (trade between Italy and the Levant)
      1. “Mile for mile, land transport is generally more expensive than transport by water. This was true to an even greater extent before the locomotive steam engine and the internal combustion engine were invented. This accounts for the great importance of seaborne trade prior to the industrial age.” (Cameron and Neal 64)
      2. “The most prestigious and profitable trade was no doubt that which stimulated the commercial revival between Italy and the Levant. Even before the Italians made it [61] their own, the route had been used by Eastern merchants bringing luxury goods to Western courts. After the Italians took charge, luxury goods—spices from as far east as the Moluccas, silk and porcelain from China, brocades from the Byzantine Empire, precious stones, and other goods—still dominated the movement from east to west, but in addition there were such bulky goods as alum from Asia Minor and raw cotton from Syria. In the opposite direction went common cloth of wool and linen, furs from northern Europe, metalwares from central Europe and Lombardy, and glass from Venice.” (Cameron and Neal 61-62)
      3. “The Venetians had traded with the Byzantine Empire from the very beginnings of their history, but they secured a favored place in the latter part of the eleventh century in return for aid against the Seljuk Turks; as a result, they obtained free access to all ports of the empire without payment of customs duties or other taxes—a privilege not granted even to the empire’s own merchants.” (Cameron and Neal 62)
      4. “Meanwhile Genoa and Pisa, having driven the Muslims from Corsica and Sardinia, descended on their strongholds in North Africa, looted their cities, and extracted specially favorable terms for their own ships and merchants. Subsequently Genoa defeated Pisa for undisputed mastery of the western Mediterranean and challenged Venice for control of the East.” (Cameron and Neal 62)
      5. “During the Crusades the Italian cities, in concert and in rivalry, intensified their penetration of the Levant; they established colonies and special privileged enclaves from Alexandria along the Palestinian and Syrian coasts, in Asia Minor, Greece, the suburbs of Constantinople, and around the shores of the Black Sea from the Crimea to Trebizond [“city of northeast Turkey on the Black Sea” (*American Heritage Dictionary of the English Language*. 3rd ed. New York: Houghton Mifflin, 1996)]. Genoese ships, built on the spot, even sailed the Caspian Sea and Persian Gulf. The fall of the kingdom of Jerusalem and the failure of the Crusades scarcely affected the Italian positions in the East; instead, the Italians made treaties with Arabs and Turks and continued “business as usual.”” (Cameron and Neal 62)
      6. “A special, exotic extension of the Eastern trade that flourished from the mid-thirteenth to the mid-fourteenth century was that with China. During that period the Mongol Empire, the most extensive land empire the world has ever seen, stretched from Hungary and Poland to the Pacific. The Mongol rulers, in spite of their fierce reputations, welcomed Christian missionaries and Western traders. Again, the Italians dominated the trade, with colonies in Peking and other Chinese cities as well as India. Merchants’ handbooks described the itineraries—overland through Turkestan [“from the Caspian Sea to the border of China and south from the Aral Sea into Afghanistan” (*American Heritage Dictionary of the English Language*. 3rd ed. New York: Houghton Mifflin, 1996)], “the great silk route,” or Persia, or by sea through the Indian Ocean—in great detail and gave useful hints as to what merchandise would be in demand. Marco Polo’s account of his adventures was one of the first “best-sellers” in Europe.” (Cameron and Neal 62)
   4. the western Mediterranean
      1. Trade “included spices and other luxury products from the East, of course, but more important, at least to the Italians, were their grain supplies from Sicily. That was a regular flow, except in times of war and blockade, necessary for the survival of the grain-poor Italian cities. In addition, other ordinary commodities such as salt, dried fish, wine, oil, cheese, and dried fruits moved from regions of specialized production or temporary surplus to those with chronic or temporary deficits. In spite of the relatively slow communications, alert merchants and active markets saw to it that effective demand did not go unsatisfied for long. Although the great Italian ports dominated this trade also, they shared it, more or less willingly, with Catalan, Spanish, Provençal, Narbonaise, and even Muslim traders (see Fig. 3-4).” (Cameron and Neal 62)
      2. “The medieval economy at its peak.” (Cameron and Neal 63 figure 3-4)



* 1. the North and Baltic Seas (the Hansa)
     1. “The northern seas, though less busy than the Mediterranean, grew steadily in [62] importance in the Middle Ages. In the early Middle Ages the Frisians had been the principal carriers of the slender volume of trade along the North Sea coasts and up the great rivers. As the Baltic became more prominent they were succeeded by the Scandinavians, but in the later Middle Ages the great German trading cities, organized in the Hansa (usually incorrectly called the Hanseatic League), dominated the trade of both the Baltic and North seas.” (Cameron and Neal 62, 64)
     2. “The Hansa, which eventually included almost 200 cities and towns, was not formally organized until 1367, in response to the threat of the king of Denmark to restrict their activities; but it had been preceded by many years of informal cooperation among German merchants in foreign cities. In Venice, for example, there was a “German foundation,” which provided lodging and board for itinerant German merchants, as well as advice and assistance in marketing their wares. In London the “Steelyard” (*Stalhof*), a district inhabited by resident German merchants, won rights of extraterritoriality and self-government as early as 1281. Similar German colonies existed in Bruges, in Bergen, Norway, in Visby on the island of Gotland, and elsewhere in the Baltic, as well as in the great trading city of Novgorod in Russia. Riga, Memel, and Danzig, among others, were entirely German cities established as enclaves in foreign lands. Their merchants carried the grain, timber, naval stores and other commodities produced by German colonists in the Baltic hinterland to the thriving cities growing up around the North Sea.” (Cameron and Neal 64)
  2. regional specialization in production
     1. 1100s: “regional specialization in production was becoming a marked feature of the medieval economy.” (Cameron and Neal 64)
     2. “The most famous example was the Gascon wine trade, with its headquarters in Bordeaux . . .” (Cameron and Neal 64)
     3. “. . . the Flemish woolen industry depended heavily on supplies of raw wool from England . . .” (Cameron and Neal 64)
     4. “. . . the Baltic lands became increasingly important as sources of grain to feed the highly urbanized Low Countries.” (Cameron and Neal 64)
     5. “Farther south, Portuguese, French, and English ships brought salt and wine northward, returning with cargoes of dried and salted fish.” (Cameron and Neal 64)
  3. trade between northern Italy, and Germany and the Low Countries
     1. Though “land transport is generally more expensive than transport by water . . . there was one great exception to this rule—the trade between northern and southern Europe, especially the trade of northern Italy with Germany and the Low Countries. Before the advances in ship design and navigational techniques of [c. 1275-1400], the sea route between the Mediterranean and the North Sea was hazardous and not especially profitable. For this reason the great Alpine passes (Brenner, St. Gothard, Simplon, St. Bernard, Mt. Cenis, and others) were more heavily trafficked than the Straits of Gibraltar, in spite of their own obstacles and hazards.” (Cameron and Neal 64)
     2. “Feudal lords, through whose lands the routes passed, put down bandits and improved the roads, for which they charged tolls, although the competition of alternative routes kept them to a reasonable level. Religious brotherhoods organized relay stations and rescue services, of which St. Bernard dogs with their casks of brandy are the most memorable symbol. Professional companies of carters and muleteers provided transport facilities in an atmosphere of lively competition.” (Cameron and Neal 64)
     3. “The most important emporia at the southern end of the route were the cities of the Lombard plain, especially Milan and Verona. There [64] were numerous destinations in the north, from Vienna and Cracow in the east to Lübeck, Hamburg, and Bruges in the extreme north and west . . .” (Cameron and Neal 64-65)
  4. fairs
     1. “. . . but the majority of the goods changed hands in the great fairs or markets of Leipzig, Frankfurt, and especially the four fair towns of Champagne.” (Does the “but” mean “more than the north-south Alpine trade,” or “more than the Alpine, the Italian, the west Mediterranean, and the North-Sea-Baltic trade”?) (Cameron and Neal 65)
     2. 1100s: “The fairs of Champagne emerged in the twelfth century as the most important meeting place in Europe for merchants from north and south. Under the protection of the counts of Champagne, who provided merchandising facilities and special commercial courts as well as protection on the road for traveling merchants, the fairs rotated almost continuously throughout the year among the four towns of Provins, Troyes, Lagny, and Bar-sur-Aube. Located roughly midway between Europe’s two most highly developed economic regions, northern Italy and the Low Countries, they served as meeting ground and place of business for merchants from each; but they also played a role in the trade of northern Germany with southern France and the Iberian peninsula.” (Cameron and Neal 65)
     3. “The commercial practices and techniques that developed in these towns—for example, the “letters of fair” and other credit instruments, and the precedents of their commercial courts—exercised an influence far broader and longer lasting than the fairs themselves. Even after their decline as commodity trading centers, they continued for many years to serve as financial centers.” (Cameron and Neal 65)
  5. the commercial revolution, c. 1250-1350
     1. 1250-1300: “In the latter decades of the thirteenth century voyages from the Mediterranean to the North Sea became increasingly frequent . . .” (Cameron and Neal 65)
     2. 1310-1320: “in the second decade of the fourteenth century both Venice and Genoa organized regular annual convoys, the famous Flanders fleets. These seagoing caravans took merchandise from the Mediterranean ports directly to the great permanent market in Bruges (and subsequently to Antwerp), thereby undercutting some of the functions of the Champagne fairs. Although overland trade did not cease entirely (in the fifteenth century Geneva played a role very similar to that of Champagne), a new phase in the economic relations between northern and southern Europe had clearly opened. It involved not only new routes and new means of transport, but also a shift in both the scale of commerce and the mechanisms of business organization. Great trading and financial companies, with headquarters in the major Italian cities and branches throughout Europe, replaced individual traveling merchants as the principal agents of commerce. This development, sometimes called a “commercial revolution,” was of primary importance in the next age of European expansion that began in the fifteenth century.” (Cameron and Neal 65)
     3. the *commenda* (a form of two-person partnership)
        1. “Under the simplest circumstances merchants worked for their own account; their entire capital consisted of the stocks of goods they carried.” (Cameron and Neal 65)
        2. 1100s: “Very early, however, a form of partnership, the *commenda*, came into use: one merchant, perhaps too old for the rigors of travel, provided the capital for another, who actually undertook the voyage. [65] Profits were divided, usually three-fourths for the sedentary capitalist and one-fourth for the active partner. Such contracts were most common in the sea trade of the Mediterranean, but they were also used in overland travel; usually they were limited to a single (round-trip) venture, but a successful venture was often followed by another contract between the same partners. . . . In Genoa and other Italian cities, as early as the twelfth century, many individuals who were not actually active in trade invested in trade by this means.” (Cameron and Neal 65-66)
        3. “Sometimes the sedentary merchant would specify the destination and the return cargo, which he might undertake to dispose of in the home port; but it was not uncommon, especially when the “capitalist” was a widow, a foundation or religious establishment, or a trustee acting on behalf of minor children or orphans, for the active partner to make all the key decisions.” (Cameron and Neal 66)
     4. the *vera società* (“true company”: several partners)
        1. “As the volume of trade expanded and commercial practices became standardized, a new form of business organization—the *vera società*, or true company—arose to rival, and sometimes supplant, the *commenda*.” (Cameron and Neal 66)
        2. “It had several, sometimes numerous partners, and frequently operated in many cities throughout Europe. The Italians were by far the most prominent in this type of organization; from headquarters in Florence, Siena, Venice, or Milan, they could operate branches in Bruges, London, Paris, Geneva, and several other cities. They frequently engaged in banking along with mercantile operations (or vice versa).” (Cameron and Neal 66)
        3. “In addition to maintaining branches, these great companies had their own ships and wagon and mule trains; some owned or leased metal mines and other mineral deposits.” (Cameron and Neal 66)
        4. “The Bardi and Peruzzi companies of Florence were the largest business organizations in the world before the great chartered companies of the seventeenth century; but both were bankrupted in the 1340s as a result of overextensions of credit to Edward III of England and other impecunious [“penniless”] sovereigns.” (Cameron and Neal 66)
     5. “other means of spreading the risks of long-distance commerce” (Cameron and Neal 66)
        1. “Shipowners might lease their ships to several merchants [too small to afford their own ships] in common who traded separately but joined forces to rent the ship.” (Cameron and Neal 66)
        2. “Or a single entrepreneur might lease an entire ship, then retail space in it to other merchants.” (Cameron and Neal 66)
        3. “Various types of sea loans were devised to give nontrading investors an interest in the profits without either making them partners in the enterprise or violating the usury laws.” (Cameron and Neal 66)
        4. 1400: “By the end of the thirteenth century maritime insurance was common.” (Cameron and Neal 66)
  6. banks, credit, and currency
     1. 1100s: “Primitive deposit banks were set up in Venice and Genoa as early as the twelfth century. Originally intended as mere safe deposits, they soon began to transfer sums from one account to another on oral order and, less frequently, on written order. Although legally forbidden to make loans on fractional reserves, the banks granted overdraft facilities to favored depositors, thereby creating new means of payment. Such banks were found only in the major commercial centers; outside of Italy, these were chiefly Barcelona, Geneva, Bruges, and London. (Lombard Street, the heart of the present financial district of London, got its name from the large number of Italian bankers who kept offices there.)” (Cameron and Neal 66)
     2. “Elsewhere, however, private bankers bought and sold bills of exchange to facilitate long-distance trade. Because of the high risk and expense of shipping coin and bullion [“Gold or silver in the form of bars, ingots, or plates” (*American Heritage Dictionary of the English Language*. 3rd ed. New York: Houghton Mifflin, 1996)], merchants preferred to sell on credit, invest the proceeds in a return cargo, and realize profits only after the latter had been disposed of. Virtually all of the business of the Champagne fairs was conducted by means of credit; at the end of one fair unsettled balances were carried over to the next by means of letters of [66] fair, a kind of bill of exchange. Although bills of exchange developed in connection with commodity trade, they were eventually used purely as financial instruments, with no direct connection to actual commodities.” (Cameron and Neal 66-67)
     3. “Another reason for the widespread dependence on credit was the multiplicity and confusion of coinage. Most regions of western Europe used the Carolingian monetary system of pounds, shillings, and pence (in Latin, *libra*, *solidus*, *denarius*), but this apparent unity masked a bewildering disunity of actual monies. For one thing, the Genoese lira did not have the same value as the English pound, the French livre, or even the Milanese or Pisan lire. More fundamentally, both the pound and shilling were mere monies of account; no actual coins of those values were struck until very late in the Middle Ages. The most common coins in the eleventh and twelfth centuries were pennies; not only were these inconvenient for large payments, but they were minted by numerous authorities—kings, dukes, counts, even abbeys—with different sizes, weights, and silver contents. Larger silver coins came into use about the beginning of the thirteenth century, but these, too, lacked uniformity of both weight and fineness. Hard-pressed sovereigns with inadequate tax revenues frequently resorted to debasement of the coinage to extend their resources. Under such circumstances the money changers, whose business it was to know the values of the scores of different types of coin, performed an important function in the fairs and commercial cities. From their ranks came many bankers (Fig. 3-5).” (Cameron and Neal 67)
        1. “Figure 3-5. Tuscan banker. A banker with his assistant, seated on his *bancum* (bench) behind his “counter,” in which he kept his *conti* (accounts) and over which he counted out money. Many bankers evolved from money changers.” Cameron and Neal 67)
     4. 1252: “. . . Europe at last obtain[ed] a really stable currency, the famous gold florin [67] first issued in Florence in 1252. . . . The florin was ideally suited for mercantile purposes—stable in value, relatively large denomination—but by the time it came along, credit had already become an indispensable part of commercial activity.” (Cameron and Neal 67-68)
        1. “Genoa had minted a similar coin a few months earlier, but it was not as popular . . .” (Cameron and Neal 68)
        2. “. . . in 1284 Venice began minting similar coins, called ducats or sequins, which were widely used—and imitated—in the eastern Mediterranean.” (Cameron and Neal 68)

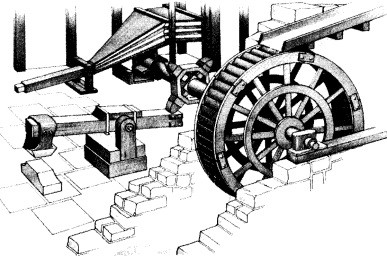
1. **manufacturing** (“industrial technology and the origins of mechanical power,” Cameron and Neal 68)
   1. “Industry”: “Commercial [i.e., intended for commerce (not consumption but trade)] production and sale of goods.” (*American Heritage Dictionary of the English Language*. 3rd ed. New York: Houghton Mifflin, 1996.)
   2. “There may have been some slight regression in technical competence in the early Middle Ages—in architecture and building, for example—but by the year 1000 the average level of technology was at least as high as in ancient times. Thereafter, innovations occurred in steadily increasing numbers so that, from the viewpoint of the history of technology, there is no hiatus between medieval and modern times.” (Cameron and Neal 68)
   3. textiles
      1. “The largest and most ubiquitous industry was no doubt the manufacture of cloth, although the building trades, taken together, may have been a close second. Cloth was made in every country, every province, almost in every household of Europe . . .” (Cameron and Neal 68)
      2. 1000s: “by the eleventh century some areas had definitely begun to specialize in it. Of these the most important was Flanders and the surrounding area in northern France and what is now Belgium. Other centers of importance were northern Italy and Tuscany (Florence alone employed several thousand cloth workers in the fourteenth century), southern and eastern England, and southern France.” (Cameron and Neal 68)
      3. types of cloth
         1. “Wool was by far the most important raw material and woolen cloth the most important product. Differences in type and quality of cloth produced in different regions account for the widespread trade within Europe.” (Cameron and Neal 68)
         2. “Besides wool, linen was produced in many areas, especially France and eastern Europe.” (Cameron and Neal 68)
         3. “Silk and cotton production were confined to Italy and Muslim Spain.” (Cameron and Neal 68)
      4. Although the more skilled workers, such as dyers, fullers, shearers, and even weavers, were organized in guilds, the industry was dominated by merchants (also organized in guilds), who bought the raw materials and sold the final product. The less skilled workers, including spinners (and spinsters), lacked organization and generally worked directly for the merchant.” (Cameron and Neal 68)
      5. “In Flanders and England these merchant-manufacturers sent or “put out” the raw or semifinished materials to the weavers and other artisans, who worked them up in their own homes or shops; but in Italy the work was done in shops or sheds, under the eye of a supervisor.” (Cameron and Neal 68)
      6. c. 1200: “The productivity of labor, compared with that in ancient times, increased severalfold as a result of a trio of interrelated technical innovations:
         1. “the pedal loom, replacing the simple weaving frame;
         2. “the spinning wheel, replacing the distaff [“A staff that holds on its cleft end the unspun flax, wool, or tow [“Coarse broken flax or hemp fiber prepared for spinning”] from which thread is drawn in spinning by hand. b. An attachment for a spinning wheel that serves this purpose.” (*American Heritage Dictionary of the English Language*. 3rd ed. New York: Houghton Mifflin, 1996)];
         3. “and the water-powered fulling mill.

“Their inventors are unknown, but the devices spread surprisingly fast throughout Europe at the beginning of the twelfth century (Fig. 3-6). Lowered costs of production is no doubt a sufficient reason for their diffusion, but they also reduced the tedium of labor.” (Cameron and Neal 68)

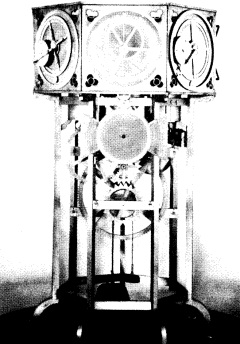
* + 1. knitting
       1. “This picture of the Virgin Mary knitting a garment for her unborn child, taken from a stained glass altarpiece of a church in western Germany, is the first known representation of knitting, a medieval invention. Knitwear was unknown in the ancient Mediterranean world, but was very useful in the colder, damper climate of northern Europe.” (Cameron and Neal 69 figure 3-6)



* 1. metallurgy
     1. Unlike in antiquity, in the middle ages iron became cheaper than copper and bronze. (Cameron and Neal 70)
     2. “. . . in addition to its continued use for arms and armor it was used in an increasingly wide variety of tools and for other utilitarian purposes. The greater abundance and lower price of iron were partly a result of the greater accessibility of iron ore, and especially fuel (charcoal), in Europe north of the Alps. Improvements in technology, notably the use of water power to actuate bellows and large trip hammers, were also important, however. Toward the beginning of the fourteenth century [c. 1300] the first precursors of the modern blast furnace, replacing the so-called Catalan forge, made their appearance. The organization of miners and primary metalworkers in free communities of artisans, in contrast with the slave gangs of Roman times, no doubt facilitated technological change.” (Cameron and Neal 70)
     3. “Consumer demand should also be taken into account when considering the increased output and pressures for improved technology. When peasants, even serf peasants, and artisans owned their own tools, and their own well-being was in direct proportion to the efficacy of their efforts, it behooved them to buy the best tools and implements they could afford. The use of horseshoes and iron fittings on harnesses, carts, and plows is evidence that the peasants and artisans were aware of this. The ubiquity of the names Smith and Schmidt (or Schmied) in English and German also testifies to the numerous artisans who earned their living by filling their neighbors’ demand for metalwares.” (Cameron and Neal 70)
  2. leather
     1. “Another industry of great practical use that expanded appreciably beyond its classical dimensions was tanning and leather working. It is difficult for a twentieth-century urban dweller, surrounded by synthetic and plastic materials, to appreciate the importance of leather to earlier generations. In addition to its uses in saddles, harnesses, and such, it was used for furniture, clothing, and industrial equipment such as bellows and valves.” (Cameron and Neal 70)
  3. woodworking and pottery
     1. “Similarly, woodworking and pottery occupied a much larger place, proportionately, in medieval industry than in earlier or more recent times; their output found literally hundreds of uses, both ornamental and utilitarian.” (Cameron and Neal 70)
  4. Far from being tradition-bound . . . [medieval people] deliberately sought out novelty, both for its own sake and for immediate, practical purposes.” (Cameron and Neal 70)
     1. “. . . medieval tinkers, not classical philosophers, [invented] eyeglasses . . .” (Cameron and Neal 70)
     2. “. . . medieval tinkers, not classical philosophers, [invented] mechanical clocks.” (Cameron and Neal 70)
     3. “The astrolabe and compass came into general use in Europe during the Middle Ages, in connection with the momentous improvements in navigational technique and ship design that help delineate the medieval from the modern age.” (Cameron and Neal 70)
     4. “. . . gunpowder and firearms were medieval inventions, although their period of greatest effectiveness came later.” (Cameron and Neal 70)
     5. “Soapmaking, although not a complete novelty, expanded considerably.” (Cameron and Neal 70)
     6. “Papermaking was a new industry whose cultural significance was far greater than its economic weight.” (Cameron and Neal 70)
     7. “And printing from movable type, one of the most important innovations since the dawn of civilization, was also a late medieval invention.” (Cameron and Neal 70)
  5. waterwheels
     1. “. . . possibly the most characteristic expression of medieval man’s deliberate search for new and more efficient means of production can be found in the history of mills and millwork.” (Cameron and Neal 70)
     2. “Simple horizontal waterwheels, turned by the flow of a current, were used at least as early as the first century b.c. Archaeological and documentary evidence for them have been found as far apart as Denmark and China, as well as within the Roman [70] Empire. No one knows where they originated; there are occasional instances of their use for grinding grain during the imperial period, but the Emperor Vespasian (a.d. 69-79) reputedly rejected a design for a water-driven hoist to raise heavy stones for fear of causing unemployment. Labor, whether slave or free, was cheap in the Roman Empire, and builders and entrepreneurs saw no need for labor-saving machinery.” (Cameron and Neal 70-71)
     3. 500-900: “Exactly when men changed their notions about the usefulness of such machines is difficult to ascertain, but apparently it was sometime between the sixth and tenth centuries.” (Cameron and Neal 71)
     4. 1086: “When William the Conqueror ordered his survey of the resources of England in 1086, his agents counted 5,624 watermills in approximately 3,000 villages—and England was by no means the most advanced area in Europe, economically or technically.” (Cameron and Neal 71)
        1. “Moreover, most of the mills, there and elsewhere, were far more sophisticated and powerful than the simple horizontal wheel. The majority were vertical, overshot wheels in which the weight of the falling water provides far more force than a gentle current. They had complicated gearing for transmission and modification of the power (Fig. 3-7).” (Cameron and Neal 71)
        2. “. . . mills saved labor, increased production, and made possible tasks that were previously considered impossible.” (Cameron and Neal 72)
        3. “This model of a waterwheel is arranged to actuate both a trip hammer and bellows.” (Cameron and Neal 71 figure 3-7)



* + 1. by 1300: “water power was used not only to grind grain but to grind, crush, and mix other substances, to make paper, full [“To increase the weight and bulk of (cloth) by shrinking and beating or pressing” (*American Heritage Dictionary of the English Language*. 3rd ed. New York: Houghton Mifflin, 1996)] cloth, saw both timber and stone, move bellows and trip hammers for forge and furnace, and wind silk.” (Cameron and Neal 71)
    2. “Despite their great utility, waterwheels had many limitations. Most important, they required a steady flow or fall of water. Thus, they could not be used in semiarid areas or in low-lying, marshy land.” (Cameron and Neal 71)
    3. c. 1050: “In Venice as early as the middle of the eleventh century a mill wheel actuated by the movement of the tides was in operation. Within the next few centuries many others were erected around the sea coasts of Europe.” (Cameron and Neal 71)
    4. “A still more satisfactory solution, effected in the twelfth century, was the windmill.” (Cameron and Neal 71)
  1. windmills
     1. 1100s: The windmill was “effected in the twelfth century . . .” (Cameron and Neal 71)
     2. “Given a steady breeze, the windmill could do all the tasks of a watermill, and on the [71] plains of northern Europe, where the winds were more dependable, the streams more sluggish and subject to freezing in winter than farther south, windmills sprouted in profusion. They were especially important in the low-lying provinces of Holland, Zealand, and Flanders where, in addition to other regular uses, they worked pumps in reclaiming the polderlands.” (Cameron and Neal 71-72)
  2. gears
     1. “Wind- and watermills required complicated gearing. The millers, millwrights, and various kinds of smiths who built, operated, maintained, and repaired them eventually acquired an expert if empirical knowledge of practical mechanics . . .” (Cameron and Neal 72)
  3. clocks
     1. Millwrights and smiths applied their “knowledge of practical mechanics . . . in a related field, the manufacture of clocks.” (Cameron and Neal 72)
     2. water clocks
        1. 1100s: “As early as the twelfth century the demand for water clocks was so strong that there was a specialized guild of clock-makers in Cologne.” (Cameron and Neal 72)
     3. mechanical (gravity-driven) clocks
        1. 1200s: “In the following century the main problems in the design of mechanical (gravity-driven) clocks were solved . . .” (Cameron and Neal 72)
        2. 1300s: “every city in Europe of any size and with any civic pride had at least one large clock that not only signaled the hours with ringing bells or chimes, but also staged an entertainment of dancing bears, marching soldiers, or bowing ladies.” (Cameron and Neal 72)
        3. “Between 1348 and 1364 a noted Italian physician and astronomer, Giovanni de’Dondi [*sic*], built a clock that, in addition to telling the hours, kept track of the movements of the sun, the moon, and the five known planets—two full centuries before the Copernican revolution (Fig. 3-8).” (Cameron and Neal 72)
           1. “a modern reconstruction of Dondi’s famous [mechanical] clock” (Cameron and Neal 73 figure 3-8)



* + 1. “Clocks made people more aware of the passage of time and introduced greater regularity and punctuality into human affairs; Genoese business contracts note not only the date but the actual time of signing . . .” (Cameron and Neal 72)
  1. “The medieval concern with millwork and clockwork has a significance beyond their immediate economic impact. . . . these changes signified a fundamental reorientation of the medieval mentality, a new attitude toward the material world. No longer was the universe seen as inscrutable and man a helpless pawn of nature or of angels and demons. Nature could be understood, and its forces harnessed for our uses. Shortly after Dondi completed his marvelous clock, the French scholar Nicole Oresme (ca. 1325-82), anticipating Kepler, Newton, and other luminaries of the century of genius, compared the universe to a great mechanical clock created and regulated by the supreme clockmaker, God. A century earlier the Oxford scholar-scientist Roger Bacon (ca. 1214-92), who anticipated by four centuries the emphasis of his namesake Francis on experimental method and the utility of science, had prophesied the possibilities of practical science: “machines which will allow us to sail without oarsmen, carts without animals to pull them . . . machines for flying . . . machines which can move in the depths of the seas and rivers. . . .”” (Cameron and Neal 72)

1. **1350-1450**: “**the great depression of the late Middle Ages**” (Cameron and Neal 95)
   1. causes of the crisis
      1. population decrease
         1. c. 1300: “By the end of the thirteenth century the demographic increase of the two or three previous centuries had already begun to level off.” (Cameron and Neal 73)
      2. famine
         1. 1300-1350: “In the first half of the fourteenth century crop failures and famine became increasingly frequent and severe. Because of these the population may have begun to decrease even before 1348, though this is not proven.” (Cameron and Neal 73)
         2. 1315-17: “The Great Famine [73] of 1315-17 affected the whole of northern Europe, from the Pyrenees to Russia; in Flanders, the most densely populated area, the death rate jumped to ten times its normal figure. The increasing precariousness of the food supply, together with congestion and the inadequacy of sanitary facilities in the towns and cities, rendered the population more susceptible to epidemics, of which the Black Death was the worst.” (Cameron and Neal 73-74)
      3. climate
         1. “There is some evidence of climatic deterioration in the fourteenth century. In northern Europe, at least, the winters became longer, colder, and wetter. Grape cultivation disappeared from England; grain would not ripen in Norway. On three occasions the entire Baltic Sea froze over, and in Germany and the Low Countries flooding increased in frequency and severity. As serious as these problems were, they are unlikely to explain entirely the stagnation and decline of the whole economy.” (Cameron and Neal 74)
      4. overpopulation
         1. “A more general explanation is overpopulation for the resources and technology available.” (Cameron and Neal 74)
         2. c. 1275-1300: “Toward the end of the thirteenth century the extensive forest clearings of earlier centuries came to a halt. In some areas, such as Italy and Spain, there is evidence that deforestation contributed to soil erosion and declining fertility. Farther north, landlords opposed clearings because of their hunting privileges, and peasants needed the remaining forest for firewood and grazing. Numerous disputes occurred, with occasional outbreaks of violence, between lords and peasants over the use of the forests. With no new land available from clearings, pastures, heaths, and meadows were converted to arable. This meant a decrease in livestock, and thus fewer proteins in the diet and less manure for fertilizer. Scarcity of fertilizer had been a persistent problem in the manorial economy, and the diminution of livestock aggravated it; crop yields declined even as more land was brought into cultivation. Efforts to increase productivity, such as the introduction of four-course and other, more complicated crop rotations and the use of green manures, had limited effects in some regions, but the efforts were not made fast enough and their effects were not substantial enough to offset the diminishing returns of overcropped marginal lands.” (Cameron and Neal 74)
      5. “In the expansive period of the medieval economy, as we have seen, there was a tendency on the part of landlords to commute labor services into money rents and to lease their demesnes to prosperous peasants. As population and urban growth continued, the prices of most agricultural commodities rose while wages fell. Many landlords, either to bolster their own declining revenues or to take advantage of the favorable price-wage ratio, again resorted to demesne farming, sometimes enlarged their demesnes at the expense of pasture and even peasant strips, and attempted to reimpose old labor services. Although the latter efforts met with strong resistance and had only limited success in western Europe, landlords in eastern Europe proved to be stronger. In any case, with the steady fall in wages it was economical for western lords to cultivate their lands with hired labor. Even substantial peasants could do this, thus becoming wealthier; but the great masses of the peasant population found themselves in steadily worsened straits. Partly for this reason, and also because of the increased burden of taxation levied by kings and other territorial rulers, social tensions increased and occasionally burst out in violence and revolt, as in the rising of Flemish peasants and workers against their lords and masters during the Great Famine of 1315-17.” (Cameron and Neal 74)
      6. “The Black Death greatly intensified the social tensions and conflict. The price-wage scissors abruptly reversed themselves; with the sharp drop in urban population [74] and demand, the price of grain and other foodstuffs dropped precipitately, while wages rose because of the shortage of laborers.” (Cameron and Neal 74-75)
      7. “The first reaction of the authorities was to impose wage controls; these merely exacerbated the hostility of peasants and workers, who avoided them when possible and revolted when serious efforts were made to enforce them.” (Cameron and Neal 75)
   2. the Black Death
      1. “The Black Death was the most dramatic [cause] but it was by no means the origin or cause of that crisis.” (Cameron and Neal 73)
      2. “In 1348 an epidemic of bubonic plague, the infamous Black Death, reached Europe from Asia. Spreading rapidly along the main commercial routes, taking its greatest toll in cities and towns, for two years it ravaged the whole of Europe, from Sicily and Portugal to Norway, from Muscovy to Iceland.” (Cameron and Neal 72)
      3. “In some cities more than half the population succumbed. For Europe as a whole the population was probably reduced by [72] at least one-third. Moreover, the plague became endemic, with new outbursts every ten or fifteen years for the remainder of the century.” (Cameron and Neal 72-73)
   3. war
      1. “Adding to the misery engendered by the plague, warfare, both civil and international, reached a new peak of intensity and violence in the fourteenth and fifteenth centuries.” (Cameron and Neal 73)
      2. “In the Hundred Years War (1338-1453) between England and France large areas of western France were devastated by a deliberate policy of pillage and destruction . . .” (Cameron and Neal 73)
      3. “. . . the venerable Byzantine Empire finally succumbed to the onslaught of the Ottoman Turks.” (Cameron and Neal 73)
   4. 1350-1400: “In the second half of the fourteenth century revolts, revolutions, and civil wars occurred in every part of Europe. Not all were inspired by wage controls, but all were related in one way or another to the sudden change in economic conditions brought on by famine, plague, and war.” (Cameron and Neal 75)
      1. *France*: “In 1358 peasants throughout France rose spontaneously against their lords and the government.” (Cameron and Neal 75)
      2. *England*: “In England a series of local uprisings preceded a great peasant revolt in 1381 in which a mixture of religious and economic issues almost allowed the revolutionists to triumph.” (Cameron and Neal 75)
      3. *Italy*: “In Italy the violence was generally not greater than that which accompanied the struggles for autonomy by the communes in the eleventh and twelfth centuries; but in 1378 the workers in the woolen industry of Florence temporarily gained control of the city and drove out “the fat people,” their masters.” (Cameron and Neal 75)
      4. *elsewhere*: “Similar revolts of peasants or workers, or both, flared in Germany, Spain and Portugal, Poland, and Russia.” (Cameron and Neal 75)
      5. “Without exception, whatever the extent of their initial success, they were put down with great brutality by the feudal nobility, the governments of the cities, or those of the emerging national monarchies.” (Cameron and Neal 75)
   5. 1400-1500: improved economic conditions
      1. “. . . in western Europe the changed economic conditions brought peasants freedom from manorial bondage. Despite the greater political and military strength of the ruling classes, they were unable for long either to enforce claims to labor services or to control wages, since landlords competed with one another to attract peasants to till their land either for wages or for rent. In England, after the turmoil of the late fourteenth century, this resulted in the fifteenth century in what one authority called “the golden age of the English agricultural laborer.” Real wages—that is, the ratio of money wages to the prices of consumables—were higher than at any time previously or subsequently until the nineteenth century. Elsewhere in western Europe as well, market forces resulted in the dissolution of the vestigial bonds of serfdom and the rise of wages and living standards for peasants. Low grain prices, resulting from slack urban demand, and the relative abundance of land encouraged stock raising and a shift from grain to root and forage crops. The Great Plague and associated evils of the fourteenth century, dreadful though they were, proved to be a strong cathartic that prepared the way for a period of renewed growth and development beginning in the fifteenth century.” (Cameron and Neal 75)
      2. “In eastern Europe a different evolutionary course prevailed. The population there had always been less dense than in western Europe, the towns fewer and less populous, and the market forces weaker. After the Great Plague town life virtually withered away, markets declined, and the economy reverted to a subsistence basis. Under these conditions the peasants had no alternative to landlord rule except to flee to unoccupied and uncharted lands, a course that was fraught with perils of its own. As a result the landlords, unchecked by higher authority, forced the peasantry into a position of servitude unknown in western Europe since at least the ninth century.” (Cameron and Neal 75)
      3. “The total volume of production and trade was probably lower at the beginning of the fifteenth century [1400] than at the beginning of the fourteenth [1300] [75] . . . [But] in the fifteenth century, in different parts of Europe, recovery of population, production, and trade began, and by the beginning of the sixteenth century [1500] the totals of all these aggregates were probably greater than at any previous time.” (Cameron and Neal 75-76)
      4. “Guild organizations, reacting to the sharp fall in demand, tightened their regulations so as to control the supply more effectively in cartel terms: they restricted output, enforced working rules, and restricted new members to the sons or relatives of deceased masters. . . . Industrialists faced with the rising costs of labor sought new labor-saving methods of production, or migrated to the countryside to escape the restrictive rules of the guilds.” (Cameron and Neal 76)
      5. “Merchants, seeking to rationalize their operations, invented or adopted double-entry bookkeeping and other methods of control. Fifteenth-century business firms could not rival the Bardi or Peruzzi companies in terms of size, but the largest of them, the Medici bank of Florence, as well as numerous others, adopted a form of organization similar to the modern holding company [“A company controlling partial or complete interest in another company or other companies” (*American Heritage Dictionary of the English Language*. 3rd ed. New York: Houghton Mifflin, 1996)] that reduced the risks of bankruptcy in the event of failure of a branch.” (Cameron and Neal 76)
      6. “Regional shifts in production and trade also occurred as a result of the intensified competition.” (Cameron and Neal 76)
         1. “Some cities, such as Florence and Venice, did not shrink from using military force to subdue their rivals and extend their dominion over their neighbors.” (Cameron and Neal 76)
         2. “. . . the fair of Geneva gradually replaced in importance those of Champagne in the fourteenth century, then suffered from the competition of Lyons before the end of the fifteenth century.” (Cameron and Neal 76)
         3. “. . . Antwerp gradually replaced Bruges as the principal terminus of Italian trade.” (Cameron and Neal 76)
         4. “The German Hansa received a formal organization in 1367, partly as a response to shrinking demand and the attempts of rivals to deprive its merchants of their privileges; for almost a century it dominated the trade of the Baltic and North seas, but before the end of the fifteenth century it was strongly challenged by Dutch and English traders, shippers, and fishing fleets. The Italian cities together maintained their preeminence in trade but lost ground to northern Europe, a prefiguration of further drastic changes in the sixteenth and seventeenth centuries.” (Cameron and Neal 76)

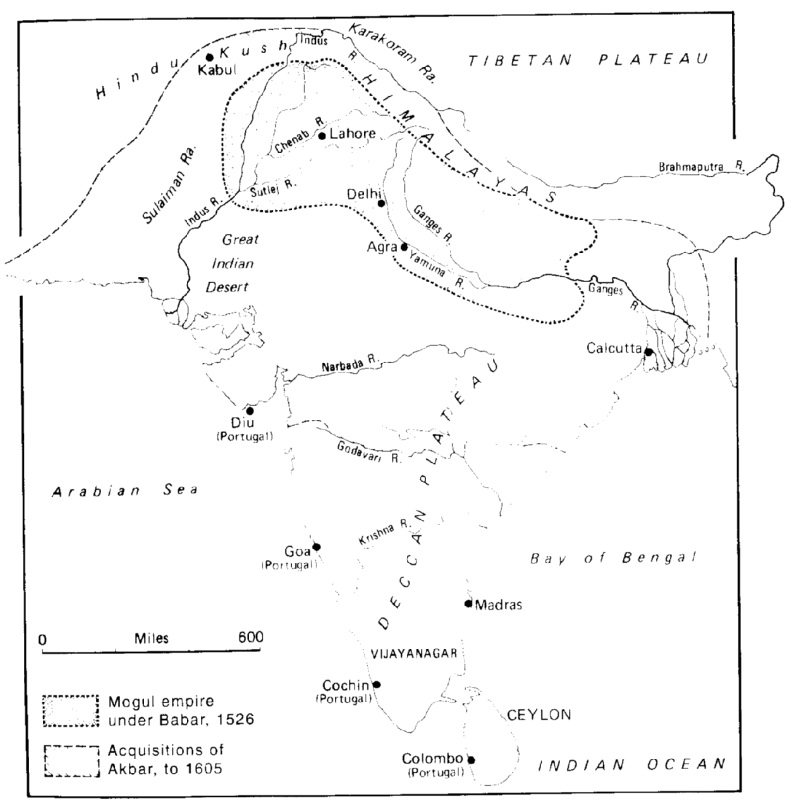
Non-Western Economies on the Eve of Western Expansion

1. **the world of Islam**
   1. 610-732: “By the time of his death in 632 he [Mohammed] had united under his rule virtually all of the Arabian peninsula. Soon after his death his followers exploded with the fury of a desert whirlwind and within a hundred years conquered a large empire stretching from Central Asia across the Middle East and North Africa to Spain.” (Cameron and Neal 77)
   2. 732-1000: there were “a few centuries of relative quiescence and the break-up into a number of successor states of the Caliphate, as their empire was known . . .” (Cameron and Neal 77)
   3. 1000 on: the Muslims “expanded again in the twelfth and following centuries . . ., spreading their religion and their customs to Central Asia, India, Ceylon, Indonesia, Anatolia, and sub-Saharan Africa. By this time the Arabs were a small minority among the millions of the faithful, but [Arabic] was the common language for Islamic civilization, although other languages, notably Persian and Turkish, were also used.” (Cameron and Neal 77)
   4. “The original Arabs were primarily nomadic, although some practiced oasis agriculture and they had a few urban centers, such as Mecca. The lands they conquered were, on the whole, only slightly less arid than Arabia, but they did contain the two great cradles of civilization, the Tigris-Euphrates and the Nile valleys. There and elsewhere the Muslims practiced irrigation agriculture that, in some areas (e.g., southern Spain and Mesopotamia), reached high levels of sophistication and productivity. Their conquests also brought them great cities, including Alexandria, Cairo, and [77] eventually Constantinople, which they renamed Istanbul. In the end Islam developed as a predominantly urban civilization, although many Muslims, Arabs and others, remained nomadic, tending their herds of sheep, goats, horses, or camels—rarely cattle, and no pigs at all, as Mohammed had forbidden the consumption of pork.” (Cameron and Neal 77, 79)
   5. “Although the agricultural potential of their territory was limited, its location conferred great commercial possibilities. The heartland lay between the Persian Gulf and the Mediterranean Sea and also opened onto the Indian Ocean. It also contained the great caravan routes between the Mediterranean and China.” (Cameron and Neal 79)
   6. “Because Mohammed himself had been a merchant, Islam did not regard mercantile pursuits as inferior activities; on the contrary, it regarded merchants with honor and esteem. Although usury was forbidden, Muslim merchants devised numerous intricate credit instruments, including letters of credit and bills of exchange, to facilitate their trade. For hundreds of years the Arabs and their fellow-religionists served as the principal intermediaries in the trade between Europe and Asia. In the process they greatly facilitated the diffusion of technology. Many elements of Chinese technology, including the magnetic compass and the art of making paper, reached Europe by means of the Arabs.” (Cameron and Neal 79)
   7. “They also introduced new crops, such as rice, sugar cane, cotton, citrus fruit, watermelons, and other fruits and vegetables. In some cases they obtained these crops from India or elsewhere in Asia or Africa, and subsequently diffused them to Europe. One authority has referred to the Arabs’ agricultural achievement as a “medieval green revolution.” It seems likely that between the eighth and tenth centuries the world of Islam experienced a surge of population and economic growth similar to the first logistic of medieval Europe [900-1350].” (Cameron and Neal 79)
   8. “The Arabs traveled and traded by both land and sea.” (Cameron and Neal 79)
      1. “The Arabian Sea, the northern extension of the Indian Ocean between the Arabian peninsula and the Indian subcontinent, is aptly named, for it was dominated by Arabian merchants and sailors like the legendary Sindbad. . . . Muslims also used rivers for transport where possible, and supplemented them, especially in Mesopotamia, with a dense network of canals.” (Cameron and Neal 79)
      2. “Some went as far as China, whose ports contained colonies of Muslim merchants.” (Cameron and Neal 79)
      3. “Overland the camel, that “ship of the desert,” was favored for long distance carriage, with horses, mules, and donkeys used for shorter trips. Wheeled transport disappeared from the Middle East, not to reappear until the nineteenth century. Huge caravans of hundreds, even thousands of camels were not unusual.” (Cameron and Neal 79)
   9. “One of the principles of Islam was the *jihad*, or holy war against pagans. It accounted in part for the Muslims’ remarkable success in making converts, since defeated enemies were given the choice of converting or being killed. Toward Jews and Christians, however, the Muslims had a different policy. Since they were also monotheistic, the Muslims tolerated—and taxed—them (perhaps another reason for success in making converts in those communities). The Jews, in particular, enjoyed great freedom under Islam. Jewish merchants had family members or agents scattered throughout the Islamic world from Spain to Indonesia. Much of our knowledge of medieval Islam, in fact, comes from the Cairo Genizah, a great archive where any piece of paper on which the name of God (*Allah* or *Jahweh*) was written was deposited—and letters, even business letters between Jewish merchants, usually invoked the blessings of God.” (Cameron and Neal 79)
   10. “As a result of their conquests in the Greek-speaking Eastern Roman Empire, the [79] Arabs took over much of the learning of classical Greece. During the European Middle Ages they became, along with the Chinese, the world’s leaders in scientific and philosophic thought. Many ancient Greek authors are known to us today only through Arabic translations. Modern mathematics is based on the Arabic system of notation, and algebra was an Arab invention. During the intellectual revival of Western Europe in the eleventh and twelfth centuries [1000-1200] many Christian scholars went to Cordoba and other Muslim intellectual centers to study classical philosophy and science. At the same time, Christian merchants learned Muslim commercial practices and techniques. Although the pope officially forbad trade with Muslims, Christian merchants—the Venetians in particular—paid little attention.” (Cameron and Neal 79-80)
   11. the Turks
       1. “Among the peoples who accepted Islam as their religion were a number of nomadic Turkish tribes of Central Asia. Lured south and west by the wealth of the Arab Caliphate, they came first as raiders and looters, but eventually settled down as conquerors.” (Cameron and Neal 80)
       2. 500s-1000s: “Turkic peoples, of Central Asian ancestry, were a military threat to the Byzantine and Persian Empires from the 6th century. [There were] several waves of invasions, during which most of the Turks adopted Islam . . .” (*World Almanac and Book of Facts 1997*)
       3. 1055: “the Seljuk Turks took Baghdad . . . They ruled Persia, Iraq and, after 1071, Asia Minor, where massive numbers of Turks settled.” (*World Almanac and Book of Facts 1997*)
       4. 1100s-1200s: “The empire was divided in the 12th century into smaller states ruled by Seljuks, Kurds (Saladin, c 1137-93), and Mamluks (a military caste of former Turk, Kurd, and Circassian [Circassia: NE coast of Black Sea] slaves), which governed Egypt and the Middle East until the Ottoman era (c 1290-1922).” (*World Almanac and Book of Facts 1997*)
       5. “One of them, Tamerlane, known for his ruthless ferocity, conquered Persia (modern Iran) at the end of the fourteenth century. Tamerlane’s empire was short-lived . . .” (Cameron and Neal 80)
          1. “Tamerlane (1336-1405), Turkmen Mongol conqueror, who established an empire extending from India to the Mediterranean Sea. He was born in Kesh in Transoxiana (present-day Shakhrisyabz, Uzbekistan). The name Tamerlane, a European corruption of Timur the Lame, was given to him because his left side was partially disabled. Between 1364 and 1370 he gained control of Transoxiana, and in the latter year he declared the restoration of the empire of Genghis Khan, whom he falsely claimed as his ancestor. By 1394 he had conquered Iran, Mesopotamia, Armenia, and Georgia. In 1398 Tamerlane invaded India, where he captured Delhi and massacred its inhabitants. In 1401 he took Syria. He died while leading an expedition against China and was buried in Samarqand, his capital city. His mausoleum is one of Samarqand’s great architectural monuments.” (*Encarta 98 Desk Encyclopedia*. Redmond: Microsoft, 1997.)
       6. c. 1500: Ismael “founded the Safavid dynasty [1502-1736], which ruled Persia . . .” (Cameron and Neal 80)
       7. the Ottoman Empire
          1. “The most successful of the Turkish conquerors were the Ottomans, who traced their origins to the Sultan Osman (1259-1326). [“During the 11th century, nomadic Seljuk Turks, the predecessors of the Ottoman Empire, first invaded Asia Minor. Osman, who conquered much of Anatolia, was the founder of the Ottoman dynasty in the early 14th century.” *Encarta 98 Desk Encyclopedia*. Redmond: Microsoft, 1997.] Osman had wrested a small territory in northwestern Anatolia (Asia Minor) from the decrepit Byzantine (Eastern Roman) Empire, which had never really recovered from its conquest by Western crusaders and the brief tenure of the so-called Latin Empire (1204-61).” (Cameron and Neal 80)
          2. “Osman I (r c 1290-1326) and succeeding sultans united Anatolian Turkish warriors in a militaristic state that waged holy war against Byzantium and Balkan Christians.”
          3. 1354: the Turks “obtained a toehold in Europe west of Constantinople . . .” (Cameron and Neal 80)
          4. “Most of the Balkans had been subdued, and Anatolia united, when Constantinople fell (1453).” (*World Almanac and Book of Facts 1997*)
          5. “By the mid-16th century, Hungary, the Middle East, and North Africa had been conquered. The Turkish advance was stopped at Vienna (1529) and at the naval battle of Lepanto (1571) by Spain, Venice, and the papacy.” (*World Almanac and Book of Facts 1997*)
          6. “They continued to expand in the sixteenth century, taking over the lands in the Near and Middle East that the Arabs had taken earlier from the Byzantine Empire, as well as North Africa; in Europe they conquered Greece and the Balkans, and in 1683 they reached the gates of Vienna before they were driven back into Hungary.” (Cameron and Neal 80)
          7. “Growth of the Ottoman Empire, 1307-1683.” (Cameron and Neal 81 figure 4-2)



* + - 1. “The vast empire controlled by the Turks did not constitute a unified economy or common market. Although its many provinces had varied climates and resources, the high cost of transport prevented true economic integration. Each region within the empire continued the economic activities it had practiced before conquest, with little regional specialization. Agriculture was the principal occupation of the great majority of the sultan’s subjects. The empire endured, unlike most of its predecessors, because the Turks established a regular, relatively equitable system of taxation that provided ample revenue to support the central government’s bureaucracy and army. Control and order were maintained by Turkish officials stationed in the provinces and given rents from specified parcels of land, similar in some respects to medieval European feudalism.” (Cameron and Neal 80)
      2. “In Europe the Turks suffered from a somewhat exaggerated reputation for rapacity and violence. In fact, they behaved rather benignly toward their subjects as long as the tax revenues rolled in and no threats of revolt or rebellion existed. They made [80] few efforts to convert their Christian subjects in Europe to Islam, except in the special case of the janissaries, elite soldiers who were recruited from Christian households as children and given intensive training under strict military discipline. Jews were also tolerated; when Ferdinand and Isabella expelled the Jews from Spain in 1492 . . . many educated professionals and skilled artisans were happy to accept service with the sultan.” (Cameron and Neal 80, 82)

1. **China**
   1. “The civilization of China, dating from near the beginning of the second millennium b.c. [c. 1700], exhibits one of the most self-contained developments of any civilization. Only rarely did foreign—“barbarian”—influences intrude, and when they did they were usually quickly absorbed by and integrated with Chinese traditions. Dynasties rose and fell, sometimes separated by periods of anarchy and “warring states,” but the distinctive Chinese civilization, while continuing to develop, did so along lines that seem almost preordained. Confucianism (a philosophy, not a religion) had been fully elaborated as early as the fifth century b.c. Although other philosophies and religions, such as Taoism and Buddhism, also flourished, they did not displace Confucianism as the philosophical basis of Chinese civilization. The bureaucratic tradition of government, carried on by mandarins steeped in the Confucian philosophy, was also established at an early date. In theory, the emperor was all-powerful, and some emperors used their power to the fullest extent; but mostly their wishes were carried out, and frequently shaped, by the mandarins.” (Cameron and Neal 82)
   2. “The original cradle of Chinese civilization was the middle stretch of the Yellow River valley, where the fertile loess soil deposited by the winds from Central Asia permitted easy cultivation. Its first material basis was millet, a grain native to the region; this was later supplemented by wheat and barley from the Middle East, and still later by rice from Southeast Asia. Chinese agriculture has always been extremely labor intensive, almost “garden-style,” making extensive use of irrigation. Draft animals were not introduced until very late.” (Cameron and Neal 82)
   3. “About 1000 a.d., however, a superior variety of rice was introduced that permitted double-cropping (i.e., planting two crops a year on the same land), which greatly increased productivity.” (Cameron and Neal 82)
   4. “On the basis of this productive agriculture some urban growth occurred, and a variety of skilled crafts emerged.” (Cameron and Neal 82)
      1. “. . . bronze working was developed to a very high level.” (Cameron and Neal 82)
      2. “The manufacture of silk cloth originated in China at a very early date; the ancient Romans obtained it over the caravan route through central Asia, the Great Silk Road, and China was known to them as Sina or Serica (the land of silk).” (Cameron and Neal 82)
      3. “Porcelain (“chinaware”) is also a Chinese invention . . .” (Cameron and Neal 82)
      4. The Chinese invented “paper and printing.” (Cameron and Neal 82)
         1. “The Chinese were already using paper money when Charlemagne minted the first silver pennies. The result, predictable for an economist, was overissue and inflation. The Chinese had already experienced several cycles of inflation and monetary collapse before the West discovered paper money.” (Cameron and Neal 82)
      5. “The magnetic compass, discovered by the Chinese, probably reached the West by way of the Arabs. In general, the Chinese reached a fairly high level of scientific and technical development well in advance of the West.” (Cameron and Neal 82)
   5. But China did not break through to “an industrial era. Craft products were destined for the use of the government, the imperial court, and the thin stratum of landowning aristocrats. The peasant masses were much too poor to provide a market for such exotic wares. Even iron, in whose production the Chinese also excelled, was used only for weapons and decorative art, not for tools. Moreover, merchants and commerce had very low status in the Confucian philosophy. Those few merchants who did accumulate some wealth used it to buy land and join the ranks of the aristocracy.” (Cameron and Neal 83)
   6. “Meanwhile, because of China’s fertile population as well as its fertile land, the population grew and spread.” (Cameron and Neal 83)
      1. ad 600: 50 million
      2. 1200: 100 million (Cameron and Neal 83)
      3. “It spread down the Yellow River to the sea, and southward to the Yangtse valley and beyond. Whereas in the seventh century [600s] about three-quarters of the population lived in northern China, by the beginning of the thirteenth century [1200] more than 60 percent lived in central and southern China. To connect these centers the government built an elaborate network of roads and especially canals. The Grand Canal, connecting the Yellow and Yangtse rivers, was a stupendous engineering feat. The main purpose of this transportation network was to enable the government to maintain order and collect taxes and tribute, but it also facilitated interregional trade and led to an elementary geographical specialization of labor.” (Cameron and Neal 83)
      4. mid-1300s: revolt against the Mongols; population “declined as a result of floods, drought, and warfare.” (Cameron and Neal 85)
      5. 1450: back to 100 million (Cameron and Neal 85)
   7. Mongols
      1. “. . . the eruption of the Mongols under Genghis Khan [was] from their homeland of Mongolia, north of China . . . In little more than half a century Genghis and his successors created the largest continuous land empire the world has ever seen, stretching from the Pacific Ocean in the east to Poland and Hungary in the west. . . . Although their name is almost synonymous with rapine and violence, the Mongols did what barbarian conquerors usually do: they settled down and adopted the civilization of their conquered hosts.” (Cameron and Neal 83)
         1. “. . . they established their countrymen as rulers in Central Asia, China, Russia, and the Middle East.” (Cameron and Neal 83)
         2. “They overturned the Arab Caliphate in 1258 and left Baghdad in ruins.” (Cameron and Neal 83)
         3. “In Central Asia and the Middle East they converted to Islam and melded with their Turkic allies and the local indigenous populations.” (Cameron and Neal 83)
         4. “In Russia, however, they did not adopt Orthodox Christianity, but maintained their own distinctive lifestyle until 1480 when the Grand Duke of Moscow, Ivan III, revolted and threw off the “Mongol yoke.”” (Cameron and Neal 83)
         5. “The Mongol Empire and its neighbors, about 1300.” (Cameron and Neal 84 figure 4-3) The shading of the original does not show up in this reproduction. The empire of Genghis Khan was all of Asia, but it excluded (1) Siberia in the northeast, (2) Kiev and Moscow in the northwest, (3) the west and south half of the Ilkhan Empire (Iran and Pakistan), (4) India, (5), Tibet, and (6) China below the Hwang Ho. The empire of Tamerlane included all of these areas except India below Delhi. (Cameron and Neal 84)
      2. Mongols in China (Yuan dynasty, 1260-1368)
         1. “In China they followed a middle course; they set themselves up as the Yuan dynasty (1260-1368) in the Chinese fashion and adopted Chinese ways, but attempted to maintain their ethnic distinctiveness, which led to their overthrow after little more than a century.” (Cameron and Neal 83)
         2. “It was Kublai Khan, Genghis’s grandson and fifth successor, whom Marco Polo encountered on his epic journey. By that time the Mongols had given up their warlike ways and maintained peace and order throughout their domain. Trade between the Mediterranean and China flourished even more than in the days of the Roman Empire—more in fact until the nineteenth century. Another Italian trader, a contemporary of Polo, described the Great Silk Road as “perfectly safe by day and night.”” (Cameron and Neal 83)
   8. 1368-1644: the Ming dynasty “reestablished traditional Chinese customs, especially Confucianism and the mandarin system.” (Cameron and Neal 83)
   9. “During the last years of [83] Mongol rule, and during the revolt against them, roads and canals had fallen into disrepair, and the population had declined as a result of floods, drought, and warfare.” (Cameron and Neal 83, 85)
   10. “The first half of the Ming era also witnessed considerable economic and demographic growth.” (Cameron and Neal 85)
       1. “The government moved energetically to restore the transportation links, and with relative peace the population began to grow again, surpassing 100 million by about 1450.” (Cameron and Neal 85)
       2. “In 1421 the Mings moved their capital from Nanking to Peking (Beijing) in the far north, thus stimulating north-south trade.” (Cameron and Neal 85)
       3. “The cultivation of cotton and manufacture of cotton cloth were introduced.” (Cameron and Neal 85)
       4. “Regional specialization became more pronounced.” (Cameron and Neal 85)
       5. “. . . the Chinese began to trade overseas. Previously the Chinese had left foreign trade in the hands of foreign merchants, but in the early years of the Ming era Chinese ships and merchants traded with Japan, the Philippines (as they later became known), Southeast Asia, the Malay peninsula, and Indonesia. In the first quarter of the fifteenth century a Chinese admiral, Cheng-ho, led large naval expeditions into the Indian Ocean. The expeditions left colonies of Chinese settlers at ports in Ceylon, India, the Persian Gulf, the Red Sea, and the east coast of Africa.” (Cameron and Neal 85)
          1. “Then suddenly, in 1433, the emperor forbad further voyages, decreed the destruction of ocean-going ships, and prohibited his subjects from traveling abroad. The colonies were left to wither away. One wonders how the course of world history might have differed had the Chinese still been in the Indian Ocean when the Portuguese arrived at the end of the century.” (Cameron and Neal 85)
2. **Korea and Japan**
   1. “Korea and Japan developed in the wake of Chinese civilization, and in large measure in imitation of it.” (Cameron and Neal 85)
   2. “Japan, in particular, was a great imitator of Chinese technology, although, as in more recent times, the acquisition of a foreign technology within the Japanese institutional framework produced novel results.” (Cameron and Neal 85)
   3. “Korea was in political vassalage to China from time to time.” (Cameron and Neal 85)
   4. “Kublai Khan attempted an invasion of Japan from Korea, but his fleet was destroyed by a typhoon, which the Japanese called *kamikaze* (“divine winds”).” (Cameron and Neal 85)
   5. 1400s-1500s: “. . . Japanese pirates ravaged the coast of China.” (Cameron and Neal 85)
   6. early 1600s: “after the Tokugawa shogunate had consolidated its rule, the shogun, in imitation of the Ming emperor, prohibited Japanese from traveling abroad (on penalty of death if they returned) and forbad the construction of ocean-going ships.” (Cameron and Neal 85)
3. **South Asia**
   1. “The Indian subcontinent, including modern Pakistan, Bangladesh, and Sri Lanka, is roughly the same size as Europe west of the former Soviet Union . . . Its population is even more diverse than that of Europe in terms of ethnic origin and language. The terrain and climate are equally varied, from tropical monsoon forest to burning desert and glacial mountains. Throughout its history, from the first civilization on the Indus River in the third millennium b.c. to the present, principalities, kingdoms, and empires have risen and fallen in bewildering array. For the most part this succession of political states has mattered little to common men and women, the peasants whose labor supported the rulers, except that some were more ruthless and efficient in extracting a surplus of tribute and taxation.” (Cameron and Neal 85)
   2. 2000s: “The aboriginal population of the subcontinent may have been related to that of Australia. Over the centuries and millennia, however, it was reinforced—or [85] overwhelmed—by waves of migrants and invaders. Most of the newcomers—Bactrian Greeks, Scythians, Parthians, Mongols, and others—came from the northwest, by way of Persia or Afghanistan, but some also came from the northeast from Tibet and Burma. Eventually, with one major exception, the Muslims, they adopted native ways and local culture, including religion.” (Cameron and Neal 85-86)
   3. “Religion had a greater impact on the economy than government, but the complexities of that subject defy succinct explanation. The primitive original religion was Hinduism, which developed with many variants and heterodox sects, including the Jains and Sikhs who are still active today. Buddhism, whose origin was roughly contemporary with that of Confucianism in China, was one such variant; but it had its greatest successes in China, Korea, and Japan, and virtually disappeared from India before modern times.” (Cameron and Neal 86)
   4. 700s: Islam “first entered the subcontinent early in the eighth century . . .” (Cameron and Neal 86)
   5. 1200s: Islam entered South Asia “again with renewed dynamism . . .” (Cameron and Neal 86)
   6. 1526: “Babur, a descendant of Tamerlane and the founder of the great Mughal dynasty, defeated the Lodi army, proclaiming himself emperor of the Muslim dominions.” (*Encarta 98 Desk Encyclopedia*. Redmond: Microsoft, 1997.)
      1. “Early in the sixteenth century Babar, who claimed descent from Genghis Khan, created the Mughal or Mogul Empire in northern India, which his grandson, Akbar, greatly enlarged (Fig. 4-4).” (Cameron and Neal 86-87)
   7. “India, about 1600.” (Cameron and Neal 86 figure 4-4)



* 1. “The enmity between the Muslim kingdoms of the Deccan, in southern India, and the Hindu empire of Vijayanagar facilitated the establishment of bases by the Portuguese at the beginning of the sixteenth century.” (Cameron and Neal 87)
  2. barriers to economic growth: the caste system
     1. “One way in which religion impinged on the economy was the caste system of the Hindus. The castes were determined primarily by occupation, but originally there seems to have been an ethnic element as well. In the beginning there were only four *varnas*, or caste orders: the Brahmans, or priestly order; an order of warriors and rulers; one of farmers, artisans, and merchants; and a lowly order of servants; but in time the numbers of castes multiplied until there was one (or more) for every occupational category. The hierarchical element in the caste system was very strong, with rigid strictures on social and even physical mingling. Endogamy within a caste was virtually universal. In general, the rule that governed status was the concept of pollution, both literal and figurative: the most polluted occupations had the lowest status, with some being “untouchable” and even “unseeable” (e.g., those who washed the clothing of the untouchables had to work at night so they would not be seen). Although the caste system was probably not as rigid as it is sometimes portrayed, it must have been a barrier to both social mobility and the efficient allocation of resources.” (Cameron and Neal 87)
  3. barriers to economic growth: veneration of cattle
     1. “Another element of the Hindu religion inimical to economic growth was the veneration of cattle—the “sacred cows” that roamed the countryside at will and could not be killed or consumed.” (Cameron and Neal 87)
  4. agriculture
     1. “Throughout the ages, and still today, the great majority of the population of the subcontinent lived in villages and engaged primarily in low-productivity, near-subsist­ence agriculture. In heavily forested areas they used, even in relatively recent times, a slash-and-burn technique, as practiced in northern Europe before the advent of sedentary communities. Elsewhere the techniques, and the crops grown, depended on the characteristics of soil and climate. In the monsoon area the staple crop has been rice, initially obtained from Indochina. In drier lands the staple was wheat or barley, which came from the Middle East, or millet from China or perhaps western Asia. India’s authentic native crop was cotton, which is mentioned in the Rig Veda, the Hindu holy book.” (Cameron and Neal 87)
  5. crafts
     1. “Although the majority of the population devoted its time and energy to agriculture, India did not lack skilled craftsmen. Intricate works of art, statuary, and monumental architecture [e.g., the Taj Mahal] . . . bear comparison with the best of Greek and Roman art . . . These craftsmen, however, worked for the rich and powerful; the masses had no purchasing power . . .” (Cameron and Neal 87)
     2. The Taj Mahal was a mausoleum for the wife of the Mughal emperor, Shah Jahan (r 1628-58). “Thousands of artisans and laborers worked for more than ten years to build it.” (Cameron and Neal 88 figure 4-5)
  6. commerce
     1. “. . . there was no middle class worth mentioning. The little commerce that existed was in the hands of foreigners, mainly Arabs.” (Cameron and Neal 87)

1. **Southeast Asia**
   1. “Southeast Asia, from Burma in the northwest to Vietnam in the east and the Malay peninsula in the south, is also known as Indochina because its culture is a blend of Chinese and Indian cultural traditions. It obtained many of its elements of technology and economy from China, but, with the possible exception of Vietnam, the Indian [87] cultural influence was probably greater.” (Cameron and Neal 87-88)
   2. “Indonesia, as its name implies, was also strongly influenced by India, at first by Hindu and Buddhist culture, and later by Islam. Among the agents of diffusion, Buddhist monks established monasteries in the wilderness that performed functions not unlike those of the Cistercians in northern Europe, diffusing advanced technology as well as religious culture.” (Cameron and Neal 87-88)
   3. “Southeast Asia, including Indonesia, made two major contributions to world civilization.” (Cameron and Neal 88)
      1. “Rice, which in time became the staple food not only of China and India but also of large areas of both the eastern and western hemispheres, originated in continental Indochina; it was domesticated as early as the second millennium b.c., and possibly earlier.” (Cameron and Neal 88)
      2. “The other major contribution, spices—pepper, nutmeg, ginger, cloves, and others—mostly came from the islands of the Indonesian archipelago, although cinnamon originated in Ceylon.” (Cameron and Neal 88)
   4. history
      1. “For earlier eras historians must rely on archaeological evidence, such as the magnificent temple of Angkor Wat in Cambodia, and on inferences from Indian and Chinese records.” (Cameron and Neal 89)
      2. Written history in Southeast Asia is “scarcely more than a thousand years old.” (Cameron and Neal 89)
      3. 10,000 bc: “settlement by neolithic hunter-gatherers in modern Thailand and Vietnam . . .” (Cameron and Neal 89)
      4. 4000s bc: pottery (Cameron and Neal 89)
      5. 2000-1000: “Bronze tools, weapons, and ornaments . . .” (Cameron and Neal 89)
      6. c 500: ironworking (Cameron and Neal 89)
      7. ad 500-1500: “nascent nation-states were established—for example, the Kingdom of Pagan in modern Burma, and that of Ayudhya in modern Thailand, which in the seventeenth century accepted an ambassador from Louis XIV of France.” (Cameron and Neal 89)
   5. “The bulk of the population lived in the great alluvial valleys of rivers such as the Irrawaddy, the Mekong, the Red, and others, where irrigated rice cultivation provided subsistence; and on the rich volcanic soils of islands like Java and Bali. Fish from the rivers and seas was another important item in the diet, and figured in local trade in exchange for rice.” (Cameron and Neal 89)
   6. “Pepper and more exotic spices from the Moluccas, the fabled “Spice Islands,” had long found markets in India, China, the Middle East, and even Europe. Muslims—Arabs and others—were the principal intermediaries between Indonesia and India; they [also spread] Islam to Indonesia (all but Bali, which remained true to its Hindu customs). From India the cargoes were carried by Arabs to Alexandria and other emporia of the eastern Mediterranean where they were sold to Italian merchants, chiefly Venetians, who distributed them in Europe. The desire to circumvent this “monopoly,” as other Europeans saw it, was one of the main motives for Portuguese exploration, which led to the discovery of the sea route around Africa.” (Cameron and Neal 89)
2. **Africa**
   1. “. . . North Africa is intimately related to . . . Mediterranean Europe . . . Sub-Saharan Africa (black Africa), on the other hand, rarely impinged on European or other world events before the sixteenth or even the nineteenth century.” (Cameron and Neal 89)
   2. There was an “almost total lack of written records before the arrival of Europeans [but] scholarship, using archaeological evidence and oral tradition, has discovered a great deal . . .” (Cameron and Neal 89)
   3. “The recorded history of Africa begins with ancient Egypt . . .” (Cameron and Neal 89)
   4. “The Phoenicians plied the North African coast, and their colony Carthage vied with Rome for control of the Mediterranean.” (Cameron and Neal 89)
   5. “Christianity had penetrated Nubia and Abyssinia, or Ethiopia, before the rise of Islam . . .” (Cameron and Neal 90)
      1. Nubia was southernmost Egypt and north Sudan. “Egypt ruled over ancient Nubia. In the 8th century bc Nubia achieved independence. It was conquered by the Arabs in the 14th century ad and by Egypt in 1820.” (*Encarta 98 Desk Encyclopedia*. Redmond: Microsoft, 1997.)
   6. “The sudden onslaught of Islam almost converted that sea into a Muslim lake for a short time in the early Middle Ages. Although separated from Europe by religion as well as by water—the former an impediment to communication and commerce as the latter was a facilitator—North Africa nevertheless continued to play a role in European as well as Islamic and African history. Indeed, it was as a result of Islamic conversions of the sub-Saharan fringe of black Africa that the latter first made contact with the European economy. [89] . . . with the Islamic conquest of Nubia, Abyssinia was effectively cut off from the rest of Christendom.” (Cameron and Neal 89-90)
   7. the economy of North Africa
      1. “Grain growing predominated where rainfall was adequate (sometimes supplemented by irrigation), and nomadic pastoralism elsewhere.” (Cameron and Neal 90)
      2. “Commerce was lively, but industry was of the household variety.” (Cameron and Neal 90)
      3. “One branch of commerce extended across the Sahara to black Africa. Some trans-Saharan commerce had existed before the Christian era, but it did not become common until camels were introduced (from the Middle East) in the second or third century a.d. Even then the expense of travel restricted commerce to items of high value and low bulk, mainly gold and ivory—and slaves, who were self-propelled. Dates from the date palm groves of desert oases were also carried in both directions.” (Cameron and Neal 90)
   8. the economy of sub-Saharan Africa
      1. Tropical rain forest (jungle) covers only part of sub-Saharan Africa, mainly “the Congo (or Zaire) basin and the southern coast of West Africa. Between that and the deserts to the north (Sahara) and south (Kalihari) are vast stretches of savanna—grass and scrub. Inland from the east coast, reaching from Ethiopia in the north to the southern tip, is a mountainous spine punctuated with great lakes. The great rivers of Africa—the Nile, the Niger, the Zambezi, and others—did not encourage the development of commerce as much as might be expected because of the frequency of falls and rapids.” (Cameron and Neal 90)
      2. population
         1. “Although all the original inhabitants were dark-skinned, or black, there was enormous ethnic, racial, and linguistic variety.” (Cameron and Neal 90)
         2. “. . . the tribe was the basic social group above the family. Occasionally larger polities—confederations, kingdoms, and even empires—arose, some like the ancient empire of Ghana lasting for surprising periods of time; but without written records, that necessity of a bureaucratic state, most were quite ephemeral.” (Cameron and Neal 90)
      3. “The economy was also varied, ranging from the most primitive hunting and gathering to fairly sophisticated field agriculture and stock raising in the savanna and other open spaces.” (Cameron and Neal 90)
         1. “Domesticated plants and animals may have been introduced from Egypt or elsewhere in the Mediterranean as early as the second millennium b.c.” (Cameron and Neal 90)
         2. “Owing to differences in climate and rainfall, wheat and barley, the staples of Mediterranean and Middle Eastern agriculture, did not flourish in sub-Saharan Africa.” (Cameron and Neal 90)
         3. “Because of the prevalence throughout central Africa of the tsetse fly, which carries disease fatal to large domestic animals, the cultivators had no draft animals; thus they relied on hoe culture, using wooden or iron hoes.” (Cameron and Neal 90)
         4. “In the jungle areas they used a slash-and-burn technique, moving their fields every few years; they cultivated root crops and bananas (introduced from Southeast Asia, and subsequently diffused to America) and supplemented their diet with fish from the rivers.” (Cameron and Neal 90)
   9. “Trade and commerce were almost ubiquitous, even among hunters and gatherers insofar as they had contact with other social groups.” (Cameron and Neal 90)
      1. “The nomads of the *sahel*, the arid southern fringe of the Sahara, bartered the produce of their flocks—meat, milk, and [90] wool—for the grain, cloth, and metals of the sedentary peoples of the savanna. Salt and fish (dried and salted) were other objects of commerce.” (Cameron and Neal 90-91)
      2. “In East Africa cowry shells were used as money to obviate the need for barter. Canoes were widely used for porterage on rivers. Elsewhere head porterage sufficed.” (Cameron and Neal 91)
      3. artisans and traders in jungle areas: “Although the level of technology was generally low, that did not prevent the emergence of a specialized caste of ironworkers, for example, or of professional traders.” (Cameron and Neal 90)
3. **the Americas**
   1. origins
      1. “Scholars generally agree that the native Indian population of the Americas (Amerindians) descended from a Mongoloid (or pre-Mongoloid) people who, at some time in the distant past, crossed a land bridge over what is now the Bering Strait. There is less agreement on when this occurred; estimates range from a few thousand to more than 30,000 years ago. Recent archaeological discoveries in both North and South America favor the latter hypothesis. Moreover, it is unlikely that only a single wave of migration occurred; more likely, the migrations occurred in waves over a period of thousands of years. Ingenious theories have been proposed and even tested to prove that the aboriginal inhabitants might have come by sea across the Atlantic or Pacific; but even if one or a few such voyages had been successful, it is most unlikely that the entire pre-Columbian population of the Americas, widespread and speaking many different languages, could have descended from the survivors of those voyages.” (Cameron and Neal 91)
   2. Amerindians as a whole
      1. “The density of population and the level of culture varied considerably, however, from the sparsely populated great plains of North America and the Amazonian jungle to the teeming cities of Middle America [i.e., Mexico and Central America]. Population density varied directly with the productivity of the economy; it was greatest in those areas that practiced settled agriculture and lightest where the inhabitants still lived by hunting and gathering.” (Cameron and Neal 91)
      2. “The Amerindians had discovered agriculture independently from that of the Old World . . . It was most highly developed in Mexico, Central America, and northwestern South America, but also existed in what is now the southwestern United States and in the eastern woodlands of North America. The staple crop was maize (Indian corn), supplemented by tomatoes, squash, pumpkins, beans, and, in the Andean highlands, the potato.” (Cameron and Neal 91)
      3. “The Amerindians had no domesticated animals except the dog and, also in the Andes, the llama, which could be used as a pack animal but not as a draft animal. The technology was thus hoe culture.” (Cameron and Neal 91)
      4. “The Amerindians also had few metals—some alluvial gold used for ornaments, silver, and copper, but no iron. Their tools were made of wood, bone, stone, and especially obsidian, a natural volcanic glass used for cutting and carving. In spite of their apparently primitive technology, they produced some intricate and elaborate works of art as well as monumental architecture.” (Cameron and Neal 91)
   3. markets and trade
      1. c 1500 bc: “Archaeological evidence of long-distance trade dates from the middle of the second millennium b.c.” (Cameron and Neal 91)
   4. Olmecs
      1. 800-300: “the Olmec culture, located along the coast of the Gulf of Mexico, carried on commerce with the central highland area of Mexico. Objects of this commerce included finely carved statuettes and other art objects made from [91] jade, and the highly prized obsidian, as well as cacao beans, which were used as a form of money as well as for consumption.” (Cameron and Neal 91-92)
   5. Mayans
      1. “The Mayan civilization of modern Guatemala and Yucatan emerged at about this time or a little later. Its most striking features were large pyramids, not unlike those of Egypt, with temples built on top (Fig. 4-6). The Mayans also had a calendar and a form of writing that has only recently been deciphered. Little is known about the organization of the society and the economy, but, as elsewhere, maize was the food staple, and markets were common. Society must have been organized hierarchically to produce its monumental architecture, and the food surplus must have been substantial to free a work force of builders and skilled artisans. Mayan civilization was at its peak between the fourth and ninth centuries of the Christian era. Then the population apparently revolted against their priestly rulers, possibly aided by invaders from the north. The temples, deserted by the faithful, fell into ruins and were overrun by the surrounding jungle.” (Cameron and Neal 92)
      2. “Mayan temple. This imposing edifice is evidence of the wealth and power of the Mayan rulers, as well as the technical skill of their artisans: but the burden of their yoke was heavy, and their subjects eventually revolted and returned to subsistence agriculture.” (Cameron and Neal 92 figure 4-6)
   6. Toltecs, Chichimecs, Mixtecs
      1. “Following the Mayas, various other cultures in the highlands of Mexico reached fairly high levels of development. These included the Toltecs, the Chichimecs, and the Mixtecs.” (Cameron and Neal 92)
   7. Aztecs
      1. c 1350: “the Aztecs, a fierce, warlike tribe whose capital city was Tenochtitlan, the site of modern Mexico City, began to conquer and exploit their neighbors. Since the Aztecs practiced human sacrifice, selecting the victims from among the subject population, it is not surprising that the Spaniards under Cortez found willing allies when they undertook the conquest of Tenochtitlan in 1519.” (Cameron and Neal 92)
   8. Incas
      1. c 300-900: “natives along the coast of modern Peru practiced irrigation agriculture using water from the Andes. Evidently it was relatively highly productive, because it permitted the growth of dense urban populations [92] who traded among themselves.” (Cameron and Neal 92-93)
      2. c 1225: “Some time after about 1200 a.d. the Incas, a highland tribe with their capital in Cuzco, began a military conquest of the entire highland and coastal region from Ecuador in the north to Chile in the south. Although the Incas had no written language, they were able to keep records and even convey messages over great distances by means of knotted strings. They imposed a highly centralized state bureaucracy over their subjects, including state-owned warehouses for the storage and distribution of grain; but private markets also coexisted with the government distribution system.” (Cameron and Neal 92-93)
   9. continental US
      1. “Almost all the Amerindians made pottery and baskets.” (Cameron and Neal 93)
      2. “The Pueblo Indians of the southwestern United States also practiced irrigation agriculture and built urban settlements that deserve the designation of towns if not cities, with multi-room and multi-storied houses. They irrigated their fields by diverting streams over floodplains. The Hohokam culture of southeast Arizona made extensive use of irrigation canals which required the cooperation of several villages.” (Cameron and Neal 93)
      3. “In the upper Great Lakes region copper tools and weapons were made from native ores.” (Cameron and Neal 93)
      4. “Farther east slate and flint were shaped into points and knives similar to the copper implements.” (Cameron and Neal 93)
      5. “The Mississippi valley in the vicinity of modern St. Louis supported a dense population of agriculturists; one of its sites, called Cahokia by archaeologists, may have been as large as a medieval European city.” (Cameron and Neal 93)
      6. “The eastern woodland Indians, who inhabited the area east of the Mississippi from the St. Lawrence to the Gulf of Mexico, practiced agriculture along with hunting and fishing, but they lived in villages rather than towns. According to legend, Indians taught the Puritans of New England to fertilize their corn by burying fish with the seeds, which greatly increased the yield.” (Cameron and Neal 93)
   10. “Elsewhere in the Americas, from the Eskimos of the Arctic Ocean shores to the naked inhabitants of Tierra del Fuego, the vast but thinly populated continents provided a bare subsistence for primitive hunters and gatherers.” (Cameron and Neal 93)

Europe, 500-1000

1. **introduction**
   1. “Europe was lucky, but luck is only a beginning.” (Landes 29)
   2. The middle ages were “the bridge between an ancient world set in the Mediterranean—Greece and then Rome—and a modern Europe north of the Alps and Pyrenees. In those middle years a new society was born, very different from what had gone before, and took a path that set it decisively apart from other civilizations.” (Landes 31)

476-1000: later barbarian invasions

1. **introduction**
   1. 900s: Europe “was just coming out of a long torment of invasion, plunder, and rapine, by enemies from all sides.” (Landes 29)
2. **Vikings**
   1. “. . . the Norsemen or Vikings, marine bandits whose light boats could handle the roughest seas and yet sail up shallow rivers to raid and pillage far inland, struck along the Atlantic coasts and into the Mediterranean as far as Italy and Sicily.” (Landes 29)
   2. Other Vikings “went east into Slavic lands, establishing themselves as a new ruling class (the Rus, who [ruled Russia] for some seven hundred years), and eventually penetrating almost to the walls of Constantinople.” (Landes 29)
   3. The Vikings used “ruthless . . . tactics (taking pleasure in tossing babes in the air and catching them on their lances, or smashing their heads against the wall) . . .” (Landes 29)
   4. “. . . rumor of their [29] arrival . . . sent their leaders, including their spiritual guides, in headlong flight, carrying their movable wealth with them. . . . [A church] was not a good refuge, for the Vikings knew where the plunder lay and headed straight for churches and castles.” (Landes 29-30)
   5. “The Norsemen “were ready to settle into base camps for a period of years [and] even established themselves quasi-permanently as rulers in part of England, in Normandy (which took their name), and in Sicily . . .” (Landes 30)
   6. “The Europeans learned to counter these thrusts, with or without the help of their leaders, who were only too quick to make their own deals with the invaders on the backs of their peasants. Instead of trying to keep the Norsemen out, the villagers let them in, trapped them, fell on them from all sides.” (Landes 30)
      1. “This is the theme of, though not the inspiration for, the film *The Magnificent Seven*. Comparable situations lead to comparable tactics.” (Landes 30 n. \*)
3. **Saracens**
   1. “Saracen”
      1. Ptolemy (*Geography*, 100s ad) said *Sarakene* was a region in the northern Sinai peninsula, and *Sarakenoi* lived in northwestern Arabia. (“Saracen”)
      2. Eusebius of Caesarea (*Historia Ecclesiastica*, c. 330) said many Christians fleeing Decius were enslaved by *Sarkenoi*. (“Saracen”)
      3. Hippolytus located the *Saraceni* in the northern Hejaz and distinguished them from Arabs. (“Saracen”)
      4. Muslims did not use “Saracen.” (“Saracen”)
      5. In John of Damascus (c. 675-749) and afterward, “Saracen” simply means “Muslim.” (“Saracen”)
   2. The “Saracens (Moors) . . . set up mountain bases in the Alps and on the Cote d’Azur [Riviera, SE France], and went out from these to raid the trade routes between northern and southern Europe. These fastnesses, hard of access and yet linked to Muslim lands by the sea, were inexpugnable, and folk legend has it that to this day some villagers in the high Alps carry the color and appearance of their Maghrebin origins.” (Landes 30)
   3. The answer to Saracen raids “lay, as in Muslim lands, in military escorts for mule and wagon trains (caravans). In short, the Europeans raised the price of aggression.” (Landes 30)
4. **Huns** (**Magyars**)
   1. The Hungarians (Magyars) spoke “a Ural-Altaic language (a distant cousin of Turkish) . . .” (Landes 30)
   2. They swept “in year after year, choosing their targets by news of European dissensions and dynastic troubles, swift enough to move in a single campaign from their Danubian bases into eastern France or the foot of Italy.” (Landes 30)
   3. “. . . the Hungarians went out and back, hauling their booty and slaves along with them in wagons or on pack animals.” (Landes 30)
   4. “The Hungarians, too swift to deal with when they came in, were slow going out; a few ambushes of [their] overloaded trains convinced them that there must be better ways to make a living.” (Landes 30)
5. **by 1000**
   1. “Over the years, [Viking and] Hungarian invaders settled down and became [30] domesticated. Kingdoms replaced nomadic war camps, and their rulers looked with disfavor on these swaggering “captains” . . . Kings do not need career troublemakers. A mix of threat and reward succeeded in persuading rogues and pirates that more was to be gained by being landlords . . .” (Landes 30-31)
   2. freedom from external threats
      1. Some say the “end to danger from without launched Europe on the path of growth and development. This is the classical economists’ view: increase is natural and will occur wherever opportunity and security exist. Remove the obstacles, and growth will take care of itself.” (Landes 31)
      2. “Others would argue that freedom from aggression is a necessary but not sufficient condition. Growth and development call for enterprise, and enterprise is not to be taken for granted. Besides, medieval Europe did not lack for impediments to such initiatives.” (Landes 31)

traditions of property rights

1. **introduction**
   1. “Meanwhile property rights had to be rediscovered and reasserted after the fall of Rome.” (Landes 33)
   2. The “notion of economic development was a Western invention.” (Landes 32)
   3. Traditions of property rights “made Europe very different from civilizations around.” (Landes 35)
   4. “This world, which we know as medieval—the time between—was a transitional society, an amalgam of classical legacy, Germanic tribal laws and customs, and what we now call the Judaic-Christian tradition. All of these provided support for institutions of private property.” (Landes 33)
2. **Judaeo-Christian tradition**
   1. “The concept of property rights went back to biblical times . . .” (Landes 34)
      1. “The Hebrew hostility to autocracy, even their own, was formed in Egypt and the desert . . .” (Landes 34)
      2. “Let me cite two examples, where the response to popular initiative is directly linked to the sanctity of possessions.” (Landes 34)
      3. “When the priest Korach leads a revolt against Moses in the desert, Moses defends himself against charges of usurpation by saying, “I have not taken one ass from them, nor have I wronged any one of them.” (Num 16:15) (Landes 34)
      4. Samuel warns that a king will not be like him: “Whose ox have I taken, or whose ass have I taken?” (1 Sam 12:3) (Landes 34)
   2. “This tradition, which set the Israelites apart from any of the kingdoms around . . . tended to get lost in Christianity . . . once that Church became the official, privileged religion of an autocratic empire.” (Landes 34)
   3. Also, the Bible, “with its egalitarian laws and morals, its prophetic rebukes of power and exaltation of the humble, invited indiscipline among the faithful . . .” (Landes 34)
   4. With the Waldensians, Lollards, Lutherans, and Calvinists’ emphasis on “translating the Bible, “this Judaic-Christian tradition entered explicitly into the European political consciousness, by way of reminding rulers that they held their wealth and power of God, and then on condition of good behavior.” (Landes 35)
   5. “The Eastern Church never talked back to the Caesars of Byzantium.” (Landes 35)
   6. “Yet Western medieval Christianity did come to condemn the pretensions of earthly rulers—lesser monarchs, to be sure, than the emperors . . .” (Landes 35)
   7. “This split between western and eastern Europe is only one aspect of a profound chasm that still exists. And most people in eastern Europe know which side of the line they want to be on. Hence the expansion of “central” Europe to include everyone outside Russia. Also the inclusionary plans of the European Union and NATO.” (Landes 35 n. \*)
   8. Western medieval Christianity “thereby implicitly gave protection to private property. . . . Earthly rulers were not free to do as they pleased, and even the Church, God’s surrogate on earth, could not flout rights and take at will. The elaborate paperwork that accompanied the transfer of gifts of the faithful bore witness to this duty of good practice and proper procedure.” (Landes 35)
3. **Roman tradition**
   1. “To be sure, Europe had always thought of itself as different from the societies to the east. The great battles between Greeks and Persians—Salamis, Thermopylae—have come down in folk memory and in the classes of yesteryear as symbolic of the combat between West and East, between the free city [the *polis*] and aristocratic empires, between popular sovereignty (at least for free men) and oriental despotism . . . one was taught that the Greeks invented democracy, the word and the idea. This is still the conventional wisdom, though substantially modified by an awareness of Greek slavery and of their exclusion of women from the political process (though not from public space).” (Landes 31)
   2. “Linked to the opposition between Greek democracy and oriental despotism was that between private property and ruler-owns-all.” (Landes 31)
   3. “The ancient Greeks distinguished between free and unfree, not so much in terms of material benefits (they were not particularly keen on economic enterprise, which they associated with metics and other crass people), or even in terms of the advantages of their own system, as of the wrongness of the other, which they saw as tyranny. And yet the Greeks succumbed to despotism, most spectacularly in the empire created by Alexander and ruled by his Asian and Egyptian successors; and later the Romans went the same way, sliding all too easily into tyrannical autocracy. In final form, the classical Mediterranean world came to resemble politically the civilizations to the east—a powerful and [32] small elite surrounded by clients, servants, and slaves, and headed by an autocrat. But only resembled. Dissenters knew this was wrong, spoke up and wrote, and suffered for their presumption. The republican ideal died hard.” (Landes 32-33)
4. **Germanic tradition**
   1. “The Germanic custom was that of a nomadic community, with each warrior master of his modest possessions—kept modest by constant movement. Nothing was so special and valuable as to give rise to issues of ownership or to the ambitions of power.” (Landes 33)
      1. Adam Smith (*Wealth of Nations* 5.1.2): “The acquisition of valuable and extensive property, therefore, necessarily requires the establishment of civil government. Where there is no property, or at least none that exceeds the value of two or three days labour, civil government is not so necessary.” (Qtd. in Landes 33 n. \*)
   2. “Which is not to say that there were not other incentives to power; or that the condition of these nomadic peoples was immutable. In the course of their wanderings and conquests, such issues did arise.” (Landes 33)
   3. “But what mattered in the long run were the constraints imposed by political fragmentation and general insecurity. In the centuries that followed the end of empire, the arm of authority was short. Power derived in principle from the freely [33] consented allegiance of the group or an elite within it and was correspondingly limited. To be sure, the tradition of election gave way to hereditary rule (the Germans were much influenced by Roman example, or rather principle). But old customs and appearances died hard: the ruler, even when designated by birth, was nominally elected. So he was earthly, human rather than divine . . .” (Landes 33-34)

fragmentation

1. **introduction**
   1. “Some did seek to restore the empire . . . The dream of Rome reborn never died. Had they succeeded, one might have expected a revival of arbitrary despotism.” (Landes 34)
      1. “The Roman dream of unity, authority, and order (the *pax Romana*) remained, [37] indeed has persisted to the present. . . . European union is seen today as the cure for the wars of yesterday.” (Landes 37-38)
   2. But efforts to restore the empire broke “down in the face of poor communication, inadequate transport, challenges to legitimacy, the contrary power of local rulers . . . In this context, private property was what could be held and defended. Sometimes it was seized by force, just as today someone might be mugged and robbed. But the principle never died: property was a right, and confiscation . . . could not change that.” (Landes 34)
   3. Crone (*Pre-Industrial Societies* 161-62) “stresses the plurality of the barbarian strike forces that brought down the Western empire and the consequent plurality of political and, I would add, cultural and linguistic units. The one unified entity was the Church, with its more or less common language, and the pope, Crone points out, had no interest in promoting a secular rival.” (Landes 536 n. 4)
   4. Despotisms in Europe “were mitigated by law, by territorial partition, and within states, by the division of power between the center (the crown) and local seigneurial authority.” (Landes 36)
   5. Crone notes (*Pre-Industrial Societies* 157-58) that medieval rulers used law and justice to contribute “to royal revenues. But . . . he who gets his living by the law must live by the law.” (Landes 536 n. 7)
   6. “Fragmentation gave rise to competition, and competition favored good care of good subjects. Treat them badly, and they might go elsewhere.” (Landes 36)
   7. “Ironically, then, Europe’s great good fortune lay in the fall of Rome and the weakness and division that ensued. [37] . . . one has usually seen fragmentation as a great misfortune, as a recipe for conflict . . . [But in the middle ages], fragmentation was the strongest brake on wilful, oppressive behavior. Political rivalry and the right of exit made all the difference.” (Landes 37-38)
2. **religion**
   1. “One other fissure helped: the split between secular and religious.” (Landes 38)
   2. Islam
      1. In Islamic societies, “religion was in principle supreme and the ideal government that of the holy men . . .” (Landes 38)
      2. “. . . thought control . . . proved a curse in Islam.” (Landes 38)
   3. Christianity distinguished “between God and Caesar. To each his own. This did not preclude misunderstandings and conflicts: nothing is so unstable as a dual supremacy; something’s got to give. In the end, it was the Church, and this meant yielding to Caesar what was Caesar’s and then a good part of what was God’s.” (Landes 38)
   4. heterodoxy
      1. “Among the things that gave, homogeneous orthodoxy: where authority is divided, dissent flourishes. This may be bad for certainty and conformity, but it is surely good for the spirit and popular initiatives.” (Landes 38)
      2. “Here, too, fragmentation made all the difference. The Church succeeded in asserting itself politically in some countries, notably those in southern Europe, not in others; so that there developed within Europe areas of potentially free thought. This freedom found expression later on in the Protestant Reformation, but even before, Europe was spared the thought control . . .” (Landes 38)
3. **Fragmentation made Europe hard to conquer**.
   1. “One final advantage of fragmentation: by decentralizing authority, it made Europe safe from single-stroke conquest.” (Landes 38)
   2. “The history of empire is dotted with such coups—one or two defeats and the whole ecumenical autocracy comes tumbling down.” (Landes 38)
      1. the Persian Empire after Issus (333 bc) and Gaugamela (331 bc)
      2. the Roman Empire after sacking by Alaric (ad 410)
      3. the Sassanid Empire after Qadisiya (637) and Nehawand (642)
      4. the Aztec Empire
      5. the Inca Empire
   3. Europe “did not have all its eggs in one basket.” (Landes 39)
      1. “Already in late Roman times, Germanic tribes fought as allies alongside imperial forces to repel later invaders . . .” (Landes 39 n. \*0
         1. 451: “. . . Salian Franks, Visigoths, and others [fought alongside] the Roman general Aetius against Attila’s Huns at the so-called Battle of Chalons (somewhere near Troyes) . . .” (Landes 39 n. \*)
         2. “Attila and his Huns have come down in European tradition as quintessential symbols of barbarism and savagery. But today’s Turks do not feel that way: Attila is one of their favorite names.” (Landes 39 n. \*)
      2. 1200s: Mongols
         1. The Mongols “made short work of the Slavic and Khazar kingdoms of what is now Russia and Ukraine, but they still had to cut their way through an array of central European states, including the new kingdoms of their predecessors in invasion—the Poles, Lithuanians, Germans, Hungarians, and Bulgars—before they could even begin to confront the successor states of the Roman empire. This they might well have done had they not been distracted by troubles back home; but they would have paid dearly for further gains, especially in forested areas.”
      3. Turks
         1. 1529: from Anatolia the Turks “began to expand into Europe, conquering the Balkans, then the lower Danube Valley, and getting . . . to the walls of Vienna, capital of Germany’s eastern march.” (Landes 39)
            1. “In the course of these advances, they subdued the Serbs, the Bulgars, the Croats, the Slovenes, the Albanians, the Hungarians, and sundry other peoples of that confused and quarrelsome palimpsest.” (Landes 39)
            2. “But that was it; by the time they got to Vienna, they had reached the limit of their resources.” (Landes 39)
         2. 1683: “When they got to Vienna the second time, . . . the Turks found themselves facing not only Germans but the Poles of Sobieski. Europeans could work together when they thought they faced a common enemy.” (Landes 39)
            1. “That this was a last gasp is shown by the rapid Ottoman retreat thereafter. In a short sixteen years, they left Hungary and pulled back to Bosnia and Serbia, thus giving up the middle Danube Valley to Christian settlement (Treaty of Karlowitz).” (Landes 39 n. †)
   4. 900s-1000s: “The tenth and eleventh centuries were filled with baronial brigandage, eventually mitigated by popular Church-supported revulsion and outrage that found expression in mass “peace” assemblies; and, from the top down, subdued by stronger central government allied with urban interests. Time and money were on the side of order.” (Landes 40)
      1. “. . . the “Peace of God” movement of the late tenth [and] early eleventh century . . . took the form of mass public encounters of clergy, nobility, and populace and produced a series of social compacts . . .” (Landes 40 n. 15)
         1. Head, Thomas, and Richard A. Landes, eds. *The Peace of God*: *Social Violence and Religious Response in France around the Year 1000*. Ithaca: Cornell UP, 1992.
         2. These compacts were not always honored, but principle matters, and again, such evidences of popular initiative and expression were distinctively European.” (Landes 40 n. 15)
   5. c. 1000 on: “Once the Europeans found themselves reasonably secure from outside aggression . . ., they were able, as never before and as nowhere else, to pursue their own advantage.” (Landes 40)
      1. On the side of order also “was the diversion of brawlers to external frontiers (cf. the Crusades). The economist would say that once the exogenous shocks ended, the system could take care of its endogenous troublemakers.” (Landes 40)

1000-1500: medieval economic revolution

1. **introduction**
   1. “There ensued a long period of population increase and economic growth, up to the middle of the fourteenth century, when Europeans were smitten by the plague (the “Black Death”) in its bubonic and pneumonic forms and a third or more of the people died; a half when you count the losses inflicted by sequellae.” (Landes 40)
   2. “The one hundred fifty years that followed were a period of rebuilding [and] further technological advance . . . [Europe] now found itself stronger than its neighbors, and the beginnings of exploration and conquest overseas.” (Landes 40)
   3. “This long multicentennial maturation (1000-1500) rested on an economic revolution, a transformation of the entire process of making, getting, and spending such as the world had not seen since” the neolithic revolution. (Landes 40)
   4. “The medieval economic revolution also built on gains in the production and application of energy and concomitant increases in work.” (Landes 41)
2. **food supply**
   1. “. . . this was a period of innovation in the techniques of cultivation.” (Landes 41)
   2. plow
      1. “. . . the older Roman wooden scratch plow . . . had worked well enough on the gravelly soils of the Mediterranean basin.” (Landes 41)
      2. The Germans had invented “the wheeled plow, with deep-cutting iron share . . . but it had seen limited use in a world of limited animal power and low population density.” (Landes 41)
      3. “Now it spread across Europe north of the Loire, opened up the rich river valleys, turned land reclaimed from forest and sea into fertile fields, in short did wonders wherever the heavy, clayey soil” required it. (Landes 41)
   3. animals
      1. “The wheeled plow turning heavy soil called for animals to match. . . . big, stall-fed oxen . . . were found nowhere else, [and] large dray horses [were] more powerful if not stronger than the ox.” (Landes 41)
      2. “These living, mobile engines offered a great advantage in a land-rich, labor-scarce economy. For . . . agricultural work has peaks of activity at sowing and harvest when one must seize good weather and get the seed in or crops out.” (Landes 41)
      3. shared animals
         1. In “European communal agriculture, . . . scattered and intermingled holdings and open fields made for much to-and-fro and one peasant’s haste was the haste of all his neighbors.” (Landes 41)
         2. “Strong, quick animals could make all the difference, and cultivators pooled resources to get the right livestock.” (Landes 41)
   4. more intensive cultivation
      1. There was “a shift from a two-field (one half left fallow every year) to a three-field system of crop rotation (winter grain, spring grain, and one third fallow). This yielded a gain of one third in land productivity (one sixth of total cultivable land, but one third of the half previously under cultivation) . . .” (Landes 41)
      2. A one-third gain in productivity “further contributed to the ability to support livestock, which increased the supply of fertilizer, which nourished yields, and so on in ascending cycle.” (Landes 41)
   5. rural communities
      1. “. . . the character of land distribution and the collective use of draft animals . . . called for strong communal leadership and cooperation . . .” (Landes 41)
3. **new lands**
   1. How much the medieval economic revolution “was response to population pressure and how [41] much a stimulus to increase is hard to say. No doubt both.” (Landes 41-42)
   2. Probably “population began to outstrip the means of sustenance, because these centuries also saw a great effort to increase arable” land. (Landes 42)
      1. The was done by “forest clearing (assarts) . . .” (Landes 42)
      2. The was done by “reclamation of land from water, by diking, drainage, and pumping. . . . In particular, the windmill, tireless and faithful, was the key to the successful pumping of fens and polders. It was the windmill that made Holland.” (Landes 42)
   3. Clearing forests and reclaiming land from water “call for enormous energy and capital, and their success testifies not only to private and collective initiative but to the ingenuity of a society that was learning to substitute machines for animal and human power.” (Landes 42)
4. **free cities**
   1. “Historians rightly emphasize gains in land productivity and output in a society overwhelmingly rural because compelled to devote most of its resources to feeding itself. Yet [it] was the urban minority that held most of the seeds and secrets of transformation—technical, intellectual, political.” (Landes 42)
   2. “Cities and towns sprang up thick and ambitious; in France, the Low Countries, the Rhineland, rulers encouraged them by generous grants of privilege.” (Landes 42)
   3. Cities existed “around the world—wherever agriculture produced sufficient surplus to sustain . . . rulers, soldiers, craftsmen, and other nonfood producers.” Many were impor­tant markets and administrative centers. (Landes 36)
   4. But struggles for power among European societies “gave rise to the specifically European phenomenon of the semi-autonomous city, organized and known as [a] commune.” (Landes 36)
   5. two special characteristics
      1. Robert Lopez (cited by Pounds *Economic History* 104): communes were “governments of the merchants, by the merchants, and for the merchants.” (Qtd. in Landes 36)
      2. A commune could “confer social status and political rights on its residents—rights crucial to the conduct of business and to freedom from outside interference. This meant everything in a hierarchical, agrarian society that held most of the population in thrall . . . It made the cities gateways to freedom [36] . . . when the count of Flanders tried to reclaim a runaway serf whom he ran across in the market of Bruges, the bourgeois simply drove him and his bully boys out of the city.” (Landes 36-37)
   6. “. . . rural privileges and their link to projects of land reclamation and extension of cultivation [went] back to the eleventh century . . .” (Landes 536 n. 11)
   7. Cities “became poles of attraction, places of refuge, nodes of exchange with the countryside. Migration to cities improved the income and status not only of the migrants but of those left behind.” (Landes 37)
   8. “Serf emancipation in western Europe was directly linked to the rash of . . . communes . . .” (Landes 37)
   9. But the cities “were dirty, crowded, and lent themselves to easy contagion,” so only continued migration “enabled them to grow.” (Landes 37)
   10. “Where cities and towns were few and unfree, as in eastern Europe, serfdom persisted and worsened.” (Landes 37)
   11. “Why did rulers grant such rights to rustics and townsmen, in effect abandoning (transferring) some of their own powers?” (Landes 37)
       1. “First, new land, new crops, trade, and markets brought revenue, and revenue brought power. (Also pleasure.)” (Landes 37)
       2. “Second, . . . to enhance their power . . .: free farmers . . . and townsmen (*bourgeois*) were the natural enemies of the landed aristocracy and would support the crown [against] local seigneurs.” (Landes 37)
          1. Rulers “who sought to grow revenues in this manner had to *attract* participants by the grant of franchises, freedoms, and privileges—in short, by making deals.” (Bartlett, Robert. *The Making of Europe*: *Conquest*, *Colonization and Cultural Change 950-1350*. London: Penguin, 1993.) (Landes 37)
          2. “These exemptions from material burdens and grants of economic privilege, moreover, often led to political concessions and self-government. Here the initiative came from below, and this too was an essentially European pattern. Implicit in it was a sense of rights and contract—the right to *negotiate* as well as *petition*—with gains to the freedom and security of economic activity.” (Landes 37)
   12. rural-type egalitarianism
       1. “To be sure, the towns and cities were themselves shaped by the countryside: immigrants from the fields brought with them values, habits, and attitudes that made more sense on the land and then set them as a straitjacket on urban activity.” (Landes 42)
       2. “. . . the urban setting itself made it necessary to ration space and time, again with an eye to discouraging self-aggrandizement.” (Landes 42)
          1. “Thus the organization of tradesmen and craftsmen in corporate guilds assumed a zero-sum game—one man’s increase was another’s diminution . . .” (Landes 42)
             1. Actually, “the move toward guild controls was as much a response to free dealing as the expression of an older morality.” (Landes 42)
          2. Also, “no stealing a march and selling before a certain hour or after another; no price competition; no trade-off of quality and solidity for cheapness; no buying low (“jewing down,” in popular parlance—bad habits always belong to someone else) to sell high; in short, no market competition.” (Landes 42)
          3. “Everyone who did his job was entitled to a living. Laudable but static. The aim was an egalitarian social justice, but it entailed serious constraint on enterprise and growth—a safety net at the expense of income.” (Landes 42)
   13. competition
       1. “. . . attempts to sustain local monopoly were thwarted by the growth of suburbs (*faubourgs*), where urban rules did not apply. There outsiders and Jews settled in, and journeymen worked for masters who had outgrown their shop. There market restrictions did not [42] hold. Hence pairings like Hamburg-Altona and Nurnberg-Furth: old wealth, new wealth; decorum, disorder; tight access, free entry.” (Landes 42-43)
       2. “One inevitable consequence of active trade was selection by merit. This ran against the parity principle (equality of results), but it was not possible to impose uniformity of performance. Some craftsmen simply did better work and attracted buyers beyond their capacity.” (Landes 43)
       3. cottage industry (putting-out, outsourcing)
          1. The “effort to restrain competition by limiting access to mastership meant talent unemployed. It did not take much to bring together such masters and [extra-shop] journeymen.” (Landes 43)
             1. “Since the journeymen were often not permitted to work in the master’s city shop (limits on size), they worked *en chambre* or in the suburbs.” (Landes 43)
             2. “Here was the beginning of putting-out and division of labor, with substantial gains in productivity.” (Landes 43)
          2. “Urban closure was also thwarted by the spread of industrial production to the countryside. Agriculture, with its seasonal and irregular pattern of activity, offered a pool of untapped labor, the greater because outside the cities constraints on the use of female and child workers no longer applied. Women and children, grossly underpaid, gave more product for the penny.” (Landes 43)
          3. 1200s: “merchants began to hire cottage workers to perform some of the more tedious, less skilled tasks. In the most important branch, the textile manufacture, peasant women did the spinning on a putting-out basis: merchants gave out (put out) the raw material—the raw wool and flax, and, later, cotton—and collected the finished yarn.” (Landes 43)
          4. “. . . when merchants started putting-out yarn to cottage weavers, they were attacking one of the most powerful vested interests of the day, the guild weavers of the towns.” (Landes 43)
          5. “In Italy, the autonomous cities, which held political control over the surrounding countryside, managed to destroy much of this “unfair” competition.” (Landes 43)
          6. “In the Low Countries, the other great medieval center of cloth manufacture, urban weavers marched into the villages to break cottage looms; and although the country weavers fought back, the putting-out system was held in check for centuries.” (Landes 43)
          7. “The one country where putting-out had a free field was England, where local political autonomies made it hard for the monarchy to sustain corporate (guild) claims to monopoly and where guilds were quickly reduced to ceremonial fraternities.” (Landes 43)
             1. by 1400: “more than half the nation’s woolen cloth was being made in rural cottages. This recourse to cheap labor lowered costs over competitors abroad, so that by [1500] a country that had once been largely an exporter of [43] primary products, including raw wool, was well on its way to becoming the premier manufacturing nation of Europe.” (Landes 43-44)
5. **conclusion**
   1. “The economic expansion of medieval Europe was thus promoted by a succession of organizational innovations and adaptations, most of them initiated from below and diffused by example.” (Landes 44)
   2. “The rulers, even local seigneurs, scrambled to keep pace, to show themselves hospitable, to make labor available, to attract enterprise and the revenues it generated.” (Landes 44)
   3. “At the same time, the business community invented new forms of association, contract, and exchange designed to secure investment and facilitate payment. In these centuries a whole new array of commercial instruments came into use; commercial codes were elaborate and enforced; and partnership arrangements were devised to encourage alliances between lenders and doers, between the men who supplied the funds and merchandise and those who went to distant land to sell and to buy. Almost all of this “commercial revolution” came from the mercantile community, bypassing where necessary the rule of this or that city or state, inventing and improvising new venues for encounter and exchange (ports and outports, *faubourgs*, local markets, international fairs), creating in short a world of its own like an overlay on the convoluted, inconvenient mosaic of political units.” (Landes 44)
   4. “They got thereby substantially enhanced security, a sharp reduction in the cost of doing business (what the economist calls “transaction costs”), a widening of the market that promoted specialization and division of labor. It was the world of Adam Smith, already taking shape five hundred years before his time.” (Landes 44)

1000-1500: Inventions

introduction

China

Islam

900s-1000s: water wheel

1275-1300: mechanical clock

c. 1290: eyeglasses

1200s: paper

1439: printing

c. 1300: gunpowder

European advantages

1. **introduction**
   1. White, Lynn, Jr., “Technology and Invention in the Middle Ages.” *Speculum* 15 (1940) 141-59. (“The key . . . seminal article,” (Landes 536 n. 1)
   2. “. . . the Europe of the Middle Ages [was] one of the most inventive societies that history had known. Some may be surprised: for a long time one saw these centuries as a dark interlude between the grandeur of Rome and the brilliance of the Renaissance. That cliché no longer holds in matters technological.” (Landes 45)
   3. “Europe, as nowhere else, was a power-based civilization.” (Landes 46)
2. **China**
   1. Clearly, “other societies were falling behind Europe even before the opening of the world (fifteenth century on) and the great confrontation.” (Landes 54)
      1. “. . . a number of scholars have recently tried to propagate the notion that European technology did not catch up to that of Asia until the late eighteenth century. The most active source at the moment is the H-World site on the Internet—a magnet for fallacies and fantasies.” (Landes 54 n. \*)
   2. “The one civilization that might have surpassed the European achievement was China. . . . Witness the long list of Chinese inventions: the wheelbarrow, the stirrup, the rigid horse collar (to prevent choking), the compass, paper, printing, gunpowder, porcelain.” (Landes 55)
   3. “And yet in matters of science and technology, China remains a mystery—and this in spite of a monumental effort by the late Joseph Needham and others to collect the facts and clarify the issues.” (Landes 55)
   4. “. . . Chinese industry long anticipated European . . .” (Landes 55)
      1. 1100s: “in textiles, . . . the Chinese had a water-driven machine for spinning hemp . . . five hundred years before the England of the Industrial Revolution knew water frames and mules . . .” (Landes 55)
      2. “. . . in iron manufacture, the Chinese early learned to use coal and coke in blast furnaces for smelting iron [extracting it from ore] . . . and were turning out as many as 125,000 tons of pig iron by the later eleventh century—a figure reached by Britain seven hundred years later.” (Landes 55)
   5. “One generally assumes that . . . a superior technique, once known, will replace older methods. But Chinese industrial history offers examples of technological oblivion and regression.” (Landes 55)
      1. “. . . horology went backward.” (Landes 55)
      2. “. . . the machine to spin hemp was never adapted to . . . cotton, and cotton spinning was never mechanized.” (Landes 55)
      3. “And coal/coke smelting was allowed to fall into disuse, along with the iron industry as a whole.” (Landes 55)
   6. Elvin (*Pattern of the Chinese Past* 297-98): “none of the conventional explanations tells us in convincing fashion why technical progress was absent in the Chinese economy . . . Almost every element usually regarded by historians as a major contributory cause to the industrial revolution in north-western Europe was also present in China. [55] . . . Only Galilean-Newtonian science was missing; but in the short run this was not important. Had the Chinese possessed, or developed, the seventeenth-century European mania for tinkering and improving, they could easily have made an efficient spinning machine out of the primitive model described by Wang Chen. . . . A steam engine would have been more difficult; but it should not have posed insuperable difficulties to a people who had been building double-acting piston flame-throwers in the Sung dynasty. The crucial point is that nobody tried. In most fields, agriculture being the chief exception, Chinese technology stopped progressing . . .” (Qtd. in Landes 55-56)
   7. “Sinologists have put forward several partial explanations. The most persuasive are of a piece . . .” (Landes 56)
      1. “absence of a free market and institutionalized property rights” (Landes 56)
         1. “The Chinese state was always interfering with private enterprise—taking over lucrative activities, prohibiting others, manipulating prices, exacting bribes, curtailing private enrichment. . . . Bad government strangled initiative, increased the cost of transactions, diverted talent from commerce and industry.” (Landes 56)
         2. “A favorite target was maritime trade, which the Heavenly Kingdom saw as a diversion from imperial concerns, as a divisive force and source of income inequality, worse yet, as an invitation to exit. Matters reached a climax under the Ming dynasty (1368-1644), when the state attempted to prohibit all trade overseas. Such interdictions led to evasion and smuggling, and smuggling brought corruption (protection money), confiscations, violence, and punishment.” (Landes 56)
      2. “gender relations” (Landes 56)
         1. “. . . the quasi-confinement of women to the home made it impossible, for example, to exploit textile machinery profitably in a factory setting. Here China differed sharply from Europe or Japan, where women had free access to public space and were often expected to work outside the home to accumulate a dowry or contribute resources to the family.” (Landes 56)
      3. Sinologist Etienne Balazs “sees China’s abortive technology as part of a larger pattern of totalitarian control. He does not explain this by hydraulic centralism, but he does recognize the absence of freedom, the weight of custom, consensus, what passed for higher wisdom.” (Landes 56)
         1. Etienne Balazs (*La bureaucratie céleste* 22-23): “if one understands by totalitarianism the complete hold of the State . . . over all the activities of social life, without exception, Chinese society was highly totalitarian. . . . No private initiative, no expression of public life . . . can escape official control. [State monopolies controlled] the great consumption staples: salt, iron, tea, alcohol, foreign trade. There is a monopoly of education, jealously guarded. There is practically a monopoly of letters (I was about to say, of the press) . . . There are clothing regulations, a regulation of public and private construction (dimensions of houses); the colors one wears, the music one hears, the festivals—all are regulated. There are rules for birth and rules for death . . . It is a regime of . . . endless paper work and endless harassment. . . . It is the State that kills technological progress in China. Not only in the sense that it nips in the bud anything that goes against or seems to go against its interests, but also by the . . . atmosphere of routine, of traditionalism, and of immobility, which makes any innovation suspect . . .” (Landes 57)
3. **Islam**
   1. Islam “initially absorbed and developed the knowledge and ways of conquered peoples.” (Landes 54)
   2. 750-1100: “Islamic science and technology far surpassed those of Europe, which needed to recover its heritage and did so to some extent through contacts with Muslims in such frontier areas as Spain.” (Landes 54)
      1. But “Even in the golden age (750-1100), speculation disconnected from practice . . .” (Landes 55)
      2. Lynn White (*Medieval Religion and Technology* 227): “For nearly five hundred years the world’s greatest scientists wrote in Arabic, yet a flourishing science contributed nothing to the slow advance of technology in Islam.” (Landes 55)
   3. “Then something went wrong.” (Landes 54)
      1. Hoodbhoy, Pervez A. *Islam and Science*: *Religious Orthodoxy and the Battle for Rationality*. London and Atlantic Highlands, NJ: Zed Books, 1991. Esp. chs. 9 and 10.
      2. “. . . Islam does not, as Christianity does, separate the religious from the secular. The two constitute an integrated whole. The ideal state would be a theocracy; and in the absence of such fulfillment, a good ruler leaves matters of the spirit and mind (in the widest sense) to the doctors of the faith. This can be hard on scientists.” (Landes 54)
      3. “Islamic science, denounced as heresy by religious zealots, bent under theological pressures for spiritual conformity. . . . For militant Islam, the truth had already been revealed. What led *back* to the truth was useful and permissible; all the rest was error and deceit.” (Landes 54)
      4. “In 885, all professional copyists in Baghdad were required to swear an oath not to copy books of philosophy.” (Landes 537 n. 14)
      5. “The historian Ibn Khaldūn [1332-1406], conservative in religious matters, was nonetheless dismayed by Muslim hostility to learning . . .” (Landes 54)
         1. Ibn Khaldūn (*The Muqaddima*: *An Introduction to History*. 1377. London: Routledge and Kegan Paul, 1978. 373): “When the Muslims conquered Persia [637-642] and came upon an indescribably large number of books and scientific papers, Sa’d bin Ab Waqqas wrote to Umar bin al-Khattab asking him for permission to take them and distribute them as booty among the Muslims. . . . Umar wrote him: “Throw them in the water. If what they contain is right guidance, God has given us better guidance. If it is error, God has protected us against it.”” (Qtd. in Landes 54)
   4. Most technology “came from outside and continued to depend on outside support.” (Landes 55)
      1. Islam adopted paper. (Landes 55)
      2. It introduced “new crops such as coffee and sugar . . .” (Landes 55)
      3. The Turks readily learned “the use (but not the making) of cannon and clocks.” (Landes 55)
      4. “Native springs of invention seem to have dried up.” (Landes 55)
   5. Christianity sometimes suppressed thought. In the 1400s, Spanish “intolerance and religious fanaticism . . ., culminating in the obsession with racial purity [*limpieza de sangre*], and the pursuit of heresy . . ., crippled the nation’s capacity for inquiry and learning.” (Landes 77)
4. **900s-1000s**: **water wheel**
   1. 400s: the water wheel was “known to the Romans, who began to do interesting things with it during the last century of the empire, when . . . the supply of slaves had shrunk almost to nothing. [But] By then . . . order and trade were breaking down.” (Landes 45)
   2. It “may well have survived on Church estates . . .” (Landes 45)
   3. 900s-1000s: “it was revived . . ., multiplying easily [because] of wide rainfall and ubiquitous watercourses.” (Landes 45)
      1. “In England, that peripheral, backward island, the Domesday census of 1086 showed some 5,600 of these mills . . .” (Landes 45)
      2. “. . . the Continent had many more.” (Landes 45)
   4. “. . . waterpower technique advanced.” (Landes 45)
      1. “Millwrights increased pressure and efficiency by building dams and ponds and by lining the wheels up to utilize the diminishing energy for a variety of tasks, beginning with those that needed the most power, and descending.” (Landes 46)
      2. “At the same time, the invention or improvement of accessory devices—cranks, toothed gears—made it possible to use the power at a distance, change its direction, convert it from rotary to reciprocating motion, and apply it to an increasing variety of tasks . . .” (Landes 46)
         1. “not only grinding grain, but
         2. “fulling (pounding) cloth, thereby transforming the woolen manufacture;
         3. “hammering metal;
         4. “rolling and drawing sheet metal and wire;
         5. “mashing hops for beer;
         6. “pulping rags for paper.” (Landes 46)
5. **1275-1300**: **mechanical clock**
   1. introduction
      1. The mechanical clock was based on the swings of a pendulum. (Landes 49)
      2. “The clock was the greatest achievement of medieval mechanical ingenuity.” (Landes 49)
      3. Louis Mumford (*Technics and Civilization* 14-15): “The clock is not merely a means of keeping track of the hours, but of synchronizing the actions of men. The clock, not the steam-engine, is the key-machine of the modern industrial age . . . In its relationship to determinable quantities of energy, to standardization, to automatic action, and finally to its own special product, accurate timing, the clock has been the foremost machine in modern technics; and at each period it has remained in the lead; it marks a perfection toward which other machines aspire.” (Landes 537 n. 6)
   2. sundials and water clocks
      1. “Before the invention of this machine, people told time by sun (shadow sticks or dials) and water clocks.” [48] Water clocks measured a regular flow of water. (Landes 48-49)
      2. “Sun clocks worked of course only on clear days; water clocks misbehaved when the temperature fell toward freezing, to say nothing of long-run drift as a result of sedimentation and clogging.” (Landes 48)
      3. “Both of these devices served reasonably well in sunny climes; but north of the Alps one can go weeks without seeing the sun, while temperatures vary not only seasonally but from day to night.” (Landes 48)
   3. China
      1. “The Chinese built a few astronomical water clocks in the Tang and Sung eras—complicated and artful pieces that may have kept excellent time in the short run, before they started clogging.” Chinese horology (making timepieces) “never got beyond water clocks . . .” (Landes 50)
      2. “These monumental machines were imperial projects, done and reserved for the emperor and his astrologers. The Chinese treated time and knowledge of time as confidential aspects of sovereignty, not to be shared with the people. . . . In the cities drums and other noisemakers signaled the hours (equal to two of our hours), and everywhere the imperial calendar defined the seasons and their activities. Nor was this calendar a uniform, objectively determinable datum. Each emperor in turn had his own calendar, placed his own seal on the passage of time. Private calendrical calculation would have been pointless.” (Landes 50)
         1. “The hours had names rather than numbers, and that in itself testifies to the absence of a temporal calculus.” (Landes 50)
         2. “. . . China came to know the Western mechanical clock . . . the Chinese imperial court and wealthy elites were wild about these machines; but because they were reluctant to acknowl­edge European technologic superiority, they sought to trivialize them as toys. Big mistake.” (Landes 50)
   4. Islam
      1. “Islam might also have sought to possess and copy the clock, if only to fix prayers. And as in China, Muslim horologers made water clocks [50] well in advance of anything known in Europe. Such was the legendary clock that Haroun-al-Raschid sent as a gift to Charlemagne around the year 800: no one at the Frankish court could do much with it, and it disappeared to ignorance and neglect.” (Landes 50-51)
      2. “Like the Chinese, the Muslims were much taken with Western clocks and watches . . . But they never used them to create a public sense of time other than as a call to prayer.” (Landes 51)
      3. Ghiselin de Busbecq, ambassador from the Holy Roman Empire to the Sublime Porte in Constantinople (a letter of 1560): “if they established public clocks, they think that the authority of their muezzins and their ancient rites would suffer diminution.” (Qtd. in Lewis *Muslim Discovery of Europe* 233.) (Qtd. in Landes 51)
   5. “Medieval Europe gave new importance to reliable time.” (Landes 48)
      1. The Church [was] first, with its seven daily prayer offices, one of which, matins, was in spite of its name a nocturnal rite and required an alarm arrangement to wake clerics before dawn. (Hence our children’s round, *Frère Jacques*: Brother Jacques has overslept and failed to sound the bells for matins.)” (Landes 48)
         1. “The English and German versions of the verse (and maybe others) traduce the meaning by saying that “morning bells are ringing.” The point is, they are not ringing.” (Landes 48 n. \*)
      2. “. . . the new cities and towns . . . had to know and order time in order to organize collective activity and ration space. They set a time to wake, to go to work, to open the market, close the market, leave work, and finally a time to put out fires (*couvre-feu* gives us our word “curfew”) and go to sleep.” (Landes 48)
         1. “All of this was compatible with the older devices so long as there was only one authoritative timekeeper; but with urban growth and the multiplication of time signals, discrepancy brought discord and strife.” (Landes 48)
   6. 1275-1300: the mechanical clock “seems to have appeared in Italy and England (perhaps simultaneous invention . . .).” (Landes 48)
   7. “. . . it spread rapidly, driving out the water clocks; but not solar dials, which were needed to check the new machines against the timekeeper of last resort. These early versions were rudimentary, inaccurate, and prone to break down . . .” (Landes 48)
   8. “Ironically, the new machine tended to undermine ecclesiastical authority.” (Landes 48)
      1. “. . . Church time was nature’s time. Day and night were divided into the same number of parts, so that except at the equinoxes, day and night hours were unequal; and then of course the length of these hours varied with the seasons. But the mechanical clock kept equal hours, and this implied a new time reckoning. The Church resisted, not coming over to the new hours for about a century.” (Landes 49)
      2. “From the start, however, the towns and cities took equal hours as their standard, and the public clocks installed in the towers and belfries of town halls and market squares became the very symbol of a new, secular municipal authority. Every town wanted one; conquerors seized them as specially precious spoils of war; tourists came to see and hear these machines . . .” (Landes 49)
   9. “This was the first example of a digital as opposed to an analog device: it counted a regular, repeating sequence of discrete actions (the swings of an oscillating controller) rather than tracked continuous, regular motion such as the moving shadow of a sundial or the flow of water.” (Landes 49)
   10. “. . . clockmakers led the way to accuracy and precision: masters of miniaturization, detectors and correctors of error, searchers for new and better. They remain the pioneers of mechanical engineering—examples and teachers to other branches.” (Landes 49)
   11. “The clock [enhanced] productivity. Indeed, the very notion of productivity is a by-product of the clock: . . . one can relate [49] performance to uniform time units . . .” (Landes 49-50)
       1. “One moves from the task-oriented time consciousness of the peasant (one job after another, as time and light permit) . . . to an effort to maximize product per unit of time (time is money).” (Landes 50)
       2. “The invention of the mechanical clock anticipates in its effects the economic analysis of Adam Smith: increase in the wealth of nations derives directly from improvement of the productive powers of labor.” (Landes 49-50)
   12. “The mechanical clock remained a European (Western) monopoly for some three hundred years; in its higher forms, right into the twentieth century. Other civilizations admired and coveted clocks, or more accurately, their rulers and elites did; but none could make them to European standard.” (Landes 50)
6. **c**. **1290**: **eyeglasses**
   1. “. . . because the crystalline lens of the human eye hardens around the age of forty, it produces a condition similar to farsightedness (actually presbyopia). The eye can no longer focus on close objects.” (Landes 46)
   2. “But around the age of forty, a medieval craftsman could reasonably expect to live and work another twenty years, the best years of his working life . . . if he could see well enough.” (Landes 46)
   3. pre-1300: “Crude magnifying glasses and crystals (*lapides ad legendum*) [were] used for reading. The trick was to improve them so as to reduce distortion and connect a pair into a wearable device, thus leaving the hands free.” (Landes 46)
   4. c. 1290: apparently “the first spectacles appeared. . . . in Pisa toward the end of the thirteenth century.” (Landes 46)
      1. Giordano of Pisa, OP (sermon at Santa Maria Novella in Florence in 1306) “says he knew the inventor”: “It is not twenty years since there was discovered the art of making [46] spectacles . . . I myself saw the man who discovered and practiced it and I talked with him.” (Qtd. in White, Lynn, Jr. “Cultural Climates and Technological Advance in the Middle Ages.” *Viator* 2.74 [1971] 171-201. 174.) (Qtd. in Landes 46-47)
   5. “These convex lenses were obviously not uniform . . . [But] lenses to correct presbyopia do not have to be extremely accurate. Their function is primarily to magnify, and . . . just about any and all will help the user. This is why . . . five-and-dime stores can put out boxes of such spectacles for sale. The buyer . . . picks the most suitable. Myopes (shortsighted people) cannot do that.” (Landes 47)
   6. by 1450: “. . . Italy, particularly Florence and Venice, was making thousands of spectacles, fitted with concave as well as convex lenses, for myopes as well as presbyopes. Also, the Florentines at least (and presumably others) understood that visual acuity declines with age and so made the convex lenses in five-year strengths and the concave in two, enabling users to buy in batches and change with time.” (Landes 47)
   7. “Eyeglasses made it possible to do fine work and use fine instruments.” (Landes 47)
      1. Spectacles “more than doubled the working life of skilled craftsmen, especially those who did fine jobs . . .” (Landes 46) Examples:
         1. “scribes (crucial before the invention of printing) and readers”
         2. “instrument and toolmakers”
         3. “close weavers”
         4. “metalworkers”
      2. “Europe enjoyed a monopoly of corrective lenses for three to four hundred years. In effect they doubled the skilled craft workforce, and more than doubled it if one takes into account the value of experience.5” (Landes 47)
   8. Eyeglasses also “encouraged the invention of fine instruments, indeed pushed Europe in a direction found nowhere else. The Muslims knew the astrolabe, but that was it. The Europeans went on to invent gauges, micrometers, fine wheel cutters—a battery of tools linked to precision measurement and control. They thereby laid the basis for articulated machines with fitted parts.” (Landes 47)
   9. “. . . when other civilizations did [close work], . . . skill was in the hand, not the eye-and-tool. They achieved remarkable results, but no piece was like any other; whereas Europe was already moving toward replication—batch and then mass production.” (Landes 47)
   10. “This knowledge of lenses, moreover, was a school for further optical advances, and not only in Italy. Both telescope and microscope were invented in the Low Countries around 1600 and spread quickly from there.” (Landes 47)
7. **1200s**: **paper**
   1. Jean Gimpel (*The Medieval Machine* 14): “Paper, which was manufactured by hand and foot for a thousand years or so following its invention by the Chinese and adoption by the Arabs, was manufactured mechanically as soon as it reached medieval Europe in the thirteenth century. . . . Paper had traveled nearly halfway around the world, but no culture or civilization on its route had tried to mechanize its manufacture.” (Qtd. in Landes 46)
   2. “. . . whereas paper from Muslim lands (not mechanically produced) never shows watermarks, such trademarks appear in Italian paper by the 1280s, a sign of commercial enterprise.” (White *Medieval Religion and Technology* 226-27) (Landes 536 n. 2)
   3. The water wheel was adapted to “pulping rags for paper.” (Landes 46)
8. **1439**: **printing**
   1. 800s: China
      1. “Printing was invented in China (which also invented paper) in the ninth century and found general use by the tenth.” (Landes 51)
      2. block printing
         1. “. . . the Chinese language, which is written in ideographs (no alphabet), does not lend itself easily to movable type. That explains why Chinese printing consisted primarily of full-page block impressions; also why so much of the old Chinese texts consists of drawings. If one is going to cut a block, it is easier to draw than to carve a multitude of characters.” (Landes 51)
         2. “Block printing limits the range and diffusion of publication. It is well suited to the spread of classic and sacred texts, . . . but it increases the cost and risk of publishing newer work and tends to small printings.” (Landes 51) (Why?—Hahn)
      3. movable type
         1. c. 1040: “The world’s first known movable type system for printing was made of ceramic materials and created in China . . .” (“Movable Type”)
         2. 1377: “the first metallic types were invented . . . in Korea . . .” (“Movable Type”)
         3. “. . . but given the character of the written [Chinese] language and the investment required, the technique never caught on as in the West. Indeed, like other Chinese inventions, it may well have been abandoned for a time, to be reintroduced later.” (Landes 51)
            1. Sivin (“Science and Medicine” 165) “says that printing with movable type did not replace the older method until the twentieth century.” (Landes 537 n. 8)
      4. “. . . printing did [much] for the preservation and diffusion of knowledge in China, [but] it never “exploded” as in Europe. Much publication depended on government initiative, and the Confucian mandarinate discouraged dissent and new ideas. . . . As a result, intellectual activity segmented along personal and regional lines, and scientific achievement shows surprising discontinuities.” (Landes 51)
         1. Mark Elvin (*The Pattern of the Chinese Past*: *A Social and Economic Interpretation*. Stanford: Stanford UP, 1973. 180): “The great mathematician Chu Shih-chieh, trained in the northern school, migrated south to Yang-chou, where his books were printed but he could [51] find no disciples. In consequence, the more sophisticated of his achievements became incomprehensible to following generations. But the basic scientific texts were common property everywhere.” (Qtd. in Landes 51-52)
         2. “Basic texts, a kind of canonical writ, are not enough; worse, they may even chill thought.” (Landes 52)
   2. Islam
      1. “The Muslim countries long remained opposed [to printing], largely on religious grounds: the idea of a printed Koran was unacceptable. Jews and Christians had presses in Istanbul but not Muslims.” (Landes 52)
   3. India
      1. India opposed printing: “not until the early nineteenth century was the first press installed.” (Landes 52)
   4. Europe
      1. “. . . interest in the written word grew rapidly in the Middle Ages, especially after bureaucracy and the rise of towns increased demand for records and documents. Government rests on paper. Much of this verbiage, moreover, was written in the vernacular, shattering the hieratic monopoly of a dead but sacred tongue (Latin) and opening the way to wider readership and a literature of dissent.” (Landes 52)
      2. “As a result, scribes could not keep up with demand. . . . [To] increase reading material . . . Manuscripts were prepared and bound in separable fascicles; that divided the labor of writing while enabling several people to read the book at the same time.” (Landes 52)
      3. “. . . as in China, block printing came in before movable type, yielding flysheets more than books and once again copiously illustrated.” (Landes 52)
      4. Gutenberg (1398-1468)
         1. “Johannes Gutenberg of Mainz, Germany is acknowledged as the first to invent a metal movable-type printing system in Europe, the printing press.” (“Movable Type”)
         2. No Chinese influence?—Hahn
         3. 1439: Gutenberg “promised to share a “secret.” It has been widely speculated that this secret may have been the idea of printing with movable type.” (“Johannes Gutenberg”)
         4. c. 1439-40: “the Dutch Laurens Janszoon Coster [also] came up with the idea of printing.” (“Johannes Gutenberg”)
         5. 1452-55: the Gutenberg Bible, “the first Western book printed by movable type (and arguably the most beautiful book ever printed) . . .” (Landes 52)
      5. 1450-1500: “Within the next half century, printing spread from the Rhineland throughout western Europe. The estimated output of incunabula (books published before 1501) came to millions—2 million in Italy alone.” (Landes 52)
      6. “. . . no one could put a lid on the new technology. Political authority was too fragmented. The Church had tried to curb vernacular translations of sacred writ and to forbid dissemination of both canonical and noncanonical texts. Now it was overwhelmed. The demons of heresy were out long before Luther, and printing made it impossible to get them back in the box.” (Landes 52)
9. **c**. **1300**: **gunpowder**
   1. 1000s: China
      1. The Chinese used gunpowder “at first as an incendiary device, both in fireworks and in war, often in the form of tubed flame lances. Its use as a propellant came later, starting with inefficient bombards and arrow launchers and moving on to cannon (late thirteenth century). The efficiency and rationality of some of these devices may be inferred from their names: “the eight-sided magical awe-inspiring wind-and-fire cannon” or the “nine-arrows, heart-penetrating, magically-poisonous fire-thunder­er.” They were apparently valued as much for their noise as for their killing power.” (Landes 53)
      2. “The Chinese continued to rely on incendiaries rather than explosives, perhaps because of their superior numbers, perhaps because fighting against nomadic adversaries did not call for siege warfare.” (Landes 53)
         1. “The Chinese would seem to have been more afraid of rebellion from within than invasion from without. More modern armaments might fall into the wrong hands, and these included those of the generals.” (Hall *Powers and Liberties* 46-47) (Landes 53 n. \*)
      3. 1500s: military treatises “describe hundreds of variations: “sky-flying tubes,” apparently descended from the fire lances of five hundred years earlier, used to spray gunpowder and flaming bits of paper on the enemy’s sails; “gunpowder buckets” and “fire bricks”—grenades of powder and paper soaked in poison; other devices packed with chemicals and human excrement, intended to frighten, blind, and presumably disgust the enemy; finally, more lethal grenades filled with metal pellets and explosives. Some of these were thrown; others shot from bows.” (Landes 53)
   2. “Europeans probably got [gunpowder] from the Chinese in the early fourteenth, possibly the late thirteenth century.” (Landes 52)
   3. “The Chinese used gunpowder in powder form, as the name indicates, and got a weak reaction precisely because the fine-grain mass slowed ignition. The Europeans, on the other hand, learned in the sixteenth century to “corn” their powder, making it in the form of small kernels or pebbles. They got more rapid ignition, and by mixing the ingredients more thoroughly, a more complete and powerful explosion. With that, one could concentrate on range and weight of projectile; no messing around with noise and smell and visual effects.” (Landes 53)
   4. “This focus on delivery, when combined with experience in bell founding (bell metal was convertible into gun metal, and the techniques of casting were interchangeable), gave Europe the world’s best cannon and military supremacy.” (Landes 53)
10. **European advantages**
    1. 1000-1500 were centuries of innovation “that challenged vested interests . . . These [57] were years of heresies in the Church, . . . of new ways of doing and making things that made newness a virtue and a source of delight . . .” (Landes 57-58)
    2. “Important in all this was the Church as custodian of knowledge and school for technicians.” (Landes 58)
       1. “. . . the desire to free clerics from time-consuming earthly tasks led to the introduction and diffusion of power machinery and, beginning with the Cistercians, to the hiring of lay brothers (*conversi*) to do the dirty work. Employment fostered in turn attention to time and productivity. All of this gave rise on monastic estates to remarkable assemblages of powered machinery—complex sequences designed to make the most of the waterpower available and distribute it through a series of industrial operations.” (Landes 58)
    3. “Why this peculiarly European *joie de trouver*? This pleasure in new and better? This cultivation of invention . . .? Different scholars have suggested a variety of reasons, typically related to religious values . . .” (Landes 58)
       1. “The Judeo-Christian respect for manual labor, summed up in a number of biblical injunctions.” (Landes 58)
          1. E.g., “When God warns Noah of the coming flood and tells him he will be saved, it is not God who saves him. “Build thee an ark of gopher wood” . . .” (Landes 58)
       2. “The Judeo-Christian subordination of nature to man.” (Landes 58)
          1. “This is a sharp departure from widespread animistic beliefs and practices that saw something of the divine in every tree and stream . . .” (Landes 58)
       3. “The Judeo-Christian sense of linear time.” (Landes 58)
          1. “Other societies thought of time as cyclical, returning to earlier stages and starting over again. Linear time is progressive or regressive, moving on to better things or declining from some earlier, happier state.” (Landes 59)
       4. “In the last analysis, however, I would stress the market.” (Landes 59)
          1. “Innovation worked and paid, and rulers and vested interests were limited in their ability to prevent or discourage innovation. Success bred imitation and emulation; also a sense of power . . .” (Landes 59)
          2. “The old legends remained—the expulsion from the Garden, Icarus who flew too high, Prometheus in chains—to warn against hubris. (The very notion of *hubris*—cosmic insolence—is testimony to some men’s pretensions and the efforts of others to curb them.) But the doers were not paying attention.” (Landes 59)

The Low Countries

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|  |  |
| the Netherlands | Belgium |
|  |  |
| provinces of the Netherlands  (Holland is N and S Holland on W coast) | provinces of Belgium |

1. “**Low Countries**”
   1. The Low Countries were: (Kindleberger 6)
      1. “first Bruges in Flanders” (“Brugge” in NW of Belgium; top half of Belgium is Flanders, bottom half is Wallonia)
      2. “Antwerp in the Brabant” (N central Belgium)
      3. “finally the United Provinces with Amsterdam in Holland . . .” (Kindleberger 6)
         1. “United Provinces, another name for the Dutch Republic (1581-1795), now the Netherlands” (“United Provinces”)
   2. “Like Bruges, Antwerp was a world market without much in the way of shipping, the two relying primarily on the ships of the Hanseatic League, the Italian city-states, and the Iberian peninsula.” (Kindleberger 87)
   3. “When part of the Netherlands separated from Spanish rule and became the United Provinces in 1581, the remainder of the area became known as the Spanish Netherlands and remained under Spanish control. This region comprised modern Belgium, Luxembourg as well as part of northern France.” (“Spanish Netherlands”)
   4. c. 1585: “after the revolt of the seven northern provinces (1568), the Sack of Antwerp (1576), the Fall of Antwerp (1584-1585), and the resulting closure of the Scheldt river to navigation, a large number of people from the southern provinces emigrated north to the [new Dutch Republic]. The center of prosperity moved from cities in the south such as Bruges, Antwerp, Ghent, and Brussels to cities in the north, mostly Holland, including Amsterdam, The Hague, and Rotterdam.” (“Seventeen Provinces”)
   5. by early 1600s: “the Dutch Republic had established a *Pax Neerlandica* over the waters of the Baltic and North Sea . . .” The Dutch held hegemony over world trade during the 1600s. (Kindleberger 38)
   6. 1944: a treaty between Belgium, the Netherlands, and Luxembourg caused them to become known as the “Benelux.” The cooperation evolved into the European Union. (“Benelux”)
2. **Hanseatic League**
   1. 1159: rebuilding of Lübeck, traditional date for the beginning of Hanseatic League. (“Hanseatic League”)
   2. pre-1200: “the North Sea and the Baltic were one trading system separate and for the most part distinct from the Mediterranean. The major network holding it together was the Hanseatic League . . .” (Kindleberger 83)
   3. The Hanseatic League was “a loose collection of largely German cities, such as Lübeck, Hamburg, Cologne, Rostock . . .” It traded: (Kindleberger 83)
      1. “from Bruges to Novogorod”
      2. “occasionally through Russia to the Black Sea”
      3. “continuously northward to Bergen in Norway”
      4. “sporadically by way of the Atlantic and the Bay of Biscay to Iberia and the Mediterranean”
   4. goods shipped westward
      1. “Herring from Scania, cod from Bergen, honey and furs from Russia, ales from Hamburg, salt from Lunenberg, plus grain and timber from Danzig and Königsberg . . .” (Kindleberger 83)
      2. These “were shipped west to *Kontors* (counting houses) in Bruges and the Steelyard in London.” (“Novgorod” translates *kontor* as “entrepôt,” warehouse, distribution center.) (Kindleberger 83)
   5. goods shipped eastward
      1. “. . . the Hansa’s cogs brought especially salt from Portugal and France to cure the herring and cod, woolen cloth from Bruges and metals from London.” (Kindleberger 83)
   6. 1400s: “the peak of Lübeck’s hegemony” over the other cities (“Hanseatic League”)
   7. The League was “distinctive in its loose political organization, with responsibility widely diffused.” (Kindleberger 83)
      1. Alfred Marshall (1920 692): “the scattered forces of the Hanseatic Federation could not act to develop the latest economies of concentrated trade to the full extent.” (qtd. in Kindleberger 83)
      2. “Only Lübeck, Hamburg, and two or three other towns paid their [83] dues in full; the rest were free riders. Decentralization went well beyond that of the Dutch who were trade rivals.” (Kindleberger 83-84)
   8. “Hanseatic trading practices were primitive. The bill of exchange available from the North Italian city-states was resisted. Ships making a given port would sell for local money and buy what they could with it. Differences would be paid in specie.” (Kindleberger 83)
   9. “Sweden on the periphery marketed its copper originally through Lübeck; later, in an effort to liberate itself from dependence on the League, shifted to Amsterdam, which had the advantage of lending it the money to pay off an indemnity to Denmark called for by the 1613 Treaty of Knared.” (Kindleberger 84)
3. **Bruges**
   1. 1300: Bruges “emerged as the leading commercial and financial center of Flanders at the end of the Middle Ages . . .” (Kindleberger 84)
      1. It was “an intermediary between England and the Champagne fairs . . .” (Kindleberger 84)
         1. London was “a satellite of Bruges in the fifteenth century . . .” (Kindleberger 85)
      2. It was an intermediary between “the Mediterranean and northern Europe . . .” (Kindleberger 84)
      3. It was “a turning place for world commerce in the Middle Ages. [It was] perhaps the greatest market in Christendom of the fourteenth century.” (Van Houtte 1967 68) (Kindleberger 85)
   2. northern trade
      1. Bruges was the “principal western port to which the League traded . . .” (Kindleberger 84)
      2. “The kings of England transferred the staple (for wool) among Dordrecht, Antwerp, Bruges, [and] Calais where it remained from 1363 to 1558.” (Kindleberger 84)
         1. The “staples” were the tin, lead, lace and wool trades. (“Calais”)
         2. “Calais overlooks the Strait of Dover, the narrowest point in the English Channel [21 miles] and is the closest French town to England.” England held it from 1347-1558. (“Calais”)
      3. “The wool was reexported to Bruges, however, for sale to the Flemish spinners and weavers . . .” (Kindleberger 84)
         1. “Flemish”: “the Dutch language as spoken in Flanders, the northern part of Belgium . . .” (“Flemish”)
         2. The “British finally stopped exporting wool in favor of cloth, producing a loss for Flemish home industry.” (Kindleberger 84)
      4. The “Hansa moved its *Kontor* from Bruges to Dordrecht (on the German river system), to Bruges again, back to Dordrecht, to Antwerp in the Brabant, to Utrecht, and back to Bruges, as quarrels broke out, were resolved, and broke out again over taxes, loans, and monopolies.” (Kindleberger 84)
      5. “From Bruges to the North Sea and Baltic went Flemish cloth, linens, and woolens, plus luxury goods like French wines sought by the rich in the Baltic.” (Kindleberger 84)
   3. Mediterranean trade
      1. “To Bruges from Italy came Venetian and Genoese galleys carrying mostly luxury goods . . .” (Kindleberger 84)
         1. Italian silk and velvet
         2. “from the Levant, Greek wines, Oriental silks, and spices”
      2. “Spanish trade was mostly”: (Kindleberger 84)
         1. wool, “needed to replace the dwindling English supply”
         2. hides
         3. Basque iron
         4. “and from south Spain and Portugal fruit, olives, rice, and wine”
      3. 1500-50: “Lisbon delivered spices, especially pepper, which it obtained from the Asian islands.” (Kindleberger 84)
   4. “nations”
      1. “. . . there were more Germans (Hanseatics) in Bruges than Italians or Iberians, and no French nation because Flanders was regarded by the French as French.” (Kindleberger 84)
      2. “When Philip the Good entered Bruges in 1440, the parade included 136 Germans, 48 Spanish, 30 Venetians, 30 Milanese, 35 Genoese, 22 Florentines, 12 merchant-bankers from Lucca, and an unknown number of Portuguese and Catalans.” (Kindleberger 84)
      3. At the “procession to celebrate the wedding of Charles the Bold of Burgundy in 1468 . . . the merchants came behind the ambassadors and clergy with 10 Venetians on horseback, then 60 Florentines on foot, 24 Spanish again on horseback, 108 Genoese, and 108 Easterlins (Hanseatic merchants), . . . and again no English or French. Van Houtte expresses astonishment that there [84] were no English in the 1440 parade, and speculates that the festivities may have taken place at the time of an embargo.” (Kindleberger 84-85)
      4. “Most is known about the Genoese “nation” in Bruges, the latest to be granted privileges—in 1395 . . .” (Kindleberger 84)
      5. “Most foreigners (those not born in Bruges) had permission to trade with other foreigners, but the fact that most disputes took place between foreigners and Brugeois suggests that for the most part, natives of Bruges intermediated between foreign buyers and sellers.” (Kindleberger 85)
   5. finance
      1. “Trade gradually evolved into finance. There were three groups of financiers . . .” (Kindleberger 85)
         1. “pawnbrokers who loaned on collateral”
         2. “exchangers who after a time dealt in transferable deposits as protobankers”
         3. “and merchant-bankers who transferred funds from place to place through bills of exchange”
      2. bills of exchange (“Negotiable Instrument”)
         1. A “negotiable instrument” is a type of contract. It is a promissory note, “a document guaranteeing the payment of a specific amount of money, either on demand, or at a set time with the payer named . . .”
            1. “Because money is promised to be paid, [it is] a store of value [and] can be transferred to a third party . . .”
            2. Types are bank notes (paper money) and bills of exchange (e.g., checks).
         2. bills of exchange
            1. A bill of exchange is “an order made by one person to another to pay money to a third person.”

They are “written orders by one person to his bank to pay the bearer a specific sum on a specific date.”

A check is “a bill of exchange drawn on a banker and payable on demand.” (“Negotiable Instrument”)

* + - * 1. A bill of exchange has 3 parties.

*drawer*: the person “who gives the order to pay money to the third party”

*drawee*: “upon whom the bill is drawn . . . to whom the bill is addressed and who is ordered to pay”

*payee*: “in whose favor the bill is drawn or is payable . . .”

* + - * 1. “Prior to the advent of paper currency, bills of exchange were a common means of exchange. They are not used as often today.”
      1. history (“Negotiable Instrument”)
         1. Bills of exchange originated in China in the Tang Dynasty (618-907).
         2. 900s-1200s: Arabs used them.
         3. 1100s on: Italians used them.
    1. In Bruges, “The money market was located at the Bourse, named after a hotel belonging to a man named van der Burse.” (Kindleberger 85)
    2. exchange rates
       1. “Exchange rates were quoted on Venice, Genoa, Florence, Barcelona, London, and Paris.” (Kindleberger 85)
          1. “When Burgundy was at war with France, bills for the Parisian capital were drawn first on Geneva and then on Lyons.” (Kindleberger 85)
       2. “There were no quotations for Lübeck, Hamburg, or other Hansa towns, which did not use bills. When remittances to Rome from north Germany, Poland, and Scandinavia were required, the Hansards would buy goods in those places, ship them to Bruges, sell them for local currency, and buy bills on Rome from an Italian banker.” (Kindleberger 85)
    3. 1400s: the Medici bank in Bruges
       1. early 1400s: the Medici bank, of Florence, “had representatives in Bruges, though not a branch . . .” (Kindleberger 85)
          1. 1439: “It formed a branch . . ., with the London office as a subsidiary . . .” (Kindleberger 85)
          2. 1451: London, “too, was constituted as a branch.” (Kindleberger 85)
       2. Cosimo de Medici “got into trouble lending to Bruges and London . . . the bank’s agents violated their instructions by lending too much to Edward IV in London and to the Duke of Burgundy, both from Bruges.” (Kindleberger 85)
       3. “The Bruges branch did badly to 1450 with unpaid debt, especially in claims on Barcelona. Other debts in London and Bruges included £8,500 from Edward IV on wool assignments plus £2,000 on other pledges, £9,500 outstanding from Charles the Bold (Duke of Burgundy) at the time of his death in 1477, and further a loan to John II of Portugal to explore the coast of Guinea. In all, the losses of the Bruges and London branches came to £19,000, a “fantastic sum” for those days.” (Kindleberger 85)
       4. 1494: “collapse of the Medici bank . . .” (Kindleberger 85)
  1. peak of Bruges
     1. 1300 on: “The city’s possible claim for world economic primacy dates back to the first half of the fourteenth century.” (Kindleberger 85)
  2. decline of Bruges
     1. The decline of Florentine banking “was only one of many causes of the decline in Bruges, and not the foremost.” (Kindleberger 85)
     2. 1350: “The beginning of decline has been traced to 1350; the pace picked up” in the 1400s. (Kindleberger 85)
     3. causes
        1. “increasing conservatism [85] of Brugeois traders and bankers” (Kindleberger 85-86)
        2. “frequent quarrels with foreign merchants, especially those of the Hanseatic *Kontor*” (Kindleberger 86)
        3. “greater and greater unwillingness on the part of merchants to take risks” (Kindleberger 86)
        4. 1500s: “provinces in Holland stopped borrowing in Bruges . . . because of fear that Dutch goods would be seized at Sluys [W of Temeuzen, at N-most tip of SW Netherlands] if the interest had not been paid, as occurred in 1530.” (Kindleberger 85-86)
     4. The “silting up of the Zwin river . . . forced larger ships to unload [not at Bruges but] at Sluys, the foreport on the North Sea, which in turn silted up. Canalization and dredging proved expensive and of limited effect. Larger ships were forced to anchor in the bays of Walcheren Island and to lighter their goods to the market in Bruges. It became easier to handle vessels in Bergen-op-Zoom, the foreport of Antwerp, until a tidal wave in 1530 ruined that port but enhanced access to Antwerp itself.” (Kindleberger 86)
     5. “Another problem was probably the decline in Flemish cloth in competition with that of the Brabant, in part, but especially with the British “new drapery,” an innovation at the beginning of the seventeenth century producing lighter and cheaper woolens. . . . the British exported only 5,000 pieces of woolen cloth in 1350, [but] two centuries later the volume was up to 150,000 pieces, much of it dyed in Antwerp and Malines [now Mechelen, N central Belgium].” (Kindleberger 86)
     6. “The real force behind the decline of Bruges, however, was its inability to meet the competition, and the failure of the city’s monopoly.” (Kindleberger 86)
        1. “The cost of Flemish cloth rose.” (Kindleberger 86)
        2. “The Duke of Brabant sought to take the wool staple away from Bruges, which led some merchants to move to Antwerp.” (Kindleberger 86)
        3. “Hansa assemblies in 1442 and 1447 at Lübeck had tried to restrict purchases of Low Country cloth to those from Bruges, but failed.” (Kindleberger 86)
        4. 1488: “The Florentine bankers Frescobaldi and Gualterotti shifted to Antwerp . . ., and the Venetians withdrew altogether.” (Kindleberger 86)
        5. “A new “nation” for Andalusia was formed by Ferdinand and Isabella to mark the Spanish reconquest of Granada [in 1492], but moved to Middleburg in 1500.” (Kindleberger 86)
        6. 1496: “the two fairs of Antwerp were combined with the two financial fairs at Bergen-op-Zoom, making four a year . . . Italian merchants began to move seasonally from Bruges to Antwerp to participate.” (Kindleberger 86)
        7. c. 1500: “The Portuguese factory in Bruges shifted to Antwerp [86] . . . their first shipment of pepper was unloaded there in 1501.” (Kindleberger 86-87)
           1. “German wine merchants from Cologne and copper merchants from central Europe carrying the metal down rivers to the North Sea stopped at Antwerp to meet the Portuguese there.” (Kindleberger 86)
     7. “Bruges itself tried fiercely to retain its monopoly . . .” (Kindleberger 86)
        1. It built “a fort to block trade (unsuccessfully) with Antwerp . . .” (Kindleberger 86)
        2. It promulgated “ordinances to compel foreigners to remain in Bruges except during the four Antwerp fairs. When these fairs became permanent and year-round, that effort was abandoned.” (Kindleberger 86)
     8. By 1500, “there was little left in Bruges.” (Kindleberger 86)
        1. “About 1516 the financial nations of Genoa and Lucca joined the exodus.” (Kindleberger 87)
           1. “Bruges, tied up in bad loans to the Duke of Burgundy and to Maxmilian, the Holy Roman Emperor, lacked capacity to lend.” (Kindleberger 87)
        2. “The Hanseatic League, which was losing out at best as ships grew too large for the port of Lübeck, finally moved [from Bruges].” (Kindleberger 86)
           1. “Numbers of Hansard merchants dwindled from twelve in 1511 to three in 1540, then two, lastly one who died in 1554.” (Kindleberger 87)
        3. “Only the market for Spanish wool remained there.” (Kindleberger 87)
        4. “The Italian bankers returned to Bruges for a while, possibly because . . . Bruges was in liquidation as a financial center.” (Kindleberger 87)

France

1. **1130-60**: **primacy**
   1. “Fernand Braudel says [1986 (1990) 2: 148], perhaps sarcastically, that France . . . had economic hegemony . . . during the period of the Champagne fairs from 1130 to 1160 when French territory was the center of the European economy . . .” (Kindleberger 105)
2. **introduction**
   1. France “was continuously striving to gain military dominance.” (Kindleberger 105)
      1. early attempts
         1. 1494: Charles VIII’s attack on Italy
         2. 1672: Louis XIV’s attack on Holland
         3. The continuous wars from 1688 to 1780 were largely aggressive as well.”
   2. Braudel (1986 [1990] 2: 328): France “lacked the essential elements: abundant economic production, plentiful credit, thriving business, a large volume of seaborne trade.” (qtd. in Kindleberger 105)
   3. “Not only did it not achieve dominance; it experienced no protracted long-term decline . . . Instead it had a series of governmental breakdowns and shakeups, [105] . . . providing it . . . a series of opportunities for new starts.” (Kindleberger 105-06)
   4. Jack Goldstone
      1. Goldstone, Jack A. *Revolution and Rebellion in the Early Modern World*. Berkeley: U of California P, 1991.
      2. “Goldstone is a socioeconomic historian interested in . . . rebellion and revolution . . .” (Kindleberger 106)
         1. rebellion: “Government control after revolt . . . can be regained as in the *Fronde* in the middle of the seventeenth century . . .” (Kindleberger 106)
         2. revolution: “Government control after revolt . . . [can be] lost as in the French Revolution.” (Kindleberger 106)
      3. The causes of rebellion and revolution are “population increase, inflation, hunger, and crowding for eminence . . .” (Kindleberger 106)
      4. “The start comes with population increase, somewhat exogenous unless produced by . . . [new] antibodies that resist imported infections . . .” (Kindleberger 106)
      5. “Population grows faster than agricultural production, leading to price increases, inflation, and hunger, both in cities and in peasant areas where rents are paid in kind. Poor harvests compound the difficulties.” (Kindleberger 106)
      6. “Population increase also leads to competition for places among the elite, frustrating the younger sons of nobles, rich merchants, professional lawyers, notaries, doctors, and the like . . .” (Kindleberger 106)
         1. War “may somewhat reduce the supply of candidates . . .” (Kindleberger 106)
      7. War may cause “trouble if the monarch and his advisers try to pay for it with taxes, or, lacking substantial taxes, borrow and try to pay the interest on the debt with taxes.” (Kindleberger 106)
      8. “It is not completely clear whether all four elements—population increase, inflation, hunger, and crowding for eminence—are necessary, or whether clashes among sectors over debt and taxation are close to being sufficient. Successive breakdowns combine the elements in different proportions.” (Kindleberger 106)
      9. “. . . turmoil tends to break up or loosen old interest groups and open the way for new men.” (Kindleberger 106)

Reviews of Books in Ancient and Medieval Economic History

Ridley, *The Rational Optimist*: *How Prosperity Evolves* 2010

Coelho, Philip R.P. “[Review of Ridley, Matt. *The Rational Optimist*: *How Prosperity Evolves*. New York: HarperCollins, 2010. 438 pp.]” *EH*.*net*. 27 June 2015. Web.

“Arguably this is the best book I have reviewed; I recommend it wholeheartedly and have already assigned it in my classes.” Ridley “is neither an economist, nor a historian; he is a trained biologist . . . his primary hypothesis is that human intelligence and knowledge are best conceived as collective and cumulative rather than a characteristic of individuals. . . . Ridley contends that it was voluntary exchange that allowed knowledge, intelligence and culture to become cumulative; thus specialization and exchange are roots of human progress. . . . Ridley is attempting to [introduce] a strong dosage of evolution into economic history.”

Chapters 1-6 cover 200,000 bc-c. ad 1200. “Specialization and the concomitant increasing productivity led to trade and trust, what Ridley calls the manufacturer of virtue; here his work mirrors that of Deirdre McCloskey on Bourgeois Virtues . . . He conceives of population growth as the basis for increased specialization and exchange which, in turn, generates material progress . . . [He] is decidedly anti-Malthusian.”

Chapters 7-11 cover 1700 to the present. “Once produced or discovered, knowledge is a public good in that one person’s acquisition does not limit another’s . . . Still there are costs [which are] a substantial percentage of total GDP. . . . The reduced costs of acquiring and producing knowledge in the era in which we live are a basis for Ridley’s optimism. A second basis is history and science.”

“Ridley “does *not* say the world is perfect; he does say that the world is improving along a whole series of metrics (living standards, land in wilderness, the preservation of bio-diversity, etc.). His final chapters are devoted to supporting this thesis. . . . [Ch. 10] takes on the two great pessimisms of the day: climate change and Africa. He convincingly argues that in recent decades Africa has been improving after previous decades of decline. More controversially, Ridley argues that the effects of global warming and its associated changes in climate are likely to be relatively mild and less costly than the remedies proposed to reduce the putative causes of global warming. Ridley predicts that any systematic attempt by governments to impose a system of taxes and regulations that address the issue of global warming will be subverted to enhance the well-being of politicians and their supporters; what economists would call rent-seeking. Some may call this cynicism, on the other hand economists would say that Ridley is merely calling a spade a damned shovel, and bestow the honored title of politically incorrect upon him.”

Ch. 11 “is devoted to a reprise of what Friedrich von Hayek termed catallaxy: the ever increasing possibilities that are opened up by exchange and the division of labor. . . . a growing economy opens up economic niches, from genetic engineers to satellite-television installers and repairmen, which were unimaginable a generation ago. These niches were neither contemplated nor planned by economists, elites or politicians, instead they are the evolving results of increasing complexity in the human economy; by its very nature evolution is unpredictable except that in the face of increasing resources, diversity increases; this is true for both the natural and human economies. Or as Hayek said it: “The curious task of economics is to demonstrate to men how little they really know about what they imagine they can design.”” (The Fatal Conceit: The Errors of Socialism. 1991. 76.)

Philip R.P. Coelho has written, with Robert McGuire. Parasites, Pathogens, and Progress: Diseases and Economic Development (MIT, 2011).

Tauger, *Agriculture in World History* 2011

Grantham, George. “[Review of Tauger, Mark B. *Agriculture in World History*. New York: Routledge, 2011. 192 pp.]” *EH*.*net*. 30 June 2015. Web.

“. . . a history of agriculture from its origins in the tenth millennium BC to the present day . . . in all parts of the world . . . It is not, however, the history of agriculture an economist-historian would have written. It has no tables of agricultural output, productivity, or population, does not evaluate the relative importance of efficiency, technological change, and markets in accounting for agricultural change in the long run, and says surprising little about the recent disappearance of farming as a way of life. In short, the book is not about economic growth; it is about farmers in perpetual confrontation with the physical and the outside world.”

“The chapter on agricultural developments since the end of the Second World War is particularly good. This vast material encompassed is organized under the rubric of what the author terms a “dual subordination” to the natural world of flood, drought, weather, and pests, and to the upper classes and authorities that live off surpluses extracted from farmers as rent, taxes, monopoly, and forced labor. . . . Traditionally, the power to appropriate agricultural surplus ran through control of the land. . . . The history of land ownership is thus conceived as a dialectical process in which rising inequality provokes peasant revolt and government collapse leading to a fresh start that in time degrades to a new phase of inequality and rebellion . . .”

Tauger “raises the question whether the record supports a cyclical interpretation of the distribution of power and wealth, a wheel of fortune in which an initial phase of relative equality and fairness is succeeded in time by increasing inequality and oppression. This seems to have been the pattern in early agrarian societies; does it operate in other types?”

Turchin and Nefedov, *Secular Cycles* 2009

Kitsikopoulos, Harry. “[Review of Turchin, Peter, and Sergey A. Nefedov. *Secular Cycles*. Princeton: Princeton UP, 2009. 349 pp.]” *EH*.*net*. 3 June 2015. Web.

“. . . each secular cycle lasts for several centuries . . .” The authors cover “four countries during different epochs: Rome (350 bc-285 ad), France (1150-1660), England (1150-1730) and Russia (1460-1922).”

Wood, *Medieval Economic Thought* 2002

Armstrong, Lawrin. “[Review of Wood, Diana. *Medieval Economic Thought*: Cambridge: CUP, 2002. 259 pp.]” *EH*.*net*. 15 June 2015. Web.

This is “a recent contribution to the Cambridge Medieval Textbook series by Diana Wood of the University of East Anglia . . .” “medieval economics was above all a matter of ethics rather than description or prediction . . .” “. . . Aristotle’s idea of virtue as a mean between extremes provided an analytical model for many of the theorists . . .” The book “reviews how theorists interpreted ethical choice and balance in relation to property, wealth and poverty, money, standards of measurement, commerce, the just price and usury.”

“Medieval reflection on economic issues was prompted by the “commercial revolution,” the extraordinary growth of trade and markets and the associated monetization of the economy evident from about 1100. Wood traces changing attitudes towards the merchant from the wholesale condemnation of trade by the canonist Gratian in the twelfth century to the fifteenth-century defense of wealth proposed by the Florentine humanists (chapter 5).”

“Usury was defined as any charge for a loan of money or fungibles, that is, things whose use necessitated their consumption, such as wine or grain. Since the borrower acquired ownership of the thing lent, such charges were interpreted as a form of theft which could be rectified only through restitution. In the West the taking of usury was prohibited to both the clergy and the laity in the ninth century, and the sanctions against usurers were intensified by a series of conciliar decrees between 1179 and 1311 (chapter 7).”

“There were, however, circumstances under which a creditor could claim damages, as, for example, when a debtor failed to repay on time. Compensation was termed interesse and several theorists extended the concept to include payments from the beginning of a loan in certain cases, for instance, when a merchant lent capital that he would otherwise have invested in trade. Such developments, however, were fiercely contested with the result that economic actors turned to agreements that were less exposed to censure than straightforward loans, such as bills of exchange, rentes (annuities) and various kinds of risk-sharing partnership (chapter 8). . . . the later Middle Ages witnessed an intensification of anti-usury measures. From this perspective, the Protestant reformers’ virtually universal condemnation of usury was not an aberration . . .”

Wright, *Nonzero*: *The Logic of Human Destiny* 2000

Long, J. Bradford De. “[Review of Wright, Robert. *Nonzero*: *The Logic of Human Destiny*. New York: Pantheon, 2000. 435 pp.]” *EH*.*net*. 12 June 2015. Web.

“. . . the language of game theory [is] his principal mode of rhetoric.” “At its most basic level Wright’s point is that interactions are positive-sum: there are gains from cooperation. . . . The denser the population (and the better the means of communication) the more ideas will be generated . . . and the faster will be progress. Thus Wright sees inventions such as agriculture as inevitable . . . [From ad 200] one could travel from Gibraltar to the Yangtze River and cross only three borders (p. 117) . . . a good innovation at one end would diffuse all the way to the other in a matter of centuries. . . . Sooner or later, Wright argues, some part of Eurasia—it did not have to be Europe—would have hit upon a superior social and technological recipe to that of the mid second millennium empires, and when it did the rest would have copied it. . . . given sufficient cultural variation, sooner or later a breakthrough was inevitable.”

At “two-thirds of the book . . . Wright asks the question: “Aren’t organic evolution and human history sufficiently different to demand separate treatment?” I think the answer to this question is “yes,” and that the book should stop at that point. Wright thinks that the answer is “no,” and so the book continues. He goes on to draw analogies between human cultural evolution toward greater complexity and biological evolution toward greater complexity. Wright’s argument that biological evolution has an arrow as well—tends to produce animals with big brains that think—runs roughly as follows: . . . because the environment becomes more complicated over time, there is increasing adaptive value in information acquisition and information processing organs: better eyes (and ears) and bigger brains. Random evolution creates increasing diversity and complexity of life. Increasing diversity and complexity of life make for a more complicated environment. And a more complicated environment generates strong evolutionary pressure for eyes, hands, and brains.”

J. Bradford De Long is professor of economics, U.C. Berkeley, and author of “The Triumph[?] of Monetarism,” *Journal of Economic Perspectives*.

Modern Economic History

The Low Countries in the Modern Period

|  |  |
| --- | --- |
|  |  |
| the Netherlands | Belgium |
|  |  |
| provinces of the Netherlands  (Holland is N and S Holland on W coast) | provinces of Belgium |

1. **Antwerp**
   1. 1446-86: van Houtte (1964 384): “For the first time in history, a world market [came into being] in the sense that the bulk of certain commodities was traded in one spot.” (qtd. in Kindleberger 87)
   2. Antwerp’s commerce “gained on that of Bruges as northern commodities gave way to southern—sugar displacing honey; silk, fur; ale, mead—and as flax expanded in Flanders and Zeeland.” (Kindleberger 87)
   3. “German silver production and copper from Hungary and the Tyrol moved north to Antwerp rather than south to Venice, paving the way for Spanish American silver, which picked up volume after 1560.” (Kindleberger 87)
   4. “Early English woolens were also dyed at Antwerp.” (Kindleberger 87)
   5. “While Bruges traded local products against imports, as well as serving as an entrepôt, Antwerp was mainly a market, not deeply engaged in production.” (Kindleberger 87)
   6. “Major commodities were English cloth, German metals, and Portuguese spices. In addition, Antwerp had a position in the grain trade that made the Dutch nervous.” (Kindleberger 87)
   7. by 1500: “foreign merchants and bankers resident in Bruges joined the Germans from Augsburg and Nuremberg,” swelling Antwerp’s population. (Kindleberger 87)
      1. 1444: 20,000
      2. 1500: 50,000
      3. 1560: 100,000. This was equal to “Seville and exceeded in Europe only by Naples, Milan, Venice, and Paris.” (Kindleberger 87)
   8. by 1500: “transit trade had diminished in size and importance; finance had risen.” (Kindleberger 87)
      1. “Some of the change may have been owing to the influx of Italian bankers.” (Kindleberger 87)
      2. “The reasons went deeper, however. Fernand Braudel [1979 (1984) 48] observes that in contrast with Venice and Amsterdam with successful runs of a century and more, Antwerp between 1500 and 1565 had a series of ups and downs . . .” (Kindleberger 87)
   9. “Jean Bergier observes that a new economic world was opening up.” (Bergier [1979] 107-11) (Kindleberger 88)
      1. “The Italians of 1450 were satisfied with their merchant-banker techniques. Competition was minimal and they had settled into a comfortable routine.” (Kindleberger 88)
      2. “Bergier asks why the place left by the Italians was not filled by the French, say at Lyons, which like Antwerp was heavily populated by Italian bankers. He concludes that the vacuum was filled by south German bankers operating not only in Nuremberg but in Lyons, Madrid, and especially Antwerp because they had a “fierce will to win the big markets and to dominate international commerce and finance—in a word, to succeed.” [Bergier 111] The German bankers—Fuggers, Welsers, Hochstetters, Seilers, Kleberg, Tucher—were beginning to spread into the rest of Europe with their fortunes based on trade with Venice, production of metals, and loans to electors of the Holy Roman Empire, just at the time when the spices from the Far East were arriving in Europe in Portuguese ships. Bergier asserts that the Italians made a mistake in starting up operations in Lisbon, where the spices first arrived, rather than in Antwerp where they were distributed.” (Bergier 115) (Kindleberger 88)
   10. “The development of yearly trade fairs from two to four to a permanent year-round fair has been mentioned. Antwerp went further in tying credit tightly to goods at first, then developing purely financial bills of exchange that ran from fair to fair at 2 or 3 percent for three months equal to 8 to 12 percent a year.” (Kindleberger 88)
       1. By 1630, “the richest firms no longer dealt in commodities; it was too much trouble, too risky. It was easier to deal in bills of exchange.” (Kindleberger 88)
          1. “Germans, and to a declining extent Italians, borrowed and lent money . . .” (Kindleberger 88)
          2. “. . . some merchants, but increasingly agents of the crowns of England, Spain, and France, borrowed it.” (Kindleberger 88)
          3. “London had finally driven out the hated Italians from whom it borrowed early and to whom it defaulted. An agent of the Tudors, Stephen Vaughn, settled in Antwerp but began borrowing for the throne only in 1545. . . . the Tudors were forced to borrow abroad after the expulsion of the Italians because the usury laws of the time prevented dealings among their subjects.” (Kindleberger 88)
   11. war
       1. “War, especially fought by mercenary soldiers, increased the demand for loans but failed to help with their repayment. Most of Antwerp’s troubles were caused by the mutinies of unpaid mercenaries . . .” (Kindleberger 88)
          1. 1572: “the Zeeland Protestant “Sea Beggars”” devastated Brill (now Brielle, in SW South Holland), “starting an exodus.” (Kindleberger 88)
             1. The Sea Beggars (*Watergeuzen*) were “Calvinist Dutch nobles and other malcontents, who from 1566 opposed Spanish rule in the Netherlands. . . . In the Eighty Years’ War, the capture of Brielle [1572] provided the first foothold on land for the rebels, who would conquer the northern Netherlands and establish an independent Dutch Republic. They can be considered either as privateers or pirates . . .” (“Geuzen”)
          2. 1576: unpaid mercenaries sacked Antwerp, killing 6000 people. (Kindleberger 88)
       2. 1584-85: the siege of Antwerp (by the Spanish against a Dutch garrison) “finished the job of depopulation . . .” (Kindleberger 88)
          1. 1566: Antwerp has 90,000 people.
          2. 1585: Antwerp has 60,000 people.
          3. after 1585: 100,000 “left Brabant and Flanders after the blockade of the Scheldt in 1585, mostly merchants and skilled artisans, taking with them mobile capital and industrial technique.” (Kindleberger 88)
             1. “The largest numbers went to the United Provinces and the neighboring cities of the Rhineland . . .” (Kindleberger 89)
             2. They also left for “Germany, England, Sweden, Italy, central Europe, and the New World . . . as many as 10,000 emigrated to London.” (Kindleberger 88)
   12. Some “merchants quit commerce altogether, investing their wealth and land to join the local nobility, and, as in Portugal near Lisbon and later in England, became agricultural improvers. It is not [clear] whether the impetus came from economic motives or social ambition.” (Kindleberger 89)
2. **Holland**
   1. 1590-1609: The Dutch “broke through to world trade hegemony in 1590 to 1609 . . .” (Kindleberger 43)
   2. 1590-1620: “The spurt of growth that ran from 1590 to 1620 has been called an economic miracle.” (Kindleberger 89)
3. **Dutch growth**
   1. “There is in economics much debate over the timing of both rise and decline. With the Dutch the rise is dated with clarity from 1585 and the infusion of merchant-bankers from abroad, leading, with the Dutch tradition of asylum, to more expellees [Marronos, Jews, Huguenots], each adding skill and drive to Dutch economic growth.” (Kindleberger 100)
   2. locational
      1. “ready access like Bruges and Antwerp had to the Atlantic, the North Sea, and the Baltic”
      2. “a rich hinterland from which a series of broad rivers flowed (Alfred Marshall pointed out [1920 39] that in England all rivers flow away from one another) . . .”
      3. “peat, which could serve as fuel in the absence of forests”
   3. structural
      1. “lack of a strong nobility, a condition produced along the north coast of Europe where heath and moor were separated from the sea by dikes that needed tending, with little time left for cities, noble knights, artists, or thinkers”
      2. “lack of a powerful church, a product of the incomplete Reformation”
      3. “widespread education that produced a school in every village in western and northern Netherlands at the end of the Middle Ages, with the arithmetic necessary for a money economy widely taught”
   4. accidental
      1. “In addition to such structural factors, there was a series of accidents.” (Kindleberger 89)
      2. “The weakness of other leading European powers left room for the United Provinces to forge ahead.” (Kindleberger 89)
      3. “Defeat of the Spanish Armada by the British in 1588 weakened two navies and created an opening for Dutch shipping.” (Kindleberger 89)
      4. The “move of herring from the Baltic to the North Sea in the fourteenth century, favoring Dutch fishermen over the Hansards, [provided] a “primitive accumulation” of capital for subsequent investment, and enabling the building of Amsterdam on a bed of herring bones.” (Kindleberger 89)
      5. Thomas Mun said (British, 1620s [1664] 190) it was “not the barren Netherlands but the *rich fishing*, which gives foundation [and] trade . . .” (Kindleberger 89)
      6. “There was also the accident of the influx of talent, capital, and drive to make a new economic life.” (Kindleberger 89)
         1. The Netherlands “received an enormous stimulus from the troubles of Antwerp, the finishing blow of which was the blockade of the Scheldt in 1585.” (Kindleberger 89)
   5. mentalities
      1. inventiveness (Kindleberger 90)
         1. “their methods of drainage and land reclamation”
         2. their “ship design and building
         3. “using windmills for milling grain and sawing ship timbers”
         4. “the invention of the *trekvaart* for moving businessmen and officials between towns by horse-drawn personal barges, a feat comparable to making the trains run on time three centuries later”
         5. “the organization of the Dutch East India Company (VOC)
         6. “the creation of an effective convoy system for small merchant vessels”
         7. “the development of a panoply of financial instruments, and many other innovations”
      2. Alfred Marshall (1920 692): “their toughness of fiber was unsurpassed, they possessed a singular self-control and remained frugal and persistent for more generations than any other rich people had done before them.” (Kindleberger 90)
         1. “Again one could question whether Dutch abstinence had outrun that of, say, the Venetians.” (Kindleberger 90)
         2. By the 1660s “Dutch austerity gradually broke down . . .” Simon Schama (1988 293): “By the 1660s, it was commonly said, the frugal and modest habits which had originally created the foundations of Dutch prosperity, were being squandered in a show of world vanity and luxury.” (Kindleberger 90)
      3. decentralization
         1. “A central problem in Dutch history is the extent to which its early dynamism grew out of its decentralized character.” (Kindleberger 90)
         2. “Holland, with Amsterdam as its economic center, was the leading province of the Dutch republic, but it did not rule.” (Kindleberger 90)
         3. “Each province was governed by an oligarchy of regents, originally drawn from merchants, later from their progeny. The total tax burden was determined by the States General, which represented the seven provinces, and was apportioned to the provinces, which in turn apportioned their shares to lesser units down to cities and villages.”90)
         4. Immanuel Wallerstein applied (1982) “to the United Provinces . . . his theory of economic hegemony, with a world “core” that lays down the conditions of trade with the “periphery” and the “semi-periphery” and captures the surplus for itself . . .” (Kindleberger 90)
            1. Peter Klein challenged this (1982 85), insisting “that hegemonic theory called for a strong nation-state, and this the United Provinces was not.” (Kindleberger 90)
            2. “Holland was the leader among the seven provinces, however, and as in political science theories of leadership [Froelich and Oppenheimer 1970], had to pay for the privilege of leading and being repaid in prestige, by taking on a disproportionate share of the costs of the totality.” (Kindleberger 90)

1600s: “During the Dutch golden age of the seventeenth century, the issue was not troublesome.” (Kindleberger 90)

1700s: “It became salient in the decline . . ., as Holland needed to raise more funds for military operations on land and [90] sea, especially after 1789 when first the French Revolution and then the Napoleonic occupation levied heavy indemnities on the country.” (Kindleberger 90-91)

1. **Dutch commerce**
   1. “In the traditional account, the Dutch profited primarily from the “mother trade,” having outcompeted the Hanseatic League in fierce competition at the end of the sixteenth century.” (Kindleberger 91)
      1. “The traditional account is set out, for example, in Braudel’s three volumes, *Civilization and Capitalism* . . .” (Kindleberger 91)
      2. southbound commerce: “from the Baltic through the Kattegut and the Skaggerak” the Netherlands brought: (Kindleberger 91)
         1. “grain”
         2. “timber for shipbuilding”
         3. “naval stores”
      3. northbound commerce: the Netherlands paid for southbound commerce with: (Kindleberger 91)
         1. “English and Flemish wools dyed in Leiden”
         2. “linens made from Silesian flax woven in Haarlem”
         3. “salt and wine from the Bay of Biscay and the Iberian peninsula”
         4. “silver to balance the accounts”
   2. the non-traditional account
      1. “The traditional account . . . is strongly attacked by Jonathan Israel, who tends to disagree with much of Braudel’s interpretation . . .” (Kindleberger 91)
         1. “Israel has made a detailed case that the philosopher Baruch Spinoza “and Spinozism were in fact the intellectual backbone of the European Radical Enlightenment everywhere, not only in the Netherlands, Germany, France, Italy, and Scandinavia but also Britain and Ireland,” and that the Radical Enlightenment, leaning towards religious skepticism and republican government, leads on to the modern liberal-democratic state.” (“Jonathan Israel”)
         2. Johnson Kent Wright (“Review Essay.” *H-France Forum* 9.1 []: 1): “In the eyes of his critics, Israel’s interpretation of the Enlightenment [serves] a false idol—Spinoza, supposed demiurge of modernity—and an unsustainable principle—the idea of an umbilical connection between metaphysical monism and political radicalism.” (qtd. in “Jonathan Israel”)
      2. Israel (1989) “insists that the real Dutch advantage was in the “luxury trades” with the Far East and Spanish America.” (Kindleberger 91)
      3. 1650s: George Downing, British minister at the Hague, distinguished two trades. (Kindleberger 91)
         1. “rich trades,” “in the Mediterranean and to the Far East, with little bulk but considerable risk”
         2. “lost trades,” “in which the Dutch outcompeted the British in the Baltic and in fishing.”
   3. “The Baltic was frozen seven months out of the year, and Atlantic storms increased the dangers of sailing north-south in late fall and winter. During this time the Dutch accumulated stores of rich products headed north and of bulk products en route south to Spain, becoming a great storehouse.” (Kindleberger 91)
      1. “Goods were brought to Amsterdam and taken away by the “First Hand,” sorted, graded, repacked (for example to avoid spontaneous combustion of grains under hot Mediterranean skies) and stored by the “Second Hand,” with a relatively small amount distributed locally by the “Third Hand.”” (Kindleberger 91)
      2. P.W. Klein thinks (1970a 14) 25-30% “of gross domestic capital formation consisted of investment in stocks, which was more important than investment in the processing industry.” (Are “stocks” stored goods or paper-asset equities?) (Kindleberger 91)
   4. timber
      1. “Not all timber products came to deforested Holland from Norway and the Baltic.” (Kindleberger 91)
      2. “A great deal came from the forests bordering the Rhine and its tributaries, on both the French and German banks. Pilings, firs for masts, oak for planking came down the Rhine in enormous rafts [with] as many as 24,000 logs, operated by collectives joined by residents of the towns along the river. As many as six hundred to a thousand workmen assembled the awkward craft, and crews of five to six hundred men took them down the stream in thirty days or so, bringing their own provisions.” (Kindleberger 91)
   5. government standards
      1. “In addition to stapling foreign commodities, the Dutch enjoyed an advantage in trade from the fact that government set standards for goods produced at home and saw to it that they were adhered to. (This argues, to [91] be sure, in favor of centralization and against pluralism.)” (Kindleberger 91-92)
      2. “Government standards were noticed in Britain by Sir Josiah Child in his *Brief Observations Concerning Trade and Interest of Money* of 1668. (Letwin 1969 41-42] The third of fifteen observations explaining the “prodigious increase of the Netherlanders in their domestick and forreign Trade, Riches and multitude of Shipping” is given as “the exact making of all their Native Commodities. . . . That the repute of their said commodities abroad continues always good, and the Buyers will accept them by the Marks without opening.”” (Kindleberger 92)
   6. “In a study of Dutch primacy in world trade, 1585 to 1740, Jonathan Israel [1989] divides the century and a half into seven segments.” (Kindleberger 92)
      1. 1590-1609: “the boom in commerce from the breakthroughs into the Mediterranean, the Far East, and the Baltic from 1590 to 1609 . . .” (Kindleberger 96)
         1. 1590: “the country made its breakthrough into a leading position in world trade [by] entering the Mediterranean with the British in 1590 . . .” (Kindleberger 92)
         2. 1590s: it gained “indirect access to Spanish silver, which was arriving in Seville in increasing amounts in the 1590s . . .” (Kindleberger 92)
         3. 1602: it established the Dutch East India Company (VOC, Vereenigde Oost-Indische Compagnie). (Kindleberger 92)
            1. The government gave the VOC “a 21-year monopoly to carry out colonial activities in Asia.” (“Dutch East India Company”)
            2. “It is often considered to have been the first multinational corporation in the world and it was the first company to issue stock.” (“Dutch East India Company”)
         4. 1609: it established the Bank of Amsterdam (see below under “Dutch finance”). (Kindleberger 92)
      2. 1609-21: “the monopoly profits in trade achieved in the twelve-year truce to 1621” especially boosted commerce. (Kindleberger 96)
         1. “Truce in the war with Spain in 1609 led to a suspension of the Spanish embargo and a further surge in Dutch trade, as Dutch ships could run to Seville and Cadiz carrying northern European goods for reshipment to Spanish America. The numbers reached four to five hundred ships a year.” (Kindleberger 92)
         2. “In addition, command of the Baltic was gained from Denmark and Sweden.” (Kindleberger 92)
         3. “Merchants also tried to corner markets in Italian silks and marble, sugar, perfume ingredients, saltpeter, and copper.” (Kindleberger 96)
      3. 1621-47: “The third phase . . . was less successful.” (Kindleberger 92)
         1. “War with Spain was renewed and trade with Spain had to be shifted to Hamburg ships to the extent that it could be maintained.” (Kindleberger 92)
         2. “Another setback was being driven out of Brazil to the West Indies in 1625 at a time when trade with the East and West Indies was otherwise flourishing.” (Kindleberger 92)
         3. 1647: “the renewed lifting of the Spanish embargo.” (Kindleberger 92)
      4. 1647-72: “In Jonathan Israel’s taxonomy the period from 1647 to 1672 was the zenith in Dutch economic primacy in [100] world trade . . .” (Kindleberger 100-01)
      5. 1648-1700: “In the second half of the seventeenth century there followed a series of commercial challenges and wars . . .” (Kindleberger 92)
         1. These included “the British Navigation Act of 1651; three Anglo-Dutch wars, in the second of which Holland lost New Amsterdam to the British . . .” (Kindleberger 92)
         2. There was also “a tariff war with mercantilist France under Colbert, culminating in the French invasion of Holland in 1672. The French tariff war provided an example of import substitution of the sort that dynamic economies undertake: in an effort to inhibit Dutch shipbuilding, the French cut off exports of Breton canvas for sailcloth. In a short time, Haarlem and Enkhuizen produced enough linen canvas not only to satisfy Dutch needs but to replace the French in English and Spanish markets.” (Kindleberger 92)
         3. “The period also witnessed a growth in Dutch imports of colonial goods—sugar, tobacco, tea, coffee, dyestuffs, and materials that were processed to a limited extent in Holland for domestic use and export.” (Kindleberger 92)
   7. 1700 on: “The turn of the century saw intense competition in trade . . .” (Kindleberger 92)
      1. “The British, French, and Dutch [tried] to break the Spanish monopoly of trade between Europe and the Americas by interloping, that is, by dealing directly rather than through Cadiz. They succeeded in the War of the Spanish Succession as the Bourbons replaced the Hapsburgs on the Spanish throne and Madrid granted an *asiento* to the English for trade in the South Sea (dealing with [92] Peru through Buenos Aires). (Kindleberger 92-93)
      2. “Competition between the Dutch and the English was particularly intense.” (Kindleberger 93)
         1. “A popular jingle in England”: “Make wars with Dutchmen, Peace with Spain, Then we shall have money and trade again.” (Kindleberger 93)
         2. Dutch advantages
            1. In 1668, Josiah Child’s “fifteen reasons for the superiority of the Dutch over the British in the last third of the seventeenth century emphasized especially their high rate of savings and low rate of interest.” (Kindleberger 93)
            2. There was “the stapling function of grading, packing, and storing . . .” (Kindleberger 93)
            3. There were “the economies of scale of broader markets.” (Kindleberger 93)
         3. British advantages
            1. “. . . Dutch trade was based on intermediation, in which their monopoly was destined to diminish . . . Dutch intermediary trade was necessarily transient.” (Kindleberger 93)

“. . . knowledge of the profits to be made and of the costs of packing and repacking in the central emporium became diffused.” (Kindleberger 93)

“As knowledge of quantities, qualities, and prices becomes widespread, and volume rises, direct trade becomes economical and the intermediary is passed by.” (Kindleberger 93)

* + - * 1. “Seas became safer from pirates, ships larger, and nations sought to acquire their own merchant marines.” (Kindleberger 93)
      1. examples of the Dutch waning, the British waxing
         1. 1700s: Wilson cites (1941 38, 44, 51, 61ff.) “case after case of direct trade substituting for intermediation in Amsterdam in trade between Britain and Germany on the one hand, and between Britain and Spain on the other.” (Kindleberger 93)
         2. French exports of wine to Holland declined. (Kindleberger 93)

They peaked in the 1600s and early 1700s.

1717: exports to the Netherlands were 67% of the total.

1789: exports to the Netherlands were 10% of the total.

1717: exports to the “Nord” (largely Hamburg) were 13%.

1789: exports to the Nord were 46%.

1. **Dutch industry**
   1. “Dutch commerce dealt not only in the products of other countries and colonies . . .” (Kindleberger 93)
   2. One export was “butter and cheese produced in rural areas reclaimed from the sea on farms that relied on imported grain for human food . . .” (Kindleberger 93)
   3. Another was “herring caught from the North Sea . . .” (Kindleberger 93)
      1. 500 busses did the catching.
      2. Buy-boats “transferred the catch at sea.”
      3. The buy-boats “shipped their catches back to Dutch ports for salting and other processing . . .”
   4. “Holland’s major industry, however, [93] was shipbuilding.” (Kindleberger 93-94)
      1. “Large ships were needed for long ocean voyages to the East and West Indies, ships large enough to carry provisions for long voyages, personnel to populate the “factories” overseas, and guns and gunners to defend against pirates and privateers when sailing alone without armed escort.” (Kindleberger 94)
      2. “In this, the British competed closely with the Dutch” but failed. (Kindleberger 94)
         1. Dutch “freight rates were one-third cheaper.” (Kindleberger 94)
            1. “One contribution to the cheapness was that the Dutch bought much provision for crews in Ireland, where beef and butter, kept out of Britain, were particularly inexpensive.” (Kindleberger 94)
            2. “In the Baltic trades, [the British] were far from competitive. Prices for timber, deals, hemp, flax, and pitch were higher in England than the prices of supplies from the Baltic brought to Zaandam . . .” (Kindleberger 94)

This was “partly because of British customs duties . . .” (Kindleberger 94)

And it was “partly owing to the navigation acts that restricted imports of naval stores to British ships.” (Kindleberger 94)

* + - * 1. “A Dutch *fluyt* (flyboat) that would cost £1,300 to build in England would come to only £800 in Holland. In larger ships the differences ran from £1,400 to £2,400. Both French and British held the *fluyt* in some disdain as flimsy and weakly built, but with a crew of nine or ten mariners for the thirty required in a British vessel of the same size . . .” (Kindleberger 94)
        2. “Still a further private economy at public expense was the naval convoys sought by merchants from the Admiralty in Holland to protect their ships against privateers and pirates. Dutch ships to the East and West Indies were large enough to carry their own armament and sailed for the most part singly, but British ships of all sizes had to carry both goods and guns.” (Kindleberger 94)
    1. A “Dutch writer of a treatise on shipping in 1671” (Barbour 1930 [1954] 234): foreign “workmen lacked the thrifty and neat disposition of the Hollander.” Same writer (E.N. Williams 1970 31): Dutch workmen were “the most educated, spirited and outspoken workingmen in Europe.” (qtd. in Kindleberger 94)
       1. “British navy commissioners consulted Dutch shipwrights . . .” (Kindleberger 94)
       2. Jean-Baptiste Colbert (1619-83), French minister of finances, “sought to recruit forty of them to instruct French shipbuilders . . .” (Kindleberger 94)
       3. The “lack of the advanced techniques of Dutch sawmills and shipyard cranes may have induced certain Dutch carpenters to decline the French invitation.” (Kindleberger 94)
       4. c. 1760s: “About a century later the States General forbade the emigration of skilled workers sought by foreign countries, especially sawmill operators, rope-makers, and textile-finishers, though these restrictions were easily evaded.” (Kindleberger 94)
  1. Other exports were “finishing textiles . . . processing colonial products, . . . brewing beer, distilling gin and brandy, refining sugar and salt, boiling soap, milling vegetable seed for oils, and diamond cutting. The last of these [was] largely transferred from Antwerp.” (Kindleberger 94)
  2. energy
     1. wind
        1. “. . . through windmills and peat the Dutch were able to produce the energy equivalent of 0.8 million hectares of forest, and 1 million hectares of arable land would have been needed to produce fodder for horses to replace peat.” (Kindleberger 95)
     2. peat
        1. The “Dutch were able to provide the requisite energy for their early industries, especially brewing, distilling, and faience and brick-making, with peat, which was abundant in the country at or even below water level and accessible to canal transport. Peat provided the Dutch republic with “cheap fuel” despite its early deforestation.” (Kindleberger 95)
        2. “Some peat was even exported to Antwerp and other Flemish cities in one direction, [and] to Emden, Bremen, and Hamburg in the other.” (Kindleberger 95)
        3. 1700s: “peat became less accessible at appropriate altitudes, and more expensive in consequence.” (Kindleberger 95)
     3. coal
        1. “. . . a small amount of coal was imported from England and Scotland.” (Kindleberger 95)
        2. “. . . later Dutch failure to make the [94] transition to modern industry before about 1880 was widely blamed on lack of coal . . .” (Kindleberger 94-95)
        3. In the 1900s “coal for steel was readily imported by barge from the Ruhr . . .” (Kindleberger 95)
  3. invention
     1. 1590-1640: “There was quite a burst of innovation—at a fairly low level of technology—in the first four decades of the seventeenth century, with half of all the patents issued from 1590 to 1790 being granted in that period.” (Kindleberger 95)
     2. 1640 on: “there was not much entrepreneurial verve in Holland after the initial half century from 1590. . . . After 1640, invention slowed down.” (Kindleberger 95)
  4. “. . . the bulk trade with the Baltic . . . held up . . .” (Kindleberger 95)
  5. The “luxury trades with the Far East and West Indies” did not hold up. (Kindleberger 95)
  6. “Dutch shipping continued to be profitable despite the rising wages of sailors until the Fourth Anglo-Dutch War in 1780 . . .” (Kindleberger 95)

1. **Dutch finance**
   1. c. 1550s: there was a financial revolution “when Dutch provinces shifted from borrowing from merchant-bankers [95] to marketing *rentes* [municipal bonds?] directly to wealthy individuals.” *Rentes*: state bonds. Nowadays, any economic rents, e.g., “patents, copyrights, brand loyalty, real estate, interest, or profits.” (“Rentier”) (Kindleberger 95-96)
      1. The 1860s saw another financial revolution: “. . . Jay Cooke, the Philadelphia banker, made his reputation in the U.S. Civil War by marketing Union bonds directly to northern savers, rather than through the banking establishment.” (Kindleberger 96)
   2. 1680s on: “commerce began to give way to finance . . .” (Kindleberger 95)
      1. “. . . much of the motive for moving from trade into finance [was] the loss of Amsterdam’s role as an intermediary in trade.” (Kindleberger 93)
   3. after 1688: another financial revolution occurred “in London after the Glorious Revolution of William and Mary of Holland replaced the Stuarts . . .” (Not described; reference is to Dickson 1967.) (Kindleberger 96)
      1. 1688: in the Glorious Revolution, “the resulting economic integration and military co-operation between the English and Dutch navies shifted the dominance in world trade from the Dutch Republic to England.” (“Glorious Revolution”)
   4. c. 1700: “By the time of the Nine Years’ War and the War of the Spanish Succession on each side of 1700, Dutch finance was well advanced.” (Kindleberger 95)
   5. 1585: Fall of Antwerp during the Eighty Years War (Dutch War of Independence, 1568-1648). 100,000 “left Brabant and Flanders after the blockade of the Scheldt in 1585 . . .” (Kindleberger 88)
   6. 1585: “Merchant-bankers fleeing Antwerp for Amsterdam and elsewhere in 1585 brought with them Italian, Flemish, and Brabant techniques that closely joined commerce and finance.” (Kindleberger 96)
   7. “With the boom in commerce [1590-1621], . . . frugal Dutch habits created an enormous pool of savings that went beyond the needs of ship-owning, holding stocks of commodities in the storehouse of Amsterdam, reclaiming polders for agriculture, and the like. . . . The Dutch capital market grew apace.” (Kindleberger 96)
      1. “The profits of farmers producing industrial crops on diked fields . . . spilled over into the finance of herring busses and *fluyt* ships, shares that were divided in binary fashion in fractions down to 1/256.” (Kindleberger 96)
      2. “Foreign lending started with help for the Swedish and Danish crowns for their participation in the Thirty Years’ War (1618-1648).” (Kindleberger 96)
   8. speculation
      1. Klein attributes [1970b 33] the movement from trade to finance to a change in mentalities, owing as much to indolence as to the spirit of speculation.” (Kindleberger 96)
      2. “Along with their borrowing of financial techniques from the Spanish Netherlands, the Dutch inherited the Antwerp love of gambling. Frugality and gambling formed [a paradox].” (Kindleberger 96)
      3. “An early climax was the Tulip Mania of 1636.” (Malkiel, *Random Walk* 35, says 1634-37.) (Kindleberger 96)
      4. “Antwerp and Amsterdam both went in for lotteries, Amsterdam especially toward the end of the eighteenth century when Jacques Necker, the French director-general of finances, sold annuities based on multiple lives.” (Kindleberger 96)
   9. financial markets (bonds, stocks, commodities, futures, options)
      1. 1600-50: “purely financial speculation began early in the first half of the seventeenth century . . .” (Kindleberger 96)
      2. by 1650: financial speculation “was preferred to foreign trade.” (Kindleberger 96)
      3. Futures and options were “called “*Windhandel*” because buyer and seller in reality never saw real goods but dealt in air.” (Kindleberger 96)
      4. Trade in futures developed “to the extent of buying and selling herring before they were caught.” (Kindleberger 96)
      5. “Jewish exiles from Spain and Portugal were particularly innovative and adept in trade in futures and options . . .” (Kindleberger 96)
      6. “Dutch speculators seem to have been adroit enough not to have been badly caught in the collapses of the Mississippi and South Sea bubbles.” (Related bubbles; both were 1719-20.) (Kindleberger
      7. After 1720, “many speculators moved to Amsterdam to speculate in the shares of newly created insurance companies, of which the Maatschappij van Assurance alone survived.” (Kindleberger 97)
   10. 1609: establishment of the Bank of Amsterdam
       1. It was created “to expedite trade finance.” (Kindleberger 92)
       2. It is considered the precursor of or the first central bank. (“Bank of Amsterdam”)
       3. It was “patterned after the Bank of Venice.” (Kindleberger 97)
       4. “The Bank of Amsterdam received deposits of coin against which, after weighing and assaying, it issued “bank money,” which generally went to a premium over coin because of its assured value.” (Kindleberger 97)
          1. “. . . foreign money, clipped and worn, lowered the value of a country's currency. A country’s own freshly minted money, therefore, bore an *agio*, being worth more than its stock currency.” (“Bank of Amsterdam”)
          2. The Bank of Amsterdam “at first received both foreign and local coinage at their real, intrinsic value, deducted a small coinage and management fee, and credited clients in its book for the remainder. This credit was known as *bank money*. Being always in accord with mint standards, and always of the same value, bank money was worth more than real coinage. . . . Bank money had several distinct advantages over other forms of money. It was secure from fire, robbery and other accidents; was backed by the city of Amsterdam; and could be paid or received by a simple transfer, avoiding both the costs of counting and the risks of conveyance. Furthermore, it was of a known, superior quality. Because of the above it bore an *agio*, being worth more than its nominal value.” (“Bank of Amsterdam”)
          3. “Deposits of coin constituted but a small part of bank capital. Most of the bank’s capital originated with deposits of gold and silver bullion, intrinsically of higher value as bullion was not debased [like most] coinage. The Bank of Amsterdam gave credit for deposits of gold and silver worth about 5 percent less than their mint price [and charged] a fee for the keeping—a warehouse rent of sorts—worth 0.25% for silver, and 0.5% for gold.” (“Bank of Amsterdam”)
       5. “The City of Amsterdam required payment of bills of exchange over 600 florins to be made at the Bank of Amsterdam, which was known as a *Wisselbank* (exchange bank). The bank would from time to time make loans in rixdollars against deposits of specie, to enable borrowers to gain liquidity. By these means Amsterdam developed into the European center for dealing in foreign exchange and gold and silver.” (Kindleberger 97)
       6. “The Bank’s success led to the establishment of similar banks in other Dutch provinces and in Germany.” (Kindleberger 97)
   11. Thomas Violet to the British Parliament (1650): “all merchants that trade from Spain [know] that one-third part of their gold and silver at least is never registered; . . . for the avoiding of the king’s duty [it is] generally now is sent for Holland.” (qtd. in Kindleberger 97)
   12. “The fact that in an age of mercantilism the States General allowed the free import and export of precious metals was unique” and created wealth. (Kindleberger 97)
   13. “The market served as a public good. The East India Company was able to overcome the British Parliament’s restrictions on its export of British coin by buying in Amsterdam the coin it needed for its purchases in India.” (Kindleberger 97)
   14. 1688: “With the Glorious Revolution of 1688 and the assumption of the British throne by William of Orange, a new era of close financial ties opened between Holland and England.” (Kindleberger 97)
       1. early 1600s: “lending to Scandinavia [by the Dutch?] . . . had been followed by that to German cities. The absence of loans to Britain had not been owing to the navigation acts and the three Anglo-Dutch wars,” which were mere “naval scuffles.” (Wilson 1941 88) (Kindleberger 97)
       2. “There were some investments in drainage schemes, and perhaps mortgages . . .” (By the Dutch in Britain?) (Kindleberger 97)
       3. “. . . but the major breakthrough came with William of Orange and the British financial revolution.” (Kindleberger 97)
          1. “Some Dutch financiers displaced themselves to London to handle their own orders and those for compatriots at home. Dutch bankers assisted the Bank of England in meeting payments on protested bills used by the bank to finance British [97] expenditures on the Continent in the Nine Years’ War, fought by the British and Dutch against France and Spain (1689-1697).” (Kindleberger 97-98)
          2. “Dutch names were prominent among the subscribers to the stock of the Bank of England, of the East India Company, and of the South Sea Company.” (Kindleberger 98)
          3. “Dutch finance flourished . . ., leading to financial crises . . .” (Kindleberger 98)
             1. 1763: at “the end of the Seven Years’ War, . . . commodity speculation and lending to Germany produced the failures of Arend Joseph (a Jewish house) and then the DeNeufvilles, requiring help from the Bank of England . . .” (Kindleberger 98)
             2. 1772: “Clifford & Co., which had been speculating in the stock of the Dutch East India Company, failed along with the Ayr Bank in Scotland.” (Kindleberger 98)
             3. 1780-1815: “The more lasting and traumatic event occurred in the Fourth Anglo-Dutch War [1780-84], when the Dutch stopped lending to London and switched their capital to France, only to lose it and more when the Revolution, its wars, and Napoleon defeated the Republic and levied heavy indemnities on it.” (Kindleberger 98)
2. **Dutch education**
   1. According to Stanford economist Moses Abramovitz (1912-2000), “economic growth requires labor, capital, and technology, which can be imported, plus social capability, for which a handy if rough proxy is years of education.” (Kindleberger 98)
   2. “The Dutch were committed to education long before Protestantism arrived, as far back indeed as the Middle Ages.” (Kindleberger 98)
   3. 1600s: “every western and northern village . . . had a school and a schoolmaster and taught especially arithmetic, which was crucial for the money economy.” (Kindleberger 98)
   4. 1575: “At the start of their economic upsurge, the Dutch founded five universities, Leiden (in 1575) being the most distinguished of them.” (Kindleberger 98)
   5. “Amsterdam abounded with printing houses, philosophers, historians, and scientists. Amsterdam also attracted young merchants from abroad to learn their profession. Between 1575 and 1700 there were 16,557 foreign students at the University of Leiden . . . alongside 21,528 Dutch students.” (Kindleberger 98)
   6. Goguel “attempted reform of elementary education at the end of the eighteenth century, . . . after producing new tax laws and abolishing guilds as part of a plan for economic recovery.” (Kindleberger 98)
      1. “Emphasis was on general education, as opposed to the French interest in producing engineers, military officers, and bureaucrats.” (Kindleberger 98)
      2. “The reform seems not to have extended widely into the practical aspects of higher education. Inaugural speeches and dissertations were still produced in Latin as late as 1846. The change occurred in the late 1840s, as one inaugural lecture by a (single) true “Smithian economist” was given in Latin in 1842 but published in Dutch in 1846.” (Kindleberger 98)
   7. Yet Boonstra (1993 449) “states that 25 percent of the men and 40 percent of the women born before 1800 had not learned how to read and write, whereas 100 years later literacy was universal.” (Kindleberger 99)
3. **Dutch migration**
   1. “The Dutch Republic was well known for its tolerance in providing asylum for all sorts of peoples . . .” (Kindleberger 99)
   2. 1585: “there was the mass movement of merchants, bankers, and industrial workers escaping the devastation of war in Flanders and the Brabant.” (Kindleberger 99)
   3. “Second, Jews and intellectuals were welcome.” (Kindleberger 99)
      1. The “Dutch tradition of asylum [led to] expellees seeking refuge—Marronos from Spain, Jews and New Christians from Portugal, in due course Huguenots from France—each adding skill and drive to Dutch economic growth.” (Kindleberger 100)
   4. 1600s: “Third, at the height of the Dutch prosperity . . . there was a seasonal migration from the Frisian Islands and Germany, as far east as Hanover, some to work as manual labor and some as soldiers and sailors for the Dutch East India Company.” (Kindleberger 99)
      1. *manual labor*: “Before 1650, the migration from July to December was on herring busses and the merchant marine, and from March to May in south Holland it was in hay-making and grass-mowing. Some of the herring fishermen worked on the polders, in peat, and in brick-making in the off season.” (Kindleberger 99)
      2. *VOC*: “Work for the Dutch East India Company was regarded as the least attractive in Holland because of the long time away from home and the high chance of dying en route or abroad. The VOC hired Dutch when it could, and did better when business in Holland was depressed. The Dutch it managed to hire were mostly from the maritime provinces of Holland and Friesland, whereas the Germans were farm boys, . . . less able . . .” (Kindleberger 99)
   5. c. 1685: “Fourth, in the events leading up to and following the Revocation of the Edict of Nantes [1685], Huguenots came with their capital and skills to Amsterdam as well as to London, Geneva, and Hamburg.” (Kindleberger 99)
   6. from 1585-1700, there had been a influx “movement of merchants, bankers, and industrial workers . . . With economic decline, skilled workers reversed direction and went abroad . . . as the Dutch, leaving Leiden, Haarlem, and similar industrial towns, emigrated or stayed to receive charity.” (Kindleberger 99)
   7. “. . . migrants increasingly filled unskilled tasks . . .” (Kindleberger 99)
   8. “The attempt to restrict the emigration of skilled artisans has been mentioned, along with its lack of success.” (Kindleberger 99)
   9. departure of earlier immigrants
      1. 1767: “there were 27,000 Germans in Holland as mowers, peat-cutters, fishermen, and whalers . . .” (Kindleberger 99)
      2. 1860: there were 4,000-5,000 (by 1860 “German industry was booming”). (Kindleberger 99)
      3. “By 1900 Dutch went to work in the Ruhr, and Oberhausen had not only a Dutch quarter, but a Dutch “worker borse.”” (Kindleberger 99)
4. **peak**
   1. 1580-1670: “the golden age [was] 1580 to 1670 . . .” (Schama 1988 283) (Kindleberger 101)
   2. 1600s: Heckscher (*Mercantilism* 1935 [1983] 1: 351): the Dutch were the “most hated, and yet the most admired and envied commercial nation . . .” (qtd. in Kindleberger 43)
   3. 1650
      1. Braudel (1977 91): “In 1650 the center of the world was tiny Holland, or rather Amsterdam.” (qtd. in Kindleberger 100)
      2. “. . . while Baltic trade was declining from 1650, trade with the Mediterranean and with the East and West Indies continued to flourish . . .” (Israel 1989 214-15) (Kindleberger 101)
   4. 1647-72: “the zenith in Dutch economic primacy . . .” (Israel 1989) (Kindleberger 100)
5. **Dutch decline**
   1. date
      1. “. . . different observers focus on different sectors and segments of the economy.” (Kindleberger 100)
      2. 1650: many give this date. (Kindleberger 101)
         1. “There is much to support this timing . . .” (Kindleberger 101)
         2. But Jonathan Israel (1989 214-15) complains “that while Baltic trade was declining from 1650, trade with the Mediterranean and with the East and West Indies continued to flourish and that emphasis on 1650 was based on the exaggerated importance attached to the mother trade.” (Kindleberger 101)
      3. 1667-1700: De Vries says (1984b 149) that “the beginning of the decline [was] somewhere in the last third of the seventeenth century . . .” (Kindleberger 101)
      4. 1675-1700: De Vries says (1984b 167) that “the beginning of the decline [was] in 1675, making it the last quarter of the century.” (Kindleberger 101)
      5. 1672: this date “is often given, the year in which the French occupied Holland . . . But there is evidence in support of earlier and later dates . . .” (Kindleberger 101)
   2. war
      1. “Dutch/French rivalry from the 1680s and successive wars between the Dutch and the English on one side and the French and Spanish on the other took a heavy toll of Dutch trade, especially with Cadiz and via Cadiz with the New World, a toll not fully made up by interloping [dealing directly, not through an intermediary].” (Kindleberger 95)
      2. Adam Smith discussed (*Wealth* 826-27, 857) “the ruin of manufactures in Holland because of high wages, caused by high taxes on consumption to pay the service on great debts contracted in expensive wars.” (Kindleberger 127)
   3. high taxes, high wages, and debt
      1. “A great many historians blame Dutch decline on . . . high taxation on cost-of-living items, such as housing, clothing, and food.” High taxes in turn caused high wages. (Kindleberger 99)
      2. high taxes
         1. Taxes “had to be levied on someone, and the Dutch burghers were resistant to income taxes in their separate provinces and to duties on imports and exports that might interfere with their carrying trade.” (Kindleberger 100)
         2. “Tax farming continued in Holland after it had been abandoned in favor of government collection in England.” (Kindleberger 100)
            1. “Ehrenberg claims [1896 (1928) 351] that it died out only in the middle of the eighteenth century, but had not been scandalous before that . . .” (Kindleberger 100)
            2. “Klein put forth a different view [1970a 16], calling it chaotic, leading the public to revolt against it openly, and paying the government only 60 percent of the amounts collected, the rest accruing to the tax farmers.” (Kindleberger 100)
      3. high wages
         1. “High wages are blamed for Dutch inability to make the transition from trade to substantial industry until the late nineteenth century by a long list of historians,” starting with Adam Smith. (Kindleberger 100)
         2. But “In a well-known book, H.J. Habakkuk suggested [1962] with mild diffidence that invention in the United States was labor saving because of high wages, while that in Britain saved resources, which were scarce and high priced.” (Kindleberger 100)
         3. “That the W. Arthur Lewis model of growth with unlimited supplies of labor (and low wages) conflicts with the neoclassical model in which scarce labor stimulates labor-saving innovation emphasizes the need for caution . . .” (Kindleberger 100)
      4. “The fact that the Netherlands taxed the laboring class rather than merchants, bankers, and the limited number of industrialists meant that funds could not be readily raised in wartime, and resort had to be taken to borrowing. Low interest rates favored this borrowing in the short run, but mounting debt required higher taxes in the longer, and gave rise to a fiscal crisis over whether and how to centralize taxation and meet the burdens of war and debt service.” (Kindleberger 100)
   4. decentralization
      1. “One of the most interesting of the reformers was Isaac Jan Alexander Goguel, a man not of the top drawer, not of the regent class, but a merchant of the Second Hand. He, following Rutger Jan Schimmelpennick, fought to change the federal system with its power, or at least veto power, in the provinces to a more centralized one, the better to cope with mounting political and economic problems. Federalism had worked wonderfully well during the golden century, but it was inadequate to the changed circumstances.” (Kindleberger 103)
   5. conspicuous consumption
      1. “a complaint made in Amsterdam in 1652” (qtd. in Burke 1974 104): “the regents were not merchants, they did not take risks on the seas, but derived their incomes from houses, lands and securities (*renten*), and so allowed the sea to be lost.” “Burke comments that this was a political statement, rather than a judicious attempt to ascertain the facts.” (Kindleberger 101)
      2. Burke (1974 106) “reproduced a table (Table 6-1) from two sociologists showing regents without occupation, suggesting rentiers rather than active entrepreneurs or financiers, and those with a country house . . .” (Kindleberger 101)

table 6-1 Dutch regents (Kindleberger 101)

|  |  |  |
| --- | --- | --- |
| period | without occupation | with country house |
| 1618 to 1650 | 33% | 10% |
| 1650 to 1672 | 66% | 41% |
| 1672 to 1702 | 53% | 30% |
| 1702 to 1748 | 73% | 81% |

* + 1. “Burke suggests that the figures show the movement to have been gradual and concentrated more about 1700 than 1650, although the doubling between the first two periods for those without occupation and a quadrupling [between the first two periods] for those with country houses argue for the earlier date.” (Kindleberger 101)
    2. “The table helps explain a contradiction in various histories.” (Kindleberger 101)
       1. earlier histories: “In one view neither public office nor land attracted the Dutch (nor nobility the bourgeois merchants in a city such as Hamburg, for that matter [Schramm, 1969]). “The fatal urge to possess land for social status was little felt” [Davis 1973 189]. This presumably reflects an early reading.” (Kindleberger 101)
       2. later histories: the Dutch did feel the “urge to possess land for social status . . .” (Kindleberger 101)
          1. Geyl (1961 164): “Merchants who waxed rich made large purchases of land, an investment which also attracted them because of the social status and lordly rights and titles attaching to it.” (Kindleberger 101)
          2. Buist (1974 18): “John Hope was entering upon a process of aristocratization which was gradually alienating him from everyday affairs of the firm.” (Technically he was Scottish, not Dutch.) (Kindleberger 102)
    3. “Charles Boxer observes [1965 38] that in the last quarter of the seventeenth century the old, severe, and frugal way of merchants gave way to lavish style, country houses, and the life of the grand seigneur . . .” (Kindleberger 102)
    4. 1729: Montesquieu noted “that in Amsterdam people withdraw their money from commerce to put it into structures (*pierres*) . . .” Montesquieu: “I see that it will be as in Venice, beautiful palaces instead of fleets and kingdoms.” (qtd. in Alice Clare Carter 1975 40n) (Kindleberger 102)
  1. rates of decline
     1. “Decline proceeded at different paces . . .” (Kindleberger 102)
     2. It proceeded “slowly in finance despite the financial crises of 1763 and 1772, . . .” (Kindleberger 102)
     3. It proceeded “more rapidly in industry . . .” (Kindleberger 102)
        1. “. . . imports of finished cloth . . . undermined the work of Leiden and Haarlem . . .” (Kindleberger 102)
        2. “. . . fishing and shipping [were] hurt by competition, higher wages, emigrating fishermen, and import restrictions abroad, and perhaps by a change in diet favoring meat as against fish.” (Kindleberger 102)
        3. “French privateers in the war of 1702 to 1712 also hurt the herring fishery . . .” (Kindleberger 102)
        4. “. . . in whaling the Dutch were outstripped by the British and Germans using new techniques while they clung to their old ways.” (Kindleberger 102)
  2. “The decline of the Dutch Republic in the second half of the eighteenth century is covered brilliantly, in detail and at great length, by Simon Schama in a book written at an early stage in his career but reprinted recently, *Patriots and Liberators*: *Revolution in the Netherlands*, *1760-1813* (1977 [1992]). The second chapter marks the Dutch “dotage” from 1747 to 1760, and lists the usual suspects responsible for (relative) economic decline . . .” (Kindleberger 102)
     1. “estrangement from the sea”
     2. “direct trade that bypassed Amsterdam; guilds”
     3. “old-fashioned methods of ship-building”
     4. “emigration of skilled workers”
     5. “the move from commerce and industry to finance, with its divisive effect insofar as merchants and industrialists fail to make fortunes on the scale of those of bankers”
     6. “the disparity between private wealth and public penury, bringing together conspicuous consumption and increasing impoverishment”
     7. “the decline of industrial towns and the spread of beggary and vagabondage”
     8. “the award of public offices to the widows and even babies of erstwhile regents to keep them in the family”
     9. “bankruptcy of the VOC in the Fourth Anglo-Dutch War, bringing down the Bank of Amsterdam and almost bankrupting the City of Amsterdam”
     10. “The coup de grace was delivered by defeat, occupation, and annexation by France.” (Kindleberger 102)
     11. “The central theme of the book is the loss of Dutch political cohesion, as only a few politicians at the end of the eighteenth century, mostly outsiders, sought to pull the country together to meet its problems, especially the indemnities levied on those few states that Napoleonic France permitted to exist.” (Kindleberger 103)
  3. “The Dutch transition to modernism came late in the nineteenth century, after almost one hundred years in which the country failed to emulate the industrialization processes at work in Britain, Belgium, France, and Germany.” (Kindleberger 103)
  4. “As in [102] superannuated societies in general, there was great nostalgia for the golden age.” (Kindleberger 102-03)
  5. conclusion: two views
     1. Some say “the prosperous times of the seventeenth century were a miracle, and decline signified merely a return to its rightful place in Europe of the tiny Dutch Republic of two-million souls.” (Kindleberger 103)
     2. Others say “the rise of the Dutch Republic after 1570 or 1585 was the consequence of a society with originality and vitality that was able to seize the opportunity the world presented it. On this showing decline followed the deaths of a long list of creative geniuses who died more or less about the same time in the 1670s, and were not replaced. Originality was lost. The Dutch shifted into conservatism, losing the self-confidence that bordered on arrogance.” (Kindleberger 103)

1. **Was the cause of Dutch decline external or internal**?
   1. external causes (Kindleberger 103)
      1. wars
      2. “foreign mercantilism”
      3. “foreign copying of Dutch techniques”
      4. “the shift of Europe away from using Amsterdam as an entrepôt, first in trade, then in finance”
      5. “the loss of capital in loans to France in the Revolution”
      6. “the levying of indemnities by France”
      7. External causes “are blamed for decline by Dutch historians.” (Kindleberger 103)
   2. internal causes (Kindleberger 103-04)
      1. “Withdrawal from trade and industry”
      2. “the switch of lending from London to Paris”
      3. “high taxes on consumption, which entailed high wages”
      4. “provincial resistance to central direction, especially in matters of taxation”
      5. “the persistence of guilds”
      6. “loss of skilled workers”
      7. “conspicuous consumption”
      8. “skewed [103] income distribution”
   3. “Between external and internal” (Kindleberger 104)
      1. “the strong competition from Britain and Germany in fishing and whaling, which the Dutch were unable to meet”
      2. “the loss of skilled workers, especially sailors, to foreign parts. This last, it seems to me, holds the clue; young countries with vitality and energy challenge the old monopolized lines; the older lack the capacity to meet the challenge with innovative response.”

France in the Modern Period

1. **1648-53**: **the Fronde**
   1. 1635-59: Franco-Spanish War
      1. 1328-1792: France, “under the Valois [1328-1589] and Bourbon [1589-1792] dynasties, had been the rival of the House of Habsburg, whose two branches ruled Spain and the Holy Roman Empire . . .” (“Fronde”)
      2. 1500s-1600s: “For much of the 16th and 17th centuries, France faced Habsburg territory on three sides—the Spanish Netherlands to the north, the Franche-Comté [to the east], and Spain to the south.” (“Fronde”)
         1. “France faced the possibility of invasion from multiple sides.” (“Fronde”)
         2. And the Habsburgs “stood in the way of French territorial expansion . . .” (“Fronde”)
         3. “France therefore sought to weaken Habsburg control over these border possessions.” (“Fronde”)
      3. 1635: the “first French minister, Cardinal Richelieu, declared war on Spain . . .” (“Fronde”)
      4. 1659: the French won. The war ended with the Treaty of the Pyrenees. (“Fronde”)
   2. background to the Fronde
      1. The Fronde “was a series of civil wars in France between 1648 and 1653, occurring in the midst of the Franco-Spanish War [1635-59].” (“Fronde”)
         1. “The word *fronde* means *sling*, which Parisian mobs used to smash the windows of supporters of Cardinal Mazarin.” (“Fronde”)
         2. “The *Fronde* took its name from the French word for “slingshot,” signifying attack on the Regent Anne and her adviser Mazarin, and was encouraged by the example of the Cromwell rebellion in England in 1640.” (Kindleberger 106)
      2. “The Fronde was divided into two campaigns, the Fronde of the parlements and the Fronde of the nobles. The timing of the outbreak of the *Fronde des parlements*, directly after the Peace of Westphalia (1648) that ended the Thirty Years War, was significant.” (“Fronde”)
      3. “Population increase, inflation in the Thirty Years’ War, and fixed taxation in the regency [1643-60] after the death of Louis XIII [r. 1610-43] led first Cardinal Richelieu and then Cardinal Mazarin to try and raise funds by exacting more monies from *officiers* and *financiers* who had already bought their offices, to permit them to keep them as hereditary, and by creating as many as 50,000 new offices.” (Kindleberger 106)
         1. “Tax farming was an efficient means of raising revenue for the crown in a period when government servants were limited in number. It worked best when the farms were leased on short-term contracts sold and resold through auction, as in Britain, rather than awarded without limit so as to evolve gradually into private property.” (Kindleberger 106)
      4. “The threat to the wealth and status of the French *officiers* led to revolt among the *parlementaires*, first of Paris, and then more widely, along with variously adversely affected nobles, peasants, and Parisians in the late 1640s.” (Kindleberger 106)
   3. “The end of the Thirty Years’ War in 1648 freed the royal [106] army to enable the Regent, and then Louis XIV who ascended the throne in 1660, to put down the *Fronde*. Some contribution to the subsidence of the revolt was the shock over the beheading in England of Charles I in 1649.” (Kindleberger 106-07)
      1. Louis XIV (the Sun King) reigned 1643-1715 (72 years, longest ever in Europe); but that includes his mother, Queen Anne’s, regency. (“Fronde”)
   4. “Louis XIV, impressed [with] the Fronde, came to reorganize French fighting forces under a stricter hierarchy whose leaders ultimately could be made or unmade by the King. Thus the Fronde finally resulted in the disempowerment of the territorial aristocracy and the emergence of absolute monarchy.” (“Fronde”)
2. **Jean-Baptiste Colbert** (1619-83; minister of finances, 1665-83)
   1. 1653 on: “there was vigorous economic growth from the end of the *Fronde* [1653], especially under the mercantilist policies of Jean-Baptiste Colbert.” (Kindleberger 107)
      1. “Colbert started as a financial adviser to Mazarin, became comptroller-general of finance in 1665, and secretary of naval affairs in 1669.” (Kindleberger 107)
      2. “In a *Lit de Justice* (a form of court hearing) to penalize war profiteers, he repudiated some debt and tried without success to reform taxation.” (Kindleberger 107)
      3. “His greatest achievements were in what is today called industrial policy, encouraging the growth of industry through subsidies and tariffs . . .” (Kindleberger 107)
         1. He brought “to France Dutch shipwrights, Swedish miners, Italian glassblowers, Flemish lace-makers, and seeking especially to rival the British and Dutch in woolens.” (Kindleberger 107)
         2. “In naval affairs, he pushed ship-building and port-building, the latter particularly along the Atlantic coast, with planned cities at Brest, Lorient, and Rochefort, along with Nantes, and Sête in the Mediterranean for trade with the Levant. Braudel [1986 (1988) 327] quotes one Malouet to the effect that Colbert was too much in a hurry in his program of trade and naval building. He had barely started on building ships for trade when he took them over for the navy. France was partly a victim of geography, needing two fleets, one for the Mediterranean, the other for the Atlantic and North Sea. Louis XIV had no understanding of the sea, and in the contest for manpower and leadership between land and sea, his bellicose nobility always came down on the wrong (land) side. Colbert [blamed] French individualism for the country’s small merchant ships: “These men wish to have each his own barque, rather than to associate themselves with other *armateurs* (ship owners and/or outfitters) to possess, like the Dutch, large ships.”” (Ministère du Commerce 1919 1: xvii) (Kindleberger 107)
3. **revocation of the Edict of Nantes**
   1. 1562-98: religious wars in France. They end with the Edict of Nantes, 1598. (Kindleberger 107)
   2. The Huguenots were successful “in banking, trade, and industry, notably glass, silk, and papermaking . . .” (Kindleberger 107)
   3. The Huguenots “strengthened France at sea . . . [They] included effective privateers who preyed on Spanish shipping in the Bay of Biscay from the Atlantic ports, especially La Rochelle and Nantes.” (Kindleberger 107)
   4. 1598-1685: “During the first three quarters of the century the Catholic circle around the Regent and the crown kept urging restrictions on Protestants, harassing the Huguenots in various ways, including especially billeting soldiers in their homes.” (Kindleberger 107)
      1. “In 1679 government officials recommended discriminatory taxation against those who did not convert to Catholicism. Guilds and professions wanted government to oust them [Huguenots] from their ranks, but Louis XIV and Colbert were reluctant to do so, in particular from trade and shipping.” (Kindleberger 107)
      2. 1683: death of Colbert. Scoville (1960 155): at the time France was “perhaps the richest, most populous, and strongest nation of western Europe.” (qtd. in Kindleberger 108)
      3. 1683-85: “With the death of Colbert in 1683, the plight of those unwilling to abjure worsened.” (Kindleberger 108)
         1. The “number of Huguenots in France was between 1.5 and 2 million . . .” (Kindleberger 108)
         2. “. . . one-tenth left, beginning shortly before the Revocation of the Edict of Nantes in 1685 and continuing in the years to follow.” They took “with them specie and skills.” (Kindleberger 108)
   5. 1684-1717: France’s economy stagnated (“before the stimulus of inflation under John Law”). (Kindleberger 108)
      1. “Scoville is unwilling to ascribe the stagnation mainly to Huguenot emigration . . . [Emigrant Huguenots may have] actually assisted in the expansion of French trade that characterized the eighteenth century; the vast majority of Huguenots remaining at home after (largely insincere) conversion to Catholicism acquired a rapidly built network of former co-religionists, established abroad in a diaspora with whom those at home could do business.” (Scoville 1960 446) (Kindleberger 108)
      2. Scoville “stresses rather the two wars that followed . . .” (Kindleberger 108)
         1. 1688-97: the Nine Years’ War (War of the Grand Alliance)
            1. The League of Augsburg [1686-89] became “the Grand Alliance”—most of Europe except France—when England joined it in 1689.
         2. 1701-14: the War of the Spanish Succession
            1. 1713 (Peace of Utrecht): the Grand Alliance accepts the French candidate as Philip V of Spain, and France makes “territorial and economic concessions.” (“War of the Spanish Succession”)
4. **1720-89**: “**spurt in trade and industry**” (Kindleberger 108)
   1. income per capita
      1. 1688
         1. Holland: £8 1s 4d
         2. England: £7 18s
         3. France: £6 3s
      2. 1700s: the “gap between England and France widened . . .” (Kindleberger 109)
   2. first cause: Visas I and II
      1. 1715: after Louis XIV died, “the regent for Louis XV held a *Lit de Justice* to confiscate undue profits from the recent wars or accumulated under the reign. This became known as Visa I.” (Kindleberger 108)
      2. “A repetition of the exercise, Visa II, was undertaken at the behest of the *financier* rivals of John Law, to deal with inappropriate enrichment (by others) in the Mississippi bubble of speculators in notes of the Banque Royale, shares of the Compagnie d’Occident, and *billets d*’*état*.” (Kindleberger 108)
         1. John Law started “banks, took over the tobacco monopoly, and became minister of finance. He intended to reform French *financiers*, . . . but the corps of *financiers*, led [108] by the Paris brothers, defeated him.” (Kindleberger 108-09)
      3. “The successive Visas in France represent not breakdown of government, as in the Goldstone model, but effective action leading to economic growth . . .” (Kindleberger 108)
   3. second cause, 1719-20: the Mississippi bubble (aka South Sea bubble)
      1. The “capital levy, large profits retained by insiders, and speculative losses by those who came in too late or stayed too long produced a substantial redistribution of wealth. This may have been a contributing factor to the spurt in trade and industry in France . . .” (Kindleberger 108)
      2. The “redistribution of wealth and especially large capital losses stimulated efforts by many to repair their fortunes. After the slowdown from 1680 to 1717 or 1720, the French economy picked up speed.” (Kindleberger 108-09)
5. **1700s**: **technology**
   1. invention
      1. 1500s: England imported “technology from the Continent, hiring German miners, Dutch engineers specialized in drainage, French civil engineers and architects.” (Kindleberger 109)
      2. c. 1700: “the movement of technology began to swing the other way.” (Kindleberger 109)
         1. The British made their gains in invention; the French, in trade. (Kindleberger 109)
         2. “Inventions and innovations included the Nottingham knitted stocking mill, the Newcomen steam engine, the Cort puddling process in iron and steel.” (Kindleberger 109)
   2. movement of technical knowledge
      1. 1685: “With the Revocation of the Edict of Nantes, the flow of entrepreneurs and artisans from France to England grew into a flood, [bringing expertise] largely in luxury goods of high quality as in glass, silk, and clocks, and in finance.” (Kindleberger 109)
      2. c. 1700: “The British government began in earnest to enact measures to forbid the export of machines and the emigration of skilled workers, to keep industrial knowledge monopolized.” (Kindleberger 109)
      3. 1719: “after innovations in producing and dyeing cotton cloths to compete with Indian muslin and calicos, the government again forbade worker emigration to the Continent.” (Kindleberger 109)
      4. 1750 on: “the balance became more uneven [Britain pulled ahead], and the movement of technology to France picked up despite attempts to restrain it.” (Kindleberger 109)
         1. “John Kay, the inventor [109] of the flying shuttle, was induced by the French government to go to France to teach carding and weaving of cotton to French plants.” (Kindleberger 109-10)
         2. “John Holker, a Jacobite, was persuaded to set up the first of a series of cotton textile plants with the help of the French government.” (Kindleberger 110)
         3. “William Wilkinson, an ironmaster and machine maker, was drawn to France and helped start up the foundry at Creusot.” (Kindleberger 110)
      5. 1760s-70s: “with the coming of the industrial revolution, the French government financed trips to England to study industrial practice.” (Kindleberger 110)
         1. 1765-66: “Gabriel Jars was sent . . . to study especially iron works and collieries . . .” (Kindleberger 110)
         2. 1775: de la Houlliere was sent. (Kindleberger 110)
         3. 1777: Constantin Perier was sent; he “operated a machinery plant in Paris.” (Kindleberger 110)
         4. 1789-99: the French Revolution “interrupted French technological borrowing from England but did not eliminate it altogether. Despite the war, for example, textile machinery, a steam engine, and workers to run it were smuggled from England to Ghent by way of Hamburg.” (Kindleberger 110)
6. **1700s**: **French trade**
   1. The British made their gains in invention, but the French “made their greatest gains . . . in trade.” (Kindleberger 109)
   2. “The major source of growth in France in the eighteenth century was not technology, or agriculture, in which growth barely kept up with population, but trade.” (Kindleberger 110)
   3. “In spite of three wars—the War of the Austrian Succession, the Seven Years’ War, and the War of American Independence—and high ship losses, trade boomed.” (Kindleberger 110)
   4. “The gains were largely with the West Indies in sugar, tobacco, and indigo and with the American colonies in cotton, rice, tobacco, lumber, and wheat and flour.” (Kindleberger 110)
   5. “Bordeaux, Nantes, and La Rochelle served as intermediaries in colonial products between the [Americas] and much of the European continent. Saint-Malo, engaged primarily in fishing off Nova Scotia and Newfoundland, did not do as well.” (Kindleberger 110)
   6. “. . . French shipping began to displace the Dutch to a considerable extent, and French shippers began to transport direct, instead of relying on Amsterdam as an intermediary.” (Kindleberger 110)
      1. 1717: 67% “of wine exports from Bordeaux went to Holland, as against 13 percent to the “*Nord*,” largely the Hanseatic cities of Bremen, Hamburg, and Danzig.” (Kindleberger 110)
      2. 1787: 10% went to Holland, 46% to the *Nord*. (Kindleberger 110)
   7. “Marseilles [was] the other great French port in the eighteenth century . . .” (Kindleberger 110)
      1. It “was less committed to the West Indies than was Bordeaux.” (Kindleberger 110)
         1. 1789: Marseilles had 230 million livres in exports and imports (excluding coastal trade), but only 54 million of it was with the Caribbean: 23.48%.
         2. 1789: Bordeaux had had 250 million livres in exports and imports, and 112 million was with the Caribbean: 44%.
      2. “Marseilles trade also grew at a lower rate in the century . . .” (Kindleberger 110)
         1. Marseilles: 1.6% per year in real terms
         2. Bordeaux: 4.1% per year in real terms
   8. “The growth of the Atlantic trade is remarkable in light of the fact that France was at war with Great Britain in sixty of the years between 1700 and 1815.” (Kindleberger 110)
7. **French finance**
   1. “There is some question whether financial institutions are a critical factor in determining rates of economic growth . . .” (Kindleberger 110)
   2. France “lagged behind [Britain] in developing paper currency, banks, a central bank, a clearing house, insurance companies, and securities markets (except for *renter*) by about a century.” (Kindleberger 111)
   3. A “rough-and-ready measure of development” is the founding of financial practices. (“A list of nine [such] institutions with comparable dates” is: Kindleberger, Charles P. *A Financial History of Western Europe*. 1984. Rev. ed. New York: OUP, 1993. 116.) (Kindleberger 111)
      1. 1694: founding of the Bank of England
      2. 1800: founding of the Bank of France
      3. 1700s: banknotes were widespread in Britain.
      4. 1867: banknotes’ utility is still debated.
      5. 1797: Britain institutes an income tax.
      6. 1917: France institutes an income tax.
8. **French industry**
   1. “from agriculture to industry”: the “proportion of the labor force engaged in agriculture, fishing, and forestry [shows] the lag of France behind Britain . . .” (Kindleberger 111)
      1. 1800: “probably less than 40 percent of the labor force in England”
      2. 1856: “in France more than half of the working population”
   2. 1700s: “France may have grown faster than England . . ., [but] her income per capita in 1789 was [not] equal to that across the channel . . . while France grew faster and closed in on Britain relatively, the absolute gap widened.” (Kindleberger 111)
      1. Because “somewhat larger percentage gains on smaller numbers fell absolutely short of smaller percentage gains on larger bases.” (Kindleberger 111)
   3. “table 7-1 income per capita (in pounds sterling) in England and France, about 1700 and about 1789” (Based on Goldstone, J. *Revolution and Rebellion in the Early Modern World*. Berkeley: U of California P, 1991.) (Kindleberger 112)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | overall | | agriculture | | industry and trade | |
|  | England | France | England | France | England | France |
| c. 1700 | £7.28 | £4.38 | £3.98 | £3.27 | £3.28 | £1.18 |
| c. 1789 | £11.95 | £7.70 | £5.31 | £5.29 | £6.51 | £2.42 |
| % increase | 65% | 76% | 34% | 61% | 99% | 120% |

* + 1. The table’s figures “are rough, since they still omit services (except for trade) . . . and livres have been converted to pounds sterling for convenience at the round rate of 25 livres to the pound.” (Kindleberger 111)
    2. c. 1700: Britain’s income per capita was ahead of France’s by £2.9 (£7.28 – £4.38).
    3. c. 1789: Britain’s income per capita was ahead of France’s by £4.25 (£11.95 – £7.70).
  1. “Some part of the French gain in industry may have occurred in replacing the thousands of ships lost to enemy and privateering action in the series of wars.” (Kindleberger 111)

1. **1700s decline**
   1. 1763: “The cession of Canada to Britain in the Treaty of Paris [after] the Seven Years’ War constituted a capital loss, hurting future French income.” (Kindleberger 111)
   2. “Productive gains for France in the eighteenth century failed to offset the setback administered by its failures in finance.” (Kindleberger 112)
      1. “Successive attempts to reform the fiscal system [were] through the century . . .” (Kindleberger 112)
         1. by 3 foreigners
            1. John Law, Scottish; Controller General of Finances, Jan.-May 1720
            2. Isaac Panchard, Swiss
            3. Jacques Necker, Swiss; Director-General of Finances, 1776-81
         2. by 2 Frenchmen
            1. Anne Robert Jacques Turgot, Controller-General of Finances, 1774-76
            2. Charles Alexandre de Calonne, Controller-General of Finances, 1783-87
      2. “All failed owing to the bitter resistance of the *financiers*. Nobles did not pay taxes. Their contribution to the state was to risk their lives in battle. To the extent that the wars of the eighteenth century were fought at sea rather than on land, a capital-intensive rather than a labor-intensive form of warfare, they might have been held still to owe something to the country after the American War of Independence. Path dependency, however, after centuries of not paying taxes, ensured that they felt no such duty.” (Kindleberger 112)
      3. “Fiscal reform was finally achieved in the Revolution when thirty-five *officiers* and *financiers* were arrested and twenty-eight died on the guillotine.” (Kindleberger 112)
   3. 1786: the Anglo-French Eden treaty “lowered textile tariffs in France until the French Revolution,” thus allowing British textiles in; this hurt “the textile industry of Normandy, but not that of Alsace protected by the distance from England . . .” (Kindleberger 117)
   4. 1791: “French Caribbean trade was badly hurt . . . by the slave uprising in San Dominge (later Haiti) as an echo of the French Revolution two years earlier.” (Kindleberger 111)
   5. “It might be barely possible to squeeze France in the eighteenth century into the model of chapter 2 by emphasizing growth to the 1780s followed by precipitous decline as [tax-exempt nobles] resisted paying off the burden of taxes accumulated during the wars.” (Kindleberger 112)
   6. Goldstone emphasizes other elements. (Kindleberger 112)
      1. “Peasants were strongly hurt, bearing the main burden of taxes on land and . . . the bad harvests in the 1780s.” (Kindleberger 112)
      2. “Population increase over the period thickened the ranks of those who would normally have expected to rise among the elite. . . . the middle classes had the doors to the purchase of hereditary office closed after 1760, and suffered from a sense of indignity and deep-seated frustration in the face of aristocratic privileges.” (Kindleberger 112)
      3. “governmental breakdown”: the “*parlementaires*, the higher clergy, aristocratic factions—all the privileged classes” blocked reformers. (Kindleberger 112)
      4. “I choose not to attempt to sort out whether the *causa causans* of the Revolution should be sought among the peasants, the *sans culottes*, the middle classes (who reaped the benefits), or . . . the *parlementaires* . . .” (Kindleberger 112)
   7. “One element contributing to the breakdown of the fiscal system under Louis XVI was the mistake of Necker in borrowing on annuities covering several lives without taking their ages into account. Part of the Dutch switch from English to French securities was motivated by overly attractive offerings (Lüthy, 1961, v. 2, pp. 471-518). A classic mistake, it built up the debt.” (Kindleberger 113)
   8. “Without naming Napoleon or Adolph Hitler, near the end of his study Goldstone writes [1991 479]: “History shows an almost uniform tendency of state breakdown to culminate in populist, usually military dictatorship, terror, disorder, and growing dominance by military men. Rebuilt armies embody energy and ideals, but are impatient of democracy.”” (Kindleberger 113)
   9. 1801
      1. France had a “far greater population.” (Kindleberger 109)
         1. France: more than 27 million
         2. Britain: 11 million
      2. But Britain was more advanced in “industry and finance . . .” (Kindleberger 109)
2. **the continental system**
   1. “There was some economic growth in industry in France during the Revolution, the revolutionary, and the Napoleonic wars, but little compared with that in Britain with its rising industrial revolution. French progress was stimulated by France being cut off from many goods previously purchased from abroad—watches, optical instruments, gunpowder, paints, toilet soap.” (Kindleberger 113)
   2. chemistry
      1. “M. le Comte Chaptal, a chemist, had been minister of the interior, with, naturally, special interests in French progress in chemistry . . .” (Kindleberger 113)
      2. “French eminence in chemistry continued after the war to about 1830. Paris was a mecca for German chemists, who found its laboratory-centered approach more fruitful than the abstract idealism of the German universities at the time.” (Kindleberger 113)
      3. The French were “poor at the drudgery that was needed for chemical research, preferring to work for ideas rather than process.” (Kindleberger 113)
      4. 1871: “France lost many chemists . . . when Alsace-Lorraine was turned over to Germany . . .” (Kindleberger 113)
         1. 1871: Germany wins the Franco-Prussian War (1870-71).
         2. 1919: Treaty of Versailles: Alsace-Lorraine reverts to France.
3. **technical education**
   1. “In modern times, French reaction to war has frequently been to start a new school of advanced learning, usually scientific, technical, or practical.”114)
      1. 1747: “The Corps des ponts et chaussées with its associated Ecole was founded . . . close to the end of the War of the Austrian Succession, to improve French roads.”
      2. 1747: “The Ecole des mines came along at the same time.” (Kindleberger 114)
      3. 1794: “With the revolution and the Revolutionary Wars, the savants began the Ecole polytechnique . . . to train scientists and engineers, many for the military, though a sizeable number would upon graduation undertake further study at the Ecole des ponts et chaussées or the Ecole des mines.” (Kindleberger 114)
      4. 1816: the Ecole des mines “was reorganized into a theoretical branch in Paris and a practical one near the coal mines of St. Etienne.” (Kindleberger 114)
      5. “Around these “*grandes écoles*” were a group of smaller ones for military, naval, and other specialized purposes, plus lesser (in prestige) practical schools . . . all with the effect, if not the intention, of developing new men and creating a new start.” (Kindleberger 114)
         1. 1780: “the Ecole des arts et métiers, [begun as] a school established by the Duc de la Rochefoucauld-Liancourt for the children of his regiment”
         2. 1794: “the Conservatoire des arts et métiers, established during the Revolution”
         3. 1829: “the Ecole centrale des arts et manufactures, established privately . . . by a group of industrialists to increase the supply and quality of engineers available to business, and to train workmen”
         4. 1871: “The Ecole des sciences politiques, for social rather than physical science, came into being at the end of the Franco-Prussian War [1870-71]”
         5. 1945: “the Ecole national d’Administration”
   2. “. . . emphasis on higher education in France is largely Cartesian and deductive, rather than practical, emphasizing mathematics and pure science, and within the former at the Ecole polytechnique, descriptive geometry. The roots of this emphasis lay, of course, in the Enlightenment of the eighteenth century.” (Kindleberger 114)
   3. Prestige was “on the minds of the men involved, and the word “*gloire*” [is said] especially of the Ecole polytechnique.” (Kindleberger 114)
      1. Initially “graduates of the Ecole polytechnique [were] likely to divide between the military and such schools as Ponts et chaussées and Mines . . . they frequently later entered industry.” (Kindleberger 114)
      2. “In the twentieth century the Ecole polytechnique, Ecole normale (for academic life), and Ecole nationale d’administration were intense rivals for the most brilliant applicants and for top status in public esteem.” (Kindleberger 114)
      3. “After the Second World War, alumni of ENA would largely go first to government, preferably by way of the Inspection des finances, the prestigious supervisory and accounting bureau, and then move on into high government position, politics, industry, or banking.” (Kindleberger 114)
   4. “. . . French higher education differed sharply from English—though not nearly to the same extent from Scottish—in the nineteenth century, with the French emphasis on science and especially mathematics, as distinct from the humanities. It was more abstract and less practical than the *Hochschulen* in Germany. Comparison among the three countries raises a question about Abramovitz’s use of years of education as a proxy for “social capability” . . . when modes of education can differ so widely in emphasis and presumably in their contribution to economic growth. . . . [And] more education may not help economic growth if population increase means that trained elites cannot find suitable places of employment.” (Kindleberger 114)
4. **plant visits**
   1. After the Napoleonic wars “there was a flood of visitors to Britain . . .: scholars, industrialists, engineers, workmen.” (Kindleberger 115)
      1. “Among the engineers were deGallois of the Corps de mines, who on his return described the wooden railways for carrying coal from the pithead to the docks on the Tyne, causing fear of unemployment among carters working for such a mine as that at Anzin, which did not adopt railed ways until 1830 . . .”
      2. “Dutens of Ponts et chaussées”
      3. “Baron Dupin of Arts et manufactures . . . made repeated visits and wrote a six-volume book on British industry.”
      4. The French iron and steel industry was “especially interested in British method . . .”
         1. “Owners of larger plants made trips to Britain to visit iron works, some as late as 1849.”
         2. “Some brought back workers . . .”
         3. “One in particular, Benoit, crossed the channel seven times between 1839 and 1849, on one occasion visiting seven establishments on a single visit . . .”
         4. “Two issues dominated French curiosity: puddling to burn off carbon to harden the iron and the substitution of coal for charcoal. Considerable debate continues to this day among historians whether such substitution in France was economic at the time, given the abundance of forests for making charcoal in which the *maîtres des forges* largely operated. France, however, maintained a complex tariff on imported coal—higher at ports near the iron industry than elsewhere—suggesting that the expense of coal was partially man-made and not purely a matter of resource endowment, a conclusion buttressed by the fact that half the forges using coal in 1825 were British owned.” (Kindleberger 115)
   2. “A significant contrast between French and British industrialists in this period is that successful French ironmasters and machine-builders were in [115] many cases graduates of the *grandes écoles*, and in any case tried to enroll their sons in them, whereas their British counterparts were largely self-taught and sent their sons to Oxford and Cambridge to train for the military, the clergy, or other learned professions. Foreign visits provided a useful complement to the abstract education of the *grandes écoles*.” (Kindleberger 115-16)
      1. Michel Chevalier (1836 [1838] letter 1): (Kindleberger 116)
         1. “In Paris they talk about railroads; in London they make them . . .”
         2. “England shines by the genius of its business and by the virtues which accompany it, sang-froid, economy, precision, method, perseverance. The lot of France is rather the genius of taste and the arts . . .”
         3. “At our neighbors, calculating and ambitious pride, pride of the statesman and the merchant which are paid off only in power and wealth. . . . With us, the vain but immaterial pride which savors ideal possessions, thirst for applause, glory for the country, pride which would be content for France if it had the admiration of people.”
         4. “. . . in matters of work and production we have much to borrow from the British . . . the instinct for administration . . . credit well founded . . . the spirit of association.”
   3. Ernst Gouin, “first in his class at the Ecole polytechnique, . . . [visited] the Sharp locomotive plant in Manchester . . . before starting his own locomotive factory in Batignolles.” (Kindleberger 116)
   4. 1843: “Machinery was still being smuggled into France from England as late as 1843, when the British prohibition of export of machines and plans was lifted, a measure that hurt the French machine industry competitively.” (Kindleberger 117)
   5. “Invention was not all one way.” (Kindleberger 116)
      1. “Philippe de Girard invented a machine for softening and combing flax to prepare it for weaving into linen, but the French failed to exploit it until it had been taken up successfully by John Marshall in Leeds.” (Kindleberger 116)
      2. “Vaucansson invented a loom for weaving silk in intricate patterns, which again was not put to use and was largely forgotten. In 1800 Joseph-Marie Jacquard invented a similar machine, uncovered the Vaucansson model among those stored in the Conservatoire, and combined the best features of the two.” (Kindleberger 116)
      3. “Thimmonier, a poor working tailor, invented a sewing machine, of which eighty had been installed by 1831 when other tailor workers smashed them. He also sent a machine to the Great Exhibition in London, but it arrived too late to make the deadline for inclusion. Shortly thereafter the invention passed to Howe and Singer in the United States.” (Kindleberger 116)
      4. “Successful inventions of course occurred in chemicals (Kuhlmann, Chardonnet), glass, plate glass, and mirrors (St. Gobain), automobiles (Bollee, Panhard, Levassor, Berliet), and so on. Most of these came later.” (Kindleberger 117)
5. **Saint-Simonists and banks**
   1. Saint-Simonists
      1. Henri de Saint-Simon (1760-1825)
         1. “Claude Henri de Vouvray [or Rouvroy], Comte de Saint-Simon (great-nephew of the . . . Duc de Saint-Simon of the celebrated *Mémoires*), visited Spain in 1778 at the age of 18 where he became interested in economic development through public works, banking, education, and the “spirit of association.” During the Revolution he speculated in *biens nationaux* (properties seized from the church and nobility), made a fortune and lost it . . ., and proselytized a number of leading intellectuals before his death in 1825.” (Kindleberger 117)
         2. In his last work, *Nouveau Christianisme*, Saint-Simon “propounds as the comprehensive formula of the new Christianity this precept: “The whole of society ought to strive towards the amelioration of the moral and physical existence of the poorest class; society ought to organize itself in the way best adapted for attaining this end.” This principle became the watchword of the entire Saint-Simon school of thought.” (“Comte de Saint-Simon”)
      2. “His work was taken up by Prosper Enfantin, who formed a sort of cult but who fantasized, well in advance of reality, about a Suez canal, a Panama canal, a trans-Siberian railway, and a tunnel under the English Channel.” (Kindleberger 117)
      3. Among the Saint-Simonists was “Michel Chevalier, who went to America by way of London to study public works in 1833 and 1834 . . .” (Kindleberger 117)
      4. “A movement in the United States in the 1930s called “technocracy” was interested in applying technical solutions to economic and social problems. It had only limited popularity before being lost to public view. Technocracy had a predecessor, more or less, in Saint-Simonism in France a century earlier.” (Kindleberger 117)
   2. banks
      1. The Rothschilds bank made loans “for railroad-building. This had started slowly in the 1830s following the centralized plan of Le Grand of Ponts et chaussées of 1832 because of bankers’ quarrels.” (Kindleberger 117)
      2. Crédit mobilier bank
         1. Two Saint-Simonists were “Emile and Isaac Pereire, who pushed the Saint-Simonien interest in banks as both stimulus and controller of industry.” (Kindleberger 117)
         2. “The Pereires became friendly with Napoleon III [r. 1852-70], who had also caught the bug, and obtained from him permission to make long-term investments, the well-known Crédit mobilier.” (Kindleberger 117)
         3. “Rondo Cameron ascribes much of the boom in France in the 1850s, following Napoleon’s coup d’etat of December 1851, to this bank, which also served, in his view, as a pattern for what became known as “universal banks” throughout Europe. It is true that competition from the Crédit mobilier stimulated lending by other banks,” but the Rothschilds were lending in the 1830s. (Kindleberger 117)
      3. Bank of France
         1. “Further stimulation came from the Bank of France, which, after serious debate among the regents, made advances to banking enterprises against the collateral of railroad bonds . . . thus assisting railroad construction . . .” (Kindleberger 117)
         2. The “Bank of France made advances on the debt of the city of Paris, which was being reconstructed by the cutting of great boulevards by Baron Haussmann, but refused to undertake similar loans for Marseilles or Bordeaux.” (Kindleberger 118)
         3. c. 1852-54: “The boom of the early 1850s turned the balance of payments of France adverse, led to losses of specie, and a possibility, seriously contemplated by the officials of the Bank of France, that it would have to suspend gold payments and resort to what was called “forced circulation.” The Bank raised its discount rate to 6 percent. Panic in Paris and lines of depositors seeking to draw their deposits out in gold in early October 1856 produced a meeting of the emperor and high officials of the Treasury and the Bank. Also present were Pierre Magne, minister of public works, Achille Fould, the president of the Crédit mobilier until 1854, and Emile Pereire, all of whom advised the emperor against suspension on the ground, among others, that it would spoil France’s chance of becoming the center for international financial transactions.” (Kindleberger 118)
6. **1800s**
   1. “. . . economic growth through the nineteenth century” was uneven: (Kindleberger 118)
      1. 1850s-60s: a boom
      2. 1870s: a deflation “to pay off the indemnity”
      3. 1880s: “the Great Depression”
      4. Table 7-2 gives “periods of growth and stagnation and within each the forces that made for growth, [the forces that] resisted it, and other forces of potential significance in either direction . . .” (Kindleberger 118) The table lists:
         1. 1851-75 vigorous expansion”
         2. “1875-96 stagnation (esp. 1882-94)”
         3. “1896-1913 moderate growth”
         4. “1919-30 vigorous disorderly expansion”
         5. “1930-1939 economic decline”
         6. “1945-1950+ economic resurgence”
   2. forces for and against growth in France, 1851-1950 (Kindleberg­er 120-21 Table 7-2)

(From Kindleberger, Charles P. *Economic Growth in France and Britain*, *1851-1950*. Cambridge, MA: Harvard UP, 1964. 328-29.) “(1) strong factor, (2) moderate factor, (3) weak factor. Asterisk: a factor that might have operated oppositely under different circumstances.” (Kindleberger 121)

|  |  |  |  |
| --- | --- | --- | --- |
| *period* | *forces making for growth* | *forces resisting growth* | *potentially significant forces of negligible effect* |
| 1851-75 vigorous expansion | government spending on cities, communication (1) | resource limitations in coal, natural communications (2) | aristocratic values |
|  | railroad investment (1) | immobility of agricultural labor (3) | family enterprises |
|  | industrial banks (1) | diversion of government attention from economy to adventure (1) | social division |
|  | expansion of national market (1) | banker’s quarrels (3) | technological aptitude |
|  | \* expanding exports (2) |  | slow population growth |
|  | \* import competition (2) |  |  |
| 1875-96 stagnation (esp. 1882-94) | technological advances (3) | \* fall in wheat price communicated from abroad (1) | loss of Alsace‑Lorraine |
|  | wheat tariff of 1881 (2) | phylloxera (3) | Freycinet Plan |
|  |  | \* social fissures (3) |  |
|  |  | overspeculation in 1881 (3) |  |
|  |  | \* resource limitations (3) |  |
|  |  | \* slow population growth (3) |  |
| 1896-1913 moderate growth | \* loss of Alsace‑Lorraine (3) | family enterprises (3) | capital exports |
|  | discovery of iron ore (2) | \* resource limitations—coal (3) | slow population growth |
|  | new industries (2) | \* social fissures (3) | government lack of interest in economy |
| 1919-30 vigorous disorderly expansion | regional banks (3) | capital flight to 1926 (3) | social fissures |
|  | \* booming exports due to capital exports (3) | foreign-exchange policy (3) | inflation |
|  | \* Méline tariff of 1892 (3) |  | war manpower losses |
|  | government reconstruction (1) |  | aristocratic values |
|  | rising exports due to capital flight and later undervaluation (2) |  | family enterprises |
|  |  |  | technical capacity |
| 1930-1939 economic decline | \* rising wage costs (3) | government policies for defense of franc value and deflation (3) |  |
|  |  | world depression (1) |  |
|  |  | \*social fissures (1) |  |
|  |  | \*monopoly (3) |  |
|  |  | family firms (2) | [120] |
| 1945-1950+ economic resurgence | wartime consensus on value of economic growth (1) | inflation (2) | diversion of resources overseas, partly compensated by aid |
|  | government size and initiative (1) | social conflict, especially on algiers (2) |  |
|  | \* income redistribution (2) | \* limited resources (3) |  |
|  | technical brilliance (1) | \* wartime destruction (3) |  |
|  | \* population expansion (2) |  |  |
|  | expanded productivity in agriculture (3) |  |  |
|  | elimination of small firms by competition (2) |  | [121] |

* 1. force against growth: guilds
     1. One force resisting growth was “the guild, useful for growth at the start of an industry through training and setting of standards, harmful later as it pushed for monopolistic restriction and resisted technical change.” (Kindleberger 118)
     2. “Guilds happen not to have been cited in the earlier book, which covered only 1851 to 1950 . . .” (Kindleberger 118)
  2. force against growth: increased exports
     1. These stimulated “growth in new industries [but diverted] energy into blind alleys when it involved expansion in old and obsolete products.” (Kindleberger 118)
  3. force against growth: agriculture
     1. 1700s: “Agricultural productivity had risen sharply in the eighteenth century with the introduction of new crops, the potato between 1740 and 1770, which ended periodic famines; clover, other forage crops and Indian corn (maize) between 1770 and 1790, sugar beets during the Continental system, not enough, however, given the bad weather of the 1780s, to forestall peasant unrest.” (Kindleberger 119)
     2. 1800s
        1. the “optimistic picture of O’Brien and Keyder [1978] . . .” (Kindleberger 119)
           1. They think that “the deliberate pace of French agricultural development and the slowness of the movement off the farm into trade and industry were more or less intentional, based on the choice of a different path to economic development than Britain’s industrialization . . .” (Kindleberger 118)
        2. W. Arthur Lewis, Alexander Gerschenkron, William Nichols, and W.W. Rostow disagreee. (Kindleberger 118)
           1. These authors think that “the slow release of labor from farms [was] the consequence of partible inheritance . . .” Unlike primogeniture, “property is apportioned among heirs.” (“Partible Inheritance”) (Kindleberger 119)
           2. These authors think that “the slow release of labor from farms . . . [was] the cause of overall retardation of French growth . . .” (Kindleberger 119)
           3. “Agricultural regions close to large cities, such as Paris, were forced to rationalize farming because of labor shortages and high wages [in the city] . . . the city drew off neighboring young people.” (Kindleberger 119)
           4. “Other areas that made considerable progress were Normandy, which specialized in dairying, and the North adjacent to the efficient farming of the Low Countries. On the whole, however, growth in agricultural productivity in France was slowed down by the “disguised unemployment” of young people, staying on the farm, waiting to inherit land. They produced less than they consumed, but as family members they had to be fed anyhow, so their modest marginal product added to total income.” (Kindleberger 119)
           5. “change slowed down . . ., and the peasant remained backward, largely outside modern French society until the Franco-Prussian War [1870-71] and the spread of education after the 1870s. . . . despite the adoption of the metric system during the French Revolution, and of the franc germinal in 1804, the peasant before 1870 was still reckoning in *pieds* (feet) and *livres* three quarters of a century later.” (Weber 1976) (Kindleberger 119)
           6. “Farming suffered in the second half of the century from the diseases of *pébrine*, in silk cocoons, and phylloxera [“almost microscopic, pale yellow sap-sucking insects, related to aphids, feed on the roots and leaves of grapevines,” “Phylloxera”], which attacked vineyards, and from the fall in the worldwide price of wheat, a major French peasant cash crop. Love of land, however, and the need to leave it to one’s limited family seems to have held back the rural exodus to the city, however widely it was complained of as early as the 1880s. Some analysts blame the lack of demand for labor in the city for the slowness of the movement off the farm, but farm folk in other countries do not wait for demand to materialize before they crowd into *bidonvilles*, *favellas*, shantytowns in exurbs, making it clear that the supply need not wait for the demand.” (Kindleberger 119)
  4. 1945-75: “. . . French brilliant growth after World War II, *les trentes années glorieuses* (the thirty glorious years) [was due] not to planning and a resurgence of Saint-Simonism so much as to a change in mentality or social values that occurred during the war as a result of German occupation, and the emergence of “new men” after the war.” (Kindleberger 118)

1. ***mentalités***
   1. “Despite the Revolution, French attitudes toward the world have long been conditioned by the aristocratic values of the ancien regime. This spirit is characterized as pride in individual distinction . . .” (Kindleberger 119)
      1. Examples are “the unreproducible act; prowess on the field of battle, in sport, in the arts; talk in the salon; elegance in the consumption of dress and food, even in the boudoir.” (Kindleberger 119)
      2. “. . . French intellectuals are trained to make remarks in conversation that are brilliant and final.” (Kindleberger 121)
      3. “In production, distinction is the goal, as illustrated by the royal manufactories, Sevres for porcelain for example, Gobelins for tapestries.” (Kindleberger 121)
   2. “Aristocrats seldom played a major role in the world of affairs.” (Kindleberger 121)
   3. “Graduates of the *grandes écoles* combined intelligence and training with a degree of superiority and even arrogance.” (Kindleberger 121)
   4. “The nobles think that commerce is not noble . . .” Therefore capitalists (the bourgeoisie) and capitalists who become country gentlemen consider it ignoble. (Kindleberger 121)
      1. “The bourgeoisie aspired to fortunes so as to ascend into the ranks of chateaux owners and the nobility.” (Kindleberger 121)
   5. “In bourgeois circles before World War II, interest in business was said to be focused on the vertically extended family and the creation of dynasties.” (Kindleberger 121)
      1. “. . . the average businessman was less interested in growth and profit than in continuity of family ownership from generation to generation. Bank loans, public share offerings, mergers, top-level officers from outside the family, were avoided; liquidity was maintained; and bankruptcy, a stain on the family reputation, was avoided at all costs.” (Kindleberger 121)
      2. “Kindleberger considers this characterization unproven. (Kindleberger 121)
      3. “But there seems little doubt that positive cooperation was a rare ingredient of French economic life. . . . The lack of the “spirit of association,” as compared with Britain or the United States, has been mentioned” by several scholars. (Kindleberger 122)
         1. “Sports and games are minor in French schools and fail to produce peer solidarity . . .” (Kindleberger 122)
         2. “The graduates of the *grandes écoles* were perhaps an exception to this notion, as they maintained a network in which one graduate recruited others until they “enclosed a great part of the economic activities of France.” (Bouch 1952 567) (Kindleberger 122)
         3. Another exception: the “delinquent peer group” or community, in which pals (*copains*) unite to rebel against the authority of parents, teachers, customers, competitors, and especially government in such a matter as paying taxes.” (Pitts 1964 254-62) (Kindleberger 122)
            1. “A prominent example of French delinquent behavior, though one shared by wealth holders in many other countries, is to transfer one’s liquid funds abroad at times of government crisis . . .” (Kindleberger 122)
            2. This occurred “in France in 1924, 1936 (under the Popular Front), and 1982 in response to the Mitterand socialist program of 1981.” (Kindleberger 122)
2. **interwar breakdown**
   1. “The interwar period conforms to the Mancur Olson model of struggle among distributional coalitions, leading to a Jack Goldstone breakdown of government though without explicit rebellion and revolution. Industry, agriculture, labor, the middle class, and capitalists resisted taxes and refused to share the burdens of reconstruction and repayment of war debts. Part of the difficulty was the fantasy belief that the damages would be paid by the Germans who had lost the war. Government after government would propose taxes, be defeated, resign, and give way to new governments that would repeat the deadly prescription. Left-wing Socialists pushed for a capital levy; labor would sit down; capitalists refused to convert short-term into long-term government obligations, and from time to time sent their capital abroad.” (Kindleberger 122)
   2. “When the German attack came in May 1940, neither the army nor the populace was ready.” (Kindleberger 123)
   3. “Occupation from 1940 to 1944 or 1945 produced a deep-seated change in French attitudes to their lifestyle; along with, in 1945 and 1946, “new men.” The change is most readily exemplified by the abrupt discontinuity in demography. The strong peasant sense that led to family limitation in France ahead of most of the world, and well before the laws of equal inheritance of Napoleonic times, suddenly gave way . . . The net reproduction rate, measured by the number of female children born per 100 women of childbearing age, moved as shown in Table 7-3.” (Kindleberger 123)
      1. table 7-3 prewar, war, and postwar net reproduction rate in France: 1935-59 (Kindleberger 123)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | *Years* | *Rate* |  |  |
|  |  | 1935-1939 | 89.7 |  |  |
|  |  | 1940-1941 | 79.5 |  |  |
|  |  | 1942-1945 | 90.5 |  |  |
|  |  | 1946-1950 | 131.0 |  |  |
|  |  | 1951-1955 | 124.8 |  |  |
|  |  | 1956-1959 | 126.25 |  |  |

* 1. “Alfred Sauvy . . . attributes the change to the Code de la Famille, passed in 1939, that provided subsidies to families that rose as the number of their children increased.” (Kindleberger 123)
  2. Others tie “the change explicitly to defeat in 1940 and to a brusque change in the French outlook on life that began during the darkest days of the German occupation. More children were sought for current enjoyment, rather than fewer so as not to divide land or wealth and thus handicap the extension of the family in time. The explanation is supported by the sudden large postwar movement off the farm into trade and industry, and out of small artisan shops into larger firms. The agricultural population of France went” thus: (Kindleberger 123)
     1. 1949 7.5 million (36.6% of the active population)
     2. 1954 5.2 million (27.4% of the active population)
     3. 1954-62 “Another 1.3 million left the farm . . .”
  3. New men “replaced those idled during the war or repudiated by their attachment to the Main regime . . . [There was a] sharp reduction in the age of middle-level executives (*cadres*). The Ministry of Labor in 1951 reported that the top hiring age for this group had declined” thus:” (Kindleberger 123)
     1. 1898 60 years
     2. 1945 50 years
     3. 1950 45 years
     4. 1951 40 years

1. **1945-75**: **the 30 glorious years**
   1. “The change in outlook [and] the entry into positions of authority of new men . . . led to a sustained period of growth. At the start there was an inflationary push as industry, agriculture, and labor each resisted the burdens of reconstruction, as they had after World War I: Farmers raised food prices, leading to strikes for higher wages, leading to industry raising prices, leading to government running deficits when it faced difficulty raising taxes. The [cycle] was broken by the bumper harvest of 1950, which destroyed the monopoly power of farmers. Planning perhaps helped, although it was more an evangelical exhortation to expansion than a contribution to scientifically decided resource allocation, and gradually disappeared . . .” (Kindleberger 124)
   2. “New men in nationalized industries, returning to the technocratic or Saint-Simonien tradition, pushed for innovations in chemicals, aircraft, railroading, automobiles, electricity transmission, machine-tool production. . . . Soon after the war France, which had played second fiddle to England for two or more centuries, was outstripping Britain led by old men.” (Kindleberger 124)
   3. decline after the glorious years
      1. “The glorious years were limited to a generation. By the 1970s with their oil shocks, leading to world slowdown, rates of growth tapered off, old divisions opened wider, and new ones sprang into view.” (Kindleberger 124)
         1. “Students and labor revolted in the events of May and June 1968.” (Kindleberger 124)
         2. “Petty commerce took to politics to form the Poujade movement to resist supermarkets.” (Kindleberger 124)
         3. “Farmers rioted against imports of cheap foodstuffs . . .” (Kindleberger 124)
         4. Labor rioted “against the competition of Algerian and south-of-the-Sahara immigrants from French colonies.” (Kindleberger 124)
         5. “Preoccupation with glory led to deGaulle (with the help of Jacques Rueff) attacking the dollar as the world currency.” (Kindleberger 124)
         6. “French resistance to the spread of English (or perhaps American) as world language was costly in expensive support of its former colonies to help maintain the number of French-speaking members in such organizations as the United Nations.” (Kindleberger 124)
      2. “In 1981 the Socialists elected a new government and started to put a program of nationalization into effect immediately . . . A middle-class strike in the form of capital flight brought about a change of course. France found itself in a short time in the (relative) decline phase of the national cycle.” (Kindleberger 124)
2. **conclusion**
   1. From 1600-1990, “there was not one long rise followed by a long decline, as in other cases, but a connected series of rises and declines, interspersed from time to time by revolution and breakdown.” (Kindleberger 124)

Britain

1. **Britain**: **the classic national life cycle**
   1. “Great Britain furnishes the classic example of the national life cycle of rapid growth in trade, industry, and finance, reaching a peak and world economic primacy, then slowly declining.” (Kindleberger 125)
   2. “The usual formulation” (Kindleberger 125)
      1. Britain’s primacy “starts with the industrial revolution of 1760 to 1830, with varying dates given by different analysts.” (Kindleberger 125)
      2. 1760s-70s: “the coming of the industrial revolution . . .” (Kindleberger 110)
      3. “Some regard the peak as the Great Exhibition in London’s Crystal Palace in 1851; others regard it as being later, perhaps 1870 or in the 1890s.” (Kindleberger 125)
      4. “Decline was accelerated by the two World Wars of 1914-1918 and 1939-1945, sometimes telescoped into one.” (Kindleberger 125)
      5. “The industrial phase was preceded by a rise in trade in the seventeenth and eighteenth centuries, followed by one in finance.” (Kindleberger 125)
   3. “Such is the canonical formulation. Each aspect, except for the early rise of trade, is disputed by revisionist historians. A burst of literature in the 1980s denied the revolutionary character of industrial growth in the last third of the eighteenth century and first third of the nineteenth. Primacy in the middle of the nineteenth century has been said, as noted in an earlier chapter, to have been preceded by a stage of world economic dominance in the seventeenth. Until recently a school of economic historians with econometric techniques denied not perhaps the fact of decline in the late nineteenth and early twentieth century, but the generally held view that it was the result of a loss of entrepreneurial energy or vitality. With mathematical models and contemporary data it was “proven” that entrepreneurs were maximizing profits.” (Kindleberger 125)
      1. the question whether “there was an industrial revolution” (Kindleberger 51)
         1. “. . . income per capita grew more slowly than first thought . . .” (Kindleberger 51)
         2. “. . . capital formation and savings did not make discontinuous jumps that were revolutionary rather than evolutionary . . .” (Kindleberger 51)
         3. But “exports soared after the American War of Independence . . .” (Kindleberger 51)
         4. And “technical innovation, measured by patents from 1766, moved up sharply with revolutionary force.” (Kindleberger 51)
      2. “Similar controversy can be found in the timing of British decline.” (Kindleberger 51)
         1. “Concern that the British economic leadership was slipping was voiced as early as the Great Exhibition of 1851 but mainly at the end of the nineteenth century.” (Kindleberger 51)
         2. “Study of the issue came in the late 1960s and 1970s, when a wave of econometric studies undertook to decide whether British entrepreneurs could be blamed for any decline that had occurred relative to other countries.” (Kindleber­ger 51)
            1. “Defense of the entrepreneur was undertaken with studies that indicated that the entrepreneur was maximizing income but was subject to constraint in the form of resources unsuited for contemporary technology, that is, that he was following the “equilibrium model” of the Central Planning Bureau (see chapter 2). The argument against the entrepreneur was that he was following this model, a static one instead of a dynamic one, known in Central Planning Bureau terms as the “free-market model with vigorous innovation.” The trouble with the British businessman in this view was intrinsic rather than extrinsic. The question was not whether there were bottlenecks as the economy encountered conditions that differed from those in the past, but whether entrepreneurs were sufficiently energetic to break through those bottlenecks, as they had done with those of the eighteenth century. On one showing, the new industries of the period [c. 1850-1900] were started for the most part in other countries, and in many cases their founding in Britain was undertaken by foreigners, testifying to the absence of new men in Great Britain.” (Kindleberger 52)
   4. “This chapter on the whole supports the traditional view of Britain as conforming to the model set out in chapter 2.” (Kindleberger 126)
2. **1500s**
   1. “. . . the booty brought back by Sir Francis Drake from his three privateering expeditions ending in 1573, 1580, and 1586 produced a large part of the imports of bullion into Britain, estimated at perhaps not more than £2 million or £3 million . . .” Keynes (*Treatise on Money* 1930 2: 156-57): the booty “may fairly be considered the fountain and origin of British Foreign Investment.” (Kindleberger 75 n. 175)
3. **1600s**
   1. “I proceed first to dispose of the notion that there was a British cycle of world leadership from 1688 to 1780 . . .” (Kindleberger 126)
   2. “In *The Stages of Economic Growth*, W.W. Rostow [1960 ch. 2] has a preliminary stretch before “take-off” called “preconditions,” in which there is a breakout from traditional society, changes in social attitudes, putting in place of social overhead capital, and in the British case, development of science, within the general Enlightenment that paved the way for the inventions of the industrial revolution. Something, but not much, is made of trade . . . Britain had a role to play in all [this], but it stretches belief to regard that fact as world leadership.” (Kindleberger 126)
   3. “The British were challengers.” (Kindleberger 126)
      1. Britain was challenger because of “the leadership in trade and associated industry (such as shipbuilding) of the Dutch. The British themselves were conscious of their role as challenger . . .” (Kindleberger 126)
      2. ways Britain challenged
         1. “They contested the Portuguese, the French, and especially the Dutch for dominance in the Far East . . .”
         2. They “interloped in Portuguese and Spanish trade with the West Indies, Brazil, and the west coast of South America . . .”
         3. They “achieved victory over the Spanish Armada in 1588 . . .”
         4. They “raided Cadiz.”
         5. “They were among the pioneers in voyages of discovery, acquiring colonies in North America and the whole of Australia and New Zealand.”
         6. “They chartered trading companies to the Levant, Africa, India, and Hudson Bay . . .”
         7. They “collected colonies in the East, by conquest of natives . . .”
         8. They collected colonies “in the West Indies, New Amsterdam, and Canada, by victories over their European masters.”
      3. Britain’s “population was greater, but the pivot of world trade and finance was Amsterdam and remained so until the middle of the eighteenth century.” (Kindleberger 126)
      4. Jonathan Israel (*Dutch Primacy in World Trade*, *1585-1740* 1989) “argues against the view that the Dutch were still ahead in 1780 at the time of the Fourth Anglo-Dutch War.” (Kindleberger 126)
         1. “Dutch trade held up in the Baltic in the bulk trades longer than in the more profitable eastern and colonial goods . . .” (Kindleberger 126)
         2. “Dutch trade held up . . . still longer in international lending.” (Kindleberger 126)
      5. Adam Smith compared (*Wealth* 826-27, 857) Britain and Holland. He “lacked the detailed data to demonstrate that Holland, not Britain, was economically dominant in at least the first quarter, third, or half of the eighteenth century, but his perception that such was the case must be taken into account.” (Kindleberger 127)
4. **trade**
   1. “As Dutch trade slipped from 1672 or 1700 or 1740, English overseas trade was growing impressively in the” 1600s-1700s. With growth came changes in its composition and direction. England had exported first wool, and then woolen textiles, and within the latter initially the “old draperies,” largely broadcloth and kerseys—a coarse, woolen, ribbed cloth, sold to Germany and Eastern Europe—and then the “new draperies”—bays, says, and fustians, which were lighter and were bought especially in southern Europe and the Levant beginning after the Thirty Years’ War. (A Venetian document [says] as early as 1514 that English kerseys formed “one of the most important foundations of trade in the world.)” (qtd. in Braudel 1949 [1972] 1: p. 213) (Kindleberger 127) (Kindleberger 127)
   2. “The process was the usual one of shifting from raw material to unfinished manufacture; upgrading it; then fulling, finishing, and dyeing; taking over the end processes from Leiden in the Netherlands; and finally marketing the finished product directly. The shift of trade went also from the export of raw materials—tin and copper in addition to wool—and import of finished European manufactures, to import of raw materials—iron, timber, silk, and colonial goods such as sugar, tobacco, and indigo—and to export of manufactures. Europe as a dominant source of imports and market for exports gave way to colonies, later independent countries such as the United States and the Union of South Africa, and semi-independent dominions, as sources of foodstuffs and raw materials and outlets for manufactures.” (Kindleberger 127)
   3. “In the early stages, exports were assisted by governmental extension of rights to export wool to Merchant Adventurers and the eviction of the Hanseatic League from the London Steelyard in 1598.” (Kindleberger 128)
   4. “Distant trade required the formation of corporations to raise the large amounts of capital needed for the big ships and substantial inventories involved . . .” (Kindleberger 128)
      1. 1555: the Muscovy Company
      2. 1577: the Spanish Company
      3. 1601: the East India Company
      4. 1605: the Levant Company
      5. 1670: the Hudson Bay Company
      6. 1672: the Royal African Company
   5. 1689: “Trade was turned over to private merchants . . .” (Kindleberger 128)
      1. 1689: “the monopoly of the Eastland (Muscovy) Company was withdrawn . . .”
      2. 1689: “the monopoly of the Merchant Adventurers, now in broadcloth rather than wool, was canceled.”
   6. other government assistance
      1. 1634: ship money, “a tax levied on towns . . . to provide funds to defend merchant ships from “thieves, pirates, and robbers of the sea,” including privateers . . .” (Kindleberger 128)
      2. navigation acts (Kindleberger 128)
         1. 1651: “government control and assistance were confined to the navigation acts, the first in 1651 . . .”
         2. 1660: the “Great Navigation Act” (Clapham 1910 [1962] 144)
      3. “. . . subsidies to fishing and the Newcastle-to-London coal trade, the nursery of seamen for merchant service and, of course, for the Royal Navy.” (Kindleberger 128)
   7. Adam Smith (*Wealth of Nations* 1776 [1937] 581-82): “To propose that Great Britain should voluntarily give up all authority over its colonies . . . would be to propose such a measure as never was, and never will be adopted, by any nation in the world. . . . If it was adopted, however, Great Britain would not only be immediately freed from the whole annual expense of the peace establishment of the colonies, but might settle with them in such a treaty of commerce as would eventually secure her to a free trade, more advantageous to the great body of the people, though less so to the merchants, than the monopoly which she at present enjoys.” (Kindleberger 128)
   8. increased British exports
      1. “The spurt in British exports was originally . . . in woolens from such an area as Leeds in Yorkshire . . .” (Kindleberger 128)
         1. 1772: “America took [one fifth] of English woolens and worsteds”
         2. 1800: “America took [two-fifths] of English woolens and worsteds”
      2. There was also an early spurt “in nails, buckles, metal buttons, pens, and hardware from Birmingham.” (Kindleberger 128)
      3. A spurt in cotton goods “came later with heavy imports of raw cotton from the American south . . .” (Kindleberger 128)
      4. “The shift from exporting to Europe to exporting to the American colonies required new merchant houses to cope with change to new conditions: credit evaluations and longer credits. Many old firms were bankrupted, or their owners retired; by 1830 only 21 of the surviving firms had links to the 135 merchant houses that had existed in 1782.” (Kindleberger 128)
      5. “Birmingham’s trade with the [128] United States kept growing and changing. Adam Smith attributed this [1776 (1937) 114-15] to the fact that its products were goods of “fashion and fancy,” as contrasted with goods of “use or necessity” produced in such a center as Sheffield, but the distinction is overdrawn. And Smith failed to anticipate the changes that the industrial revolution would produce.” (Kindleberger 128-29)
5. **industrial revolution**
   1. “The Industrial Revolution was the transition to new manufacturing processes in the period from about 1760 to sometime between 1820 and 1840. This transition included going from hand production methods to machines, new chemical manufacturing and iron production processes, improved efficiency of water power, the increasing use of steam power and the development of machine tools. It also included the change from wood and other bio-fuels to coal.” (“Industrial Revolution”)
      1. “A machine tool is a machine for shaping or machining metal or other rigid materials, usually by cutting, boring, grinding, shearing . . .” (“Machine Tool”)
   2. when
      1. 1700s: like “French commerce, British trade boomed in the eighteenth century, but British primacy cannot be said to have begun until the industrial revolution.” (Kindleberger 128)
      2. “Rostow dates “take-off” in Britain somewhat too precisely at 1783, when, after the Treaty of Paris had ratified the independence of the American colonies from George III, exports to the former colonies grew in a sudden spurt.” (Kindleberger 128)
   3. whether there was an industrial revolution
      1. “The debate over the issue waxed heated in the 1980s . . .” (Kindleberger 129)
      2. W.W. Rostow, Joel Mokyr, and R.M. Hartwell uphold it. (Kindleberger 129)
      3. Rondo Cameron (e.g., *Concise Economic History of the World*) and N.F.R. Crafts “attack the believers in the industrial revolution . . .” (Kindleberger 129)
         1. Cameron organized “a meeting of the Social Science History Association in New Orleans in October 1987 . . . to debate the issue . . .” (Kindleberger 129)
         2. “Crafts’s initial unwillingness to accept the reality of an industrial revolution rested on his estimates of relatively low rates of macroeconomic growth between 1700 and 1831 in some sectors of the economy for most portions of the period, and of modest growth in others, as shown in Table 8.1. Growth in industry picked up continuously through the century and a quarter, but not at a discontinuous rate.” (Kindleberger 130)
         3. British growth estimates, 1700-1830, percent/annum (Kindleberger 130 table 8.1)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| *period* | *agriculture* | *industry and commerce* | *services* | *per capita* |
| 1700-1760 | 0.6 | 0.7 | 0.8 | 0.3 |
| 1760-1780 | 0.1 | 1.0 | 0.8 | 0.0 |
| 1780-1801 | 0.8 | 1.8 | 1.3 | 0.8 |
| 1801-1831 | 1.2 | 2.7 | 1.4 | 0.5 |

* + 1. Were contemporaries aware of the industrial revolution?
       1. Adam Smith “was largely unaware” of it. (R.M. Hartwell disagrees.) (Kindleberg­er 129)
       2. Others “were aware of it . . .” (Kindleberger 129)
          1. “Samuel Johnson [1709-84] wrote that the world was running mad after innovations: “all the business of the world is to be done in a new way.”” (Kindleberger 129)
          2. “Men like Watt were fascinated by the Duke of Bridgewater canal of 1761, which initiated a surge of canal building that ended in the canal mania of 1793. Personages from all walks of life visited” the canal. (Kindleberger 129)
          3. Many “visited the Boulton and Watt steam-engine plant at Soho, near Birmingham, and the neighboring Wedgwood factory at Etruria: the king of Denmark . . ., Benjamin Franklin, Samuel Johnson,” etc. (Kindleberger 129)
          4. 1769: Edmund Burke “collected instances of the energies displayed in British manufacture . . .” (Kindleberger 130)
    2. “Whether there was or was not an industrial revolution is on the whole a semantic issue of little real economic interest . . .” (Kindleberger 129)
       1. “Historians have questioned . . . most blanket designations: Dark Ages, Renaissance, Mercantilism, Enlightenment, ancient régime, and the like.” (Kindleberger 129)
       2. Judge (1939 [1969] 59): “finding flaws in labels is much easier than finding patently superior substitutes.” (qtd. in Kindleberger 129)
    3. Economic historian N.S.B. Gras wrote (*Industrial Evolution* 1930 90) “that there was one break in evolutionary development, the Industrial Revolution (with initial capitals), which belongs beside the Fall of Rome, the Reformation, and the French Revolution as producing a discontinuous alteration in the world’s history . . .” (Kindleberger 129)
  1. “. . . whether there was a revolution depends largely on whether one measures savings, income per capita, exports, or invention and innovation.” (Kindleberger 130)
     1. “. . . it is wrong to seek a single reason for the industrial revolution, but if one were to do so the reduction of the rate of interest or a leap in the rate of savings would not be it.” (Kindleberger 130)
        1. T.S. Ashton thought (1948 11) the crucial reason why “economic development quickened” c. 1750 was “the lowering of the rate of interest in the half-century earlier . . .” (Kindleberger 130)
        2. W. Arthur Lewis and W.W. Rostow were overenthusiastic in believing that the rate of private savings jumped in the last third of the eighteenth century from 5 percent to 10 or 15 percent. . . . More recent research has made clear that the rate of savings rose but slowly, from 5 to 6 or 7 percent of national income . . .” (Kindleberger 130)
     2. “When it comes to innovation, however, there is more of a case.” (Kindleberger 130)
        1. Ashton (1948 90-91) gives “the number of patents issued in Britain in a single year . . .” (Kindleberger 130-31)
           1. pre-1760s: rarely more than a dozen
           2. 1766: “abruptly” 31
           3. 1769: 36
           4. “In the immediately following years it declined somewhat . . .”
           5. 1783: a “sudden” [130] jump to 64
           6. “This was followed by a slight decline . . .”
           7. 1792: a leap to 87
           8. down to an average of 67, “but from 1798 a slow rise”
           9. 1802: 107
           10. 1824 the number “shot up” to 180
           11. 1825: 250
           12. 1766-1825: a 2,000% rise in 60 years
        2. Even Cameron, in *Concise Economic History of the World* (1989 197), which denies “an industrial revolution, refers to the “remarkable series of innovations in the last third of the eighteenth century.”” (Kindleberger 131)
        3. Joel Mokyr “makes clear that the industrial revolution survives the skepticism [of] the new economic history . . .” (Mokyr, Joel. “The Industrial Revolution and the New Economic History.” In Mokyr, Joel, ed. *The Economics of the Industrial Revolution*. Lanham, MA: Rowman and Littlefield, 1985. 1-51.) (Kindleberger 131)
        4. Crafts and Harley accept “a fundamental transformation of the British economy from 1750 to 1850 [and now] agree that in the 101 years in question, “the growth of the British economy was historically unique and internationally remarkable. . . . [Industrial innovations] did create a genuine industrial revolution. . . .”” (Crafts and Harley 1992 704) (Kindleberger 131)
  2. “breakthrough inventions . . . before the spurt of the century’s end” (Kindleberger 131)
     1. 1709: “Abraham Darby’s substitution of coal for charcoal”
     2. 1709: “the Newcomen steam engine”
     3. 1733: “John Kay’s flying shuttle”
     4. c. 1764: “Hargreaves’s spinning jenny”
  3. “Then came the burst of inventions too familiar to bear repeating, not only in cotton textiles, steam engines, and iron but in pottery and metal wares (in Birmingham).” (Kindleberger 131)
  4. “Of crucial importance for the story of decline is that one success led to another through what Albert Hirschman called “linkages” (1958).” (Kindleberger 131)
     1. “Improvements in weaving like the flying shuttle created a bottleneck in spinning, which was solved by Richard Arkwright with the water frame for warp, by Hargreaves with the spinning jenny for weft, and later by Crompton’s mule for both.”
     2. “Watt’s steam engine increased the demand for coal and helped fulfill it by its use in pumps for draining the water encountered as coal mines went deeper.”
     3. “Wilkinson’s boring machine was applied to drilling pistons for Watt’s steam engines. So it went in a sort of leapfrog in cotton (woolens productivity improved more slowly) and in iron and steam engines, leading in the nineteenth century to the railroad.” (Kindleberger 131)
  5. “Revolutions” in demography, agriculture, commerce, and transport increased the market in width and depth to stimulate industrial output still more (Deane, 1965 [1979], chaps. 2-4).” (Kindleberger 131)
  6. the inventors
     1. “. . . inventors came from many walks of life and were, apart from a few scientists, amateurs, often called tinkerers. The contrast runs, of course, with French technical education.” (Kindleberger 131)
     2. “. . . many were dissenters—Quakers, Methodists, Baptists, and the like—that is, nonmembers of the Church of England and therefore excluded from government [131] service, high rank in the military, access to Oxford and Cambridge universities, and the learned professions (though not medicine).” (Kindleberger 131-32)
        1. “Men of ambition and drive blocked from success in one direction will often seek it in another.” (Kindleberger 132)
        2. “David McClelland, a psychologist, has stressed [1961] [that] men with stronger mothers than fathers seek to make a success, having what he calls a need for achievement . . .” (Kindleberger 132)
        3. Everett Hagen “has found that this “N-achievement” (for short) is present in many groups excluded from elite status (1962).” (Kindleberger 132)
        4. “It is not obvious, however, that the number of such groups rises and falls through economic cycles.” (Kindleberger 132)
        5. “To the extent that British society was open and allowed successful entrepreneurs to move into the established church, to acquire country houses, to become justices of the peace and members of Parliament, and to educate their sons in the schools of the elite, the number of energetic outsiders anxious to make their way is likely to have been higher earlier than later.” (Kindleberger 131-32)
  7. bottlenecks
     1. Fernand Braudel (1977 108): it was “astonishing that the boom of the British industrial revolution was able to develop at the end of the eighteenth, beginning of the nineteenth century without bottlenecks.” (qtd. in Kindleberger 132)
        1. “In my judgment this altogether misunderstands the position. Bottlenecks were there as always in growth, for growth is almost always unbalanced.” (Kindleber­ger 132)
        2. “What accounted for the industrial revolution was the availability of men of vitality and energy, plus requisite mechanical skill, to tackle the bottlenecks and break through them.” (Kindleberger 132)
     2. “At the end of the nineteenth century, bottlenecks were still reached when a process had gone a certain distance, but British entrepreneurs on the whole waited for them to be solved by someone else.” (Kindleberger 132)
     3. “Bottlenecks produced responses in many industries in the last third of the eighteenth century; a century later they seemed to have to wait for others to find solutions. . . . Whether bottlenecks help or hurt is a function of the response to them.” (Kindleberger 140)
     4. “At the end of the nineteenth century, bottlenecks were still reached when a process had gone a certain distance, but British entrepreneurs on the whole waited for them to be solved by someone else.” (Kindleberger 132)

1. **1800s**
   1. 1815-51: “The stretch from the Congress of Vienna [1814-15] to the Great Exhibition of 1851 was notable in Britain for economic growth in trade and industry . . .” (Kindleberger 132)
      1. “There were backward spots—of hand-loom weavers and hand-nailers as most textiles and the metals industry were becoming mechanized.” (Kindleberger 132)
      2. cotton
         1. “Spectacular growth took place in cotton textiles . . .” (Kindleberger 132)
         2. “The demand for cotton [ignited] the rapid spread of cotton-growing . . .” (Kindleberger 132)
            1. first in “the sea islands of Georgia [then] to the hills”
            2. “thence to Alabama and Mississippi”
            3. “later [to] Texas and California”
         3. “Machinery for spinning and weaving textile fibers grew rapidly. When domestic orders slowed down, textile-machinery manufacturers fought for removal of the prohibition on machinery exports, on the equitable ground that if the textile manufacturers were allowed to export, so should they be (Musson, 1972). The restrictions were loosened in 1828 by the free-trader William Huskisson, president of the Board of Trade, and were eliminated in 1843.” (Kindleberger 132)
      3. railroads
         1. 1825: “The improved Watt steam engine was mounted on wheels and shifted from roads to iron rails, and a railroad boom started on the line from Stockton to Darlington in 1825.” (Kindleberger 132)
         2. 1847: “The boom spread all over [132] the world, leading to a stock-market mania in 1847.” (Kindleberger 132-33)
         3. 1850: “Locomotive builders, engineers, and financiers took the railroad abroad. By 1850, Britain was “The Workshop of the World.”” (Chambers 1961 [1968]) (Kindleberger 133)
   2. free trade
      1. “In trade, as opposed to industry, the middle of the century produced a major change—the movement to free trade.” (Kindleberger 133)
      2. “William Huskisson was a free-trader to such an extent that he thought increased imports stimulated domestic production, rather than hurt it. Indeed this was the case when increased silk imports from France after 1815 pushed Macclesfield and Spitalfield to lower costs to compete, a result that required industrial vitality.” (Kindleberger 133)
      3. 1815-46: corn laws
         1. After Waterloo (central Belgium; 1815: Britain defeats Napoleon I), “The corn laws [were imposed] to hold up the price of corn (wheat in American parlance).” (Kindleberger 133)
            1. The “original meaning of [corn was] any grain that requires grinding (“corning” or querning) as part of its processing, particularly wheat.” (“Corn Laws”)
         2. These were “examples of British mercantilism. . . . the working man spent much of his wages on bread.” (Kindleberger 133)
         3. Landowners (“heavily represented in Parliament”) “desired to maximise their profits from agriculture by keeping the price [high].” (“Corn Laws”)
            1. The “new class of manufacturers and industrialists” (not well represented in Parliament) “wished to maximise their profits from manufacture by reducing [wages].” (“Corn Laws”)
         4. 1832: “With the Reform Bill of 1832, which shifted the weight of voting in the House of Commons to cities from agricultural districts with their “rotten boroughs” (districts where the member was nominated by an individual aristocrat rather than elected by democratic procedures), the manufacturing interest, seeking export markets, became impatient.” (Kindleberger 133)
         5. “The corn laws repeal had two proximate causes . . .” (Kindleberger 133)
            1. “the devastating harvest of 1845 along with the potato blight over much of northern Europe and Ireland, on the one hand . . .” (Kindleberger 133)
            2. “understanding by Sir Robert Peel, the prime minister, that lower food prices would help labor, not profits in manufacturing, and hurt landlords, not farm laborers in agriculture.” (Kindleberger 133)
      4. 1841-46: “A long step to free trade [was taken] when more than six hundred duties were eliminated and those on over one thousand other items were reduced under the slogan of “fiscal reform”—getting rid of those duties that raised little revenue but had high collection costs. The Board of Trade especially had been converted to the manufacturers’ case, ably pled by Richard Cobden and John Bright. Believing strongly in Hume’s law that increased imports gave rise almost automatically to increased exports, the government was little interested in reciprocal lowering of duties abroad in exchange . . .” (Kindleberger 133)
      5. 1846: “The movement to free trade was extended almost immediately after repeal of the corn laws in 1846 by repeal of the timber duties and the navigation acts . . .” (Kindleberger 133)
         1. The navigation acts became “almost infinitely complex through bilateral negotiations with a number of countries, [and] by the Cobden-Chevalier treaty with France in 1860, exchanging removal of discrimination against French wines (in favor of Spanish and Portuguese) for wider markets for British manufactures.” (Kindleberger 133)
      6. 1860s: “Ultimately under Gladstone in the 1860s came the gradual elimination or sharp reduction of remaining duties on goods produced in Britain, particularly meat, eggs, and dairy products, leaving a “tariff for revenue only” on items like wine, brandy, sugar, and tobacco, on which tariffs had no protective effect.” (Kindleberger 133-34)
      7. “The removal of the navigation laws and timber duties, along with removal of the tariff on grain, especially oats for British horses, produced a surge in Scandinavian exports carried in Norwegian ships, which induced a rapid stimulus to growth in that part of Europe.” (Kindleberger 134)
      8. “Despite the repeal of the corn laws, the 1850s were a period of “high farming” in England with rapid technical progress. Transformation in Britain from the growing of wheat to production of meat and dairy products, as rising levels of economic well-being went in considerable part into hearty breakfasts, was minimal, leaving Denmark and Holland to take advantage of the new market opportunity.” (Kindleberger 134)
      9. “The British have been accused of “free-trade imperialism,” opening their market to grain and other agricultural products so as to slow down the transformation on the European continent from agriculture to competitive manufactures.” (Semmel 1970) (Kindleberger 134)
         1. “The British lead in tariff reduction, as it happened, was followed for a quarter century by France, Germany, Italy, and others lowering tariffs directly and through bilateral agreements.” (Kindleberger 134)
         2. “Whether the British free-trade movement was entirely selfish or had an element of the provision of a public good, along with peace (with only an occasional outbreak like the Crimean War of 1856) and the gold standard, is still debated.” (Kindleberger 134)
         3. “Relevant to the outcome is that free-trade policies remained in place until World War I, and opposition to tariffs was even the weapon used by the Labor party in bringing down the Tory government in 1923.” (Kindleberger 134)
      10. 1880s
          1. 1879: “With its new Reich of 1871, the Germans . . . raised tariffs [with] Bismarck’s famous tariff of rye and iron.” (Kindleberger 134)
          2. 1880s: the price of wheat fell “as fast and economical steamships, and railroads from plains to ports, brought cheap grain to Europe from Canada, Australia, Argentina, the Ukraine, and the United States.” (Kindleberger 134)
             1. “. . . Europe lost faith in free trade with the fall of the price of wheat . . .” (Except for Denmark, Switzerland, Holland, and Belgium.) (Kindleberger 134)
          3. “Britain nevertheless clung to free trade, whether from path dependency, collective memory of the glories of high farming in the 1850s, or conviction by the dominant manufacturing interest that free trade benefited it and the country, even when other countries were beginning to impose duties against British goods.” (Kindleberger 134)
             1. 1890s: “An Empire-preference movement of Joseph Chamberlain in the 1890s, which would have involved imposing a general tariff, to be reduced or eliminated against imports from the dominions and colonies, proved premature and was not realized until the meeting on trade at Ottawa in 1932.” (Kindleberger 134)
             2. “The persistence of free trade, less and less in Britain’s short-term interest, is a classic example of the dominance of collective memory, or institutional lag, in counterexample to the Coase theorem.” (Kindleberger 134)
             3. The Coase theorem says “that institutions adapt readily to economic needs except when transaction costs—the cost of making the change from one set of institutions to another—are so high as to frustrate a desirable transformation.” (Kindleberger 10)
2. **finance**
   1. 1688-1720: London “achieved a financial revolution that substituted an efficient system of government credit for one that had been jerry-built and subject to royal whim.” (Kindleberger 126)
   2. 1815-50: “the beginnings of international long-term lending, beyond the financing of exports and imports.” (Kindleberger 132)
   3. c. 1815: “British foreign lending may be said to have begun after the Congress of Vienna in 1815 with Baring Brothers financing of the French government’s 700-million franc indemnity to the allies. This loan was a great success, and like many financial successes before and later, proved to be a turning point.” (Kindleberger 135)
   4. “A few loans were made to European borrowers . . .” (Kindleberger 135)
   5. 1820s: “the next great financial movement came with the independence of the Latin American colonies from Spain and Portugal in the 1820s and a surge of South American government borrowing from London, which ended in a crash in 1825.” (Kindleberger 135)
   6. “Boom and crash in foreign securities were paralleled by similar movements in insurance.” (Kindleberger 135)
   7. 1830s: a “boom in domestic railway loans.” (Kindleberger 135)
   8. 1840s: Baring Brothers “financed a loan to the French Rothschild railroad, the Chemin du Fer du Nord. The bonds were issued in pounds sterling in London and were bought largely by French investors as the London house intermediated, for a commission, between French borrowers and French lenders. It was a learning experience for the French: thereafter investors and railroad borrowers traded with one another directly in French francs.” (Kindleberger 135)
   9. 1848: “The French Revolution of 1848 that resulted in many British railway workers being assaulted, and one or two killed, led to a drastic change in British interest in Continental securities.” (Kindleberger 135)
      1. British foreign investment went to Europe: (Kindleberger 135)
         1. 1830 66%
         2. 1854 55%
         3. 1870 25%
         4. 1900 5%
      2. “. . . cotton-piece goods exported to Europe followed a parallel pattern, starting earlier.” (Kindleberger 135)
         1. 1820 50%
         2. 1850 16%
         3. 1880 8%
         4. 1900 6%
      3. “In contrast, in the Far East, including especially India but also China and Java, the proportion went”: (Kindleberger 135)
         1. 1820 6
         2. 1850 31%
         3. 1880 54%
         4. 1900 58%
      4. “. . . the flow of capital abroad and the gentle decline of domestic industry were both evidence of the same movement, away from risk-taking (as it was thought at the time) to the financing of foreign governments and railroads, just as government and railroads had been financed at home.” (Kindleberger 135)
   10. 1870-90
       1. “The enlargement of cotton-spinning mills in the 1870s to 70,000 spindles and more, and of shipping companies converting from sail to steam, had added new industries that needed and attained finance in the London capital market rather than through local capitalists and plowed-back profits.” (Kindleberger 135)
       2. “A number of private companies went public, and the monies received by original owners or their heirs may have been invested abroad, especially during depression at home.” (Kindleberger 135)
       3. “There were from time to time flurries of domestic investment, as in breweries following the successful public flotation of the private Guiness company in October 1886, running parallel to a boom in Argentine [135] securities that ended in the crash of 1890.” (Kindleberger 135-36)
   11. 1900s
       1. 1904-13: “The boom in foreign securities from 1904 to 1913 took abroad close to half of British savings and 5 percent of national income . . .” (Kindleberger 136)
       2. In primacy, Britain produced an enormous flow of capital to the world outside Europe but especially to the Empire, the United States, and Argentina.” (Kindleberger 136)
       3. “Lance Davis and Robert Huttenback [1986] . . . try to demonstrate that the costs of defense of the Empire fell on the British middle-class taxpayer while the benefits accrued to business interests in the dominions and colonies and the British elite at home. In public-goods theory, the leader pays for prestige, and free riders—in this case colonies and dominions—escape any substantial share of the cost. The authors suggest that some of the basis for this was the unfortunate experience of George III and Lord North in trying to tax the American colonies in the 1770s to share the defense burden of the mother country.” (Kindleberger 136)
          1. “A recent paper [Offer 1993] questions the Davis and Huttenback conclusion, partly on statistical grounds and partly in the belief that they underestimate the contribution made by the Empire in defending Britain in World War I.” (Kindleberger 136)
          2. A deeper question, raised by Patrick O’Brien, is whether defense of the Empire—a showy and prestigious project—diverted attention from the real concern, containing the aggressive push of Germany in Europe, and on this account proved dysfunctional (1990).” (Kindleberger 136)
   12. W.P. Kennedy (1987 153ff) tries to show “that the London capital market funneled capital abroad that could have been helpful to domestic industry, particularly on a risk-return basis. Risky industries had difficulty in borrowing at home, even when experience with foreign investments into companies like Siemens in electricity and Mond in chemicals had excellent track records.” (Kindleberger 136)
       1. “Kennedy’s book hits hard on the failure of British capital to flow smoothly back and forth between foreign and domestic uses, based on a judicious calculation of risk and return.” (Kindleberger 136)
       2. Michael Edelstein (1982), however, found no bias in the market. (Kindleberger 136)
       3. The question remains open. (Kindleberger 136)
   13. gold standard
       1. “A major financial aspect of British primacy was use of the international gold standard, occasionally interpreted as the sterling standard, in contrast to a later dollar standard.” (Kindleberger 136)
   14. London and Paris
       1. “London and Paris were financial rivals for much of the nineteenth century . . .” (Kindleberger 136)
       2. The “French view that early in the century Paris was the international clearing house for settling payments among Britain, the United States, and the European continent [Braudel, Bouvier, Levy-Leboyer] stretches belief.” (Kindleberger 136)
       3. 1850-70: “The French rise to prominence as an international financial center came rather in the 1850s, but was lost in 1870 when the Bank of France suspended gold convertibility in the Franco-Prussian War [1870-71].” (Kindleberger 136)
       4. “Bagehot stated [1873] that before 1870 there were two stores of ready cash in Europe, the Bank of England and the Bank of France, but since the French suspension “the whole liability for . . . payments in cash is thrown on the Bank of England.”” (Kindleberger 136)
       5. “The Bank of England turned for [136] help in crisis to other central banks, including the Bank of France, both before and after 1870.” (Kindleberger 136-37)
       6. 1870-1914: “. . . Britain ran the world’s monetary system that financed trade largely in sterling. This financial role was taken up as the role of leading the world toward freer trade was coming to an end.” (Kindleberger 137)
          1. Formally, the UK currency is the “pound sterling.” (The English Normans’ silver penny was the “sterling,” from OE *steorra* “star” + diminutive “-ling,” “little star.” (“Pound Sterling”)
          2. The Saxon kingdoms minted 240 sterlings from a pound of silver . . . “pounds of sterlings” [was] later shortened” to “pound.” (“Pound Sterling”)
   15. 1900: “The Boer War in 1900 marked a stage in British primacy in two senses.” (Kindleberger 137)
       1. “First, its protracted character and intermediate setbacks hurt British self-confidence as the Vietnam War was to do” to the US. (Kindleberger 137)
       2. “Second, with a tight money market in London and need to borrow to finance the war, the British Exchequer placed part of a £30-million loan in New York, to the distress of London.
       3. Noyes (1938 178, qtd. in Burk 1992 359-60): “The assertion began to be heard in the United States that New York was destined to oust London as the central market of the world.” (qtd. in Kindleberger 137)
       4. “The New York loan occurred during a cutoff of South Africa gold from its normal shipment to London; with its resumption after the war, and the enormous boom in British foreign lending, the anxiety died down.” (Kindleberger 137)
3. **peak**
   1. 1850-73: a “great Victorian boom” (Victoria, r. 1837-1901) (Kindleberger 133)
4. **fact of industrial decline**
   1. Some industries did not decline. (Kindleberger 138)
      1. 1870: in Pilkinton’s glass, “a new generation took control . . .” (Kindleberger 138)
      2. The new industries of sewing machines and bicycles were “built on the remnants of the Coventry watch and ribbon industries, the former leaving skilled workers redundant, the latter leaving unskilled” redundant.
      3. paints, explosives, soap, the Parsons steam turbine, and shipbuilding in its burst of energy on the eve of World War I before succumbing to competition after the war.” (Kindleberger 138)
   2. “But the general story in British industry in the period was dreary, in coal, iron and steel, cotton, woolen and worsted, boots and shoes, electrical products, chemicals, and the mercantile marine.” (Kindleberger 138)
   3. German competition
      1. “German competition was particularly unpleasant when, following the Marks of Origin Act of 1887, passed by Parliament in an effort to identify shoddy import goods imitative of British products, “Made in Germany” proved to be a mark of quality . . .” (Kindleberger 138)
         1. The pattern was repeated in the US “when “Made in Japan” changed its image.” (Kindleberger 138)
   4. American competition
      1. 1851: “There were some visitors to the Great Exhibition who were concerned by the appearance of new American machinery, such as the Colt revolver and the McCormick reaper.” (Kindleberger 133)
      2. 1867: by the “exhibition in Paris, doubts about British industrial supremacy were growing.” (Kindleberger 133)
   5. 1850-73: even in the Victorian boom, R.A. Church observes (1975 47-48) “signs of weakness in this industry and that, and suggests the possibility that business euphoria in the 1850s and 1860s might have led the “workshop of the world” to become the cradle of late Victorian complacency.” (Kindleberger 133)
   6. Britain’s industrial decline can be shown, “like the question about the industrial revolution, with detailed analysis of particular industries.” (Kindleberger 137)
      1. Marshall of Leeds “went from being the world’s leading flax spinner to liquidation in a generation and a half—the classic clogs-to-clogs pattern . . .” (Kindleberger 137)
      2. Welsh tinplate had a “phenomenal increase in exports as canned food and gasoline came into widespread use after the 1870s, especially in the United States . . .” (Kindleberger 137)
         1. But the increase “failed to produce a change in the production technique of dipping sheets one at a time by small-scale, local, satisfied producers . . .” (Kindleberger 137)
         2. A “small increase in the McKinley tariff gave rise” to a “rapid development in the United States of new processes (strip mills and pulling rolled sheet through tin baths).” (Kindleberger 137)
      3. “In old industries . . . technological improvement in product and process was slow.” (Kindleberger 137)
         1. E.g., “cotton textiles, coal, iron, and steel (including rails and galvanized iron sheet for roofing), plus railroad equipment . . .”
      4. “New industries “often relied on foreign entrepreneurs.” (Kindleberger 137)
         1. E.g., “chemicals, electricity, automobiles . . .”
      5. An English manufacturer of caustic soda “clung to the obsolete Le Blanc process when the profitability of a changeover to the Solvay method was readily apparent.” (Kindleberger 137)
      6. “An innovative manufacturer like William Morris in automobiles had difficulty inducing domestic machine shops to produce components for his assembly, and [137] was forced to produce them himself or turn to the United States.” (Kindleberger 137-38)
      7. 1988: the “productivity of foreign companies in Britain in 1988 was 46 percent higher than that of the equivalent British firms.” (*Economist* [27 Aug. 1993]: 46-47) (Kindleberger 138)
5. **time of industrial decline**
   1. “Signs of decline, and spots of vitality, were visible from at least 1870.” (Kindleberger 138)
   2. “But the when . . . turns on the criterion or criteria chosen, and the counterfactual, the basis of comparison.” (Kindleberger 138)
   3. “The growth of income per capita at constant prices did fall . . .” (Kindleberger 138)
      1. 1820-70 1.5%
      2. 1870-1913 1%
      3. 1913-50 0.9%
      4. 1950-73 2.5%, “the so-called golden age”
         1. “This last number is “the highest since 1700 . . .” (Kindleberger 138)
         2. The last number is large for British history, small compared with levels three times as large in Japan and about twice as large in Germany, Italy, and France.” (Kindleberger 138)
         3. “. . . in the 1980s and 1990s British income per capita was progressively passed by incomes in Germany, France, and Italy.” (Kindleberger 52)
   4. “As in the industrial revolution, I am not disposed to put much emphasis on slow-moving aggregates, as contrasted with national competitivity in world export markets and performance in invention and especially innovation.” (Kindleberger 138)
   5. “Technology diffuses. Competitive industry starts up abroad . . . A country [has declined] when, [138] instead of other countries imitating its leading products, it starts to copy those originating abroad, as Britain did in the 1880s and 1890s, especially in many, but not all, chemicals, in electrical products, and in automobiles.” (Kindleberger 138-39)
   6. “One industry about which much controversy has swirled is shipbuilding . . . On the whole it was an exception to the story of decline.” (Kindleberger 139)
      1. “Britain produced 60 to 80 percent of the world tonnage before World War I, aided by naval contracts and by the ability of those replacing old ships to sell them secondhand on world markets.” (Kindleberger 139)
      2. “Skilled craftsmen who worked to their own standards and were trusted in the building of specialized ships to order more than made up for the more highly organized methods of the competition in Europe and ultimately in the United States and Japan.” (Kindleberger 139)
      3. “The advantage was a dwindling one.” (Kindleberger 139)
         1. “Success with steam and coal-burning did not translate readily into oil and diesel, although the Royal Navy was interested in improved design in the nineteenth century.” (Kindleberger 139)
         2. pre-1914
            1. “Diesels, oil, and M. V. (motor vessels in which oil was converted to electricity to drive the propulsion) were being developed in Scandinavia before the war . . .” (Kindleberger 139)
            2. “. . . assembly-line methods were replacing craft methods outside Britain.” (Kindleberger 139)
            3. “In addition, British shipwrights were resisting encroachment on their monopoly of work as wooden ships gave way to iron and steel and boilermakers took over . . .” (Kindleberger 139)
            4. “. . . boilermakers in turn resisted the introduction of pneumatic machine tools (after 1900) capable of being handled by less skilled apprentices.” (Kindleberger 139)
         3. “After World War II there was no doubt. British shipbuilding was uncompetitive. There were, however, differences by regions, with the south of England losing out to the Clyde, Tyne, and Belfast regions, which achieved a degree of vertical integration among metallurgy, engineering, and shipbuilding.” (Kindleberger 139)
   7. “Perhaps the most significant measure, symmetrical with the inventions, innovations, and patents on the upside, would be failures to solve technical problems that in due course were solved elsewhere.” (Kindleberger 139)
      1. “the delay in adopting the Gilchrist Thomas process, developed in Britain in 1878 and eagerly applied in France and Germany, to the East Midland basic ores until Americans solved the technical problem in 1915”
      2. “the problem of coking fines in steel-making that did not find full solution for thirty years”
      3. “the fact that it took the pottery tunnel kiln, developed in 1912, forty years to come into general use”
      4. “the seventeen-year development period for 100-inch twin grinders and continuous twin polishers at Pilkington’s plate-glass plant”
      5. “the failure of English electrical engineers to respond to the demonstration of long-distance transmission of three-phase current”
      6. “decade-long efforts by James Marshall to change from mechanical retting of flax for linen to use of the Schlumberger combing machine, only to be given up in 1874”
      7. “experiments undertaken by the Brush company with a Swedish turbine, which proved “expensive” and were [139] abandoned”
      8. “the endless “teething troubles” encountered by companies in electric lighting, who gave up”
   8. “One could doubtless find similar failures alongside the successes of the industrial revolution. . . . The fact that successes are pointed to in the industrial revolution and failures are highlighted at the end of the nineteenth century may by itself be taken as an indicator of fundamental change.” (Kindleberger 140)
   9. “Many explanations have been given, especially by econometricians, for these delays and failures, particularly in iron and steel: the given state of technology, nature of demand, location of the ores in relation to markets (McClosky, 1973; Temin, 1966). These exercises are based on the use of a static model of maximization, rather than one with dynamic features, as illustrated in purely theoretical terms by W.H. Phillips (1989).” (Kindleberger 140)
   10. “Additional light on the British position after World War I is provided by the second volume of Lord Skidelsky’s magisterial biography of Keynes (1994). Keynes regarded British capitalism as dominated by “third-generation men,” by reason of the hereditary principle (ibid., pp. 232, 259, 262). Despite the 1930s’ depression in the United States, he saw that country as having nineteenth-century “fluidity,” the equivalent, I judge, of vitality or capacity to transform, this in contrast with the sclerotic British economy (ibid., pp. 271, 440).” (Kindleberger 140)
   11. “Moreover, Keynes was distressed at the passing of financial leadership from London to New York, hoping in the 1920s that Britain would cooperate with Germany in resisting the Americanization of the world (ibid., pp. xxvi). He shared the usual cultural prejudices of his class against American materialism, and resented the slipping of British power and prestige to the United States (ibid., 489). On occasion in his voluminous writings, he held that Britain must steer clear of cooperation with the United States, managing its monetary standard independently (ibid., p. 158). He cheered when the pound left gold in September 1931, “regaining at one stroke, the financial hegemony of the world” (ibid., p. 379). Later, of course, he switched back to cooperation.” (Kindleberger 140)
   12. “Sidelsky himself supports the view of Britain as a third-generation country, describing Keynes as “perhaps the first flower of an autumnal civilization” (ibid., p. xviii).” (Kindleberger 140)
   13. Aaron Friedberg
       1. “One analysis of British decline that goes beyond the economic to include the imperial role is *The Weary Titan* (1988) by Aaron Friedberg . . .” (Kindleberger 140)
       2. “Friedberg’s analysis concentrates on the years from 1895 to 1905 when critical questions of trade, finance, the Royal Navy, and military defense of India plagued the British government.” (Kindleberger 140)
          1. “The trade issue, raised by Joseph Chamberlain, was whether to impose tariffs with preference for the Empire.” (Kindleberger 140)
          2. “Finance turned on the national budget, strained by the expenses of the Boer War, and whether the limits of taxation had been reached.” (Kindleberger 140)
          3. “Britannia’s rule of the waves, threatened by [140] constructions of battleships by France, Russia, Germany, the United States, and Japan, posed the question whether Britain should or could continue to protect its world empire or should give up the defense of Canada (against the United States) in the Atlantic and make an alliance with Japan in the Pacific.” (Kindleberger 140-41)
          4. “After the Boer War had been won, protecting the water route to India, the military question focused on the need to defend India against Russian moves on land.” (Kindleberger 141)
          5. “Decision-making in all areas was handicapped by inadequate information, especially before the availability of estimates of national income.” (Kindleberger 141)
          6. “The two military questions were drastically transformed by Japan’s defeat of the Russian navy at Tsushima in May 1905. In Europe the rise of a German military threat was thought to be met by the alliance with France and Russia. But Friedberg emphasizes that there was no coherent overall plan, and that especially in the economic sphere, won by the free-traders against imperial preference on the ground that it would raise the cost of food, tariffs were in any case not the answer (ibid., p. 295). The free-traders themselves had only one positive proposal, to the extent that decline was recognized: education. Alfred Balfour, the prime minister, ridiculed this as an inadequate answer to foreign tariffs on British exports.” (Kindleberger 141)
6. **causes of industrial decline**
   1. table 8-2 forces making for and resisting growth in England, 1851-1950 (Kindleberger 144-45) (From Kindleberger, Charles P. *Economic Growth in France and Britain*, *1851-1950*. Cambridge, MA: Harvard UP, 1964. 328-29.) “(1) strong factor, (2) moderate factor, (3) weak factor. Asterisk: a factor that might have operated oppositely under different circumstances.” (145)

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| --- | --- | --- | --- |
| *period* | *forces making for growth* | *forces and frictions*  *resisting growth* | *potentially significant forces of negligible effect* |
| 1851-1875 vigorous expansion | technological innovation (1)a | government regulation (3) | lack of technical training |
|  | b\*bouyant exports due to foreign demand, gold mining, capital exports (1) | \*speculation in securities, cotton spinning (2) |  |
|  | \*war (2) |  |  |
|  | high farming (3) |  |  |
|  | \*amateur spirit (2) |  |  |
| 1873-1896 Great Depression | capital exports from 1885-1890 (3) | slowdown of gold output (3) | family enterprises |
|  | rising real wages from terms of trade (2) | monetary disorder (3) | amateur spirit |
|  |  | \*expansion of overseas supplies, agricultural products (2) |  |
|  |  | initial excess capacity and high financial costs (2) |  |
| 1896-1913 Moderate expansion | \*firm export demand due to capital exports, gold output (2) | aging entrepreneurship (3) |  |
|  | \*domestic investment in traditional industries (2) | specialized small units joined through merchants, markets (2) |  |
|  |  | continued lack of technical capacity (2) |  |
|  |  | \*amateur spirit (2) |  |
| 1919-1931 stagnation | accumulated depreciation (3) | speculation of 1919-1920 (2) | wartime manpower losses |
|  | wartime inventions (2) | overvaluation of sterling (1) |  |
|  |  | \*decline in overseas demand for british textiles, coal, ships (2) |  |
|  |  | technological backwardness (2) |  |
| 1931-1939 moderate expansion | devaluation (2) | \*stagnant exports (3) |  |
|  | \*improved terms of trade (2) | weak technology (2) [144] |  |
|  | rearmament (2) |  |  |
|  | abandonment of hope in prewar structure (1) |  |  |
| 1945-1950+ slow growth | foreign assistance (2) | leadership exhaustion by war (1) | nationalization of coal, steel, railways, bank of england, etc. |
|  | investment in new industries, engineering, electrical (1) | doctrine of fair shares and continuation of class divisions (2) |  |
|  |  | loss of assets, increase of liabilities during war (3) |  |
|  |  | limited technical capacity (2) |  |

* 1. “Lists of reasons found by one analyst and another, for the most part not mutually exclusive, are”: (Kindleberger 141)
     1. “the penalty of the head start”
     2. “the amateur tradition of British society”
     3. “the British system of education”
     4. “openness of British society, which drew off successful entrepreneurs and their heirs from industry into public life and finance”
     5. “the particular organization of British industry with institutional rigidities that slowed down needed transformation to large firms of efficient scale”
     6. “the resistant character of the labor union”

1. **cause of decline**: **penalty of the head start**
   1. Here is seen “the power of path dependency.” (Kindleberger 141)
      1. path dependency: “rigidities in British economic and social institutions . . .” (Kindleberger 142)
   2. “British railroads retained an inefficient size of railroad cars for coal until nationalization after World War II because there was separation of ownership of the roadbed and motive power on the one hand (the rail companies), and the coal cars, owned by the mines. Vertical integration that would put the cars under ownership of the railroads would have brought the cars up from 10-ton size to 20- or 40-ton size as in other countries.” (Kindleberger 141)
      1. A revisionist view . . . holds that British railroad history produced [141] an efficient solution: small cars, even in coal, were useful because of the short hauls from mines to retail distributors with little storage space.” (Kindleberger 141-42)
   3. “Standardization can be imposed on an industry by government—though the Great Western railroad refused to adopt the standard of the Gauge Act of 1846 until the 1890s—or by a large firm. Industry in Britain in the nineteenth century received little guidance from government, except from military and admiralty orders concerned with exact specifications.” (Kindleberger 142)
   4. “Small industry on the whole grew up on its own. Diversity of specifications was worsened by the fact . . .” (Kindleberger 142)
      1. “. . . each railroad and municipality had its own engineer, who ordered equipment to his ideas. The result was two-hundred types of axle boxes, forty different types of hand brakes for rolling stock, and many different types of automatic brakes when these were belatedly adopted.” (Kindleberger 142)
      2. “. . . two-hundred sizes and designs of manhole covers were produced . . .” (Kindleberger 142)
      3. Electric “companies in different regions [had] their own engineering consultants . . . by World War I there were seventy different generating stations, fifty systems of supply, twenty-four voltages, and ten frequencies.” (Kindleberger 142)
      4. Britain had “122 channel and angle sections in steel compared with German industry’s 34.” (Kindleberger 142)
      5. Saul (1968 211-12): British “lack of standardization . . . lost to German, American and Canadian firms most of the world’s trade in ploughs.” (Kindleberger 142)
   5. “In some industries merchants were so thick . . . between producers and consumers, that they inhibited technical improvements.” (Kindleberger 142)
      1. “The merchant system in effect imposed a barrier between consumer and producer, the merchant telling the producer, “they don’t want them like that,” and telling the consumer, “they don’t make them like that.” (Kindleberger 142)
      2. In cotton textiles, “Merchants in Manchester ordering from manufacturers for their foreign customers specified thirty types of low-grade poplin when a user could at best distinguish three.” (Kindleberger 142)
      3. machine tools
         1. “Machine-tool manufacturers dealt with single agents to sell their products, with the agent little interested in solving user problems or finding uses for new tools.” (Kindleberger 142)
         2. “Vertical integration of manufacturing and marketing would have advanced technical improvements, with the machine-tool user indicating what he wanted for his purposes and the maker seeing the extent to which the need could be satisfied at reasonable cost.” (Kindleberger 142)
      4. “. . . rigidities in British economic and social institutions prevented firms from acquiring control over markets, as well as over labor and management.” (Elbaum and Lazonick 1984, Elbaum and Lazonick 1986, Lazonick 1991) (Kindleberger 142)
         1. “The Elbaum-Lazonick approach is a particular variant of the institutional model relying on path dependency . . .” (Kindleberger 142)
         2. “M.W. Kirby [1992] criticizes Elbaum and Lazonick for focusing too tightly on a single form of business organization, which, in their view, the British economy missed out on. [Kirby explains the decline] by a variety of rigidities or habits inherited from the successful past that, without an infusion of new men, posed transaction costs that proved too high. It can be called “economic arteriosclerosis.”” (Kindleberger 142-43)
      5. “Note that this discussion of rigidities differs from that of [Mancur] Olson, which is focused on distributional coalitions, that is, vested interests, rather than different ways of thinking and difficulties of changing directions after an initial start. Being set in one’s ways is different from forming alliances with like-minded people with the same interests to work against (or for) certain changes.” (Kindleberger 143)
      6. “Rigidity in industry is doing the same thing in much the same way. For the country as a whole, it blames the slowdown of economic growth on the failure of old markets to keep on expanding, as in cotton textiles, steel rails, galvanized iron roofing, and the like.” (Kindleberger 143)
      7. “With growth in world income, a given good is income elastic on its introduction, becomes income inelastic as it is incorporated into everyday standards of living, and may in due course become an inferior good—like galvanized iron sheets for roofing—one for which demand decreases as income rises.” (Kindleberger 143)
      8. “Engel’s law requires that with economic growth a country must transform out of old into new lines of industry and services. With old firms and old industrial traditions, this is difficult to do.” (Kindleberger 143)
2. **cause of decline**: **amateur tradition**
   1. Amateur inventors in the industrial revolution were “highly successful.” (Kindleber­ger 143)
   2. “As time went on, however, increasing complexity of process, and in many cases product, made amateurism less helpful. “Gentlemen and Players,” the title of a paper on entrepreneurial failure in Britain, is patterned after occasional cricket matches between amateurs and professionals, between whom was a wide social divide (Coleman, 1973). Gentlemen assumed leadership in the [143] countryside and in public life; bit by bit leadership in industry was taken over in the second and third generation by managers and family retainers from the shop floor. It was difficult for able subordinates to rise to the top of a family firm unless they came from the same social circle as the heirs of the founder, which heirs had been to public school and Oxford or Cambridge. The inheritor-owners were interested in maintaining dividends, at the expense of plowed-back profits to enlarge investment or research in new lines, and sometimes in having the firm go public so as to invest in trustee securities, but gave no assurance of vigorous management such as had been present at the start.” (Kindleberger 143, 145)
3. **cause of decline**: **education**
   1. “Blaming the culture comes down in most instances to criticism of the public schools and Oxford and Cambridge.” (Kindleberger 145)
   2. pre-1850: “science had been advanced in a series of provincial societies such as the Birmingham Lunar Society and the Manchester Philosophical and Literary Society, but on an amateur rather [145] than a purposeful basis . . .” (Kindleberger 145-46)
   3. pre-1850: science was advanced “purposefully at Edinburgh University, and largely by outsiders.” (Kindleberger 146)
   4. 1851: “British leaders were not unaware of the need for technical education. At the time of the Great Exhibition, Prince Albert, Queen Victoria’s consort, native of Germany, urged steps toward technical education.” (Kindleberger 145)
   5. c. 1850s: “Beginning in the middle of the nineteenth century, however, the government appointed a series of select committees and royal commissions on scientific instruction . . .” (Kindleberger 146)
      1. 1883 “Royal Commission on Technical Instruction”
      2. 1889 Technical Instruction Act, “financed with “whiskey money” in 1891”
      3. 1895 “Technology was accepted as a subject of change at Cambridge”
      4. 1895 “expansion of examinations in mathematics, theoretical and practical chemistry, and metallurgy.”
      5. 1860s Britain “established practical provincial (“red-brick”) universities”
      6. 1918 Britain established ““plate-glass” universities after World War II”
      7. 1918-39 Cotgrove (1958 99): “The apathy of the industry toward technical education in the interwar years and the small demand for scientific manpower are not surprising in view of the apathy of industry in general towards both research and the application of science to production.” (Kindleberger 146)
      8. “Technical education was for “them,” not “us.” In France successful fathers sent their sons to the *Ecole polytechnique*, in England to Eton or Harrow, then Oxford or Cambridge.” (Kindleberger 146)
   6. “A recent book has strongly attacked the view that the British decline was caused by cultural deficiencies having part of their origin in the system of education. W.D. Rubenstein [1993], who has studied wealth and wealthy individuals in Britain, is scornful of the view expressed, say by Martin Wiener, especially that the British educational system is antibusiness.” (Kindleberger 146)
   7. “. . . only recently has the country undertaken [146] business and management studies . . .” (Kindleberger 146-47)
   8. The British have a “distance to go to catch up with the leaders in productivity, creativity, and the social status accorded to the ordinary worker, who is undertrained and poorly skilled.” (*Economist* [21 Aug. 1993]: 46) (Kindleberger 146)
   9. *Economist* ([27 Aug. 1993]: 46): “By one measure of wealth—GDP per head—Britain is in danger of falling out of the world’s top 20.” (Kindleberger 148)
   10. “The British do better in the service industries, but are at no more than half the world standard in finance, publishing or television, and are happily not too chummy with government.” (*Economist* [21 Aug. 1993]: 46-47) (Kindleberger 146)
4. **cause of decline**: **finance**
   1. signs of financial weakness in Britain
      1. “. . . the Big Bang of October 1986, when finance was deregulated and Britain was thought likely to take over the financial leadership of Europe and probably the world, was a fiasco—with the fading of euphoria, London fell to a rank behind Tokyo and New York . . .” (Kindleberger 147)
      2. “. . . Lloyds has fallen on evil days with horrendous insurance losses . . .” (Kindleberger 147)
      3. “. . . that British banks are on the whole small relative to Japanese and American banks, although size is partly a question of choosing the appropriate exchange rate for converting assets and liabilities.” (Kindleberger 147)
   2. devaluations of the pound
      1. “. . . the value of the pound has declined from $4.86 plus—the nineteenth-century rate against the dollar—in successive devaluations to $1.60, at a time when the dollar itself had been devalued to an extent that is hard to measure . . .” (Kindleberger 147)
         1. “. . . one gets different answers in measuring against gold ($21.67 against $400), or against Japanese yen (360 yen to the dollar shortly after World War II to 110 in 1993 before falling below 90 in early 1995) or other currency.” (Kindleberger 147)
      2. “Cairncross and Eichengreen call their study of the devaluations of 1931, 1949, and 1967 *Sterling in Decline* (1983).” (Kindleberger 147)
      3. “The 1976 exchange crisis involved borrowing from the International Monetary Fund, subject to its conditionality. It has been written up by Kathleen Burk and Sir Alec Cairncross in a book with a title borrowed from a 1975 *Wall Street Journal* editorial, “Goodbye, Great Britain” (1992).” (Kindleberger 147)
      4. Still another sterling crisis took place in the fall of 1992 . . .” (Kindleberger 147)
   3. European Union
      1. c. 1960: “London did well in the Eurodollar system starting about 1960, which gradually evolved into one of Euromonies and Eurobonds.” (Kindleberger 147)
      2. 1973: “The British government had high hopes when it finally was admitted to the European Community in 1973 that it would emerge as the balancer between German and French claims for European ascendancy, and, with luck, with London as the financial center of the European monetary system.” (Kindleberger 147)
      3. “With the prospective formation of the European Monetary System it found itself in competition, so far as ambitions were concerned, with Brussels, the headquarters of the Community; Paris, always ambitious; and Frankfurt-am-Main.” (Kindleberger 147)
         1. “London’s ad­vantage lies in its experience in Eurodollar and Eurobond markets.” (Kindleberger 147)
         2. “One liability is that the participants in the market in London (and Paris) lack the foreign languages that Frankfurt and the smaller Brussels can boast.” (Kindleberger 147)
      4. “The real weakness of London as a financial center, in my judgment, is that it is missing the steady accumulation of savings that gave it its high place in the years from 1870 to 1914. It is one thing to make a market in other people’s monies. As earlier accounts have shown, there is an irresistible urge to save transaction costs through direct dealing.” (Kindleberger 147)
5. **policy**
   1. 1950-73: “the British “golden age” . . .” (Kindleberger 148)
      1. British growth of 2.5% “per capita per annum was . . . drastically below growth in other European countries and Japan, though not the United States. In one view the blame attaches to the socialist policies followed after the war, “out of intellectual error”; and a new beginning was made in 1979 with the election of a Conservative government under the prime ministership of Margaret (now Lady) Thatcher.” (Kindleberger 148)
      2. The numbers “were worse after 1979, although somewhat better than during the 1970s.” (Kindleberger 148)
      3. “Moreover, British ideological commitment to monetarism and privatization have ended in a rejection of monetarism, and with inflation and foreign-exchange crises.” (Kindleberger 148)
      4. “Matthews [1968] was originally skeptical that policy contributed to the British “golden age” from 1950 to 1973 . . . but later backed away from that judgment to an extent [Matthews et al. 1982 313].” (Kindleberger 148)
   2. “. . . policy in general has tended to be pragmatic rather than ideological. Checkland [1983] says that British government policy tended to laissez faire to the middle of the nineteenth century, and then less so, but in general it was one of drift—unsystematic, inadvertent, improvised, piecemeal, undefined, and lacking governing principle.” (Kindleberger 148)
6. **conclusion**
   1. “Britain may have moved into the grandparental stage, bereft of the Empire and the special relation with the United States, uncertain as to its relations with Europe, surely not the European leader, but finding it awkward after its glorious history to be just another one of the countries in the group.” (Kindleberger 148)
   2. “I conclude that Britain’s rise to world economic primacy, and subsequent fall, fit well the notion of a national life cycle, guided for the most part by an intrinsic pattern of great vitality gradually eroding into rigidity and resistance to change.” (Kindleberger 148)

Germany

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| --- | --- |
|  |  |
| Germany | Rhine basin |
|  |  |
| Vistula basin | Zollverein |

1. **introduction**
   1. “. . . the country’s trajectory does not closely follow the model of the national life cycle of chapter 2 . . .” (Kindleberger 150)
   2. stages of German economic history (Kindleberger 149)
      1. Kindleberger, Charles P. “Germany’s Overtaking England, 1806-1914.” In Kindleberger, Charles P. *Economic Response*: *Comparative Studies in Trade*, *Finance and Growth*. 1975. 2nd ed. Cambridge, MA: Harvard UP, 1978. 185-236.
      2. 1806-1848 Germany as apprentice
      3. 1850-1871 Germany as journeyman
      4. 1873-1913 Germany as master
      5. “The metaphor is taken of course from the guild system, as mastery has nothing to do with the economic rivalry of Germany with respect to Britain.” (Kindleberger 149)
      6. “The dates are arbitrary and chosen largely on political grounds . . .” (Kindleberger 149)
         1. 1806: “Prussia’s defeat by Napoleon at Jena, which produced a surge of aristocratic interest in economic development rather along Mancur Olson lines that [149] defeat produces new men and new economic resolve”
         2. 1848: “the aborted bourgeois revolution, with the emasculated constitution written in Frankfurt that failed to limit the powers of the Prussian monarchy”
         3. 1871: “victory over France and the formation of the Reich under the leadership of Prussia”
         4. 1913: “the last year before World War I”
         5. 1918-39: “the fateful inflation, depression, and assumption of power by Adolph Hitler”
         6. 1939-45: World War II
         7. 1945-73: “the *Wirtschaftswunder* (economic miracle) that followed”
         8. 1973 on: “finally the role of the new Germany in European integration, in which primacy was perhaps not sought, hardly even accepted, within a western European framework rather than in global terms.” (Kindleberger 150)
   3. “German practice is often to combine “social” and economic history in the titles of books and designations of academic departments. . . . nowhere is the importance of social development as crucial to the path of the economy as in Germany. It runs through industrial, tariff, monetary, and economic as well as political history. Foreign and German historians fault the country for its historic inability to achieve peaceful and democratic accommodation of regions and economic classes until after World War II.” (Kindleberger 150)
2. **up to 1200**
   1. Wilhelm Kaltenstadler (1972 209): “up to the 13th century, the members of the Hanseatic League were very active and dynamic men who did not wish to be forced into guilds and therefore succeeded in setting up capital-intensive enterprises. In the 14th century this attitude was replaced by a preference for the security provided by wealth and an attachment to anti-liberal tendencies.” (Kindleberger 150)
3. **mosaic Germany**
   1. 1792-1802: French Revolutionary Wars (French Republic government vs. some European monarchies)
      1. 1792-97: France vs. the First Coalition (mostly the Holy Roman Empire and Prussia)
      2. 1798-1801: France vs. the Second Coalition
      3. c. 1800: Germany “consisted of 355 separate states and 1,476 autonomous knightships . . .” (Kindleberger 151)
      4. 1801: “. . . Napoleon’s conquest added the left bank of the Rhine (as one faces north) to France . . .” (Kindleberger 151)
      5. 1801: Napoleon imposed the Treaty of Lunéville
         1. It “eliminated 112 principalities, all religious principalities except two that were secularized, and destroyed the political independence of most smaller cities and towns.” (Kindleberger 151)
         2. “Napoleon also wiped out guilds and built some roads.” (Kindleberger 151)
   2. 1803-15: Napoleonic Wars: France vs. 7 coalitions
   3. 1815: “The Congress of Vienna in 1815 validated much of [the Treaty of Lunéville], but telescoped the political units of the ancient régime into thirty-nine new independent states, organized loosely into a federation (Bund).” (Kindleberger 151)
   4. 1815-71: “Slowly . . . the various states were formed into the German Reich (Empire), largely on Prussian initiative.” (Kindleberger 151)
      1. 1818: “. . . Prussia consolidated tariffs within its borders, which included, after eighteenth-century conquests, Silesia and Saxony and stretched from the east to the Rhineland.” (Kindleberger 151)
      2. 1834: “A further consolidation . . . with the formation of the Zollverein and southern and northern monetary agreements, followed by their joining into a single money.” (Kindleberger 151)
      3. 1851: “A common law for bills of exchange was agreed on”
      4. 1856-58: “A common law for . . . weights and measures”
      5. 1857-61: “a commercial code”
      6. 1862: tariff treaty with France
      7. 1866: Prussia defeats Austria, which had been a challenger of Prussia for leadership in the greater Germany”
      8. 1871: “victory of Prussia over France . . . the unification of Germany . . . was complete, even enlarged by the acquisition of Alsace and Lorraine.” (Kindleberger 151)
         1. “Using the “blood and iron” tactics of Bismarck from 1862, Prussia controlled N Germany by 1867 (war with Denmark, 1864; Austria, 1866). After defeating France in 1870 (annexation of Alsace-Lorraine), it won the allegiance of S German states. A new German Empire was proclaimed (1871).” (“World History”)
      9. “The Prussian taler, renamed the mark, was made the empire’s monetary unit of account.” (Kindleberger 151)
      10. 1875: “The Reichbank was established”
      11. 1881: “With their interest in world trade, the Hanseatic cities held aloof from the Zollverein as long as politically possible, but the last, Hamburg, finally succumbed in 1881 after the 1879 tariff.” (Kindleberger 151)
      12. Georg von Siemens (1866): “If we don’t want to be colonies like Portugal, Turkey, Jamaica, etc., if we don’t want to remain an agricultural state, sending out products through England, and if we don’t want to deal with foreign trade people, etc., then we must have Schleswig-Holstein and then must the Zollverein and Prussia be identical.” (Kindleberger 43)
   5. 1890-1913: “the German challenge to British world economic primacy” (Kindleberger 150)
4. **the *Zollverein***
   1. “Integrative steps in Germany before the industrial spurt of the 1850s were numerous and varied.” (Kindleberger 154)
   2. 1818: “removal of internal tariffs in Prussia and the wider Zollverein” (Kindleberger 154)
   3. There were “Canals, standardized weights and measures, and gradual unification of money . . .” (Kindleberger 154)
   4. reasons for the Zollverein
      1. “A widely held view is that the Zollverein’s purpose was political: to begin building the greater Germany under Prussian leadership.” (Kindleberger 154)
      2. “There was, of course, the commercial purpose, to broaden the trading area.” (Kindleberger 154)
      3. However, “the reason the lesser principalities joined with Prussia was fiscal: elimination of internal borders of those states joining by 1836 saved the costs of patrolling 780 “Meilen” of customs border, with a cost per mile estimated at 2,000 thaler in an age of rampant smuggling. By dividing the customs revenues among the states by population, rather than collections (which would have favored Prussia, with its ports of entry), princes and dukes were assured an income that did not have to depend on parliamentary voting.” (Kindleberger 154)
5. **trade**
   1. “Chopped up into small units, German principalities failed to develop a rich merchant class except in a few cities.” (Kindleberger 152)
      1. “Augsburg and Nuremberg dealt intensively with Venice . . .” (Kindleberger 152)
      2. South “German bankers such as the Fuggers dealt with Antwerp, Lyons, and Seville.” (Kindleberger 152)
      3. “The principal Hanseatic cities developed differently . . .” (Kindleberger 152)
      4. Lübeck “went into gentle decline as described by Thomas Mann in *Buddenbrooks* . . .” (Kindleberger 152)
      5. Exports of grain, timber, and naval stores from East Prussia and Danzig had early been dominated by Dutch traders.” (Kindleberger 152)
      6. “Hamburg traded principally with Britain . . .” (Kindleberger 152)
      7. “Bremen developed a trans-Atlantic business in cotton and coffee.” (Kindleberger 152)
      8. “Away from the coast, the trade and financial city of Frankfurt-am-Main grew differently from Hamburg . . .” (Kindleberger 152)
         1. Frankfurt was “populated by court bankers like the Rothschilds . . .” (Kindleberger 152)
         2. Hamburg was populated by merchant-bankers especially interested in foreign trade.” (Kindleberger 152)
         3. In Frankfurt “merchants divided into two groups . . .” (Kindleberger 152)
            1. First, there were “bankers and wholesale merchants forming the “English party” who wanted to stay out of the Zollverein and cling to international commerce . . .” (Kindleberger 152)
            2. Second, there were “300 smaller merchants focused on domestic trade, the fair, freight forwarding, and close cooperation with local industry.” (Kindleberger 152)

The smaller merchants “won and Frankfurt joined their Zollverein early.” (Kindleberger 152)

“In the Rhineland, proto- or cottage industry began by relying on Dutch merchants, but gradually took over its own international business.” (Kindleberger 152)

* + - 1. “In Hamburg the merchant class was cohesive, republican, oligarchic, and ruled the city.” (Kindleberger 152)
  1. “Within Germany, as opposed to the periphery, there were shopkeepers, but limited numbers of merchants engaged in distant trade.” (Kindleberger 152)
     1. “Part of the reason for the absence was the poor state of communication, roads, and rivers and the many tolls on rivers levied by towns.” (Kindleberger 152)
     2. “Part was the destruction in the Thirty Years’ War.” (Kindleberger 152)
     3. “Braudel suggests that the place of German merchants was taken by Jewish merchants who came into prominence in the seventeenth century at the Frankfurt fair.” (1979 [1982] 159) (Kindleberger 152)
     4. “David Landes [1960 203] extends the list to include outsiders in general: Huguenots, English, Greeks, and “above all, Jews.”” (Kindleberger 152)
     5. “Nobles and bourgeoisie looked down on commerce, and the latter began to change from a merchant class to one of bureaucrats dependent on princes.” (Kindleberger 152)
     6. “At the center of Germany were the “home towns,” run by guilds, taxing goods that crossed their border, thoroughly regulated, suspicious of outsiders. After a *Wanderjahr*, a journeyman would return to work for his mastership. Permission was needed to marry. It was a sign of failure to work in a factory or to produce goods in large quantities to be sold for export to people the maker did not know.” (Kindleberger 152)
     7. “Home towns in the west and south were surrounded by peasants [152] . . . These peasants worked plots rented from nobles who did not work their own land and the church, a system of *Grundherrschaft*, as contrasted with the Junker *Gutherrschaft*, east of the Elbe river, where a noble worked his own land with peasants as serfs.” (Kindleberger 152-53)
     8. Guilds, *Grundherrschaft*, and *Gutherrschaft*, “were broken up by the Napoleonic wars. The change went deeper in the Rhineland, which was ruled by France for almost twenty years. Elsewhere in the west and south, Napoleonic decrees had considerable effect in changing Germany from feudalism.” (Kindleberger 153)
     9. “A major attempt at reform in Prussia, after the defeat at Jena and the crushing Treaty of Tilsit (1807), was made by Baron vom Stein, Prince Hardenberg, and others. It consisted of abolishing feudal restrictions on peasants, but only after payment or after giving up one-third of the land they had been cultivating. By 1819 the reforms had virtually collapsed as far as agriculture was concerned.” (Kindleberger 153)

1. **industrial policy** (***Gewerbeförderung***, “**craft** [***Gewerbe***] **promotion**”)
   1. “New universities were created in Berlin, Breslau, and Bonn, and others were enlarged. The gymnasiums were reformed, and existing universities such as Halle and Gottingen moved from such subjects as theology and philosophy to mathematics and science, with a trend led by William von Humboldt to research.” (Kindleberger 153)
   2. “Peter Beuth had become interested in industry when he was billeted near the Cockerill plant in Liège during the Napoleonic war. In 1816 he became head of the Department of Trade and Industry of the Prussian Ministry of Finance in Berlin and began a program of industrial promotion, consisting of subsidizing trips abroad, especially to Britain; training young men in a *Gewerbeinstitut*; funding engineers; starting businesses; collecting foreign machinery for copying and giving the original to entrepreneurs. He himself traveled to England, Belgium, and Holland. A salon was organized in Berlin on a continuous basis, which discussed and published papers on industrial and economic subjects.” (Kindleberger 153)
   3. “Among the leading German industrialists whom Beuth helped start were the Cockerill brothers, sons of the English machine-builder in Belgium, F.J. Egells in steam engines and machinery, and August Borsig, who moved from steam engines to locomotives. In 1841 there were twenty locomotives in service in Germany, all imported from abroad. That was the year Borsig produced his first. By 1844 he was up to 44, by the end of 1847, 187. There were other German producers in Aix-La-Chapelle, Storkade, and Magdeburg. By 1854 no foreign locomotives were imported, Borzig produced sixty-seven of the sixty-nine bought in Germany, and additionally exported six to Poland and four to Denmark, a classic example of effective import substitution leading to exports.” (Kindleberger 153)
   4. 1830s: Kekulé and Liebig visitFrance to study “chemistry under Gay-Lussac and Berthollet . . .” (Kindleberger 154)
   5. There was “interest of German bankers in French practice.” (Kindleberger 154)
   6. “*Gewerbefoerderung* meant more than institutes, exhibitions, and subsidies to students and entrepreneurs. In Baden it involved the award of patents and monopolies, help in the supply of raw materials by forbidding the export of ashes (for soap) and rags (for paper), import tariffs to protect local markets, and requirement of permission to start a factory, which was often refused.” (Kindleberger 154)
   7. “The transition from *Gewerbefoerderung* to *Gewerbefreiheit* (freedom of establishment) took two generations from the Napoleonic wars [1802-15] to 1862 . . . the loss of Alsace to France in 1815 turned the economic attention of Baden from Switzerland and France to the north.” (Kindleberger 154)
   8. *Gewerbefreiheit* spread “in Germany at a rapid rate and was assisted by the Zollverein . . .” (Kindleberger 154)
   9. “In the end, industrial policy became so complex as different interests competed and gained overlapping concessions that it proved easiest to abolish the system altogether and start over again—a policy that eliminated the English navigation laws at roughly the same time, and has been recommended for U.S. income taxes by the late Joseph Pechman of the Brookings Institution and others such as Senator Bill Bradley of New Jersey.” (Kindleberger 154)
2. **1848 constitution**
   1. “Considerable competition reigns in German history as to the timing of fateful steps that were to lead to the disasters of the twentieth century.” (Kindleberger 154)
   2. 1819: reversal of the Stein-Hardenberg reforms. Friederich Meinike (qtd. in Craig 1970 76): 1819 was the “year of the misfortune of the nineteenth century.” (Kindleberger 154)
   3. 1848: “the missed [154] opportunity by the Prussian bourgeoisie [the elected Constitutional Assembly] to rein in the monarch in the writing of a new constitution in Frankfurt . . .” (Kindleberger 154-55)
      1. Craig (1970 139) says the conflict was “the central event of the domestic history of Germany in “the last hundred years.”” (Kindleberger 155)
      2. 1846-47: “Revolutions in Paris and Vienna threatened to infect the German states. The potato blight of 1846, plus the crop failure in grain the next year, gave impetus to riots in Cologne and Berlin, including a three-day riot called the “potato rebellion” in 1847.” (Kindleberger 155)
      3. 1848: “several clashes between the army and workers affected by industrial depression . . .” (Kindleberger 155)
      4. “Frederick William IV was under pressure from liberals as calls for occupational and business freedom spread with the rise of the railroad system and the growth of intercommunication.” (Kindleberger 155)
      5. “The king refused to agree to a constitution that yielded authority over the army to the Assembly. Terrified by the threat of the rising proletariat, the middle class conceded.” (Kindleberger 155)
3. “**burst of economic vitality**” (Kindleberger 155)
   1. 1850-57
      1. “*Gewerbefoerderung*, the Zollverein, and the leg-up on the German railway system paved the way for a burst of economic vitality from 1850 to 1857.” (Kindleberger 155)
      2. other factors
         1. “repeal of the corn laws in Britain, which produced a boom in grain exports”
         2. “an inflow of capital especially from Belgium and France to the Ruhr, and especially in nonferrous metals”
         3. “establishment of a series of banks in Darmstadt, Berlin, and Hamburg, with others organized or reorganized in Cologne, Leipzig, and Berlin”
         4. “Hamburg and Bremen, which had overtaken the small Hanseatic cities in shipping in the 1840s, received stimulus from the shift from sailing to steam and from a rapid rise in emigration . . .” (Kindleberger 155)
         5. emigration
            1. Emigration was “primarily to the United States . . .” (Kindleberger 155)
            2. 1840s 470,000
            3. 1850s 1,075,000
            4. “There were three streams: one direct from Bremen, one indirect via Holland and Cherbourg on the continent, and one by way of Hamburg to Liverpool, where some were stranded running out of money.” (Kindleberger 156)
            5. “Mack Walker [1964 65, 104, 130, 153] makes a number of corrective points to the conventional wisdom . . .” (Kindleberger 156)

“the movement was not driven by intellectuals”

the movement did not “consist of peasants. One needed some money to pay the fare . . .”

“. . . much of the movement from western and southern Germany was of craftsmen, who had lost faith in Germany’s future after the 1840s and were feeling “a sense of impotence, malaise and discontent” [Walker 1964 130] . . .”

“With the spurt in economic growth the rate dropped off sharply . . .”

1854 250,000

1855 100,000

* 1. German inferiority complex
     1. 1648: Germany felt “a national inferiority complex as far back as the Thirty Years’ War.” (Kahler 1974 234) (Kindleberger 158)
     2. 1800s: “as the Germans watched England’s huge colonial and commercial empire, this inferiority complex grew. The Germans felt they had been cheated and duped. Prussia had built a state with the ethic of hard work and possessed the most efficient government in Europe. Its lowly status was wrong.” (Kindleberger 158)
     3. 1850s: according to Aycoberry (1968 513), “the economic spurt . . . put an end to the sense of inferiority that the German world of business felt toward the French, the Belgians, and especially the English.” (Kindleberger 158)
     4. 1850s-90s: “After the middle of the century, the Germans gradually overcame their inferiority complex against the French, the Belgians, and especially the English.” (Kindleberger 155)
     5. 1866: “Failure on the part of the bourgeoisie and middle classes was reinforced in 1866 when Bismarck pushed through the Prussian diet an indemnity act retroactively approving military reform that had been instituted without parliamentary consent. The liberal cave-in was owed partly to fear of the mob, partly to divided aims, but also to a middle-class tendency “to subordinate domestic objectives to a desire for national greatness.”” (Craig 1970 139) (Kindleberger 155)
  2. “Rising industrial employment in the Rhineland and Westphalia, Berlin, Saxony, and Silesia provided an opportunity for shorter and cheaper moves to improve one’s lot.” (Kindleberger 156)
     1. “The Prussian urban population (inhabitants of towns of more than 2,000) . . .”
        1. 1849 27% of the population
        2. 1861 32% (probably higher)
     2. In Rhineland-Westphalia, “Gelsenkirchen, Schalke, and Hüllen, among others, grew in the 1850s from villages to great cities.” (Kindleberger 156)
     3. “Essen [grew] as Krupp expanded steel production with local coking coal and responded to the strong demand for steel for railroads, ships, heavy machinery, and armament.” (Kindleberger 156)
        1. 1850 8,800
        2. 1870 52,000
     4. The “textile towns of the Rhineland” grew less, as seen by comparing “Barmen (textiles) and Gelsenkirchen (coal for steel).” (Kindleberger 156)
     5. “Most of the movement to the cities in the 1850s and 1860s and even the 1870s was local; the massive long-distance migration from east of the Elbe to the Ruhr came later after the fall of the price of wheat and expansion of steel production in the 1880s and 1890s.” (Kindleberger 156)
  3. conspicuous consumption
     1. “The middle class in the Rhineland sought social prestige by a route that included the gymnasium, technical education, credit, mercantile success, and a good marriage.” (Kindleberger 155)
     2. “Businessmen in the Ruhr took full part in the movement to Gross Deutschland and expansionism, and even workers found interest in Germany’s world-power role.” (Kindleberger 155)
     3. “Rheinische-Westfalian resistance to enoblement weakened, and a number of successful businessmen bought estates, gave up industrial activity, and devoted themselves entirely to noble activity.” (Kindleberger 155)
  4. 1871-73: *Gründerzeit*
     1. The *Gründerzeit* (founder period) was “the economic phase in 19th century Germany and Austria before the great stock market crash of 1873.” (“Gründerzeit”)
        1. *Gründerzeit* may refer to 1850-73, 1871-73, or 1871-90. (“Gründerzeit”)
        2. “No precise time for this phase can be given, but in Austria the March Revolution of 1848 is generally accepted as the beginning for economic changes . . .” (“Gründerzeit”)
     2. “Three winning wars of the 1860s [1864 Denmark, 1866 Austria; 1870 France?] gave rise to a euphoria that produced a boom in housing and security prices in the *Gründerzeit* . . .” (Kindleberger 156)
     3. The boom was “financed in part by the 5 billion-franc indemnity that brought the country millions of specie and in due course funds to enable state and municipal debts to be paid off.” (Kindleberger 156)
     4. “Of particular importance for speedy economic development was the rise of a developed railway system. Not only was it a major factor in its own right on the business scene of the time, but it also permitted further development through improved communication and migration. Rural migration to the cities assisted the development of a proletariat, with an attendant increase in social problems.” (“Gründerzeit”)

1. **1873-93**: **the Long Depression**
   1. “The huge stock market crash of 1873, combined with economic overheating due to enormous French reparations from the war, put an abrupt end to this upswing, referred to in German as the Founding Epoch Crisis (*Gründerkrise*), resulting in a twenty-year phase of economic stagnation. This crisis caused the theory of economic liberalism to lose ground, and it was also this time which saw the introduction of business control mechanisms, as well as protective customs tariffs.” (“Gründerzeit”)
   2. The 1873 crash “slowed the economy down, but the “great depression,” so-called, was milder in Germany than in the rest of Europe.” (Kindleberger 156)
   3. “The Vienna stock market crash led to the panic of 1873 in the United States, resulting in the Long Depression.” (“Gründerzeit”)
2. **tariffs**
   1. 1818: “Prussian tariffs [were] low after the consolidation” (Kindleberger 156)
   2. 1834: “it was the low Prussian tariff that the Zollverein adopted” (Kindleberger 156)
   3. 1840s: “There were slight upward adjustments in a few items in the 1840s to accommodate the other states . . .” (Kindleberger 156)
   4. 1860s: “with the British repeal of the corn laws in 1846 and the Cobden-Chevalier treaty of 1860 came a move to freer trade throughout Europe in which the Zollverein joined, entering into bilateral treaties with [156] France and Italy.” (Kindleberger 156-57)
   5. “Bismarck had little interest in economic matters, but approved the low level of the Zollverein tariff insofar as it embarrassed Austria. That country needed protection for a number of its industries, and on that account was unable to join the Zollverein and contest Prussia for its leadership. With the military victory over Austria in 1866 and the triumph of the thaler over the gulden, Bismarck had less interest in low tariffs. Industry, which had favored low tariffs to obtain its intermediate goods cheaply, was producing more of them itself.” (Kindleberger 157)
   6. 1879: tariff on rye and iron
      1. “Otto von Bismarck, who is universally recognized as a consummate politician, is praised for his skill in obtaining passage of the 1879 tariff of “rye and iron,” since the agriculturist Junkers detested both cities and industry.” (Kindleberger 150)
      2. “Less than a generation later, [150] the Junkers were led to support the naval building programs sought by the steel industry of the Ruhr, as they substituted their hatred of England for that of cities and industry.” (Kindleberger 150-51)
   7. causes of the 1879 tariff on rye and iron
      1. 1820s: an agricultural depression forced “the Junkers to sell to the rising middle class despite *fideikommis*, which forbade such sales.” (Kindleberger 157)
      2. “As European grain prices weakened with the completion of railroad systems in the plains of the world, so that steamers could carry it cheaply to Europe, Germany lost out in the British market.” (Kindleberger 157)
         1. 1856-60 British grain imports were 25% from Germany, 18% from the US
         2. 1871-75 British grain imports were 8.2% from Germany, 40.9% from the US
         3. 1879 British grain imports were 68.2% from the US
      3. 1867: “Increasing flexibility in the organization of the Zollverein in 1867 made change easier to achieve.” (Kindleberger 157)
      4. 1873: “economic downturn after 1873 . . . Lambi [1963 73] ascribes the economic downturn after 1873 as the basic cause of the 1879 tariff.” (Kindleberger 157)
      5. 1876: “. . . Rudolph von Delbruck, a strong free-trader and the president of Bismarck’s chancellery, retired, in all probability pushed out rather than leaving of his own accord.” (Kindleberger 157)
      6. 1878: “A failed attempt to assassinate the emperor in June 1878 galvanized nationalist sentiment.” (Kindleberger 157)
      7. 1879: “despite a mass meeting of 1,000 merchants in Hamburg and representatives of seventy-five cities in Berlin, duties were raised on iron and grain. Bismarck had forged his union of rye and iron, or “*Rittergut und Hochofen*” (knights’ estates and blast furnaces). The Junker opposition to cities and industry had been undermined by national exuberance and because the caste had dwindled in wealth and power. At the end of the century only one-third of the landowners in six eastern provinces were noble . . .” (Kindleberger 157)
      8. 1880s: another agricultural depression forced “the Junkers to sell to the rising middle class,” shrinking them further. (Kindleberger 157)
3. **1880s-1890s**
   1. Bismarck “turned to two issues outside of the relations between industry and agriculture.” (Kindleberger 157)
      1. “One was worker insurance against sickness (1883), accidents (1884), and old age (1889). Böhme maintains that this step failed to assuage worker sentiment, which continued to reach out for the protection of unions, limits on hours of work for women and children, as well as minimum wages and the right to speak out on company policy.” (Kindleberger 157)
      2. “The second was an interest in colonies, on which Germany had missed out because of its slow unification. Belgian King Leopold’s conquest of the rich Congo led to the Berlin conference of 1885 in which German unhappiness was expressed. It was to last a long time, with Hjalmar Schacht recurring to the issue time and again in the 1920s and 1930s.” (Kindleberger 157)
   2. “Problems [157] of east Elbian agriculture led to the massive movement of peasants both to the Ruhr and abroad . . .” (Kindleberger 157-58)
      1. 1880s: this peaked “at 1,300,000 in the decade of the 1880s . . .” (Kindleberger 158)
      2. 1890s: it fell to “530,000 in the new boom in the 1890s . . .” (Kindleberger 158)
      3. 1901-10: it fell to 280,000. (Kindleberger 158)
   3. Capital flowed inward: “as investment demand picked up at home, German markets stopped lending . . .” (Kindleberger 158)
      1. “There were economic quarrels with czarist Russia, to which German financial circles stopped lending after the 1887 *Lombardverbot* (the forbidding of orphans funds being invested in Russian bonds), leading to a substitution of French for German lenders from the 1890s to 1913.” (Kindleberger 157)
      2. Germany also stopped lending “to much of Latin America, cutting down on loans to Argentina, for example, as British lending there was building up to the 1890 Baring crisis.” (Kindleberger 158)
4. **attitude toward Britain**
   1. “There is a tradition that rivalry between [Germany and Britain] goes back to 1780,” but that is not true. (Kindleberger 158)
      1. “. . . for most of the nineteenth century German industry benefited from its economic relations with England, as it bought yarns for spinning, learned quality control, acquired technological knowledge, and borrowed capital.”
      2. Kehr (1930 [1970] 293): “In the 1840s every conception of England’s had been hailed . . .”
      3. Kehr (1930 [1970] 293, next sentence): “but since the reaction and the establishment of the Reich every concept of England viewed it as a demoniacal director of the puppet theater of Europe which had dominated the world since the sixteenth and seventeenth centuries.”
   2. beginning of the 1890s: “Germany emerged as a strong competitor of Britain . . .” (Kindleberger 158)
      1. “In all accounts resentment started or restarted in the 1890s, after the fall of Bismarck.” (Kindleberger 158)
      2. The 1890s were “also the time in which the British became disturbed by rising German commercial and naval competition, as E.E. Williams’s book *Made in Germany* [1890 (1896)] testified.” (Kindleberger 158)
      3. German “emotional upset” at British economic supremacy “was heightened by the Boer War [1880-81, 1899-1902], in which Germans sympathized with the Boers and were indignant against the British.” (Kindleberger 158)

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
| Cape Town | Natalia Republic | Orange Free State | South African Republic |

* + - 1. 1652: Dutch East India Company establishes Cape Town to supply clippers. Brit­ish ships also use it.
      2. 1688: after revocation of the Edict of Nantes (1685), Huguenots begin arriving.
      3. 1795: Britain conquers Cape Colony.
         1. 1795: second French attack on the Netherlands. Holland divides into “Patriots (Republicans who now supported the French) and Orangists, royalists who supported Prince William.” (“Battle of Muizenberg”)
         2. “If the Patriots took power then British access to the Cape could be denied as contrary to French interests, and with that would go all access to their Asian trade.” (“Battle of Muizenberg”)
      4. 1824-45: “farmers of Dutch, French Huguenot, and German descent called Voortrekkers (later named Boers by the English) from the Cape Colony who were seeking both pasture for their flocks and to escape British governmental oversight” settle between the Orange and Vaal rivers.
      5. 1839: Voortrekkers establish the Natalia Republic.
      6. 1843: Britain conquers Natalia Republic. Some Voortrekkers cross the Orange.
      7. 1845: Voortrekkers establish Orange Free State (between the Orange and Vaal).
      8. 1852: Voortrekkers establish three Transvaal (N of Vaal) provinces.
      9. 1857: Voortrekkers combine Transvaal provinces into South African Republic.
      10. 1877: Britain conquers Orange Free State and South African Republic.
          1. “Without the British victory at Transvaal, . . . the Conservatives (Junkers) would never have been reconciled to the expansion of the fleet, which was regarded by the Junkers as the war instrument of industry, as contrasted with the army which they favored.” (Kindleberger 158)
      11. 1880-81: First Anglo-Boer War: South African Republic regains independence.
      12. 1899-1902: Second Anglo-Boer War: Britain makes Boer republics into colonies.
      13. 1910: all British colonies become the Union of South Africa.
  1. “Detestation of Britain continued. Rudolph von Havenstein, president of the Reichsbank, [said] in a speech of September 25, 1914, “[British jealousy of] our growing world [158] trade and growing power at sea is in the final analysis the basic cause of the world war.” (qtd. in Feldman 1993 32) (Kindleberger 158-59)

1. **the overtaking**
   1. German rivalry with Britain in industry
      1. c. 1820
         1. Germany “had a lag of at least half a century on the way to machinism.” (Kindleberger 159)
         2. “There was some progress in Prussia, but it was rare and rudimentary.” (Kindleberger 159)
      2. 1840s-50s
         1. “Foreign capital and equipment” influenced Germany’s growth. (Kindleberger 159)
         2. But Germany did its part: “in twenty years [it] had made up a gap of more than fifty years.” (Kindleberger 159)
      3. 1880-1913
         1. “A generation later, relative positions were changing rapidly, especially in new industries: electricity, chemicals, automobiles, machinery, and even some branches of textiles.” (Kindleberger 159)
         2. world steel output 1880 1913
            1. Britain 31% 10%
            2. Germany 15% 24%
            3. US ?? 42%
      4. England had “independent and small firms . . . apart from a few prominent exceptions like Lever, Lipton, Courtaulds . . .” (Kindleberger 159)
      5. By contrast, “leading German firms were large, organized in cartels or by vertical integration, in the fashion that Bernard Elbaum and William Lazonick have found missing in British business.” (Elbaum, Bernard, and William Lazonick. *The Decline of the British Economy*: *An Institutional Perspective*. Oxford: OUP, 1986.) (Kindleberger 159)
   2. German rivalry with Britain in trade
      1. 1875-1914: “A study of British consular reports [Hoffman 1933 ch. 3] . . . revealed many deficiencies in British marketing efforts . . .” (Kindleberger 159)
         1. “lack of languages”
         2. “failure to study the market”
         3. failure “to adapt goods to what was wanted”
         4. “limited credit terms”
         5. “reluctance to sell at all unless the order was large”
         6. “failure to adapt to foreign measure”
         7. “foreign currency in quoting prices”
      2. “German remittance men were disdained by the British as pushy and unmindful of the dignity of commerce: “shopkeepers, always; merchants never.”” (qtd. in Hoffman 1933 177) (Kindleberger 159)
      3. “German marketing techniques failed, however, to make much of a dent in British colonies and dominions, or to overcome the leading place of Britain in the major markets of Latin America, despite faster percentage gains.” (Kindleberger 159)
   3. German rivalry with Britain in shipping
      1. “British shipping . . . held off German rivalry better than industry and trade.” (Kindleberger 159)
      2. German gains in shipping
         1. fastest Atlantic crossing (Kindleberger 159-60)
            1. Britain’s ships held the record until the late 1890s.
            2. Germany’s Kaiser Wilhelm der Grosse (built 1897) then held the record.
            3. Germany’s Deutschland [159] (built 1900) then held the record.
            4. Britain’s Mauretania won the record back in 1906.
         2. *Daily Telegraph* (1901) on “British finance and merchant shipping”: “What is gone is our monopoly. What is not gone is our supremacy.” (qtd. in Hoffman 1933 93) (Kindleberger 160)
         3. By 1914, Britain’s “monopoly had been lost but she still retained leadership on the seas.” (Kindleberger 160)
   4. German rivalry with Britain in finance
      1. British “banking held off German rivalry better than industry and trade.” (Kindleberger 159)
      2. 1869: “Plans to fill the gap in foreign trade finance went back at least to 1869 before the formation of the Reich.” (Kindleberger 160)
      3. 1872: “German rivalry with Britain in finance went back to the establishment of the Deutsche Bank in Berlin in 1872 specifically to finance German trade directly, rather than through London as the Hamburg banks had done.” (Kindleberger 160)
      4. “Georg von Siemens, a cousin of the electrical equipment manufacturer, was chosen to run the bank and wrote that his “goal was to make German export and import trade independent of Britain, the accomplishment of which would constitute a national deed as great as the conquest of any province.”” (qtd. in Helfferich, 1923-25 [1956] 38) (Kindleberger 160)
      5. “The Deutsche Bank initially set up branches in Hamburg and Bremen because of the difference in foreign-exchange practice between coastal and inland towns . . .” (Kindleberger 160)
      6. “In its 1871 annual report, the Deutsche Bank complained of the difficulties of direct relationships between Germany and overseas markets because of the preponderance of London . . .” (Kindleberger 160)
      7. Deutsche Bank had “a joint subsidiary with two other German banks in London. The last was abandoned for a direct London affiliate of its own in the fall of 1872, the only such branch of a German bank for ten years.” (Kindleberger 160)
      8. “For prestige purposes the Deutsche Bank sold foreign exchange to the German navy at some cost to itself.” (Kindleberger 160)
      9. “The early intention to move into direct foreign-exchange dealing got sidetracked by the boom of the *Gründerzeit* [1871-73], and the Deutsche Bank for a time shifted its focus to domestic industry.” (Kindleberger 160)
      10. “In due course it returned to the foreign scene in a variety of ways, helping in the start of new banks in Italy, establishing overseas branches, making loans in the Middle East in competition with the British and French, floating foreign bonds. Success was not overwhelming, and the Bank withdrew its early subsidiaries in China and Japan, allowing some of its partners to manage overseas joint ventures. In due course von Siemens gave up the idea of bringing all foreign operations together in a Berlin unit, opting instead for decentralization and specialization.” (Kindleberger 160)
      11. “In finance, as in merchant shipping and naval armament but not in electricity, chemicals, or machinery, the German effort fell short of overtaking Britain. Germany gained a place in the sun, but by no means a dominant place.” (Kindleberger 160)
   5. 1890s: German inferiority complex
      1. “At home the social inferiority to England of conservatives, agrarians, bureaucrats, and academics, partly felt openly, partly subconsciously was decisive for their rejection of the overbearing and economically superior enemy.” (Kindleberger 160)
      2. “The conservative academic economist, Adolph Wagner, was strongly conscious of the feeling of insecurity in the Germany of the end of the nineteenth century, and urged Germans to develop a healthy sense of egotism like those of the French and British.” (Kindleberger 160 n. 1)
   6. “. . . while foreign policy was proclaimed as the major issue of the country, hatred of England was needed [by conservatives, agrarians, bureaucrats, and academics] to hold down the proletariat, which was . . . in increasing social and spiritual rebellion.” (Kindleberger 161)
   7. “Abroad, the drive of Germany to reach her “due share” of world domination worried neighboring countries, which banded together to encircle the country. The accidental spark at Sarajevo touched off the conflagration of World War I.” (Kindleberger 161)
2. **World War I**
   1. “I see no need to go over events of the First World War . . .”
   2. The Schlieffen plan “violated the German treaty with Belgium . . .” (Kindleberger 161)
   3. Admiral Tirpitz thought “the unrestricted U-boat campaign . . . would win the war against Britain by starving it out—much like Air Chief Marshall Arthur Harris [believed] in World War II that mass bombing of German cities would defeat Germany without necessity for invasion . . .” (Kindleberger 161)
3. **1918-31**
   1. “Hatred is a word little found in most economic discourse but frequently in German history.” (Kindleberger 161)
   2. Germany believed “it would not have lost the war had it not been for the “stab in the back” by the home front, largely its Jewish members.” (Kindleberger 161)
   3. “After World War I there was an outbreak of political homicides—376 in four years according to one count—including . . . Walther Rathenau and Matthias Erzberger. As a new man, feared for his energy and vigor in pursuing Republican policies, Erzberger was hated by the groups associated with the empire of Wilhelm II—“bureaucrats, officer [*sic*], junkers, clergymen and industrialists.”” (Epstein 1959 367) (Kindleberger 151)
   4. Germany’s economic life cycle
      1. “. . . sharp antagonism among social classes” distorted the normal life cycle (of ch. 2). (Kindleberger 161)
      2. “War interrupted the normal life cycle . . .” (Kindleberger 161)
      3. “The life-cycle model was rather displaced by one akin to Goldstone’s pattern of revolution and breakdown.” (Kindleberger 161)
         1. “As the French Revolution produced the populist Napoleon, so the breakdown of the Weimar Republic gave rise to Hitler.” (Kindleberger 161)
         2. “Responsibility for Adolph Hitler’s takeover of the chancellorship of the Reich in February 1933 can be divided among”: (Kindleberger 161)
            1. “the Treaty of Versailles with its war-guilt and reparation clauses”

Versailles falls outside the scope of this study, but I cannot forebear saying that John Maynard Keynes’s polemic, *The Economic Consequences of the Peace* (1919), however brilliantly written, overstated its deficiencies.” (Kindleberger 161)

* + - * 1. inflation (1919-23)
        2. depression of (1928-32). In May-June 1932, unemployment reached 15% (1.5 million).
  1. 1919-23: inflation
     1. reparations
        1. “Reparations fixed after Versailles were high . . .” (Kindleberger 162)
        2. Keynes estimated that $40 billion “was implicit in the Versailles treaty . . .” (Kindleberger 162)
        3. Keynes estimated “that a figure of $10 billion was bearable . . .” (Kindleberger 162)
        4. April 1921: a Reparations Commission estimated “$33 billion plus export taxes (to be paid over forty-two years) . . .” (Kindleberger 162)
        5. “The question, however, was whether there was the will to pay.” (Kindleberger 162)
     2. Was the cause of inflation “simple errors of monetary policy”? (Kindleberger 161)
        1. “The monetarist school on the German inflation holds that it came from overissue of marks by the Reichsbank . . .” (Kindleberger 162)
        2. “Within the monetary school is the theory of “the international flow of capital that enabled reparations to be paid without too much stress when foreign capital came from abroad, largely the United States, but accelerated the rise of prices when foreign and German funds were repatriated or expatriated.” (Kindleberger 162)
     3. Was the cause of inflation “German class antagonism”? (Kindleberger 161)
        1. The “structural school believes that it lay in the inability of various segments of the economy to share burdens.” (Kindleberger 162)
        2. “In the structural theory, the question turns on what groups gain or lose from inflation and deflation—large and small industry; commerce; large and small farmers; professionals, including civil servants, lawyers, and teachers; and skilled and unskilled workers.” (Kindleberger 162)
        3. Was Germany “capable of bearing the substantial burdens of reconstruction and reparations . . . only if it were to develop enough cohesion to share them”? (Kindleberger 162)
        4. “The contrast runs with the monetary reconstruction after World War II in Germany, discussed below.” (Kindleberger 161)
        5. “The main political groups had survived the war more or less intact, as had their mutual antagonisms. The outflow of capital picked up in the spring of 1921, with the assassination of Erzberger in August 1921, and again more seriously with that of the finance minister, Walther Rathenau, in June 1922.” (Kindleberger 162)
        6. “No person was strong enough to rise above the contesting interests and work out a budget.” (Kindleberger 162)
        7. Nov. 1922-Aug. 1923: “An attempt to form a nonpartisan government under Wilhelm Cuno . . .” (Kindleberger 162)
           1. Cuno was “an official of the Hamburg-American Line who had successfully negotiated with the Allies on behalf of his company . . .” (Kindleberger 162)
           2. It “was a miserable failure. . . . Cuno was not a striking figure: Moritz Bohn called him a charming man who would have made an excellent reception clerk in a luxury hotel.” (Kindleberger 162)
     4. Rupieper (1979 297): “When it came to financing resistance and preparing Germany for the long struggle with France [which with Belgium occupied the Ruhr in Jan. 1923] Cuno clearly failed. This was due to a large extent to . . . the bourgeois parties in the Reichstag and industrial interest groups . . . [who] prevented the balancing of the budget and the modification of the tax system until the moment when the Reich’s fiscal system broke down completely.” (qtd. in Kindleberger 162)
     5. Another cause was “the no-compromise attitudes of trade unions on the one hand and industry on the other . . .” (Kindleberger 162)
        1. “Hugo Stinnes thought that lengthening the hours of work was more important to German stabilization than monetary reform, and that the restoration of the prewar ten and one-half-hour day would enable Germany once again to capture world markets.” (Kindleberger 163)
        2. 1918-11-09: in a revolution, workers forced an 8-hour day. (Kindleberger 162)
        3. Industry leaders, “especially Hugo Stinnes in iron and steel,” blamed the inflation on the especially strong unions in civil service, the (nationalized) railroad, and the coal mines. (Kindleberger 163)
     6. “Another cause was “the decentralized character of German finance, which went back to the founding of the Reich in 1871 and was barely altered by Karl Helfferich, who was finance minister for most of the war.” (Kindleberger 163)
        1. “Decentralization is valuable in times of peace, a handicap in emergencies such as war.” (Kindleberger 163)
        2. “Change back and forth, as in the case of Holland during the Napoleonic wars, is not readily done.” (Kindleberger 163)
        3. 1919: the “decentralized character of German finance . . . was finally tackled in the summer of 1919 by Matthias Erzberger, who levied an income tax for the central government. The division of revenue in Germany was altered from 42 percent for the Reich, 22 percent for the states, and 36 percent for municipalities to 70, 10, and 22 percent respectively.” (Kindleberger 163)
  2. hyperinflation
     1. 1919: In the Treaty of Versailles, the Allied victors required reparations from Germany (ultimately determined to be 132 billion gold marks). (“Dawes Plan”)
     2. 1923: Germany “defaulted on its ability to deliver further amounts of coal, timber, and steel in line with its reparation quotas.” (“Dawes Plan”)
     3. “In response to this, French and Belgian troops occupied the Ruhr River valley . . . the centre of the German coal and steel industries . . . [The German people] passively resisted the occupation, and the economy suffered . . .” (“Dawes Plan”)
  3. 1924: Dawes Plan
     1. The Dawes Plan “provided for an end to the Allied occupation, and a staggered payment plan for Germany's payment of war reparations.”
     2. “America would provide loans to the Germans, in order that they could make reparations payments to the United States, Britain and France.” (“Dawes Plan”)
        1. A “consortium of American investment banks” made the loans. (“Dawes Plan”)
        2. “The total loan was 800 million dollars.” (“Dawes Plan”)
     3. “Much of the money going to Germany was spent on local improvements as well as industry, to the dismay of Schacht, then head of the Reichbank.” (Kindleberger 163)
     4. mid-1920s: “Regulators realized that the German economy could no longer sustain the enormous annual payments, which the Allies had deliberately set at a crushing level. As a result, the Young Plan was substituted in 1929.” (“Dawes Plan”)
     5. “As the U.S. economy developed problems under the Great Depression, Germany and other countries involved economically with it also suffered.” (“Dawes Plan”)
     6. “. . . this cycle of money from U.S. loans to Germany, which made reparations to other European nations, who paid off their debts to the United States, locked the western world’s economy into that of the U.S.” (“Dawes Plan”)
  4. late 1920s: a “miniboom . . . followed the end of inflation with the Rentenmark, the Dawes Plan, the establishment of the Reichsmark, and the considerable spurt in German economic output based on imported capital.” (Kindleberger 163)
  5. “Success of the Dawes loan, the New York tranche of which was oversubscribed, led to a burst of foreign bond flotation in New York, as unexpected financial successes have done from time to time. . . . The start of the New York boom in equities about March 1928 diverted American investor interest from foreign bonds to domestic stocks, and cut the capital flows to Germany, to countries in Latin America, and to Australia, which had all relied on foreign loans. German and Austrian banks turned as long as possible to short-term borrowing and such a dangerous practice as supporting the prices of their own shares, depleting their cash.” (Kindleberger 163)
  6. “More fundamentally for the background of the depression of the 1930s, European recovery after 1925 took place in a world that had expanded output in many products purchased from Europe before 1914. International commodity prices began to slip from 1925 and were poised for further decline when the New York stock market crashed at the end of October 1929.” (Kindleberger 163)
     1. “The view has been widely held, on Keynesian analysis in which price levels do not play a significant role, that the great depression from 1929 to the outbreak of war in 1939, or at least the precedent armament effort, was primarily the fault of deflationary fiscal and monetary policies by President Hoover in the United States, Chancellor of the Exchequer Philip Snowden [163] in Britain, Premier Pierre Laval in France, and Chancellor Heinrich Brüning in Germany, because of slavish adherence to the gold standard. . . . “. . . deflationary policies can produce effects on both spending and prices, particularly if the prices are flexible and a policy produces expectations of further price declines.” (Temin 1989, Eichengreen 1992) (Kindleberger 163-64)
     2. “Such a view slights the power of debt deflation . . .” (Kindleberger 164)
        1. “. . . world prices fell, slowly from 1925 and brutally when New York banks reacted to the crash by rationing credit to commodity brokers who depended on it.” (Kindleberger 164)
        2. “A further blow to world prices came with the appreciation of the dollar, franc, and Reichsmark by 40 percent in 1931, as the counterpart of the 30-percent depreciation of the pound sterling.” (Kindleberger 164)
        3. “. . . to ignore price movements on the ground of money illusion is to commit a gross error. Falling prices damage banks, making them restrict lending, regardless of government policy.” (Kindleberger 163-64)
  7. An “issue lately raised in German historiography [is] whether Brüning had alternatives to his pursuit of deflation with the primary purpose of showing that it was impossible for Germany to pay reparations.” (Kindleberger 164)
     1. “A strong case has been made that he was constrained by the bylaws of the Reichsbank, by the commitments under the Dawes Plan more generally, and by the Standstill Agreement reached in July 1931 with foreign bankers. This granted a six-month grace period in which Germany would not have to repay short-term credits and made exchange depreciation awkward as it would raise the Reichmark value of foreign debts.” (Kindleberger 164)
     2. “Most important of all Brüning had no alternative [Luther 1964 131ff] . . .” (Kindleberger 164)
        1. This view is supported “by a distinguished German economic historian, Knut Borchardt . . .” (Kindleberger 164)
        2. An “opposite viewpoint [is] Holtfrerich [1990].” (Kindleberger 164)
     3. “The debate has lasted more than a decade.” (Kindleberger 164)
  8. “New light was thrown on this question by the recent discovery of a transcript of a debate in September 1931, a week before Britain went off gold, over a memorandum by Wilhelm Lautenbach of the German Economics Ministry, arguing for a program of public works by the government to be financed by special credits from the Reichsbank. Present were distinguished economists such as Eucken, Colm, Neisser, Ropke, and Salin, and representatives of the government, present and past, including the former Socialist finance minister Hilferding. The discussion was lively, heated, and even dramatic, with interruptions from time to time by the Reichsbank president, Hans Luther, who thought his institution was in danger of violation . . . There is in fact a Shakespearean quality to the debate over an issue fateful for Germany and the world. . . . Lautenbach, [since] called “the German Keynes before Keynes,” presented a plan almost exactly like that undertaken by von Papen in 1932 after Brüning’s resignation “100 meters from the [164] finish”—the Lausanne conference of the summer of 1932 which killed off reparations.” (Kindleberger 164-65)
  9. Junkers
     1. “There is controversy whether Brüning’s policies were guided in any degree by the east Elbian (Junker) agrarian interest, which also had a hand in persuading President von Hindenberg to not oppose Hitler as chancellor in 1933.” (Kindleberger 165)
     2. Alexander Gerschenkron claims (1943) that “the Junkers led blessed lives over centuries, surviving war, peace, prosperity, depression, inflation, free trade, and tariffs by one or another device, such as governmental assistance in borrowing in hard times, paying off debt during inflationary periods. This pays perhaps too little attention to the losses of *Güter* (estates) by Junkers in the agricultural depressions of the 1820s and the 1880s.” (Kindleberger 165)
     3. “. . . fixing the eastern border of Germany on the Oder-Neisse line after World War II, and putting Junker territory left in Germany in the Soviet zone of occupation, was what finally finished off a dominant class, as the guillotine had done to French *financiers* and *officiers*.” (Kindleberger 165)

1. **Hitler and World War II**
   1. Hitler’s rise “is ascribed to many causes—Versailles, inflation, unemployment, German character . . .” (Kindleberger 165)
   2. Hitler’s overstretch
      1. “Hitler’s policy of overstretch bears a strong resemblance to the policies of Napoleon, Louis XIV, and Philip II, part of the human condition that becomes manifest in less earth-shaking forms in the bubbles encountered in financial markets.” (Kindleberger 165)
      2. “It is difficult, however, to find it a response to the upswing in German output from 1933 to 1939, on some basis such as the Goldstein model of chapter 3 which has war following boom in a regular fashion.” (Kindleberger 165)
   3. slaves in World War II
      1. “Space is lacking to discuss the war, the latent hate that burst out in the treatment of Jews in concentration camps, and the working to death in factories on insufficient food of political prisoners and displaced persons from occupied territories.” (Kindleberger 165)
      2. John Hicks notes (*Theory of Economic History* 1969 127) “that slaves are cared for when they are expensive; when cheap or if manumission has been promised they are not maintained but used up. [In the] underground factory at Kohnstein, a strong man could work a twelve-hour schedule on minimal rations for six months, a thin or weak one for three, before dying. Twenty-thousand men and women worked at the plant at its peak. By the time the place was overtaken, 120,000 had worked there, of which 100,000 were dead.” (Kindleberger 165)
2. **1945-50**
   1. “Defeat of Germany . . . introduced a new phase in German history.” (Kindleberger 165)
      1. Initially the US “called for denazification, disarmament, democratization, and the like but added [165] that no steps should be taken to raise the level of living of the German people . . . [This was] the Morgenthau Plan, named for the American secretary of the treasury under President Roosevelt, who was himself (Morgenthau), as were many of his staff, of Jewish origin. In essence the Morgenthau plan called for a return of Germany to an agricultural state, as opposed to an industrial one . . . with the revelation of the concentration camps and the deaths of 6-million Jews, Poles, and Russians at the hands of Nazi bestiality, such an attitude is readily explained.” (Kindleberger 165-66)
      2. France said “Germany should revert to its pre-1871 mosaic form with the Saar, the Ruhr, and other resource-rich areas occupied by the Allies for an unspecified period.” (Kindleberger 166)
      3. “Neither line of action was proof against the dependence of the rest of Europe on the German economy, both as an outlet for their goods and services and a source of capital goods.” (Kindleberger 165-66)
   2. “. . . the Potsdam agreement with its unsatisfactory zonal treatment of the reparations question . . . ended in splitting off the Soviet zone of occupation from the three western zones . . .” (Kindleberger 166)
      1. The Soviet Union insisted “first on removals of capital equipment as reparations, and when their widespread looting produced little that could be used, a demand for reparations out of current production . . .” (Kindleberger 166)
      2. “. . . the inability to treat the four zones of occupation of Germany—Soviet, British, United States, and French—as a single unit [meant] the need to fall back on the three western zones, especially in trade and monetary affairs . . .” (Kindleberger 166)
      3. There was “progressive deterioration of the western zones and much of the rest of western Europe in the disastrous year 1946-1947 with its freezing that tied up transport, followed by flooding that ruined the spring wheat crop.” (Kindleberger 166)
      4. “Aid to Europe was provided by the U.N. Relief and Rehabilitation Agency (UNRRA), the $3,750 million British loan (Anglo-American Financial Agreement of 1946), military assistance to allied liberated territory, Government Aid and Relief in Occupied Areas (GARIOA) of Germany.” (Kindleberger 166)
      5. “In the spring of 1947 came a breakdown of trade between countryside and city in Germany, plus the inefficient substitution of cigarettes and private barter for money. In addition, a meeting of the western powers with the Soviet Union at the Council of Foreign Ministers in Moscow failed to resolve the questions of reparations and the treatment of the four zones of occupation as a single unit.” (Kindleberger 166)
   3. Marshall Plan
      1. “. . . in April 1947, Secretary of State George C. Marshall proposed that the countries of Europe including the socialist countries put forward a new plan for cooperation in economic recovery . . . The Economic Recovery Act was passed by the Congress in April 1948 and $14.1 billion of aid was furnished to the participating countries over the years to June 1952. The group did not include the eastern bloc . . .” (Kindleberger 166)
      2. “Was Marshall Plan aid to German derisory [Abelshauser 1991] [because] economic recovery was well under way before American aid under this program began to arrive in volume? Or did the fact that aid was promised and would arrive to fill the pipelines mean that German manufacturers could begin to draw on supplies of materials and components because of assurance that they would be replaced [Borchardt and Buchheim 1991]?” (Kindleberger 167)
   4. monetary reform
      1. “At the same time as the Marshall Plan slowly got under way, [166] German monetary reform was put into effect in three western zones. This had been planned in outline by the Colm–Dodge–Goldsmith report of May 1946 but had been held up awaiting agreement on its application to the four zones of occupation.” (Kindleberger 166-67)
      2. “. . . money and debt in all forms [was replaced] by one new deutsche mark for ten Reichsmarks . . .” (Kindleberger 167)
      3. Could “the monetary reform . . . have been pursued, for example in the early 1920s, eliminating the inflation of those years? Did it succeed only because the various interest groups that had created deadlock in the twenties had lost power—the Junkers dispossessed by the westward movement of the boundary; labor and peasant agriculture by Nazi measures in the 1930s; the army, industry, and the civil service in disrepute because of the loss of the war and subservience to Hitler? Was it possible only because of the occupation of Germany by foreign powers?” (Kindleberger 167)
      4. “The immediate spurt in output, reported and visible when monetary reform took place, was illusory to a considerable extent. Firms had been underreporting and hiding output for barter purposes when such output could be sold only at fixed prices for worthless money. With the introduction of good money, stocks emerged into the light, and output figures were corrected upward. But there is no doubt that monetary reform and the restoration of market-clearing prices for the arbitrary prices inherited from the Preisstop of October 1939 at the outbreak of the war, plus to at least a limited degree Marshall Plan aid, produced in the years from 1950 an economic miracle.” (Kindleberger 167)
      5. “The outbreak of the Korean War in June 1950 gave rise to a setback in the German balance of payments, occurring as it did simultaneously with banking deregulation. Firms borrowed heavily and bought heavily of foreign materials as their prices rose. The German credit in the European Payments Union was increased. In due course prices stabilized and German precipitous purchasing paid off. The West German economy was off to an economic miracle.” (Kindleberger 167)
3. **1948-73**: **the *Wirtschaftswunder*** (**economic miracle**) (Kindleberger 170)
   1. “The boom in Germany, as elsewhere in Europe, went on to about 1973 and came to be called a golden age. Germany [and Japan] grew faster than the rest of western Europe and all grew faster [168] than the United States and the United Kingdom. The British nonetheless regarded it as a golden age because their growth rate was greater than over any historical period of similar length for which data are available.” (Kindleberger 168-69)
   2. “German economic recovery was the work of new men.” (Kindleberger 167)
      1. “. . . in politics and in industry those strongly identified with Nazi [167] aggression were retired.” (Kindleberger 167-68)
      2. “Chancellor Konrad Adenhauer reached out to welcome détente with France . . .” (Kindleberger 168)
         1. 1950: European Coal and Steel Community (ECSC)
         2. 1957: Treaty of Rome, creating the European Economic Community (EEC)
      3. “Part of the burst of energy came from the efforts of those at home to rebuild their sharply reduced level of living.” (Kindleberger 168)
      4. “Part was the drive of refugees and expellees from the eastern provinces, those driven out of former German territories in Poland and Czechoslovakia, and refugees who chose to move west from the Soviet zone of occupation. This stream grew in volume until the Soviet occupation authorities in August 1961 erected the wall that came down with dramatic effect in November 1989. The inflow of middle-class, skilled, impoverished Germans anxious to rebuild their fortunes provided a unique source of vitality.” (Kindleberger 168)
      5. “In addition [to German immigrants], a mass movement of some skilled but largely unskilled workers from first Italy and Greece, then Yugoslavia and Turkey—the so-called guest workers—held down German wages. This had the result that increased sales resulted in increased profits which could be used for increased investment and still greater productivity, a positive feedback process that kept going until the social limits to absorption of foreign guests began to be reached.” (Kindleberger 168)
      6. “German business turned outward. After years of autarky [“self-sufficiency, especially economic,” *ake*-“suffice”], rising men in firms sought positions in export in order to travel abroad.” (Kindleberger 168)
      7. “Old cartels and monopolies like I.G. Farben were broken up.” (Kindleberger 168)
   3. 1949: “When the British devalued the pound in 1949, the German government adjusted the *Deutschemark* downward. At that level it proved to be undervalued against the dollar, and the trade surplus built up. The gain in foreign exchange reserves was used in part to clear up old debts from the Standstill period.” (Kindleberger 168)
   4. “Germany also acceded to requests of the American government to help support American troops stationed in the country, since German defense expenditure was limited and German security from Soviet attack was provided to a great extent by the United States.” (Kindleberger 168)
   5. “Reparations were paid to Israel, largely in kind in the form of prefabricated housing.” (Kindleberger 168)
   6. “A striking example of the resilience of the economy is furnished by an attempt in 1956 to dampen the export surplus by reducing tariffs on imports. It failed: while imports rose, exports rose more, an example of Hume’s law that imports beget exports and of the British faith in the 1840s that there was no need for reciprocity in tariff reductions as added imports created added exports.” (Kindleberger 168)
   7. “Germany rapidly overtook Britain in its standard of living, as did other countries in Europe. After its two previous failures, however, it seemed not to strive for economic and political primacy, content to follow American leadership even as that was seen by many to be slipping.” (Kindleberger 168)
4. **1973-90**
   1. “The boom in Germany, as elsewhere in Europe, went on to about 1973 . . .” (Kindleberger 168)
   2. “The boom in Germany [occurred] elsewhere in Europe . . . The fact that all grew together does not invalidate the notion of a national growth cycle as discussed in chapter 2, perhaps . . .” (Kindleberger 169)
   3. “The boom in Germany [occurred] elsewhere in Europe . . . The fact that all grew together . . . [does call into question] whether rising countries inevitably challenge an existing leader for economic primacy. Neither Japan nor Germany challenged the United States for leadership in the west, content to leave it locked in a superpower struggle with the Soviet Union.” (Kindleberger 169)
   4. “Slowly, . . . West Germany looked to the rest of Europe.” (Kindleberger 169)
   5. “French interest in postwar Europe was in a leadership role.” (Kindleberger 169)
      1. Fear of Britain as a contender led President deGaulle in 1963 to veto Britain’s application to join the EEC.” (Kindleberger 169)
      2. “Later, when France saw the rising power of Germany in Europe as it gained economic strength and numbers, she was readier to admit Britain and other members of the European Free Trade Area as dilution to German dominance.” (Kindleberger 169)
      3. “There were further issues of exchange rates and the formation of a European central bank, in which there was latent disagreement between France and Germany, but the German view seemed likely to prevail.” (Kindleberger 169)
   6. relationship to East Germany
      1. “Germany might well have striven harder to push ahead with European integration if it had not been continuously looking over its shoulder to the east.” (Kindleberger 169)
      2. “With the collapse of the wall in 1989, and the joining of East with West Germany, preoccupation with *Ostpolitik* became overwhelming.” (Kindleberger 169)
      3. “A mistake was made in converting the East German mark to the deutsche mark at a 1:1 ratio, understandable perhaps politically, but a disastrous error that raised the real income of eastern German workers well above their productivity, which had been undermined in the socialist state by thirty years (since the wall went up) or forty-four years (since Soviet occupation) of little incentive to work and save. Productivity in western Germany had been far higher than that in the east (except for isolated spots like Berlin, Leipzig, and Dresden in the nineteenth century), but the gradient was much steeper after rapid growth in the west, apathy in the east, and the westward movement of many of the more energetic citizens.” (Kindleberger 169)
      4. “The need to support eastern incomes and levels of living unbalanced the Bonn government’s budget, leading the Bundesbank to fear inflation and tighten monetary policy, which led to unemployment west as well as east. At the same time, the enlargement of Germany and the collapse of the threat from the Soviet Union, plus the possibility of American economic decline, led the country to be more assertive.” (Kindleberger 169)
         1. “One indication of increasing assertiveness was the beginning of a tendency of German diplomats to follow French practice of insisting on speaking one’s native language, even when the speaker knew English well as did all others at a meeting.” (Kindleberger 169)
         2. “Like Japan, too, it now wants a seat on the Security Council of the United Nations in view of its economic and [169] political power equal or superior to those of the United Kingdom, France, China, and Russia.” (Kindleberger 169-70)
5. **the aging of Germany**
   1. What caused the “slowdown in the German economy after about 1973”? (Kindleberger 170)
      1. “shrinking productivity relative to wage increases”
      2. “insistent union demands for higher wages”
      3. Giersch, Paque, and Schmieding (1992 160 qtd. in Tilly 1993 943): a “shift away from mere material progress to raising the quality of life and to achieving more social justice.” (qtd. in Kindleberger 170)
   2. “. . . finding the right path to [German] recovery is enormously complicated by the problem of absorbing East Germany with its low productivity, high unemployment rate, and demographic breakdown.” (Kindleberger 170)
   3. “. . . productivity increases to the world competitive level . . . may require a work week longer than thirty-five hours, and vacations shorter than five weeks . . .” (Lauk 1994 64) (Kindleberger 170)
   4. 1990s
      1. 1993: the German economics ministry produced a 110-page plan, approved by the Kohl administration, “for the overhaul of the country’s social, economic, and educational systems to sharpen the country’s competitive edge.” (Kindleberger 150)
         1. Economics ministry plan: Germany is in danger from “high unemployment, high taxes, a short work week, stifling bureaucracy and an aging work force . . .” (Qtd. in Kindleberger 170)
         2. The economics ministry recommended “hard work, punctuality, and community spirits.” (Kindleberger 170)
      2. In *The New York Times* (1993-09-13 D1, D4) “Hilmar Kopper, president of the Deutsche Bank,” cited weaknesses. (Kindleberger 170)
         1. Germans have a 37.5-hour work week “and six weeks of vacation (including public and religious holidays), labor production costs among the highest in the world, and recession abroad that hurt exports, which had always been the driving force of German [170] recoveries.” (Kindleberger 170-71)
         2. But he also cited strengths” “the nation’s political and social stability, its powerful and stable currency and its highly skilled and well-educated work force.” (qtd. in Kindleberger 171)
         3. Kopper: the solution is, “We all have to work longer hours. It’s that simple.” (qtd. in Kindleberger 171)

The Age of Discovery

1. **introduction**
   1. 1992 was the 500th anniversary of Columbus’s discovery of America. But “Columbus was now portrayed as a villain; the Europeans as invaders; the native inhabitants as innocent, happy people reduced to bondage and eventually wiped out . . .” (Landes 61)
      1. “. . . Carl Sauer and Woodrow Borah and the California school of economic geography announced, on the basis of archeological [62] remains, that the coming of the white man and his fellow-traveling pathogens (smallpox, influenza, etc.) had brought death to nine tenths of a Mexican Indian population of perhaps 25 million . . .” (Landes 62-63)
   2. “The *truth* lies in the unhappy fate of the indigenous peoples the Europeans found in the New World. With rare, trivial, and ineffectual exceptions, they were treated with contempt, violence, and sadistic brutality. They were almost wiped out by the microbes and viruses the Europeans unknowingly brought with them. Their land and culture and dignity were taken from them. They have nothing to celebrate.” (Landes 61)
   3. “The *irrelevancy* lies in the argument that emphasis on the Columbian discovery Europeanizes a world process of encounter and exchange; that this Eurocentrism induces an easy triumphalism, leading historians to accentuate the false positive (the great age of exploration) and ignore the true negative (the catastrophic consequences of invasion).” (Landes 62)
      1. “Some of this complaint is true, but a good historian tries to keep his balance. . . . Europe it was that initiated the process, responded to the discovery, and set the agenda for further developments. On the operative level—*who did to whom*—this was a one-way business.” (Landes 62)
      2. The dissent is “a form of expiation and political mobilization. They aim to delegitimate rather than illuminate. The target is European (Western) dominion and the gains therefrom. The purpose: to impute guilt, provoke consciences, justify reparations.” (Landes 62)
2. **imperialism**
   1. “equilibrium power model of imperialism” (Landes 63 n. †)
      1. Landes, David S. “Some Thoughts on the Nature of Economic Imperialism,” *J*. *Econ*. *Hist*., 21 (Dec. 1961) 496-512.
      2. Landes, David S. ““An Equilibrium Model of Imperialism,” in S. Bertelli, ed., *Per Federico Chabod* (*1901-1960*), II. *Equilibrio europeo ed espansione coloniale* (*1870-1914*). Annali della Facolta di Scienze Politiche 17. Perugia: 1980-81.
      3. “I would put forward a law of social and political relationships, namely, that . . . Where one group is strong enough to push another around and stands to gain by it, it will do so. Even if the state would abstain from aggression, companies and individuals will not wait for permission. Rather, they will act in their own interest, dragging others along, including the state. That is why imperialism (the domination by one group of another) has always been with us.” (Landes 63)
      4. “Some would argue that all of this is patently untrue. The world is composed of a diversity of nations of unequal size and strength, and one does not see the strong always dominating or exploiting the weak. That is correct; but such forbearance is in large part conditioned by the balance of power. Nations will join forces if necessary to prevent hegemony; hence a rational calculus of forbearance.” (Landes 63 n. †)
      5. “It is the expression of a deep human drive. [63] There are other, finer sentiments: the altruistic impulse, ideals of solidarity, the golden rule. But . . . the loftiest principles, including religion, have all too often been invoked in the cause of aggression. Only a deliberate decision by political authority, not merely to abstain from such behavior but to prevent members of the group from engaging in it, can thwart this impulse.” (Landes 63-64)
   2. “Europe now held a decisive advantage in the power to kill. It could deliver its weapons wherever ships could take them; and thanks to new navigational techniques, European ships could now go anywhere.” (Landes 63)
   3. c. 1000: “after centuries of compression and victimization at the hands of invaders, [Europe] passed to the attack from the eleventh century on.” (Landes 64)
      1. *reconquista*
         1. The “reconquest” is a period of approximately 781 years in the history of the Iberian Peninsula, after the Islamic conquest in 711 to the fall of Granada, the last Islamic state on the peninsula, in 1492.” (“Reconquista”)
         2. “Traditionally, historians mark the beginning of the Reconquista with the Battle of Covadonga (718 or 722) . . .” (“Reconquista”)
         3. In Spain, “. . . Christian kingdoms had increasing success against a multitude of jealous successor sheikhdoms.” (Landes 65)
            1. Ibn Khaldūn (1332-1406; *The Muqaddimah*, 1377): These were the debris of el-Andalus: “every qa’id and man of influence who could command a score of followers or possessed a castle to retire to in case of need, styled himself sultan and assumed the insignia of royalty.” (Qtd. from Fernandez-Armesto *Before Columbus* 50.) (Landes 65)
         4. “. . . the Muslims were handicapped by their dependence on Berber soldiers brought over from North Africa—[64]mercenaries short on loyalty to the rulers who engaged them. Against these stood Christian barons and bullies, given to victimizing peasants and clerics, whom the Castilian monarch, on the understandable advice of the Church, sent to war against the infidel.” (Landes 65)
         5. Felipe Fernandez-Armesto (*Before Columbus*: *Exploration and Colonisation from the Mediterranean to the Atlantic*, *1229-1492*. 1987. 49): “Christendom was spreading slowly south, as if by a process of titration rather than flood.” (Qtd. in Landes 65)
         6. “In the end, civilization succumbed and ferocity triumphed.” (Landes 65)
            1. 1236: Cordoba fell, “once the greatest center of learning in Europe”
            2. 1248: Seville fell, “the great economic metropolis of el-Andalus”
            3. 1492: “The emir made a deal to withdraw as Ferdinand’s vassal to the tiny mountain stronghold of Granada, which hung on by pursuing a strategy of timorous collaboration and systematic indifference to the fate of fellow Muslims in other parts. . . . when it was Granada’s turn to go (1490-92), its appeals for help went unanswered. So the last Moorish ruler of Granada negotiated a well-paid exit . . .” (Landes 65)
         7. “The victors in this *reconquista* were Portugal, which liberated its territory from the Muslims by the mid-fourteenth century, and Castile, an expansionist frontier state of *caballero* pastoralists (what we would call cowboys) and roughnecks and soldiers of fortune for whom the great Moorish cities of the south . . . were an irresistible target.” (Fernandez-Armesto *Before Columbus* 84-85) (Landes 65)
         8. After *reconquista*, “the land had to be grabbed up and resettled, estates bounded and exploited, peasants (especially Muslim cultivators) set to work for their new lords. And the kingdom had to be Christianized, for Queen Isabella was a passionate believer. . . . The Church, through the Holy Office of the Inquisition, to say nothing of lay spies and snitches, kept very busy. Converts from Judaism, most of them involuntary, hence untrustworthy, had to be kept under close surveillance; the same for ex-Muslims.” (Landes 65)
      2. crusades (1096-1272)
         1. The crusades “were a manifestation of this outward push. They were promoted in part as a way of sublimating internecine violence and turning it abroad. This was a bellicose society.” (Landes 64)
         2. “The Crusades renewed the centuries-old war of Christendom against Islam, of faith against faith . . . In theory, no cause was more holy; [but] as always, the idealistic goal was cover for arrant thuggery and cupidity.” (Landes 64)
         3. “When the crusaders took Jerusalem in 1099, they sacked, raped, and massacred; whereas when Saladin recaptured the city for the Muslims in 1187, he spared it.” (Landes 64 n. \*)
         4. “The Muslims expelled the intruders and have cherished that success ever since as a sign of divine judgment.” (Landes 65)
      3. “War has a way of legitimating its cause and celebrating its conquests. So with these new crusaders: poets sang their praises and they sublimated their violence in chivalric codes and posturing.” (Landes 66)
3. **island conquests**
   1. “Yet all of that left energy for further campaigning and adventure. Demobilization does not come easy for men who know little but the sword . . . Even before the final expulsion of the Moor from the Iberian peninsula, Portugal and Spain were moving on to probe and attack beyond the water.” (Landes 66)
      1. 1229-35: “King Jaime I of Aragon took the Balearics . . .” (Landes 66)
      2. 1402: Castile takes the Canary Islands (“Canary Islands”)
         1. “. . . the Canaries were known to the ancient Romans, who learned of them from the king of Mauretania.” (Landes 68)
         2. The stone-age inhabitants, the Guanches, “made ferocious resistance and in spite of drastic inferiority in weapons (clubs vs. steel and guns), held the invaders off for more than a century. The Canaries were not fully subdued until after Columbus.” (Landes 67 n. \*)
      3. 1415: the Portuguese took Ceuta (Landes 66)
      4. 1419: the Portuguese discover the (uninhabitated) Madeiras (Landes 538 n. 12)
         1. Huygue (*Coureurs d*’*epices* 119) says it was accidental. (Landes 538 n. 12)
      5. 1427: the Portuguese discover the (uninhabitated) Azores (“Henry the Navigator”)
      6. c. 1456: the Portuguese discover the (uninhabitated) Cape Verde Islands (Landes 66)
      7. 1463: the Portuguese took Casablanca (Landes 66)
      8. 1471: the Portuguese took Tangiers (Landes 66)
      9. c. 1470: the Portuguese discover (uninhabitated) São Tomé (“São Tomé”)
   2. “It takes money to fight. The pattern of these . . . quests was that of the traditional, feudal “business” enterprise. Some baron—what one historian calls an “aristocratic hooligan”—set off at the head of a war band with the ruler’s blessing and sometimes his money, often in ships furnished by merchants near and far, to grab what he could grab. What he could take and hold was his, subject to distribution of spoil and rewards to his men, dividends to his backers, and a commitment of support and loyalty to his overlord.” (Landes 66)
   3. motives for conquest
      1. “These brigands began with the closest places, the most accessible. An economist would say: low cost of entry. These targets, moreover, were held by infidels, and this alone sanctified the venture.” (Landes 66)
      2. “Beyond these nearby victims lay an alluring array of distant temptations:” (Landes 66)
         1. gold “came by camel from no one knew where across the African desert”
         2. spices came “from the Indian Ocean through the Red Sea and the Persian Gulf, then overland to ports in the Levant”
         3. silks came by caravan from China.
         4. All of these passed “through numerous [Muslim] hands along the way . . . rising in price with every transaction [66] . . . bypass these infidel middlemen, [and] one might grow rich . . .” (Landes 66-67)
      3. “Rumor and legend told of greater wonders, the stuff of dreams: on the other side of Africa, the kingdom of Prester John, a Christian enclave in the world of Islam; somewhere nearby, the lost paradise of Eden; farther east, the land of Xanadu . . .” (Landes 67)
      4. The Vikings had “an intimate knowledge of the water (its color, moods, and depths, even its bottom) and the fauna (the fish and birds) that enabled them to know the presence of land long before they saw it and thus to island-hop around the top of the Atlantic.” (Landes 67)
      5. “The Genoese and other Italians came later, learning first to round Iberia and sail to England. By the fourteenth century, in the company of Portuguese and Basques, they found the near Atlantic isles: the Azores, Madeiras, Canaries . . .” (Landes 67)
   4. “These tiny islands do not seem much today. . . . In the decades following their discovery, however, they represented a major addition to European space.” (Landes 68)
   5. “The Atlantic islands enormously extended Europe’s reach. In a few bold leaps, seamen found sailing platforms hundreds of miles westward and southward, launching pads into the unknown . . . Here were oases in the ocean desert . . .” (Landes 70)
4. **sugar**
   1. “Sugar is powerfully addictive, naturally pleasing to the palate (not a learned taste) and comforting to the human psyche.” (Landes 68)
   2. “. . . most Europeans got their sweetness from fruit and honey.” (Landes 68)
   3. “Europeans first encountered this plant [sugar cane] in the Middle East, where the Arabs had brought it from India and thence into the Mediterranean, to Cyprus, Crete, and the Maghreb. Returning crusaders in turn introduced it into Europe—into Greece, Sicily, the Portuguese Algarve [south end of Portugal].” (Landes 68)
   4. Sugar “cost a great deal at first and was limited to pharmaceutical uses; one bought it at the apothecary’s . . . [But] Thanks to spreading cultivation, price fell to the point where sugar could be found at the grocer’s.” (Landes 68)
      1. “Now it began to be used as a condiment with all manner of fare . . .” (Landes 68)
      2. “It also proved useful as a preservative or flavor camouflage in a world of easy spoilage.
   5. 1400s-1500s: “sugar was a luxury . . . but it was becoming a necessity, spreading from the top of the social hierarchy on down.” (Landes 68)
   6. “. . . the southern islands (Madeiras and Canaries) proved superbly suited to the cultivation of sugar cane, destined to become Europe’s greatest money crop.” (Landes 68)
      1. “As successful as the Mediterranean centers of cultivation were, they could not compare with the Atlantic islands, for reasons both climatic and social.” (Landes 68)
         1. “Sugar cane grows best in tropical or subtropical climes. It needs a lot of regular water, and it likes steady heat—both found in these near-equatorial lands set down in the path of rain-heavy trade winds.” (Landes 68)
         2. slavery
            1. “It also takes a lot of hard gang labor, the sort of thing shunned by free men, so that cultivators preferred slaves where available. This is what the crusaders found when they captured such Mediterranean islands as Cyprus: the Arab sugar industry ran on slave labor, most of it brought in from East Africa.” (Landes 68)
            2. But in Europe “Slavery had long since given way to serfdom, in part because Christians were not supposed to be held as slaves (among other things because chattel status was incompatible with the sacrament of marriage), in part because the supply of pagan or infidel slaves was small and unreliable—also self-liquidating by conversion. Blacks, to be sure, might be seen as an exception. One might question whether they had a soul, whether they could become Christian.” (Landes 69)
            3. “We know the Portuguese had no qualms importing black slaves for domestic service or for labor in the cane fields of the coastal plain; some 10 percent of the population of Lisbon in the mid-sixteenth century was apparently black. [Bennassar and Bennassar *1492* 252] Yet many . . . of these were eventually manumitted, and they merged into the population at large. The institution of black slavery . . . never took hold in Europe. If Europeans were going to use black slaves for field work, they wanted it done far away. The Atlantic islands were far away.” (Landes 69)
            4. “The Cape Verde Islands, . . . off the coast of Gambia, were ideally placed to tap the slave trade that flourished a short reach away . . .” (Landes 69)
            5. “The Azores and Madeiras were initially peopled by European settlers or by unfree persons who had no choice in the matter—convicts, prostitutes, victims and orphans of religious persecution.” (Landes 69)

“. . . volunteer settlers were not available . . . White men went in to these tropical lands, but few came out.” (Landes 69 n. \*)

A “shipload of the “converted” children of Jews banished from Portugal in the expulsion of 1497 [were] sent to the Cape Verde Islands . . .” (Fernandez-Armesto *Before Columbus* 201)

* + - * 1. “When African slavers found that the white man, come for gold and pepper, was also interested in this human commodity, they were ready.” (Landes 69)
        2. 1465-92: “In the quarter century before Columbus, the Cape Verde Islands and to a lesser extent the Madeiras became a testing ground for slave sugar plantations, to be followed by São Tomé in the sixteenth century. Those planters tough enough to drill and squeeze labor while standing up to hardship and climate made fortunes; so did the Italian [69] merchant shippers. Meanwhile the Portuguese crown took a third or more of the gross in the form of license fees, sugar contracts, and taxes. These plantations then served as models for later, even more profitable developments in the New World.” (Landes 69-70)

1. **Columbus**
   1. “. . . going west, well, that was the unknown.” (Landes 67)
      1. “Most people understood the world was round and that one could in theory go east by sailing west. But the Atlantic was a terrifying ocean for those used to the waters of the inland sea.” (Landes 67)
      2. “Where there is ignorance, fantasy reigns. The west was the place of the Blessed Isles, of the mysterious Atlantis . . . of magical realms guarded by monsters and whirlpools and sea spouts . . . It took tremendous courage to venture into the ocean . . .” (Landes 67)
   2. “Was it luck or forethought that led Columbus to the farthest Canary isle, right in the path of the great easterlies, . . . and those warm, steady winds drove him across the Atlantic in a month.” (Landes 70)
   3. “. . . in 1492 the Spanish thought they could do anything. [Columbus] wanted to go to Asia by going west, which held no interest for Portugal. But the plan made sense to Spain, which had agreed to divide the world with Portugal and had conceded the eastern (African) route to its rival . . . For Spain, it was westward ho! or nothing.” (Landes 70)
   4. “Columbus happened to underestimate his task: he thought the world much smaller than it was. But . . . the ocean was in fact narrower than he thought.” (Landes 70)
   5. “What Columbus found was a new world. Even on his deathbed he did not believe that, thinking he had come on an archipelago off the coast of China and Cipangu (Japan). Nor did he know that beyond the islands lay . . . North and South America. He found naked or near-naked people still living in the Stone Age, who cut their hands at first grasping the Spaniards’ swords by the blade. He brought some of them back to Spain as specimens—like animals for a zoo.” (Landes 70)
   6. “What Columbus did not find was great treasure of gold or silk or spices or any of the other valuables associated with the Orient. Gold above all he wanted, not so much for himself (he wanted rank and fame more) as for his monarchs, for he understood that nothing was so likely to keep the crown interested and supportive.” (Landes 70)
   7. “The scarcity of gold was a disappointment, but he made the best of things and assured that these islands could be an abundant source of slaves; that they were moreover eminently suitable for sugar cultivation, which he knew from the Canaries and Madeiras. They would also support livestock . . .” (Landes 70)
2. **the Caribbean after Columbus**
   1. “Caribbean history after the coming of the [70] white man was in large part the replacement of people by cattle, followed by a repeopling with black slaves to work the sugar plantations.” (Landes 70-71)
   2. “The process of depopulation was hastened by massacre, barbarous cruelty, deep despair. The natives committed suicide, abstained from sex, aborted their fetuses, killed their babies.” (Landes 71)
   3. “They also fell by the tens and hundreds of thousands to Old World pathogens (smallpox, influenza). The Spanish debated whether the savages they encountered had a soul and were human; but the record makes clear where the savagery lay. When Columbus met his first Indians, he could not get over their trust and friendliness; to this the Spaniards, frustrated for gold, returned bestialities unworthy of beasts . . .”
   4. Bartolomé de Las Casas (*Brief Relation of the Destruction of the Indies*, qtd. in Josephy *Indian Heritage* 287): “They came with their Horsemen well armed with Sword and Launce, making most cruel havocks and slaughters. . . . Overrunning Cities and Villages, where they spared no sex nor age; neither would their cruelty pity Women with childe, whose bellies they would rip up, taking out the Infant to hew it in pieces. They would often lay wagers who should with most dexterity either cleave or cut a man in the middle. . . . The children they would take by the feet and dash their innocent heads against the rocks, and when they were fallen into the water, with a strange and cruel derision they would call on them to swim. . . . They erected certains Gallowses . . . upon every one of which they would hang thirteen persons, blasphemously affirming that they did it in honour of our Redeemer and his Apostles, and then putting fire under them, they burnt the poor wretches alive. Those whom their pity did think to spare, they would send away with their hands half cut off, and so hanging by the skins.” (Landes 71)
   5. “. . . a group of Dominican friars wrote the king of Spain complaining that so many miners died of hunger on forced marches from one site to another that later groups needed no guide to follow. . . . The same letter spoke of a shipload of over eight hundred Indians brought to a place called Puerto de Plata (Silver Harbor) and held on board for two days before being disembarked. Under what conditions? No details, but six hundred of them are said [71] to have died and been thrown overboard, to float like planks on the waves.” (1516 to the minister of Charles I of Spain [later Charles V], cited in Todorov *La conquete de l*’*Amérique* 146) (Landes 71-72)
      1. “The letter cites among other atrocities the case of a poor mother with nursing child who had the misfortune to pass before a group of Spaniards whose dog was hungry.” (Landes 538 n. 16)
      2. “Within decades, the native Arawaks (Tainos) and Caribs were largely wiped out.” (Landes 72)
      3. “The extent of this holocaust is a subject of disagreement. High estimates of the population of the Caribbean islands at the time of Columbus’ arrival run into the millions, over a million for Hispaniola . . . alone. These are based on a count supposedly done by Bartholomew Columbus (the admiral’s brother) in 1496 . . .” (Landes 72 n. \*)
      4. “On the other hand, Sauer [*The Early Spanish Main* 204] states that plague and disease were not reported in the islands until 1518, at which time the native population of Hispaniola was down to some eleven thousand. . . . it is hard to understand how . . . taskmasters could kill so many (that is, over a million) so fast.” (Landes 72 n. \*)
   6. “The Caribbean conquest, of course, only began the story. The Spanish thirst for gold and treasure was unassuaged . . . The desperate readiness and hardiness of these adventurers surpass belief.” (Landes 72)
3. **gold**
   1. “The gold that found its way from somewhere in Africa to the Mediterranean coast held European merchants in thrall. They went to places like Tunis to trade silver and arms, textiles and leather, rice and figs, nuts and wine (presumably for re-export) for grain and fodder, oils, fats, semolina, and honey; and then—to balance payments—for gold. Gold dust, gold ingots, gold coins (Moorish ducats).” (Landes 72)
   2. “Not only did the yellow metal cast an almost hypnotic lure, the rate of exchange made these transactions extremely lucrative. [72] Silver traded for gold at 10 to 1 in Tunis in the first half of the fourteenth century, but that same gold would buy 13 units of silver in the markets of Valencia. Such a disparity could not last; active trade makes a working market, and a market makes for homogeneous prices. By the middle of the fourteenth century, the ratio was 10.5:1 in Naples, 11:1 in Florence. The influx from Africa was such that much of the western Mediterranean went over to a gold standard, as reflected in new coinages: the *pierrale d*’*oro* in Sicily, the *reial d*’*oro* in Majorca, the *alfonsino* in Sardinia (1339), the gold florin in Aragon (1346).” (Landes 72-73)
   3. The suppliers “took pains to keep the source secret . . . the gold came from deep in the interior of West Africa, somewhere along the upper reaches of the Niger and near the headwaters of the Gambia and Senegal rivers.” (Landes 73)
   4. Mali
      1. The gold “had to pass from its source through the legendary African kingdom of Mali, which controlled access to Timbuktu and the cross-Sahara camel routes and was the farthest “upstream” source known to the Mediterranean merchants. There the bullion traders paid a heavy tribute to the local middlemen and the ruler, known as the Mansa . . . From time to time, the Mansa and his agents tried to increase revenue by forcing the diggers to produce more. Such efforts foundered on the passive resistance of the miners, who just stopped delivering.” (Landes 73)
      2. 1324: “One Mansa, by name Musa (Arabic for Moses), went on pilgrimage to Mecca in 1324. . . . He stayed three [73] months in Egypt, and the visit was remembered for centuries thereafter. He gave . . . thousands of ingots to the shrines he visited and the officials . . . the Mansa had come with a fortune in expense money—eighty to one hundred camels bearing 300 pounds of gold each (equals from 110 to 135 million of our dollars!) . . .” (Landes 73-74)
      3. “Arab authors such as Ibn-amir Hajib and Ibn Battuta have left us detailed accounts of the Mali king and kingdom. The Mansa, they tell us, commanded more devotion from his people than any ruler anywhere. . . . let no one even sneeze. Such signs of impertinence brought death.” (Landes 74)
      4. 1375: the “*Catalan Atlas* . . . showed the [Mansa] enthroned like a European monarch [But] The gold trade diminished; Mali declined. In the later fourteenth century, when the Portuguese got down to the African “gold coast” and were able to penetrate Gambia, the successors of Mansa Musa came to be seen as crude . . .” (Landes 74)
4. **noble savages**
   1. Nudity “was construed in the beginning as a sign of edenic innocence.” (Landes 74)
   2. “They go naked as the day they were born, the women as well as the men. . . . [Their] beauty was moral as well as physical. . . . They are the most pleasant and peaceful people in the world.”” (Landes 74-75)
   3. Christopher Colombus (from a French translation of Columbus’s journals: *La découverte de l*’*Amérique*. Paris: Maspero, 1979. Qtd. in Bruckner *The Tears of the White Man* 10): “They go naked as the day they were born, the women as well as the men. . . . They are very gentle and know nothing of evil. They know nothing of killing one another.” (Qtd. in Landes 75)
   4. But “one thing these generous people were not ready to give away, and that was their women. And that was the one thing that, after months at sea, these horny Spaniards wanted above all, more even than gold. Also, the same innocents who were ready to give freely of their possessions assumed the Spanish would do the same. So they took, which the Spanish defined as theft.” (Landes 75)
      1. Columbus to his men: “During your voyage to Cibao, if an Indian steals anything at all, you must punish him by cutting off his nose and his hands, because these are the parts of the body that they cannot hide.” (Qtd. in Landes 75)
   5. Pascal Bruckner: the Indian was “condemned from the very beginning because he had been declared perfect.” (Qtd. in Landes 75)
   6. Another aspect “of Indian culture [was] cannibalism. Some scholars would deny the existence of such practice, at least for the Indians of the Caribbean. (There would seem to be no doubt of it in Mexico or Central America.) . . . anthropologists are sometimes motivated here by a need to see [75] the European-Amerindian encounter in black and white, with all the wickedness on one side and only virtue on the other.” (Landes 75-76)
5. **history and legend**
   1. Adventures “in the New World attracted the most daring, hungry, knavish members of Spanish society, many of them blackguards who thought little of their own lives and even less of those of others.” (Landes 76)
   2. Also, the Spanish experience of “protracted war against enemies without (the *reconquista*) and within (the persecution of religious difference), could not but [76] . . . extinguish sentiments of decency and humanity.” (Landes 76-77)
   3. Tzvetan Todorov (*La conquête de l*’*Amérique* 150) adds “the factor of distance: the Spanish were operating far from home and exercising their power and wrath on strangers, on an other defined as subhuman . . .” (Landes 77)
   4. Apologists follow “two lines of argument.” (Landes 77)
      1. “One is to discredit the charges by labeling them as myth or exaggeration. Hence recourse to the term *leyenda negra* (black legend) . . . The aim is to dismiss rather than disprove, because disproof is impossible.” (Landes 77)
      2. “The second approach is to point out the misdeeds of other colonizers, in particular the Anglo-Saxon, Protestant Nordamericanos, . . . whose capacity for cruelty and hypocrisy was supposedly similar.” (Landes 77)
         1. Steve J. Stern (*Peru*’*s Indian Peoples* xli-xlii) is “politically correct [and] points to “an equally brutal history of racial violence and exploitation by other European colonizers.” . . . but what about the Amerindians? As we shall see below, they perpetrated their own cruelties; they imposed their own imperialisms. . . . The orthodoxy of Latin American history prefers to pass over that part of the story.” (Landes 539 n. 23)
         2. “The British colonists in North America were capable of cold murder; but hot torment and torture? . . . if I were an Indian, I would rather have died at British than at Spanish hands. Dead is dead, but that way I might go to my death swiftly and reasonably whole.” (Landes 77 n. \*)
   5. “As though the misdeeds of others excused one’s own crimes.” (Landes 77)

China

Landes, David S. *The Wealth and Poverty of Nations*. *Why Some Are So Rich and Some So Poor*. New York: Norton, 1999.

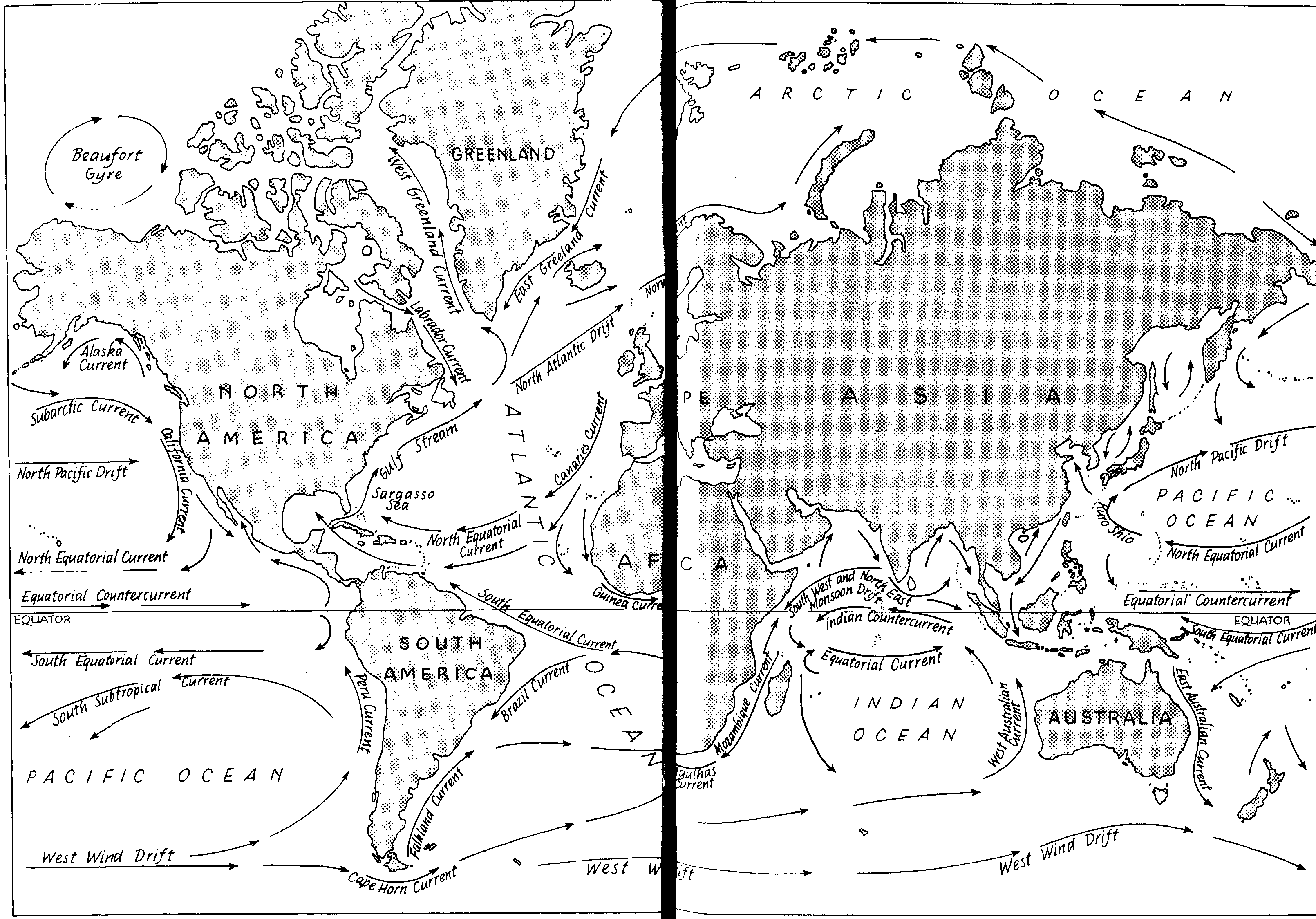
1. **introduction**
   1. Levathes, Louise. *When China Ruled the Seas*.
   2. Needham, Joseph. “China, Europe, and the Seas Between.” In *Clerks and Craftsmen* 40-70.
   3. 1405-31: “the Chinese undertook at least seven major naval expeditions to explore the waters of Indonesia and the Indian Ocean.” (Landes 93)
   4. The aim was “to show the Chinese flag, bestow awareness and knowledge of the Celestial Kingdom on the barbarians, receive homage and tribute, and collect for the emperor those few rarities [93] not available within his borders. In particular, the ships brought back exotic zoological specimens—giraffes, zebras, ostriches; also jewels and potent animal, vegetable, and mineral substances to enrich the Chinese pharmacopeia.” (Landes 93-94)
   5. “The relationship of these voyages to trade is not entirely clear. The ships carried valuable commodities (silks, porcelain) that were intended for exchange, but apparently not in the open market; rather, in the context of gift giving: tribute from the barbarians, benevolence from the Chinese. On the other hand, the sorties were apparently intended to open the way to normal trade, and merchants did come along to make their own deals. Independent trading voyages followed . . .” (Landes 94)
   6. “But if trade was one of the objectives, this was a very costly way to go about it. In effect the Chinese people were paying for the profits of the officials who organized the treasure fleets and promoted private trade, so much indeed that the burden of these voyages came to exceed the empire’s means.” (Landes 94)
   7. “These flotillas far surpassed in grandeur the small Portuguese fleets that came later.” (Landes 94)
      1. 960-1279: Mark Elvin (*Pattern of the Chinese Past* [1973] 137): “By Sung times, Chinese junks . . . were built with iron nails . . . Their equipment included watertight bulkheads, buoyancy chambers, bamboo fenders at the waterline, floating anchors to hold them steady during storms, axial rudders in place of steering oars, . . . oars for use in calm weather, scoops for taking samples off the sea floor, sounding lines for determining the depth, compasses for navigation, and small rockets propelled by gunpowder for self-defence.” (Landes 539 n. 9)
      2. “This tradition continued under the Mongol dynasty: Khubilai Khan (Marco Polo’s emperor) had [539] ships of more than ten sails, big enough to carry a thousand men. The biggest, running to about 450 feet, were lake vessels, which “moved through the water with great stability and made the passengers feel as if they were on dry land.” (Levathes *When China Ruled the Seas* 81) (Landes 539-40 n. 9)
      3. The ships of 1405-31 “were probably the largest vessels the world had seen: high multideck [ships] acted as floating camps, each carrying hundreds of sailors and soldiers, testimony to the advanced techniques of Chinese shipbuilding, navigation, and naval organization.” (Landes 94)
      4. “The biggest were about 400 feet long, 160 wide (compare the 85 feet of Columbus’s *Santa Maria*), had nine staggered masts and twelve square sails of red silk. These were the so-called treasure ships, built for luxury, fitted with grand cabins and windowed halls—accommodations fit for the representatives of the Son of Heaven and the foreign dignitaries who would accompany them back to China.” (Landes 94)
      5. “Other ships met other needs: eight-masted “horse ships” carrying mounts to South Asia, which for climatic reasons could not easily raise these animals, along with building and repair materials; seven-masted supply ships, carrying principally food; six-masted troop transports; five-masted warships for naval combat; and smaller fast boats to deal with pirates. The fleet even included water tankers, to ensure a fresh supply for a month or more.” (Landes 94)
      6. 1405: “The first of these fleets, that of the eunuch admiral Zheng He (Cheng-ho) in 1405, consisted of 317 vessels and carried 28,000 men.” [94] “Needham gives the number of vessels as seventy-three.” (Landes 94, 540 n. 10)
      7. “From 1404 to 1407, China undertook an orgy of shipbuilding and refitting. Whole seaboard provinces were drawn into the effort, while inland forests were stripped for timber. Hundreds of households of carpenters, smiths, sailmakers, ropemakers, caulkers, carters and haulers, even timekeepers, were moved by fiat, grouped into teams, [94] domiciled in yards next to their work. . . . The work itself was done in huge drydocks (China here anticipated European technology by hundreds of years) opening onto the Yangtze (Yangzi). In this way, over a period of three years, the Chinese built or refitted some 1,681 ships.” (Landes 94-95)
      8. “They also explored the east coast of Asia as far north as Kamchatka . . .” (Landes 95 n. \*)
   8. “Yet this Chinese opening to the sea and the larger world came to naught, indeed was deliberately reduced to naught.” (Landes 95)
      1. 1430s: “a new emperor reigned in Peking . . . A new, Confucian crowd competed for influence, mandarins who scorned and distrusted commerce (for them, the only true source of wealth was agriculture) and detested the eunuchs who had planned and carried out the great voyages.” (Landes 95)
         1. “. . . the Confucian state abhorred mercantile success.” (Landes 97)
      2. “For some decades, the two groups vied for influence, the balance shifting now one way, now the other. But fiscality and the higher Chinese morality were on the Confucian side. The maritime campaign had strained the empire’s finances and weakened its authority over a population bled white by taxes and corvée levies.” (Landes 95)
      3. “The opening to the sea, moreover, entailed huge outlays for defense against piracy: the more active the ships, the greater the temptation to corsairs.” (Landes 97)
      4. “The decision (early fifteenth century) to move the capital to Peking made things worse: new city walls, a palace compound of over nine thousand rooms, peasants liable in principle for thirty days service but kept at work for years running. The transportation bill alone—moving the court from Nanking, some eight hundred miles—drove tax surcharges upward. A few conscientious officials spoke up, but the imperial courtiers stifled them by severe and humiliating penalties. A prefect who protested the extra requisitions was put in a cage and wheeled in disgrace to the capital to be interrogated by the emperor. So much for duty. Meanwhile, on the northwest frontier, . . . nomadic raiders [drained] resources and demanding undivided attention.” (Landes 95)
      5. 1436: “the decision was taken not only to cease from maritime exploration but to erase the very memory of what had gone before lest later generations be tempted to renew the folly. . . . Pirates flourished in unguarded waters (the Japanese were particularly active), and China placed ever more reliance on inland canal transport. By 1500, anyone who built a ship of more than two masts was liable to the death penalty, and in 1525 coastal authorities were enjoined to destroy all oceangoing ships and to arrest their owners. Finally in 1551, it became a crime to go to sea on a multimasted ship, even for trade.” (Landes 95-96)
      6. “The abandonment of the program of great voyages was part of a larger policy of closure . . . This deliberate introversion, a major turning point in Chinese history, could not have come at a worse time, for it not only disarmed them in the face of rising European power but set them, complacent and stubborn, against the lessons and novelties that European travelers would soon be bringing.” (Landes 96)
   9. “Why? Why did China not make that little extra effort that would have taken it around the southern end of Africa and up into the Atlantic? . . . [Why] were there no Chinese vessels in the harbors of Europe? (The first such vessel, a vehicle for diplomacy, visited London for the Great Exhibition of 1851.)” (Landes 96)
      1. “As always, there are several reasons. The result, in sociological jargon, is overdetermined.” (Landes 96)
      2. “To begin with, the Chinese lacked . . . curiosity. They went to show themselves, not to see and learn; to bestow their presence, not to stay; to receive obeisance and tribute, not to buy. . . . Unlike the Europeans, they were not motivated by greed and passion. The Europeans had a specific target: the wealth of the Indies.” (Landes 96)
         1. “Levathes emphasizes the link of indifference to trade to Confucian doctrine on the one hand, imperial legitimacy on the other. To seek trade was to admit that China needed something from elsewhere, and “the mere expression of need was unworthy of the dragon throne.” (*When* *China Ruled the Seas* 180) (Landes 540 n. 14)
      3. “At the same time, this desire to overawe meant that costs far [96] exceeded returns. These voyages reeked of extravagance.” (Landes 96-97)
         1. China’s reconsideration “was very much like that currently faced in the United States by such projects as the supercollider and the space station.” (Landes 97)
      4. “In Europe, the opportunity of private initiative that characterized even such royal projects as the search for a sea route to the Indies was a source of participatory funding . . . For the Chinese government, . . . traders were free riders, getting rich at imperial expense.” (Landes 97)
   10. 1477: “a powerful eunuch named Wang Zhi, head of the secret police, asked for the logs of the great voyages by way of renewing interest in naval expeditions. In response, the vice-president of the Ministry of War confiscated the documents and either hid or burned them. . . . he denounced the records as “deceitful . . .” These voyages to the West Ocean had wasted “myriads of money and grain,” to say nothing of “myriads” of lives. And that was that.” (Landes 97)
   11. “The question remains: Suppose the Chinese had not given up on trade and exploration, suppose the Portuguese had arrived in the Indian Ocean to find these huge Chinese ships ruling the seas? Or even more, suppose the Chinese had not stopped somewhere around the Mozambique channel but had gone around the Cape into the Atlantic . . .?” (Landes 97)
       1. “On the possibility of continued Chinese maritime expansion, for example, one has to consider the possibility of violence, of competition decided by force. On the surface, the Chinese were immeasurably stronger and richer. Who could stand up to them? Yet reality ran the other way. The Chinese had learned the secret of gunpowder before the Europeans, but the Europeans had better guns and greater firepower, especially at a distance. The Chinese had bigger ships, but the Europeans were better navigators.” (Landes 98)
       2. “If we compare the two sides around 1400, the Chinese might have come out on top, at least in the Indian Ocean or South China Sea.” (Landes 98)
       3. But around 1450, “even in Asian waters, the Europeans would have run circles around the Chinese vessels. Of course, the Chinese might have learned by experience and eventually met the Europeans with comparable weapons and ships.” (Landes 98)

The Age of Discovery: Eastward

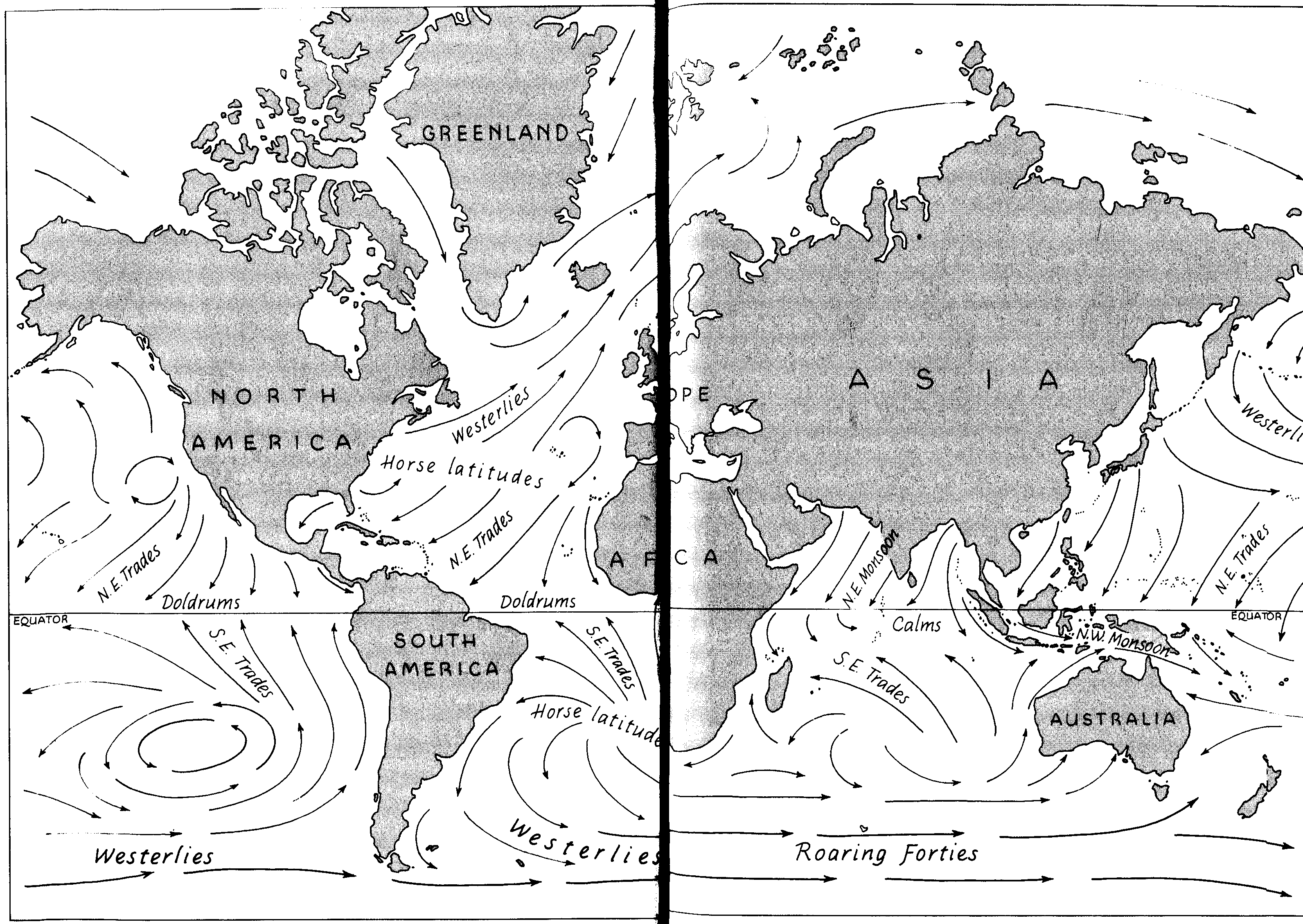
1. **introduction**
   1. “. . . the Portuguese began by island-hopping. Down the western coast of Africa, aiming at an end run around the Muslims into the Indian Ocean. The first reaches were easy. Southing, their sails swelled with the trade winds. But that meant trouble getting back to Lisbon. It was a stroke of genius not to beat their way upwind but rather to swing out west and north and return via the Azores.” (Landes 79)
   2. 1424-34: below the Canary Islands, “southing proved difficult . . . The trouble began around Cape Bojador (27° N.), symbolic boundary between creation and chaos, where struggling waters made the sea seem to boil. A decade of probes (1424-34) turned back at this invisible barrier.” (Landes 79) Cape Bojador is the N bump in the green:



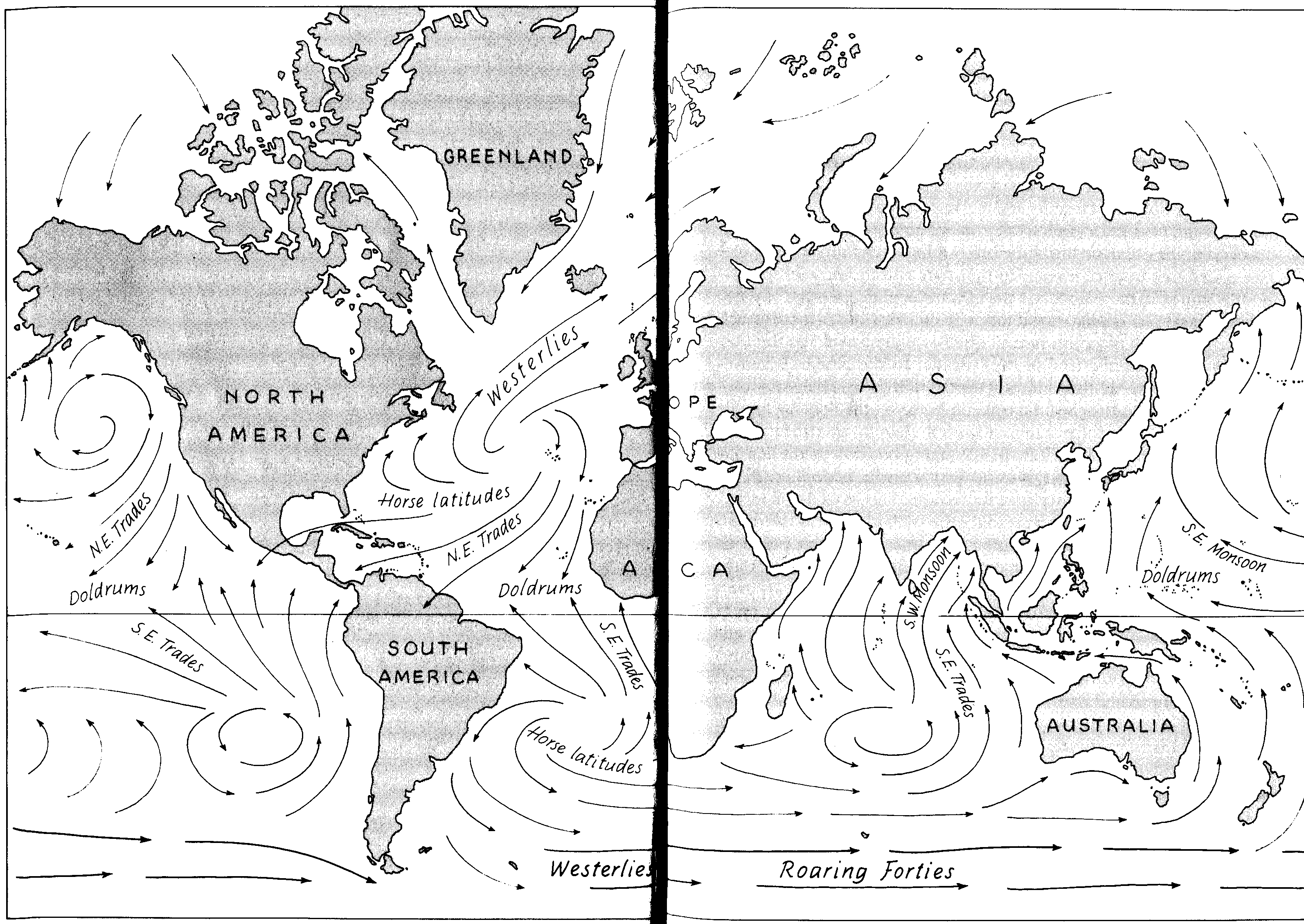
* 1. “But still the Portuguese pressed on . . . At first they thought that no one lived along that arid coast; but then they encountered a few natives, took some prisoners, learned of slavery, saw new opportunities for profit. For profit was the” motive. (Landes 79)
  2. “The South Atlantic is like no other ocean. On the African side it is not bordered by a convenient continental shelf; currents and winds run [79] against southing ships, and the coastline is dreary-arid. Once one gets past the Cape Verdes, moreover, one finds little in the way of harbor and refreshment between Guinea and the Cape. Time-honored techniques of coasting, then, highly effective in the North Atlantic, Mediterranean, Indian Ocean, and China seas, do not work here. This is high-seas navigation. (See Maps 1, 2, and 3.)” [86] (Landes 79, 86)
  3. “ocean currents around the world” (Landes 80-81)
     1. “These currents, along with prevailing winds, dictated shipping routes in the Age of Sail.” (Landes 80)



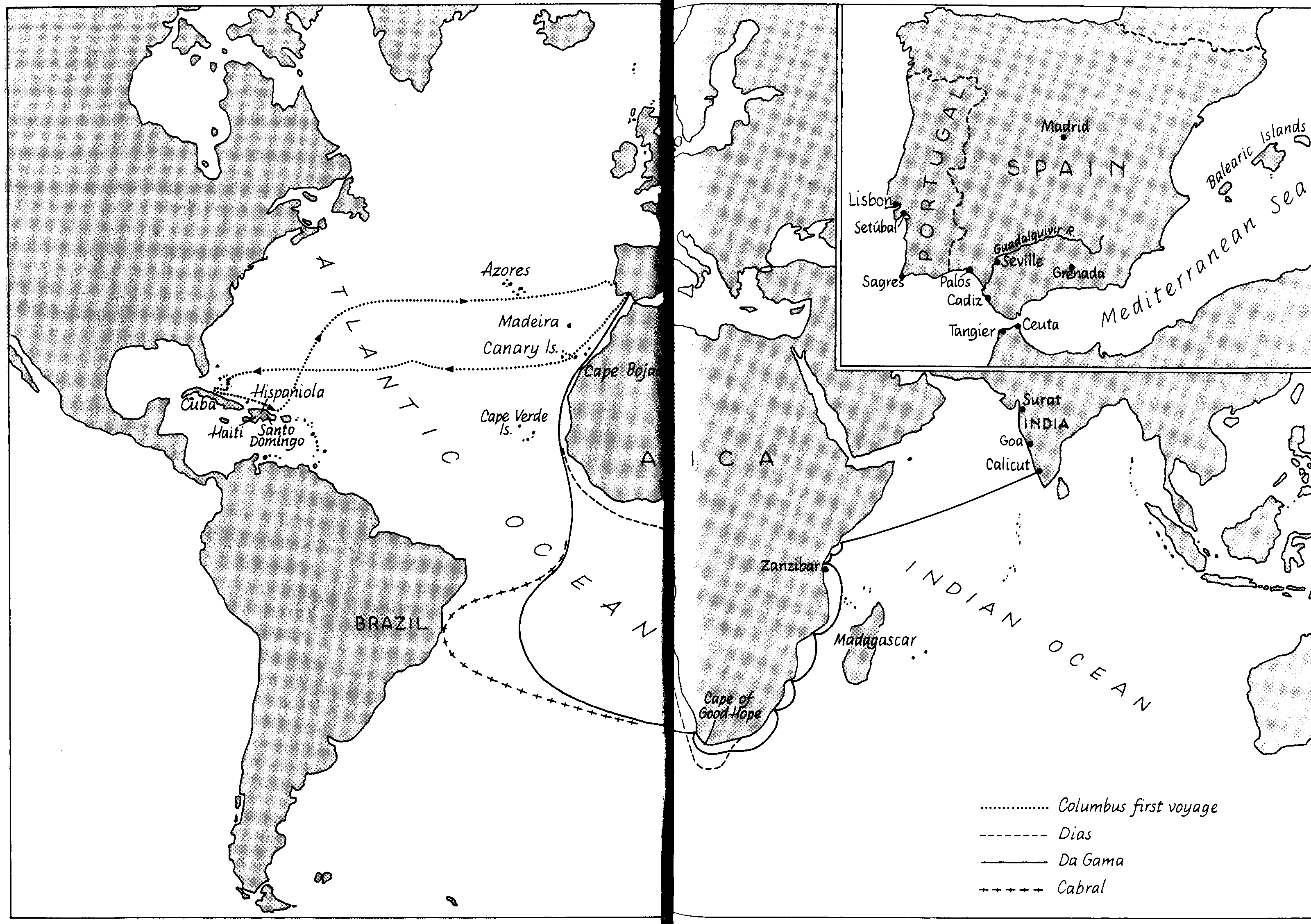
* 1. “prevailing winds around the world, January pattern” (Landes 82-83)
     1. “Calms and doldrums are found where countervailing winds meet. To be avoided.” (Landes 82)



* 1. “prevailing winds, June pattern” (Landes 84-85)



* 1. “After decades of beating and tacking their way south, . . . [the Portuguese] took the audacious step of swinging well out to the west, clear across the ocean to Brazil, before turning back to the southeast. This added hundreds of leagues to the route and meant weeks, even months out of sight of land; but the effect was to shorten the voyage and give them clear sailing around the point of Africa . . .” (Landes 86)
  2. “One must not think of this as luck. The Portuguese could do this because they had learned to find the latitude.” (Landes 86)
  3. finding latitude
     1. “In the North Atlantic, sailors had always read their location north-south by the height of the Pole star. As they approached the equator, however, the Pole star stood too low in the sky . . .” (Landes 86)
     2. Hence “they had to rely on the sun for guidance. Here the problem was complicated by the changing position of the sun in the sky: in European summer, it stood farther north, hence higher; in winter, farther south. This variance in position, known as declination, had to be taken into account in reading the sun’s altitude as the measure of latitude. . . . In the fourteenth and fifteenth centuries, Arab and Jewish astronomers [in Spain] (the key figure was Abraham Zacut) prepared convenient tables of solar declination for the use of navigators.” (Landes 86)
        1. 1478: Abraham Zacut’s *Almanach Perpetuum* gave “the position of the sun for each day at each latitude. This work, intended for astronomers, was simplified and converted into a table for use at sea by his co-religionist John Vizinho-Jones, *Sail the Indian Sea* . . .” (Landes 539 n. 4)
     3. “Once one could find the latitude, both at sea and on land, one had the key to the oceans; for now one could know position north-south; and if one also knew the latitude of the destination, one could get there . . .” (Landes 86)
     4. 1488: “The most important information that Bartolomeu Dias brought back . . . was the coordinate of the southern tip of Africa. Knowing that, the Portuguese could find their way there from any part of the South Atlantic.” (Landes 86)
  4. “These explorations had taken the Portuguese the better part of a century.” (Landes 86)
     1. “Some of this was the work of the Portuguese crown and its devout, single-minded prince (we are told that he died a virgin) come down to us as Henry the Navigator, who built a marine research station at Sagres on a promontory overlooking the ocean and directed decades of inquiry into the science and technique of steering and sailing on the [86] high seas.” (Landes 86-87)
     2. “Some of it was the work of private shippers and seamen, who saw riches at the end of their bowsprit.” (Landes 87)
  5. improvements in shipbuilding
     1. “All of it depended on improvements in the art of shipbuilding: caravels, longer and sleeker, rather than broad, cargo-bearing cogs; stern rudders; a mix of square and lateen sails; a marriage of Atlantic and Mediterranean techniques. When Dias returned from the southern tip of Africa, he also brought with him ideas that went into the ships (no longer called caravels) used by Vasco da Gama a decade later. Ten years more saw further modifications. Every trip was an experience, an incentive to emendation.” (Landes 87)
  6. sailing instruments
     1. “Ocean sailing further depended on instrumentation: the compass for direction; the astrolabe and cross-staff for measuring altitudes of celestial bodies; devices for sighting with back turned to the sun; sand-glasses for timing and estimating speed. And, lest we forget, all sailing depended on the tenacity of hard-bitten sailors. These fellows, a strange crowd, had plenty of opportunity to regret signing on. They sickened and often died of scurvy on these endless voyages, nagged Virgin and saints with numberless Hail Mary’s and repetitious litanies, sought to appease the sea with superstitious gestures; and then, feet once more on dry land, wages spent on booze and sex, pockets empty, allowed themselves to be tempted again. That was the way of a seafaring man. (Besides, the crimps were always waiting to pounce.)” (Landes 87)
  7. “The Portuguese strategy, doing by knowing, made good sense. Each trip built on the ones before; each time, they went a little farther; each time they noted their latitude, changed their maps, and left a marker of presence. Psychological barriers made some steps more difficult: thus Cape Bojador; also the Cape of Storms, later renamed of Good Hope . . .” (Landes 87)
  8. “Gradually, fear yielded to reason and method. The decision to sail west, almost to the coast of South America, before going east was the most inventive and audacious of all, showing tremendous confidence in their ability to find their way. . . . By comparison, Columbus had a cakewalk.” (Landes 87)
  9. Vasco da Gama (1460s-1524) and they discovery of India
     1. “. . . Vasco de [*sic*] Gama [was a] sailor and seaman from childhood . . .” (Landes 87)
     2. 1492: “A Portuguese caravel carrying gold from El Mina (on the west coast of Africa) had been seized by a French privateer, even though the two countries were at peace. What to do? [87] . . . King John sent for Gama . . . The next morning Gama and a hastily assembled posse were on the quay at Setubal, where ten French ships were berthed, loading rich merchandise. All of them were seized . . . The French shipowners made petition to the king of France. The king of France sent the caravel back and the gold . . .” (Landes 87-88)
     3. July 1497-Aug./Sept. 1499: “a small flotilla of four ships under the command of Vasco da [*sic*] Gama set forth from Lisbon to follow on the aborted initiative of Bartolomeu Dias and, rounding Africa, to find India. The voyage would take them over 27,000 miles and over two years; and only fifty-four of the original crew of one hundred seventy returned alive.” (Landes 88)
     4. 20 May 1498: da Gama reaches Calicut in SW India.
        1. “To da Gama’s astonishment, the merchants he encountered in India were Muslims and had no intention of trading with Christian infidels; what’s more, the glass beads, trinkets, and shirts he had brought with him . . . were near to worthless in India, which . . . made far better fabrics than Europe.” (Landes 88)
        2. “So da Gama returned more or less empty-handed. The little he did bring back was a prize of war; in his eagerness and desperation, he attacked and captured a small Muslim vessel with a cargo of spices. Not a good precedent: from that point on, the Portuguese would rely on force to establish themselves in the Indian Ocean rather than on market competition.” (Landes 88)
     5. da Gama “brought back news . . .” (Landes 88)
        1. “. . . Europeans were stronger than the natives; they had better ships and better guns.” (Landes 88)
           1. “What if the sixteenth century were not a period of [Indian] political disarray, of war in India between native states and Turcoman invaders . . .?” (Landes 93)
           2. “Turcoman”: Turks from Turkmenistan, or Oghuz Turks.
        2. “. . . spices aplenty were to be had [88] . . . A hundredweight of pepper could be had in Calicut for three ducats. . . . it sold in Venice for 80. Against that kind of gain, what was the cost of outfitting a fleet?” (Landes 88-89)
        3. “. . . the first profits (the first whiff of pepper) and the promise of even greater ones to come were a powerful incentive to Western venturers . . .” (Landes 97)
     6. “This was Portugal’s revenge. King Manuel wrote his fellow monarchs, Ferdinand and Isabella . . . to tell them about “large cities, large buildings and rivers, and great populations” . . . and to brag of spices, precious stones . . . Here was the kind of place that Columbus had been looking for and did not find. Stick that in your craw.” (Landes 89)
  10. “In early 1500, less than six months after da Gama’s triumphal return, the Portuguese sent out a second fleet to the Indies—thirteen ships this time and one thousand two hundred men, including soldiers—under the command of Pedro Alvares Cabral.” (Landes 89)
  11. “. . . *Europe could now plant itself anywhere on the surface of the globe within reach of naval cannon*.” (Landes 89)
      1. “This decisive superiority of European armament in 1500, along with other technological advantages already discussed, sticks in the craw of scholars who want to believe that European global hegemony was a lucky accident. As one iconoclast has proclaimed: “[Europe’s] advantage over Asia from 1500 is a Eurocentric myth.” Andre Gunder Frank, University of Toronto, on the Internet, H-World@msu.edu, 7 June 1996.” (Landes 89 n. \*)
  12. “the age of discovery: routes of major voyages” (Landes 90-91)
      1. “Note the way wind and current dictated the choice of route. Better to sail long and fast than tack and fight a shorter distance.” (Landes 90)



* 1. “The Portuguese went at their task with method [89] . . . as in the instructions (*Regimento*) to Diogo Lopes de Sequeira in 1508 for the exploration of Madagascar [92] . . .: [write down] vessels and techniques of navigation? arms and style of war? trade, merchants, trading posts, merchandise, prices? political power? clothing and manners?” (Landes 89, 92-93)
  2. Portugal contrasted with Spain
     1. Portugal did “systematic inquiries . . .” Pedro Nuñes (cosmographer to King Joao III, *Tratado im defensam da carta de marear*, 1537): “our sailors have departed very well informed, provided with instruments and rules of astronomy and geometry.” (Qtd. in Landes 93)
     2. “The Spanish did not adopt this methodical approach until the last quarter of the sixteenth century.” (Landes 93)
     3. “. . . the Portuguese sealed claims of possession by asserting discovery, that is, by entering latitudes on maps . . .” (Landes 93)
     4. “. . . the Spanish asserted material facts. They planted crosses, “converted” natives, built Christian edifices, installed tribunals and jails.” (Landes 93)
     5. The Portuguese aimed “at profits from trade.” (Landes 93)
     6. The Spanish “aimed at treasure . . .” (Landes 93)

Republicans and Democrats, Tories and Whigs:

Excerpts from Alan Blinder’s *Hard Heads*, *Soft Hearts*

Blinder, Alan. *Hard Heads*, *Soft Hearts*: *Tough-Minded Economics for a Just Society*. Reading MA: Addison-Wesley, 1987.

“. . . the Democratic party has shown more concern for the principle of equity while the Republican party has paid more respect to the principle of efficiency. (Blinder Hard 28)

Republicans have “hard-headed respect for economic efficiency [ix] . . . the economist’s definition of efficiency [is,] roughly, the absence of waste [15] . . . The market cares not for fairness, but only for efficiency. Those who play the economic game to the hilt and succeed become fabulously wealthy. Those who cannot play may starve. . . . [The free market] generates great inequalities. . . . playing the [economic] game well takes both hard work and willingness to bear great risks. To encourage daring individuals to go for the brass ring, the prizes must be commensurate with the risk. Therefore, the gap between the rewards of the winners and what is left to the losers must be large. That is what incentives are all about. That [*sic*] why strong incentives go hand in hand with large inequalities.” [27] (Blinder *Hard* ix, 15, 27)

Democrats are soft-hearted. “The soft-hearted attitude holds that we ought to soften the blows for those who play the economic game and lose, or who cannot play it at all. That objective can be served by making the game less vigorous and risky—which is the rationale for Medicare, social security, and unemployment insurance. Or it can be done by making the victors share some of the spoils with the vanquished—via welfare benefits, public housing, Medicaid, and progressive taxation. . . . But [if] benefits are to be provided to the underdogs (or losers), the favorites (or winners) must foot the bill.” (Blinder *Hard* 24)

“If there is to be mercy, it must be imposed from the outside [of the market]—which is why governments in capitalist societies have always redistributed income to some extent. In the early days of capitalism, redistribution was meager (such as almshouses for the poor) and left mostly to private charity. But as capitalist countries grew richer and more mature, they also grew more humane. . . . Public charity emerged. We call it the welfare state.” (Blinder *Hard* 28)

Democrats “gave us such major interventions in the economy as unemployment insurance, social security, and federal deposit insurance [as well as Medicare, Medicaid, WIC, Obamacare, etc.]. . . . examples of soft-hearted social and economic legislation have made this country a better place to live. Most of them were opposed by the Republican party.” (Blinder *Hard* 14)

“Traditional Republican policies, in economics and elsewhere, often evince a hard head but an equally hard heart.” (Blinder *Hard* 13)

“. . . soft-hearted but soft-headed policies have made it hard to be both an economist and a Democrat.” (Blinder *Hard* 14)

Conservatives must come to accept the principle of equity and realize that intelligently designed policies that promote equality need not interfere unduly with efficiency. Liberals must gain greater respect for the principle of efficiency and learn that conservative means can be harnessed to liberal ends. If both learn their lessons, we can develop economic policies that are at once rational and humane. [29] . . . Most of the policies advocated in this book enhance both efficiency and equity.” [31] (Blinder *Hard* 29, 31)

Another point that Blinder makes is: “the winners from any increase in efficiency can in principle compensate the losers. But no such compensation mechanism [is usually] set up . . .” (Blinder *Hard* 19)

Here is substantiation: “The 22 rich-country governments represented by the OECD’S donor committee devoted 0.33% of their annual income to aid in 2005. As a measure of the rich world’s commitment to the poor, this sum seems paltry . . .” (Cox, Simon. *Economics*: *Making Sense of the Modern Economy*. 1999. 2nd ed. London: Profile [for *The Economist*], 2006. 236.)

I think more state intervention is necessary if the plight of the suffering poor is to be alleviated. But I worry about the state becoming too powerful. Hobbes’ calling the state “Leviathan” was a good analogy: in the Bible, Leviathan is a crocodile (Job 41).

It’s odd, isn’t it? If you go too far to the right on the political spectrum, you end up with fascism. If you go too far to the left, you end up with totalitarianism. It’s as if both ends of the spectrum curve around and meet on the far side. The two are practically indistinguishable as dictatorships.

Nordhaus, William D. “The Pope and the Market.” *NYBooks*.*com* (*New York Review of Books*). 8 Oct. 2015. 20 Sept. 2015. Web. (Yale economics professor; “best known for his work in economic modeling and climate change.” *Wikipedia* 2015-10-24)

See: Okun, Arthur M. (1928-80). *Equality and Efficiency*: *The Big Tradeoff*. Brookings Institution, 1975. (On Kennedy’s Council of Economic Advisers. CEA chairman, 1968-69.)

“In his magnificent book on the tradeoff between equality and efficiency, Arthur Okun wrote that he would award two cheers for the market but not three. He referred to the fact, often overlooked by market zealots, that markets contain no automatic mechanisms to guarantee that market outcomes lead to an equitable distribution of income and wealth:” (Nordhaus “Pope”)

Articles from The Concise Encyclopedia of Economics

Relevant to Economic History

Henderson, David R., ed. *The Concise Encyclopedia of Economics*. Indianapolis: Liberty Fund, 2007. *Econlib*.*org* (Library of Economics and Liberty). <econlib.org/library/Enc/>.

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Demand

Great Depression

Marginal Tax Rates

Microeconomics

Phillips Curve

Poverty in America

Property Rights

Redistribution

Saving

Social Security

Stock Market

Supply

Supply-side Economics

Tragedy of the Commons

Unemployment

Economic Systems

Mercantilism

1. **introduction**
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   2. definition
      1. “Mercantilism is economic nationalism for the purpose of building a wealthy and powerful state.” (LaHaye)
      2. “Adam Smith coined the term “mercantile system” to describe the system of political economy that sought to enrich the country by restraining imports and encouraging exports.” (LaHaye)
   3. types of economic system
      1. “the agricultural system of the physiocrats” (LaHaye)
      2. the mercantile system of “the sixteenth to the late eighteenth centuries” (LaHaye)
      3. “the laissez-faire of the nineteenth and early twentieth centuries . . .” (LaHaye)
2. **history**
   1. 1500s-1700s: “This system dominated Western European economic thought and policies . . .” (LaHaye)
      1. “The goal [was] a “favorable” balance of trade that would bring gold and silver into the country and also to maintain domestic employment.” (LaHaye)
      2. “. . . the mercantile system served the interests of merchants and producers such as the British East India Company, whose activities were protected or encouraged by the state.” (LaHaye)
   2. 1500s: causes
      1. “consolidation of the regional power centers of the feudal era by large, competitive nation-states” (LaHaye)
         1. This was the “most important economic rationale for mercantilism in the sixteenth century . . .” (LaHaye)
         2. “Each government’s primary economic objective was to command a sufficient quantity of hard currency to support a military that would deter attacks by other countries and aid its own territorial expansion.” (LaHaye)
         3. “During the mercantilist period, military conflict between nation-states was both more frequent and more extensive than at any other time in [earlier?] history. The armies and navies of the main protagonists were no longer temporary forces raised to address a specific threat or objective, but were full-time professional forces.” (LaHaye)
      2. “establishment of colonies outside Europe . . .” (LaHaye)
      3. “growth of European commerce and industry relative to agriculture . . .” (LaHaye)
         1. “Most of the mercantilist policies were the outgrowth of the relationship between the governments of the nation-states and their mercantile classes. In exchange for paying levies and taxes to support the armies of the nation-states, the mercantile classes induced governments to enact policies that would protect their business interests against foreign competition.” (LaHaye)
         2. “These policies took many forms.” (LaHaye)
            1. “Domestically, governments would provide capital to new industries, exempt new industries from guild rules and taxes, establish monopolies over local and colonial markets, and grant titles and pensions to successful producers.” (LaHaye)
            2. “In trade policy the government assisted local industry by imposing tariffs, quotas, and prohibitions on imports of goods that competed with local manufacturers.” (LaHaye)
            3. “In trade policy the government . . . also prohibited the export of tools and capital equipment and the emigration of skilled labor that would allow foreign countries, and even the colonies of the home country, to compete in the production of manufactured goods.” (LaHaye)
            4. “At the same time, diplomats encouraged foreign manufacturers to move to the diplomats’ own countries.” (LaHaye)
      4. “increase in the volume and breadth of trade . . .” (LaHaye)
      5. “increase in the use of metallic monetary systems, particularly gold and silver, relative to barter transactions” (LaHaye)
   3. shipping
      1. “Shipping was particularly important during the mercantile period. With the growth of colonies and the shipment of gold from the New World into Spain and Portugal, control of the oceans was considered vital to national power. Because ships could be used for merchant or military purposes, the governments of the era developed strong merchant marines. In France, Jean-Baptiste Colbert, the minister of finance under Louis XIV from 1661 to 1683, increased port duties on foreign vessels entering French ports and provided bounties to French shipbuilders.” (LaHaye)
      2. “Navigation policies by France, England, and other powers were directed primarily against the Dutch, who dominated commercial marine activity in the sixteenth and seventeenth centuries.” (LaHaye)
   4. England (LaHaye)
      1. “In England, the Navigation Act of 1651 prohibited foreign vessels from engaging in coastal trade in England and required that all goods imported from the continent of Europe be carried on either an English vessel or a vessel registered in the country of origin of the goods. Finally, all trade between England and its colonies had to be carried in either English or colonial vessels. The Staple Act of 1663 extended the Navigation Act by requiring that all colonial exports to Europe be landed through an English port before being re-exported to Europe.” (LaHaye)
3. **the end of then mercantilist era**
   1. “During the mercantilist era it was often suggested, if not actually believed, that the principal benefit of foreign trade was the importation of gold and silver. According to this view the benefits to one nation were matched by costs to the other nations that exported gold and silver, and there were no net gains from trade. For nations almost constantly on the verge of war, draining one another of valuable gold and silver was thought to be almost as desirable as the direct benefits of trade.” (LaHaye)
   2. Adam Smith’s *The Wealth of Nations*
      1. *The Wealth of Nations* “is generally considered to mark the end of the mercantilist era . . .” (LaHaye)
      2. “Adam Smith refuted the idea that the wealth of a nation is measured by the size of the treasury in his famous treatise *The Wealth of Nations* . . . Smith made a number of important criticisms of mercantilist doctrine.” (LaHaye)
      3. “First, he demonstrated that trade, when freely initiated, benefits both parties.” (LaHaye)
      4. “Second, he argued that specialization in production allows for economies of scale, which improves efficiency and growth.” (LaHaye)
      5. “Finally, Smith argued that the collusive relationship between government and industry was harmful to the general population. While the mercantilist policies were designed to benefit the government and the commercial class, the doctrines of laissez-faire, or free markets, which originated with Smith, interpreted economic welfare in a far wider sense of encompassing the entire population.” (LaHaye)
   3. “. . . the laissez-faire doctrines of free-market economics also reflect a general disenchantment with the imperialist policies of nation-states. The Napoleonic Wars in Europe and the Revolutionary War in the United States heralded the end of the period of military confrontation in Europe and the mercantilist policies that supported it.” (LaHaye)
   4. “Despite these policies and the wars with which they were associated, the mercantilist period was one of generally rapid growth, particularly in England. This is partly because the governments were not very effective at enforcing the policies they espoused. While the government could prohibit imports, for example, it lacked the resources to stop the smuggling that the prohibition would create. In addition, the variety of new products that were created during the Industrial Revolution made it difficult to enforce the industrial policies that were associated with mercantilist doctrine.” (LaHaye)
4. “By 1860 England had removed the last vestiges of the mercantile era. Industrial regulations, monopolies, and tariffs were abolished, and emigration and machinery exports were freed.” (LaHaye)
5. **1860-1939**
   1. “In large part because of its free trade policies, England became the dominant economic power in Europe. England’s success as a manufacturing and financial power, coupled with the United States as an emerging agricultural powerhouse, led to the resumption of protectionist pressures in Europe and the arms race between Germany, France, and England that ultimately resulted in World War I.” (LaHaye)
   2. protectionism
      1. “Protectionism remained important in the interwar period. World War I had destroyed the international monetary system based on the gold standard.” (LaHaye)
      2. “After the war, manipulation of the exchange rate was added to governments’ lists of trade weapons. A country could simultaneously lower the international prices of its exports and increase the local currency price of its imports by devaluing its currency against the currencies of its trading partners. This “competitive devaluation” was practiced by many countries during the Great Depression of the 1930s and led to a sharp reduction in world trade.” (LaHaye)
6. **after World War II**
   1. “The mercantilist era has passed. Modern economists accept Adam Smith’s insight that free trade leads to international specialization of labor and, usually, to greater economic well-being for all nations.” (LaHaye)
   2. But “A number of factors led to the reemergence of mercantilist policies after World War II.” (LaHaye)
   3. “The Great Depression created doubts about the efficacy and stability of free-market economies, and an emerging body of economic thought ranging from Keynesian countercyclical policies to Marxist centrally planned systems created a new role for governments in the control of economic affairs.” (LaHaye)
   4. “In addition, the wartime partnership between government and industry in the United States created a relationship—the military-industrial complex, in Dwight D. Eisenhower’s words—that also encouraged activist government policies.” (LaHaye)
   5. “In Europe, the shortage of dollars after the war induced governments to restrict imports and negotiate bilateral trading agreements to economize on scarce foreign exchange resources. These policies severely restricted the volume of intra-Europe trade and impeded the recovery process in Europe in the immediate postwar period.” (LaHaye)
   6. “The economic strength of the United States, however, provided the stability that permitted the world to emerge from the postwar chaos into a new era of prosperity and growth.” (LaHaye)
      1. “The Marshall Plan provided American resources that overcame the most acute dollar shortages.” (LaHaye)
      2. “The Bretton Woods agreement established a new system of relatively stable exchange rates that encouraged the free flow of goods and capital.” (LaHaye)
      3. “Finally, the signing of the GATT (General Agreement on Tariffs and Trade) in 1947 marked the official recognition of the need to establish an international order of multilateral free trade.” (LaHaye)
         1. “Since the GATT went into effect in 1948, eight rounds of multilateral trade negotiations have resulted in a significant liberalization of trade in manufactured goods . . .” (LaHaye)
         2. The General Agreement on Trade in Services (GATS) was signed in 1994. (LaHaye)
         3. The World Trade Organization (WTO) was established “to enforce the agreed-on rules of international trade. (LaHaye)
   7. “But some mercantilist policies continue to exist.” (LaHaye)
      1. A “surge of protectionist sentiment . . . began with the oil crisis in the mid-1970s and expanded with the global recession of the early 1980s . . .” (LaHaye)
      2. “The surge of protectionist sentiment . . . has led some economists to label the modern pro-export, anti-import attitude “neomercantilism.”” (LaHaye)
      3. protectionist policies
7. **modern protectionism**
   1. “Modern mercantilist practices arise from the same source as the mercantilist policies of the sixteenth through eighteenth centuries. Groups with political power use that power to secure government intervention to protect their interests while claiming to seek benefits for the nation as a whole.” (LaHaye)
   2. “. . . numerous exceptions [to GATT and GATS] exist, giving rise to discriminatory antidumping actions, countervailing duties, and emergency safeguard measures when imports suddenly threaten to disrupt or “unfairly” compete with a domestic industry.” (LaHaye)
   3. “Agricultural trade is still heavily protected by quotas, subsidies, and tariffs, and is a key topic on the agenda of the ninth (Doha) round of negotiations.” (LaHaye)
   4. “And cabotage laws, such as the U.S. Jones Act, enacted in 1920 and successfully defended against liberalizing reform in the 1990s, are the modern counterpart of England’s Navigation Laws. The Jones Act requires all ships carrying cargo between U.S. ports to be U.S. built, owned, and documented.” (LaHaye)
   5. Robert B. Ekelund and Robert D. Tollison (*Politicized Economies*: *Monarchy*, *Monopoly*, *and Mercantilism*, 1997) is an “interpretation of historical mercantilism . . .” (LaHaye)
      1. Ekelund and Tollison focus “on the privilege-seeking activities of monarchs and merchants. The mercantile regulations protected the privileged positions of monopolists and cartels, which in turn provided revenue to the monarch or state.” (LaHaye)
      2. England
         1. According to this interpretation, the reason England was so prosperous during the mercantilist era was that mercantilism was not well enforced. Parliament and the common-law judges competed with the monarchy and royal courts to share in the monopoly or cartel profits created by mercantilist restrictions on trade. This made it less worthwhile to seek, and to enforce, mercantilist restrictions.” (LaHaye)
      3. France and Spain
         1. “Greater monarchical power and uncertain property rights in France and Spain, by contrast, were accompanied by slower growth and even stagnation during this period.” (LaHaye)
   6. “. . . the various cabotage laws can be understood as an efficient tool to police the trading cartels. By this view, the establishment of the WTO will have a liberalizing effect if it succeeds in raising the costs or reducing the benefits of those seeking mercantilist profits through trade restrictions.” (LaHaye)
   7. imports and domestic employment
      1. “Of the false tenets of mercantilism that remain today, the most pernicious is the idea that imports reduce domestic employment. Labor unions have used this argument to justify protection from imports originating in low-wage countries, and there has been much political and media debate about the implications of offshoring of service sector jobs for national employment. Many opponents have claimed that offshoring of services puts U.S. jobs at risk. While it does threaten some U.S. jobs, it puts no jobs at risk in the aggregate, however, but simply causes a reallocation of jobs among industries.” (LaHaye)
   8. “Another mercantilist view that persists today is that a current account deficit is bad.” (LaHaye)
      1. “When a country runs a current account deficit, it is either borrowing from or selling assets to the rest of the world to finance expenditure on imports in excess of export revenue.” (LaHaye)
      2. “However, even when this results in an increase of net foreign indebtedness, and associated future debt-servicing requirements, it will promote economic wealth if the spending is for productive purposes that yield a greater return than is forgone on the assets exchanged to finance the spending.” (LaHaye)
      3. “Many developing countries with high rates of return on capital have run current account deficits for extremely long periods while enjoying rapid growth and solvency.” (LaHaye)
      4. “The United States was one of these for a large part of the nineteenth century, borrowing from English investors to build railroads.” (See the article, “International Capital Flows.”) (LaHaye)
      5. “Furthermore, persistent surpluses may primarily reflect a lack of viable investment opportunities at home or a growing demand for money in a rapidly developing country, and not a “mercantile” accumulation of international reserves at the expense of the trading partners.” (LaHaye)

Capitalism

Hessen, Robert. “Capitalism.” *The Concise Encyclopedia of Economics*. Indianapolis: Liberty Fund, 2007. Ed. David R. Henderson. Library of Economics and Liberty. 13 Dec. 2008.

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   2. definition
      1. “Capitalism” was “a term of disparagement coined by socialists in the mid-nineteenth century . . .” (Hessen)
      2. It “is a misnomer for “economic individualism . . .” (Hessen)
         1. “Individualism” was “the name that preceded capitalism.” (Hessen)
         2. Adam Smith called individualism “the obvious and simple system of natural liberty” (*Wealth of Nations*).” (Hessen)
            1. “Economic individualism’s basic premise is that the pursuit of self-interest and the right to own private property are morally defensible and legally legitimate.” (Hessen)
            2. “Its major corollary is that the state exists to protect individual rights. Subject to certain restrictions, individuals (alone or with others) are free to decide where to invest, what to produce or sell, and what prices to charge.” (Hessen)
      3. Here is the closest that Hessen comes to defining “capitalism.”
         1. “. . . the freedoms to invest, to decide what to produce, and to decide what to charge . . .” (Hessen)
         2. “As long as individuals anywhere perceive a potential for profits, they will amass the capital, produce the product, and circumvent the cultural and political barriers that interfere with their objectives.” (Hessen)
   3. Capitalism did not emerge because of a Puritan work ethic.
      1. 1903: Max Weber, German sociologist, “stated that the catalyst for capitalism was in seventeenth-century England, where members of a religious sect, the Puritans, under the sway of John Calvin’s doctrine of predestination, channeled their energies into hard work, reinvestment, and modest living, and then carried these attitudes to New England.” (Hessen)
      2. disproofs
         1. “The same attitudes toward work and savings are exhibited by Jews and Japanese, whose value systems contain no Calvinist component.” (Hessen)
         2. “. . . Scotland in the seventeenth century was simultaneously orthodox Calvinist and economically stagnant.” (Hessen)
      3. alternative “explanation of the Puritans’ diligence” (Hessen)
         1. “. . . by refusing to swear allegiance to the established Church of England, they were barred from . . . landownership, law, the military, civil service, universities—and so they focused on trade and commerce.” (Hessen)
         2. “A similar pattern of exclusion or ostracism explains why Jews and other racial and religious minorities in other countries and later centuries tended to concentrate on retail businesses and money lending.” (Hessen)
2. **early 1800s**
   1. “In early-nineteenth-century England the most visible face of capitalism was the textile factories that hired women and children.” (Hessen)
   2. “Critics (Richard Oastler and Robert Southey, among others) denounced the mill owners as heartless exploiters and described the working conditions—long hours, low pay, monotonous routine—as if they were unprecedented. Believing that poverty was new, not merely more visible in crowded towns and villages, critics compared contemporary times unfavorably with earlier centuries.” (Hessen)
   3. But “Before children began earning money working in factories, they had been sent to live in parish poorhouses; apprenticed as unpaid household servants; rented out for backbreaking agricultural labor; or became beggars, vagrants, thieves, and prostitutes. The precapitalist “good old days” simply never existed (see industrial revolution and the standard of living).” (Hessen)
   4. “. . . by the 1820s and 1830s the growing specter of child labor and “dark Satanic mills” (poet William Blake’s memorable phrase) generated vocal opposition to these unbridled examples of self-interest and the pursuit of profit. Some critics urged legislative regulation of wages and hours, compulsory education, and minimum age limits for laborers. Others offered more radical alternatives. The most vociferous were the socialists, who aimed to eradicate individualism, the name that preceded capitalism.” (Hessen)
3. **1800s**: **socialist detractors**
   1. “Socialist theorists repudiated individualism’s leading tenets: that individuals possess inalienable rights, that government should not restrain individuals from pursuing their own happiness, and that economic activity should not be regulated by government.” (Hessen)
   2. “Instead, they proclaimed an organic conception of society. They stressed ideals such as brotherhood, community, and social solidarity and set forth detailed blueprints for model utopian colonies in which collectivist values would be institutionalized.” (Hessen)
      1. “The short life span of these utopian societies acted as a brake on the appeal of socialism.” (Hessen)
   3. Socialism’s “ranks swelled after Karl Marx offered a new “scientific” version, proclaiming that he had discovered the laws of history and that socialism inevitably would replace capitalism. Beyond offering sweeping promises that socialism would create economic equality, eradicate poverty, end specialization, and abolish money, Marx supplied no details at all about how a future socialist society would be structured or would operate.” (Hessen)
4. **1800s**: **capitalist theory**
   1. Economists in England, America, and Western Europe, “who were supposedly capitalism’s defenders did not defend capitalism effectively because they did not understand it. They came to believe that the most defensible economic system was one of “perfect” or “pure” competition. Under perfect competition all firms are small scale, products in each industry are homogeneous, consumers are perfectly informed about what is for sale and at what price, and all sellers are what economists call price takers (i.e., they have to “take” the market price and cannot charge a higher one for their goods).” (Hessen)
   2. “Clearly, these assumptions were at odds with both common sense and the reality of market conditions.” (Hessen)
      1. “Neither rivalry nor product differentiation occurs under perfect competition, but they happen constantly under real flesh-and-blood capitalism.” (Hessen)
      2. “Under real competition, which is what capitalism delivered, companies are rivals for sales and profits. This rivalry leads them to innovate in product design and performance, to introduce cost-cutting technology, and to use packaging to make products more attractive or convenient for customers. Unbridled rivalry encourages companies to offer assurances of security to imperfectly informed consumers, by means such as money-back guarantees or product warranties and by building customer loyalty through investing in their brand names and reputations (see advertising, brand names, and consumer protection).” (Hessen)
5. **later 1800s**: **capitalist practice**
   1. “Companies that successfully adopted these techniques of rivalry were the ones that grew, and some came to dominate their industries, though usually only for a few years until other firms found superior methods of satisfying consumer demands.” (Hessen)
   2. “The leading American industrialists of the late nineteenth century were aggressive competitors and innovators.” (Hessen)
      1. “To cut costs and thereby reduce prices and win a larger market share, Andrew Carnegie eagerly scrapped his huge investment in Bessemer furnaces and adopted the open-hearth system for making steel rails.” (Hessen)
      2. “In the oil-refining industry, John D. Rockefeller embraced cost cutting by building his own pipeline network; manufacturing his own barrels; and hiring chemists to remove the vile odor from abundant, low-cost crude oil.” (Hessen)
      3. “Gustavus Swift challenged the existing network of local butchers when he created assembly-line meatpacking facilities in Chicago and built his own fleet of refrigerated railroad cars to deliver low-price beef to distant markets.” (Hessen)
      4. “Local merchants also were challenged by Chicago-based Sears Roebuck and Montgomery Ward, which pioneered mail-order sales on a money-back, satisfaction-guaranteed basis.” (Hessen)
   3. “. . . the benefits of capitalism were widely diffused. Luxuries [became] necessities.” (Hessen)
      1. “At first, the luxuries were cheap cotton clothes, fresh meat, and white bread . . .” (Hessen)
      2. “. . . then sewing machines, bicycles, sporting goods, and musical instruments . . .” (Hessen)
      3. “. . . then automobiles, washing machines, clothes dryers, and refrigerators . . .” (Hessen)
      4. “. . . then telephones, radios, televisions, air conditioners, and freezers . . .” (Hessen)
      5. “. . . and most recently, TiVos, digital cameras, DVD players, and cell phones.” (Hessen)
6. **later 1800s**: **detractors**
   1. “Small-scale producers denounced these innovators as “robber barons,” accused them of monopolistic practices, and appealed to Congress for relief from relentless competition.” (Hessen)
      1. “Beginning with the Sherman Act (1890), Congress enacted antitrust laws that were often used to suppress cost cutting and price slashing, based on acceptance of the idea that an economy of numerous small-scale firms was superior to one dominated by a few large, highly efficient companies operating in national markets (see antitrust).” (Hessen)
      2. “. . . these constraints . . . worked sporadically and unpredictably . . .” (Hessen)
7. **1900s**: **detractors**
   1. 1950s
      1. “Some critics reject capitalism by extolling “the simple life” and labeling prosperity mindless materialism.” (Hessen)
      2. “In the 1950s, critics such as John Kenneth Galbraith and Vance Packard attacked the legitimacy of consumer demand, asserting that if goods had to be advertised in order to sell, they could not be serving any authentic human needs.” (Hessen)
      3. “They charged that consumers are brainwashed by Madison Avenue and crave whatever the giant corporations choose to produce and advertise, and complained that the “public sector” is starved while frivolous private desires are being satisfied.” (Hessen)
         1. Galbraith, John Kenneth. *The Affluent Society*. Boston: Houghton Mifflin, 1958.
         2. Packard, Vance. *The Hidden Persuaders*. New York: D. McKay, 1957.
   2. “Marxist philosopher Herbert Marcuse proclaimed that the real evil of capitalism is prosperity, because it seduces workers away from their historic mission—the revolutionary overthrow of capitalism—by supplying them with cars and household appliances, which he called “tools of enslavement.”” (Marcuse, Herbert. “Repressive Tolerance.” *A Critique of Pure Tolerance*. Ed. Robert Paul Wolff, Barrington Moore Jr., and Herbert Marcuse. Boston: Beacon, 1969.) (Hessen)
   3. “. . . Gar Alperovitz and Michael Harrington proclaimed equality the highest moral value, calling for higher taxes on incomes and inheritances to massively redistribute wealth, not only nationally but also internationally.” (Hessen)
      1. Gar Alperovitz, “Notes Toward a Pluralist Commonwealth.” *Strategy and Program*: *Two Essays toward a New American Socialism*. Ed. Staughton Lynd and Gar Alperovitz. Boston: Beacon, 1971. Michael Harrington, *Socialism Past and Future*. Boston: Little, Brown, 1989.
      2. “Capitalism is not a cure for every defect in human affairs or for eradicating all inequalities, but [it] holds out the promise of what Adam Smith called “universal opulence.”” (Hessen)
   4. British economist Richard Layard
      1. Layard, Richard. *Happiness*: *Lessons from a New Science*. New York: Penguin, 2005.
      2. “. . . capitalist society supplies new gadgets, appliances, and luxuries that arouse envy in those who cannot afford them and that inspire a ceaseless obsession with securing more among those who already own too much.” (Hessen)
      3. Layard “laments that economic individualism fails to ensure the emotional satisfactions that are essential to life, including family ties, financial security, meaningful work, friendship, and good health.” (Hessen)
      4. “Layard’s long-range solutions include a revival of religion to topple the secularism that capitalism fosters, altruism to obliterate selfishness, and communitarianism to supercede individualism.” (Hessen)
      5. Near-term, he wants “robust governmental efforts to promote happiness instead of the minimalist night-watchman state that libertarian defenders of capitalism favor. He argues that low taxes are harmful to the poor because they give government inadequate revenue to provide essential services to the poor. Higher taxes really would not harm the well-to-do, he says, because money and material possessions are subject to diminishing marginal utility. If such claims have a familiar ring, it is because Galbraith made the same points fifty years ago.” (Hessen)
   5. “law professors Cass Sunstein and Liam Murphy and philosophers Stephen Holmes, Thomas Nagel, and Peter Singer” (Hessen)
      1. Holmes, Stephen, and Cass Sunstein. *The Cost of Rights*. New York: Norton, 1999.
      2. Murphy, Liam, and Thomas Nagel. *The Myth of Ownership*. New York: OUP, 2002.
      3. Singer, Peter. *The President of Good and Evil*. New York: Dutton, 2004.
      4. “They lament that in societies based on self-interest and private property, wealth earners oppose rising taxes, preferring to spend their money on themselves and leave inheritances for their children. This selfish bias leads to an impoverished public sector and to inadequate tax revenues. To justify governmental claims for higher taxes, these writers have revived an argument—attacking the legitimacy of private property and inheritance—that was advanced by institutionalist economists during the New Deal era. Government, they assert, is the ultimate source of all wealth, and so it should have first claim on wealth and earnings. “Is it really your money?” Singer asks, citing economist Herbert Simon’s estimate that a flat income tax of 90 percent would be reasonable because individuals derive most of their income from the “social capital” provided by technology and by protections such as patents and copyrights, and by the physical security afforded by police, courts, and armies rather than from anything they personally do. If the “fruits of capitalism” are merely a gift of government, it is an argument that proves too much. By the same logic, individuals might be enslaved if they were not protected by government, so conscription (servitude for a brief period) would be entirely unobjectionable, as would the seizure of privately owned land to turn it over to new owners if their uses would yield higher tax revenues—exactly the basis of a 2005 Supreme Court ruling on “eminent domain.”” (Hessen)
   6. the attack on corporations (Ralph Nader, Mark Green, Charles Lindblom, Robert Dahl)
      1. “Another persistent criticism of capitalism [is] the attack on corporations . . .” (Hessen)
      2. 1932: Adolf A. Berle Jr.
         1. Berle, Adolf A., Jr. *The Modern Corporation and Private Property*.
         2. Berle “coined the phrase “splitting of the atom of ownership” to lament the fact that investment and management had become two distinct elements. In fact, the process is merely an example of the specialization of function or division of labor that occurs so often under capitalism. Far from being an abuse or defect, giant corporations are an eloquent testimonial to the ability of individuals to engage in large-scale, long-range cooperation for their mutual benefit and enrichment (see corporations).” (Hessen)
      3. Ralph Nader, Mark Green, Charles Lindblom, and Robert Dahl charge that giant corporations “are illegitimate institutions because they do not conform to the model of small-scale, owner-managed firms that Adam Smith extolled in 1776.” (Hessen)
         1. Nader, Ralph, and Mark Green. *Taming the Giant Corporation*. New York: Norton, 1976.
         2. Lindblom, Charles. *Politics and Markets*. New York: Basic Books, 1977.
         3. Dahl, Robert. *A Preface to Economic Democracy*. Berkeley: U of California P, 1985.
      4. “In fact, giant corporations are fully consistent with capitalism, which does not imply any particular configuration of firms in terms of size or legal form. They attract capital from thousands (sometimes millions) of investors who are strangers to each other and who entrust their savings to the managerial expertise of others in exchange for a share of the resulting profits.” (Hessen)
   7. the attack on globalization
      1. “Globalization” is “the outsourcing of service, manufacturing, and assembly jobs to foreign sites where costs are cheaper.” (Hessen)
      2. “It has been denounced as union busting, exploitative, and destructive of foreign cultures, and is damned for the loss of domestic jobs and the resulting erosion of local tax revenues.” (Hessen)
      3. But “Identical complaints were voiced two generations ago when jobs began flowing from unionized New England textile factories to nonunionized southern textile mills, and then to offshore sites such as Puerto Rico.” (Hessen)
      4. “If the history of capitalism proves one thing, it is that the process of competition does not stop at national borders.” (Hessen)
8. **restrictions on capitalism**
   1. “. . . the freedoms to invest, to decide what to produce, and to decide what to charge have always been restricted. A fully free economy, true laissez-faire, never has existed . . .” (Hessen)
   2. 1700s
      1. “Originally, local authorities fixed the prices of necessities such as bread and ale, bridge and ferry tolls, or fees at inns and mills, but most products and services were unregulated.” (Hessen)
   3. 1800s
      1. “. . . governmental authority over economic activity has sharply increased since the eighteenth century . . .” (Hessen)
      2. “By the late nineteenth century governments were setting railroad freight rates and the prices charged by grain elevator operators, because these businesses had become “affected with a public purpose.”” (Hessen)
   4. 1930s on
      1. “. . . governmental authority over economic activity has sharply increased . . . especially since the Great Depression.” (Hessen)
      2. “By the 1930s the same criterion was invoked to justify price controls over milk, ice, and theater tickets.” (Hessen)
      3. “One piece of good news, though, is that a spate of deregulation in the late 1970s and the 1980s eliminated price controls on airline travel, trucking, railroad freight rates, natural gas, oil, and some telecommunications rates.” (Hessen)
   5. present day
      1. From the 1700s government began to offer “benefits to business, such as tax exemptions, bounties or subsidies to grow certain crops, and tariff protection so domestic firms would devote capital to manufacturing goods that otherwise had to be imported. Special favors became entrenched and hard to repeal because the recipients were organized while consumers, who bore the burden of higher prices, were not.” (Hessen)
      2. “Once safe from foreign competition behind these barriers to free trade, some U.S. producers—steel and auto manufacturers, for example—stagnated. They failed to adopt new technologies or to cut costs until low-cost, low-price overseas rivals—the Japanese, especially—challenged them for their customers. They responded initially by asking Congress for new favors—higher tariffs, import quotas, and loan guarantees—and pleading with consumers to “buy American” and thereby save domestic jobs. Slowly, but inevitably, they began the expensive process of catching up with foreign companies so they could try to recapture their domestic customers.” (Hessen)
      3. “Today, the United States, once the citadel of capitalism, is a “mixed economy” in which government bestows favors and imposes restrictions with no clear or consistent principles in mind. As the formerly communist countries of Eastern Europe struggle to embrace free-market ideas and institutions, they can learn from the American (and British) experience about not only the benefits that flowed from economic individualism, but also the burden of regulations that became impossible to repeal and trade barriers that were hard to dismantle.” (Hessen)

Marxism

1. **introduction**
   1. bibliography
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      4. Elliot, John E., ed. *Marx and Engels on Economics*, *Politics*, *and Society*: *Essential Readings with Editorial Commentary*. Santa Monica: Goodyear, 1981.
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      8. Prychitko, David L. *Marxism and Workers’ Self-Management*: *The Essential Tension*. Westport: Greenwood, 1991.
   2. 1867: Marx’s masterpiece, *Capital*.
   3. “Marx wove economics and philosophy together to construct a grand theory of human history and social change.” (Prychitko)
   4. “His relentless criticism of capitalism and his corresponding promise of an inevitable, harmonious socialist future inspired a revolution of global proportions.” (Prychitko)
   5. “The people of Poland, Hungary, Czechoslovakia, East Germany, Romania, Yugoslavia, Bulgaria, Albania, and the USSR rejected Marxist ideology and entered a remarkable transition toward private property rights and the market-exchange system . . .” (Prychitko)
2. **labor theory of value**
   1. “The theory’s basic claim is simple: the value of a commodity can be objectively measured by the average number of labor hours required to produce that commodity.” (Prychitko)
   2. “If a pair of shoes usually takes twice as long to produce as a pair of pants, for example, then shoes are twice as valuable as pants. In the long run, the competitive price of shoes will be twice the price of pants, *regardless of the value of the physical inputs*.” (Prychitko)
   3. “. . . the labor theory of value is demonstrably false . . .” (Prychitko)
   4. the labor theory of value before Marx
      1. “. . . the labor theory of value was not unique to Marxism.” (Prychitko)
      2. “. . . it prevailed among classical economists through the mid-nineteenth century.” (Prychitko)
      3. “Adam Smith, for instance, flirted with a labor theory of value in his classic defense of capitalism, *The Wealth of Nations* (1776) . . .” (Prychitko)
      4. “. . . David Ricardo later systematized it in his *Principles of Political Economy* (1817), a text studied by generations of free-market economists.”
   5. the labor theory of value in Marx
      1. “The labor theory of value is . . . evident in” *Capital*. (Prychitko)
      2. Marx did attempt, however, to turn the theory against the champions of capitalism . . . Marx argued that the theory could explain the value of all commodities, including the commodity that workers sell to capitalists for a wage. Marx called this commodity “labor power.”” (Prychitko)
      3. “Labor power is the worker’s capacity to produce goods and services. Marx, using principles of classical economics, explained that the value of labor power must depend on the number of labor hours it takes society, on average, to feed, clothe, and shelter a worker so that he or she has the capacity to work. In other words, the long-run wage workers receive will depend on the number of labor hours it takes to produce a person who is fit for work. Suppose five hours of labor are needed to feed, clothe, and protect a worker each day so that the worker is fit for work the following morning. If one labor hour equaled one dollar, the correct wage would be five dollars per day.” (Prychitko)
      4. “Marx then asked an apparently devastating question: if all goods and services in a capitalist society tend to be sold at prices (and wages) that reflect their true value (measured by labor hours), how can it be that capitalists enjoy profits—even if only in the short run? How do capitalists manage to squeeze out a residual between total revenue and total costs?” (Prychitko)
      5. “Capitalists, Marx answered, must enjoy a privileged and powerful position as owners of the means of production and are therefore able to ruthlessly exploit workers. Although the capitalist pays workers the correct wage, somehow—Marx was terribly vague here—the capitalist makes workers work more hours than are needed to create the worker’s labor power. If the capitalist pays each worker five dollars per day, he can require workers to work, say, twelve hours per day—a not uncommon workday during Marx’s time. Hence, if one labor hour equals one dollar, workers produce twelve dollars’ worth of products for the capitalist but are paid only five. The bottom line: capitalists extract “surplus value” from the workers and enjoy monetary profits.” (Prychitko)
      6. “Marx was correct when he claimed that classical economists failed to adequately explain capitalist profits. But Marx failed as well. By the late nineteenth century, the economics profession rejected the labor theory of value. Mainstream economists now believe that capitalists do not earn profits by exploiting workers (see profits). Instead, they believe, entrepreneurial capitalists earn profits by forgoing current consumption, by taking risks, and by organizing production.” (Prychitko)
3. **alienation**
   1. 1844: Marx first articulates the concept of alienation in *Economic and Philosophic Manuscripts of 1844*. (Prychitko)
   2. “Marx believed that people, by nature, are free, creative beings who have the potential to totally transform the world. But he observed that the modern, technologically developed world is apparently beyond our full control. Marx condemned the free market, for instance, as being “anarchic,” or ungoverned. He maintained that the way the market economy is coordinated—through the spontaneous purchase and sale of private property dictated by the laws of supply and demand—blocks our ability to take control of our individual and collective destinies.” (Prychitko)
   3. “Marx condemned capitalism as a system that alienates the masses. His reasoning was as follows: although workers produce things for the market, market forces, not workers, control things. People are required to work for capitalists who have full control over the means of production and maintain power in the workplace. Work, he said, becomes degrading, monotonous, and suitable for machines rather than for free, creative people. In the end, people themselves become objects—robotlike mechanisms that have lost touch with human nature, that make decisions based on cold profit-and-loss considerations, with little concern for human worth and need. Marx concluded that capitalism blocks our capacity to create our own humane society.” (Prychitko)
   4. “Marx’s notion of alienation rests on a . . . shaky assumption. It assumes that people can successfully abolish an advanced, market-based society and replace it with a democratic, comprehensively planned society. Marx claimed that we are alienated not only because many of us toil in tedious, perhaps even degrading, jobs, or because by competing in the marketplace we tend to place profitability above human need. The issue is not about toil versus happiness. We are alienated, he maintained, because we have not yet designed a society that is fully planned and controlled, a society without competition, profits and losses, money, private property, and so on—a society that, Marx predicted, must inevitably appear as the world advances through history.” (Prychitko)
   5. “. . . even with the latest developments in computer technology, we cannot create a comprehensively planned system that puts an end to scarcity and uncertainty. But for Marxists to speak of alienation under capitalism, they must *assume* that a successfully planned world is possible. That is, Marx believed that under capitalism we are “alienated” or “separated” from our potential to creatively plan and control our collective fate. But if comprehensive socialist planning fails to work in practice—if, indeed, it is an impossibility, as we have learned from Mises and Hayek—then we cannot be “alienated” in Marx’s use of the term. We cannot really be “separated” from our “potential” to comprehensively plan the economy if comprehensive planning is impossible.” (Prychitko)
4. **scientific socialism**
   1. “A staunch antiutopian, Marx claimed that his criticism of capitalism was based on the latest developments in science. He called his theory “scientific socialism” to clearly distinguish his approach from that of other socialists (Henri de Saint-Simon and Charles Fourier, for instance), who seemed more content to dream about some future ideal society without comprehending how existing society really worked (see socialism).” (Prychitko)
   2. “Marx’s scientific socialism combined his economics and philosophy—including his theory of value and the concept of alienation—to demonstrate that throughout the course of human history, a profound struggle has developed between the “haves” and the “have-nots.” Specifically, Marx claimed that capitalism has ruptured into a war between two classes: the bourgeoisie (the capitalist class that owns the means of production) and the proletariat (the working class, which is at the mercy of the capitalists). Marx claimed that he had discovered the laws of history, laws that expose the contradictions of capitalism and the necessity of the class struggle.” (Prychitko)
   3. “Marx predicted that competition among capitalists would grow so fierce that, eventually, most capitalists would go bankrupt, leaving only a handful of monopolists controlling nearly all production. This, to Marx, was one of the contradictions of capitalism: competition, instead of creating better products at lower prices for consumers, in the long run creates monopoly, which exploits workers and consumers alike. What happens to the former capitalists? They fall into the ranks of the proletariat, creating a greater supply of labor, a fall in wages, and what Marx called a growing reserve army of the unemployed. Also, thought Marx, the anarchic, unplanned nature of a complex market economy is prone to economic crises as supplies and demands become mismatched, causing huge swings in business activity and, ultimately, severe economic depressions.” (Prychitko)
   4. “The more advanced the capitalist economy becomes, Marx argued, the greater these contradictions and conflicts. The more capitalism creates wealth, the more it sows the seeds of its own destruction. Ultimately, the proletariat will realize that it has the collective power to overthrow the few remaining capitalists and, with them, the whole system.” (Prychitko)
   5. “The entire capitalist system—with its private property, money, market exchange, profit-and-loss accounting, labor markets, and so on—must be abolished, thought Marx, and replaced with a fully planned, self-managed economic system that brings a complete and utter end to exploitation and alienation. A socialist revolution, argued Marx, is inevitable.” (Prychitko)
5. **an appraisal**
   1. “Marx was surely a profound thinker . . . But his predictions have not withstood the test of time.” (Prychitko)
      1. “. . . competition has not devolved into monopoly.” (Prychitko)
      2. “Real wages have risen . . .” (Prychitko)
      3. “. . . profit rates have not declined.” (Prychitko)
      4. “Nor has a reserve army of the unemployed developed.” (Prychitko)
      5. “We do have bouts with the business cycle, but more and more economists believe that significant recessions and depressions may be more the unintended result of state intervention (through monetary policy carried out by central banks and government policies on taxation and spending) than an inherent feature of markets as such.” (Prychitko)
   2. Socialist revolutions have occurred, “but never where Marx’s theory had predicted—in the most advanced capitalist countries.” (Prychitko)
   3. Socialist revolutions “unwittingly condemned the masses to systemic poverty and political dictatorship. In practice, socialism absolutely failed to create the nonalienated, self-managed, and fully planned society. It failed to emancipate the masses and instead crushed them with statism, domination, and the terrifying abuse of state power.” (Prychitko)
   4. “Nations that have allowed for private property rights and full-blown market exchange . . . *have* enjoyed remarkable levels of long-term economic growth. Free-market economies lift the masses from poverty and create the necessary institutional conditions for overall political freedom.” (Prychitko)
   5. “Marx’s theory of value, his philosophy of human nature, and his claims to have uncovered the laws of history fit together to offer a complex and grand vision of a new world order. If the first three-quarters of the twentieth century provided a testing ground for that vision, the end of the century demonstrates its truly utopian nature and ultimate unworkability.” (Prychitko)
   6. Today “a vibrant post-Marxism [is] associated with the efforts of those active in the scholarly journal *Rethinking Marxism*, for instance. Rather than trying to solve esoteric puzzles about the labor theory of value or offering new theoretical models of a planned economy, many of today’s sharpest post-Marxists appreciate marginal analysis and the knowledge and incentive problems of collective action. . . . what will come out of these developments is hard to predict . . .” (Prychitko)

Socialism

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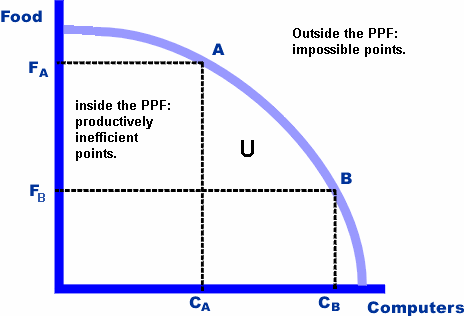
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   3. Heilbroner, Robert. “The Triumph of Capitalism.” *New Yorker* (23 Jan. 1989).
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   5. Mises, Ludwig von. “Economic Calculation in the Socialist Commonwealth.” *Collectivist Economic Planning*. Ed. Friedrich A. Hayek. London: Routledge, 1935.
   6. Shmelev, Nikolai, and Vladimir Popov. *The Turning Point*. New York: Doubleday, 1989.
2. **introduction**
   1. “Robert Heilbroner [was] a socialist for most of his adult life . . .” (Heilbroner “Socialism”)
   2. “The editor of this volume, David R. Henderson, edited this article slightly, but only to adjust it for developments in the formerly socialist countries, not to change any of its other substantive content.” (Heilbroner “Socialism”)
   3. Socialism is “a centrally planned economy in which the government controls all means of production . . .” (Heilbroner “Socialism”)
   4. Socialism “was the tragic failure of the twentieth century. Born of a commitment to remedy the economic and moral defects of capitalism, it has far surpassed capitalism in both economic malfunction and moral cruelty.” (Heilbroner “Socialism”)
   5. “soviet (n.) 1917, from Russian *sovet* “governing council,” literally “council,” from Old Russian *suvetu* “assembly,” from *su* “with” (from \**su*(*n*)- “with, together,” from PIE \**ksun*- “with”) + *vetu* “counsel.” The whole is a loan-translation of Greek *symboulion* “council of advisers.” As an adjective from 1918.” (*EtymOnline*.*com* 19 Sept. 2021.)
3. **origin**
   1. “It is often thought that the idea of socialism derives from the work of Karl Marx. In fact, Marx wrote only a few pages about socialism, as either a moral or a practical blueprint for society.” (Heilbroner “Socialism”)
   2. “The true architect of a socialist order was Lenin . . .” (Heilbroner “Socialism”)
4. **Vladimir Lenin** (1870-1924)
   1. Lenin was the first to face “the practical difficulties of organizing an economic system without the driving incentives of profit seeking or the self-generating constraints of competition.” (Heilbroner “Socialism”)
      1. “Lenin began from the long-standing delusion that economic organization would become less complex once the profit drive and the market mechanism had been dispensed with—“as self-evident,” he wrote, as “the extraordinarily simple operations of watching, recording, and issuing receipts, within the reach of anybody who can read and write and knows the first four rules of arithmetic.”” (Heilbroner “Socialism”)
   2. “In fact, economic life pursued under [socialism] became so disorganized that within four years of the 1917 revolution, Soviet production had fallen to 14 percent of its prerevolutionary level.” (Heilbroner “Socialism”)
   3. “By 1921 Lenin was forced to institute the New Economic Policy (NEP), a partial return to the market incentives of capitalism. This brief mixture of socialism and capitalism came to an end in 1927 . . .” (Heilbroner “Socialism”)
5. **Joseph Stalin** (1878-1953)
   1. When Lenin died on 21 January 1924, Stalin became leader.
   2. 1927: Stalin “instituted the process of forced collectivization that was to mobilize Russian resources for its leap into industrial power.” (Heilbroner “Socialism”)
   3. “The system that evolved under Stalin and his successors took the form of a pyramid of command. At its apex was Gosplan, the highest state planning agency, which established such general directives for the economy as the target rate of growth and the allocation of effort between military and civilian outputs, between heavy and light industry, and among various regions. Gosplan transmitted the general directives to successive ministries of industrial and regional planning, whose technical advisers broke down the overall national plan into directives assigned to particular factories, industrial power centers, collective farms, and so on. These thousands of individual subplans were finally scrutinized by the factory managers and engineers who would eventually have to implement them. Thereafter, the blueprint for production reascended the pyramid, together with the suggestions, emendations, and pleas of those who had seen it. Ultimately, a completed plan would be reached by negotiation, voted on by the Supreme Soviet, and passed into law.” (Heilbroner “Socialism”)
   4. “Thus, the final plan resembled an immense order book, specifying the nuts and bolts, steel girders, grain outputs, tractors, cotton, cardboard, and coal that, in their entirety, constituted the national output. In theory such an order book should enable planners to reconstitute a working economy each year—provided, of course, that the nuts fitted the bolts; the girders were of the right dimensions; the grain output was properly stored; the tractors were operable; and the cotton, cardboard, and coal were of the kinds needed for their manifold uses. But there was a vast and widening gap between theory and practice.” (Heilbroner “Socialism”)
   5. “The gap did not appear immediately. In retrospect, we can see that the task facing Lenin and Stalin in the early years was not so much economic as quasi military—mobilizing a peasantry into a workforce to build roads and rail lines, dams and electric grids, steel complexes and tractor factories.” (Heilbroner “Socialism”)
6. **after Stalin**
   1. “Through the 1960s the Soviet economy continued to report strong overall growth—roughly twice that of the United States—but observers began to spot signs of impending trouble. One was the difficulty of specifying outputs in terms that would maximize the well-being of everyone in the economy, not merely the bonuses earned by individual factory managers for “overfulfilling” their assigned objectives. The problem was that the plan specified outputs in physical terms. One consequence was that managers maximized yardages or tonnages of output, not its quality. A famous cartoon in the satirical magazine *Krokodil* showed a factory manager proudly displaying his record output, a single gigantic nail suspended from a crane.” (Heilbroner “Socialism”)
   2. “As the economic flow became increasingly clogged and clotted, production took the form of “stormings” at the end of each quarter or year, when every resource was pressed into use to meet preassigned targets. The same rigid system soon produced expediters, or *tolkachi*, to arrange shipments to harassed managers who needed unplanned—and therefore unobtainable—inputs to achieve their production goals. Worse, lacking the right to buy their own supplies or to hire or fire their own workers, factories set up fabricating shops, then commissaries, and finally their own worker housing to maintain control over their own small bailiwicks.” (Heilbroner “Socialism”)
   3. “It is not surprising that this increasingly Byzantine system began to create serious dysfunctions beneath the overall statistics of growth.” (Heilbroner “Socialism”)
   4. “During the 1960s the Soviet Union became the first industrial country in history to suffer a prolonged peacetime fall in average life expectancy, a symptom of its disastrous misallocation of resources. Military research facilities could get whatever they needed, but hospitals were low on the priority list.” (Heilbroner “Socialism”)
   5. “By the 1970s the figures clearly indicated a slowing of overall production.” (Heilbroner “Socialism”)
   6. “By the 1980s the Soviet Union officially acknowledged a near end to growth that was, in reality, an unofficial decline. In 1987 the first official law embodying *perestroika*—restructuring—was put into effect. President Mikhail Gorbachev announced his intention to revamp the economy from top to bottom by introducing the market, reestablishing private ownership, and opening the system to free economic interchange with the West. Seventy years of socialist rise had come to an end.” (Heilbroner “Socialism”)
7. **socialist planning in western eyes**
   1. Mises and Hayek
      1. “Understanding of the difficulties of central planning was slow to emerge. In the mid-1930s, while the Russian industrialization drive was at full tilt, few raised their voices about its problems. Among those few were Ludwig von Mises, an articulate and exceedingly argumentative free-market economist, and Friedrich Hayek, of much more contemplative temperament, later to be awarded a Nobel Prize for his work in monetary theory. Together, Mises and Hayek launched an attack on the feasibility of socialism that seemed at the time unconvincing in its argument as to the functional problems of a planned economy.” (Heilbroner “Socialism”)
      2. “Mises in particular contended that a socialist system was impossible because there was no way for the planners to acquire the information (see Information and Prices)—“produce this, not that”—needed for a coherent economy. This information, Hayek emphasized, emerged spontaneously in a market system from the rise and fall of prices. A planning system was bound to fail precisely because it lacked such a signaling mechanism.” (Heilbroner “Socialism”)
      3. “The Mises-Hayek argument met its most formidable counterargument in two brilliant articles by Oskar Lange, a young economist who would become Poland’s first ambassador to the United States after World War II. Lange set out to show that the planners would, in fact, have precisely the same information as that which guided a market economy. The information would be revealed as inventories of goods rose and fell, signaling either that supply was greater than demand or demand was greater than supply. Thus, as planners watched inventory levels, they were also learning which of their administered (i.e., state-dictated) prices were too high and which too low. It only remained, therefore, to adjust prices so that supply and demand balanced, exactly as in the marketplace. Lange’s answer was so simple and clear that many believed the Mises-Hayek argument had been demolished.” (Heilbroner “Socialism”)
      4. “. . . we now know that their [Mises and Hayek’s] argument was all too prescient. Ironically, though, Mises and Hayek were right for a reason they did not foresee as clearly as Lange himself. “*The real danger of socialism*,” Lange wrote, in italics, “*is that of a bureaucratization of economic life*.” But he took away the force of the remark by adding, without italics, “Unfortunately, we do not see how the same or even greater danger can be averted under monopolistic capitalism.”” (Lange, Oscar, and Fred M. Taylor. *On the Economic Theory of Socialism*. Minneapolis: U of Minnesota P, 1938. 109-10.) (Heilbroner “Socialism”)
   2. *The Turning Poing*
      1. Shmelev, N.P., and Vladimir Popov. *The Turning Point*: *Revitalizing the Soviet Economy*. New York: Doubleday, 1989. Rpt. London: Tauris, 1990.
      2. “The effects of the “bureaucratization of economic life” are dramatically related in *The Turning Point*, a scathing attack on the realities of socialist economic planning by two Soviet economists, Nikolai Smelev and Vladimir Popov, that gives examples of the planning process in actual operation.” (Heilbroner “Socialism”)
      3. “In 1982, to stimulate the production of gloves from moleskins, the Soviet government raised the price it was willing to pay for moleskins from twenty to fifty kopecks per pelt.”
      4. Shmelev and Popov: “State purchases increased, and now all the distribution centers are filled with these pelts. Industry is unable to use them all, and they often rot in warehouses before they can be processed. The Ministry of Light Industry has already requested Gos­komtsen [the State Committee on Prices] twice to lower prices, but “the question has not been decided” yet. This is not surprising. Its members are too busy to decide. They have no time: besides setting prices on these pelts, they have to keep track of another 24 million prices. And how can they possibly know how much to lower the price today, so they won’t have to raise it tomorrow?” (Qtd. in Heilbroner “Socialism”)
      5. “This story speaks volumes about the problem of a centrally planned system. The crucial missing element is not so much “information,” as Mises and Hayek argued, as it is the motivation to act on information. After all, the inventories of moleskins did tell the planners that their production was at first too low and then too high. What was missing was the willingness—better yet, the necessity—to respond to the signals of changing inventories. A capitalist firm responds to changing prices because failure to do so will cause it to lose money. A socialist ministry ignores changing inventories because bureaucrats learn that doing something is more likely to get them in trouble than doing nothing, unless doing nothing results in absolute disaster.” (Heilbroner “Socialism”)
   3. “In the late 1980s, absolute economic disaster arrived in the Soviet Union and its Eastern former satellites, and those countries are still trying to construct some form of economic structure that will no longer display the deadly inertia and indifference that have come to be the hallmarks of socialism.” (Heilbroner “Socialism”)
   4. “The main obstacle to real perestroika is the impossibility of creating a working market system without a firm basis of private ownership, and it is clear that the creation of such a basis encounters the opposition of the former state bureaucracy and the hostility of ordinary people who have long been trained to be suspicious of the pursuit of wealth. In the face of such uncertainties, all predictions are foolhardy save one: no quick or easy transition from socialism to some form of nonsocialism is possible. Transformations of such magnitude are historic convulsions, not mere changes in policy. Their completion must be measured in decades or generations, not years.” (Heilbroner “Socialism”)
8. **Heilbroner on** “**Who Predicted Socialism**’**s Demise**”
   1. “But what spokesman of the present generation has anticipated the demise of socialism or the “triumph of capitalism”? *Not a single writer in the Marxian tradition!* Are there any in the left centrist group? None I can think of, including myself. As for the center itself—the Samuelsons, Solows, Glazers, Lipsets, Bells, and so on—I believe that many have expected capitalism to experience serious and mounting, if not fatal, problems and have anticipated some form of socialism to be the organizing force of the twenty-first century.” (Heilbroner “The World”)
   2. “Here is the part hard to swallow. It has been the Friedmans, Hayeks, von Miseses, *e tutti quanti* who have maintained that capitalism would flourish and that socialism would develop incurable ailments. Mises called socialism “impossible” because it has no means of establishing a rational pricing system; Hayek added additional reasons of a sociological kind (“the worst rise on top”). All three have regarded capitalism as the “natural” system of free men; all have maintained that left to its own devices capitalism would achieve material growth more successfully than any other system.” (Heilbroner “The World”)

Communism

Caplan, Bryan. “Communism.” *The Concise Encyclopedia of Economics*. Indianapolis: Liberty Fund, 2007. Ed. David R. Henderson. Library of Economics and Liberty. 13 Dec. 2008.

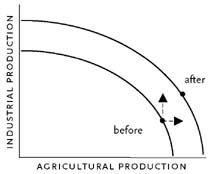
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   2. definition
      1. “Before the Russian Revolution of 1917, “socialism” and “communism” were synonyms. Both referred to economic systems in which the government owns the means of production.” (Caplan)
      2. “The two terms diverged in meaning largely as a result of the political theory and practice of Vladimir Lenin (1870-1924).” (Caplan)
      3. “During the twentieth century, avowed socialists came to power around the world, but only the followers of Lenin approximated the original goal of abolishing private property in the means of production. Dictatorship and terror were the necessary means, and few noncommunist politicians wholeheartedly embraced them. The communists’ willingness to wage total war on their own people sets them apart.” (Caplan)
2. **Lenin’s political theory and practice**
   1. “Like most contemporary socialists, Lenin believed that socialism could not be attained without violent revolution. But no one pursued the logic of revolution as rigorously as he. After deciding that violent revolution would not happen spontaneously, Lenin concluded that it must be engineered by a quasi-military party of professional revolutionaries, which he began and led.” (Caplan)
   2. “After realizing that the revolution would have many opponents, Lenin determined that the best way to quell resistance was with what he frankly called “terror”—mass executions, slave labor, and starvation.” (Caplan)
   3. “After seeing that the majority of his countrymen opposed communism even after his military triumph, Lenin concluded that one-party dictatorship must continue until it enjoyed unshakeable popular support.” (Caplan)
   4. “In the chaos of the last years of World War I, Lenin’s tactics proved an effective way to seize and hold power in the former Russian Empire. Socialists who embraced Lenin’s methods became known as “communists” and eventually came to power in China, Eastern Europe, North Korea, Indo-China, and elsewhere.” (Caplan)
   5. The most important fact to understand about the economics of communism is that communist revolutions triumphed only in heavily agricultural societies.” (Caplan)
      1. “Communism was imposed on relatively advanced East Germany and Czechoslovakia by the occupying forces of the Soviet Union, not by revolution.” (Caplan n. 1)
   6. “Government ownership of the means of production could not, therefore, be achieved by expropriating a few industrialists. Lenin recognized that the government would have to seize the land of tens of millions of peasants, who surely would resist. He tried during the Russian Civil War (1918-1920), but retreated in the face of chaos and five million famine deaths. Lenin’s successor, Joseph Stalin, finished the job a decade later, sending millions of the more affluent peasants (“kulaks”) to Siberian slave labor camps to forestall organized resistance and starving the rest into submission.” (Caplan)
   7. “The mechanism of Stalin’s “terror famine” was simple. Collectivization reduced total food production. The exiled kulaks had been the most advanced farmers, and after becoming state employees, the remaining peasants had little incentive to produce. But the government’s quotas drastically increased. The shortage came out of the peasants’ bellies.” (Caplan)
      1. Robert Conquest (*Harvest of Sorrow*. New York: OUP, 1986. 187): “Agricultural production had been drastically reduced, and the peasants [had been] driven off by the millions to death and exile, with those who stayed reduced, in their own view, to serfs. But the State now controlled grain production, however reduced in quantity. And collective farming had prevailed.” (Caplan)
   8. “In the capitalist West, industrialization was a by-product of rising agricultural productivity. As output per farmer increased, fewer farmers were needed to feed the population. Those no longer needed in agriculture moved to cities and became industrial workers. Modernization and rising food production went hand in hand.” (Caplan)
   9. “Under communism, . . . industrialization accompanied *falling* agricultural productivity. The government used the food it wrenched from the peasants to feed industrial workers and pay for exports. The new industrial workers were, of course, former peasants who had fled the wretched conditions of the collective farms.” (Caplan)
      1. “Unluckier still were the millions of slave laborers in the mines and logging camps of Siberia. Death rates were very high. Contrary to Western impressions, most of the exiles were peasants, not former party members.” (Caplan n. 3)
   10. the PPF

[](http://upload.wikimedia.org/wikipedia/commons/d/d7/NewPpf_small.png)

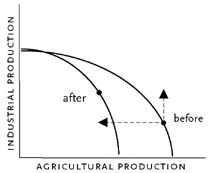
* + 1. “In economics, a production-possibility frontier (PPF) or “transformation curve” is a graph that shows the different rates of production of two goods that an individual or group can efficiently produce with limited productive resources.” (“Production-Possibility Frontier”)
    2. “The move from point A to point B indicates an increase in the number of computers produced, but it also entails a decrease in the amount of food produced. Since productive resources are limited, making more computers means resources must be redirected from making food to making computers.” (“Production-Possibility Frontier”)
    3. “The sacrifice in the production of the second good (here, food) is called the “opportunity cost”: the opportunity to increase the first good entails the cost of decreasing the second.” (“Production-Possibility Frontier”)
    4. “If technology improves or factors of production increase, the production possibility frontier shifts to the right (outward), raising the amount of both goods that can be produced. A military or ecological disaster might move the PPF to the left (inward).” (“Production-Possibility Frontier”)
    5. “In the noncommunist world, industrialization was a continuous outward shift of the PPF driven by technological change (Figure 1).” (Caplan)

Figure 1 Normal Industrialization and the PPF

[](http://www.econlib.org/library/Enc/art/lfHendersonCEE2_figure_007.jpg)

* + 1. “In the communist world, industrialization . . . moved along the PPF as it shifted *in* (Figure 2).” (Caplan)

Figure 2 Communist Industrialization and the PPF

[](http://www.econlib.org/library/Enc/art/lfHendersonCEE2_figure_008.jpg)

* 1. militarization, not industrialization
     1. “The other distinctive feature of Soviet industrialization was that few manufactured products ever reached consumers. The emphasis was on “heavy industry” such as steel and coal. This is puzzling until one realizes that the term “industrialization” is a misnomer. What happened in the Soviet Union during the 1930s was not industrialization, but militarization, an arms build-up greater than that by any other nation in the world, including Nazi Germany.” (Payne, Stanley. *A History of Fascism*, *1914-1945*. Madison: U of Wisconsin P, 1995. 370.) (Caplan)
     2. Martin Malia (*The Soviet Tragedy*: *A History of Socialism in Russia*, *1917-1991*. New York: Free Press, 1994. 209): the communist regime “was the opposite of a system of production to create abundance for the eventual satisfaction of the needs of the population; it was a system of general squeeze of the population to produce capital goods for the creation of industrial power, in order to produce ever more capital goods with which to produce still further industrial might, and ultimately to produce armaments.” (Qtd. in Caplan)
     3. “Stalin’s apologists argue that Germany forced militarization on him. In truth, Stalin . . . began World War II as Hitler’s active ally against Poland . . .” (Caplan)

1. **Russia and World War II**
   1. Stalin “began World War II as Hitler’s active ally against Poland . . . he looked [foolish] after Hitler’s double-cross in 1941 . . .” (Caplan)
   2. Stalin “saw the war as a golden opportunity for communist expansion . . .” (Caplan)
      * 1. Stanley Payne (*A History of Fascism*, *1914-1945*. Madison: U of Wisconsin P, 1995. 361): “the Soviet government made clear in its Comintern circular of September 1939 that stimulation of the ‘second imperialist war’ was in the interests of the Soviet Union and of world revolution, while maintaining the peace was not.” (Qtd. in Caplan)
      1. “. . . Stalin’s assessment was correct.” (Caplan)
         * 1. “After World War II, the USSR installed communist regimes throughout Eastern Europe. . . . The European puppets closely followed the Soviet model, but their greater prewar level of development made the transition less deadly.” (Caplan)
           2. “More significantly, Japan’s defeat created a power vacuum in Asia, allowing Mao Zedong to establish a Leninist dictatorship in mainland China. . . . [Mao] pursued even more radical economic policies than Stalin, culminating in the Great Leap Forward (1958-1960). Thirty million Chinese starved to death in a rerun of Soviet collectivization.” (Caplan)
2. **communism after World War II**
   1. “After Stalin’s death in 1953, the economic policies of the Soviet Union and its European satellites moderated. Most slave laborers were released, and the camps became prisons for dissidents instead of enterprises for the cheap harvest of remote resources. Communist regimes put more emphasis on consumer goods and food production, and less on the military. But their economic pedigree remained obvious. Military strength was the priority, and consumer goods and food were an afterthought.” (Caplan)
   2. “The most common economic criticism of the Soviet bloc has long been its failure to use incentives. This is a half-truth. . . . party leadership used incentives in the sectors where it really wanted results . . .” (Caplan, Bryan. “Is Socialism Really ‘Impossible’?” *Critical Review* 16.1 (2004): 33-52.) (Caplan)
      1. Hedrick Smith (*The Russians*. New York: Ballantine, 1974. 312-13): “Not only do defense and space efforts get top national priority and funding, but they also operate on a different system from the rest of the economy. Samuel Pisar, an American lawyer, writer, and consultant on East-West trade, made the shrewd observation to me that the military sector is “the only sector of the Soviet economy which operates like a market economy, in the sense that the customers pull out of the economic mechanism the kinds of weaponry they want. . . . The military, like customers in the West . . . can say, ‘No, no, no, that isn’t what we want.’” (Qtd. in Caplan)
3. **collapse**
   1. “Lenin knew that the party needed terror until it had solid popular support. When Mikhail Gorbachev assumed power, popular support had not materialized even in the USSR, much less in its European satellites. Gorbachev dismantled the apparatus of terror with blinding speed, undoing seven decades of intimidation in a few years.” (Caplan)
      1. 1989: “the rapid end of communism in the satellites” (Caplan)
      2. 1991: “the disintegration of the Soviet Union” (Caplan)
      3. “A patchwork quilt of nationalisms proved far more popular than Marxism-Leninism ever was.” (Caplan)
4. **economic and political reforms**
   1. Economic Freedom of the World ranks economic freedom. Freedom House ranks political freedom. See Table 1. (Caplan)
   2. 1988 economic freedom: “the republics of the Soviet Union had economic freedom scores below 1.” (Caplan)
   3. 1988 political freedom: “the entire Soviet bloc [was] “not free,” except for “partly free” Poland and Hungary.” (Caplan)

Table 1 The Rise in Economic and Political Freedom

|  |  |  |
| --- | --- | --- |
| Country | 2002 Economic Freedom Score | 2002 Political Freedom Classification |
| Estonia | 7.7 | F |
| Hungary | 7.3 | F |
| Latvia | 7.0 | F |
| Czech Republic | 6.9 | F |
| Lithuania | 6.8 | F |
| Slovak Republic | 6.6 | F |
| Poland | 6.4 | F |
| Bulgaria | 6.0 | F |
| Romania | 5.4 | F |
| Ukraine | 5.3 | PF |
| Russia | 5.0 | PF |
| *Sources*: http://www.freetheworld.com/2004/2004dataset.xls; http://www.freedomhouse.org/rat­ings/allscore04.xls. | | |
| *Notes*: Economic Freedom of the World’s scores range from 0-10, with 10 as freest. Freedom House classifications are free (F), partly free (PF), and not free (NF). | | |

* 1. criticisms
     1. “Free-market reforms have been harshly criticized, especially the drastic reforms derided as “shock therapy.” But the countries that reformed the most have seen the greatest rise in their standard of living, and those that resist change continue to do poorly.” (Caplan)
     2. “Shleifer and Treisman (2003) pointed out that measured post-communist growth is unrelated to the rate of reform, but added that measured output in unreformed nations is overstated. It follows that true output grew faster in countries that reformed more.” (Caplan)
     3. “Critics lament large measured declines in output, but much of the “lost output” consists in products for which there was little consumer demand in the first place.” (Caplan)
     4. “Many former communist nations suffered hyperinflation, but only because—ignoring all sensible economic advice—they printed money to cover massive budget deficits. The “shock therapy” prescription would have been to slash government spending and/or sell more state assets.” (Caplan)

1. **China**
   1. “China followed a different path away from communism.” (Caplan)
   2. 1976: death of Mao
   3. “. . . his successors essentially privatized agriculture, allowing relatively normal development to begin. Economic freedom increased significantly, but China remains a one-party dictatorship. Some attribute its impressive economic growth to this combination of moderate economic freedom and authoritarian rule. In large part, however, the growth reflects the abject poverty of Maoist China; it is easy to double production if you start near zero.” (Caplan)

Fascism

Richman, Sheldon. “Fascism.” *The Concise Encyclopedia of Economics*. Indianapolis: Liberty Fund, 2007. Ed. David R. Henderson. Library of Economics and Liberty. 13 Dec. 2008.

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      9. Pitigliani, Fauto. *The Italian Corporative State*. New York: Macmillan, 1934.
      10. Powell, Jim. *FDR’s Folly*: *How Roosevelt and His New Deal Prolonged the Great Depression*. New York: Crown Forum, 2003.
      11. Shirer, William L. *The Rise and Fall of the Third Reich*. New York: Simon and Schuster, 1960.
      12. Twight, Charlotte. *America’s Emerging Fascist Economy*. New Rochelle, N.Y.: Arlington House, 1975.
   2. “As an economic system, fascism is socialism with a capitalist veneer.” (Richman)
   3. “The word derives from *fasces*, the Roman symbol of collectivism and power: a tied bundle of rods with a protruding ax.” (Richman)
   4. “In its day (the 1920s and 1930s), fascism was seen as the happy medium between boom-and-bust-prone liberal capitalism, with its alleged class conflict, wasteful competition, and profit-oriented egoism, and revolutionary Marxism, with its violent and socially divisive persecution of the bourgeoisie. Fascism substituted the particularity of nationalism and racialism—“blood and soil”—for the internationalism of both classical liberalism and Marxism.” (Richman)
2. **contrast with capitalism**
   1. “Fascism is to be distinguished from interventionism, or the mixed economy. Interventionism seeks to guide the market process, not eliminate it, as fascism did. Minimum-wage and antitrust laws, though they regulate the free market, are a far cry from multiyear plans from the Ministry of Economics.” (Richman)
3. **contrast with socialism**
   1. “Where socialism sought totalitarian control of a society’s economic processes through direct state operation of the means of production, fascism sought that control indirectly, through domination of nominally private owners.” (Richman)
   2. “Where socialism nationalized property explicitly, fascism did so implicitly, by requiring owners to use their property in the “national interest”—that is, as the autocratic authority conceived it. (Nevertheless, a few industries were operated by the state.)” (Richman)
   3. “Where socialism abolished all market relations outright, fascism left the appearance of market relations while planning all economic activities.” (Richman)
   4. “Where socialism abolished money and prices, fascism controlled the monetary system and set all prices and wages politically.” (Richman)
4. **contrast with communism**
   1. “The fascist leaders’ antagonism to communism has been misinterpreted as an affinity for capitalism. In fact, fascists’ anticommunism was motivated by a belief that in the collectivist milieu of early-twentieth-century Europe, communism was its closest rival for people’s allegiance.” (Richman)
5. **characteristics**
   1. “Fascism embodied corporatism, in which political representation was based on trade and industry rather than on geography. In this, fascism revealed its roots in syndicalism, a form of socialism originating on the left. The government cartelized firms of the same industry, with representatives of labor and management serving on myriad local, regional, and national boards—subject always to the final authority of the dictator’s economic plan. Corporatism was intended to avert unsettling divisions within the nation, such as lockouts and union strikes. The price of such forced “harmony” was the loss of the ability to bargain and move about freely.” (Richman)
   2. “Under fascism, the state, through official cartels, controlled all aspects of manufacturing, commerce, finance, and agriculture. Planning boards set product lines, production levels, prices, wages, working conditions, and the size of firms. Licensing was ubiquitous; no economic activity could be undertaken without government permission. Levels of consumption were dictated by the state, and “excess” incomes had to be surrendered as taxes or “loans.” The consequent burdening of manufacturers gave advantages to foreign firms wishing to export. But since government policy aimed at autarky, or national self-sufficiency, protectionism was necessary: imports were barred or strictly controlled, leaving foreign conquest as the only avenue for access to resources unavailable domestically. Fascism was thus incompatible with peace and the international division of labor—hallmarks of liberalism.” (Richman)
   3. “. . . fascism denatured the marketplace. Entrepreneurship was abolished. State ministries, rather than consumers, determined what was produced and under what conditions.” (Richman)
   4. As with communism, under fascism, every citizen was regarded as an employee and tenant of the totalitarian, party-dominated state. Consequently, it was the state’s prerogative to use force, or the threat of it, to suppress even peaceful opposition.” (Richman)
   5. public-works projects
      1. “To maintain high employment and minimize popular discontent, fascist governments also undertook massive public-works projects financed by steep taxes, borrowing, and fiat money creation.” (Richman)
      2. “While many of these projects were domestic—roads, buildings, stadiums—the largest project of all was militarism, with huge armies and arms production.” (Richman)
6. **history**
   1. Benito Mussolini (1883-1945)
      1. “If a formal architect of fascism can be identified, it is Benito Mussolini . . .” (Richman)
      2. Mussolini was a “onetime Marxist editor . . .” (Richman)
      3. 1914: as World War I approached, he was “caught up in nationalist fervor [and] broke with the left . . .” (Richman)
      4. 1922: he became Italy’s leader. (Richman)
      5. Mussolini (*My Autobiography*. New York: Scribner’s, 1928. 280): “The citizen in the Fascist State is no longer a selfish individual who has the anti-social right of rebelling against any law of the Collectivity. The Fascist State with its corporative conception puts men and their possibilities into productive work and interprets for them the duties they have to fulfill.” (Qtd. in Richman)
      6. “Before his foray into imperialism in 1935, Mussolini was often praised by prominent Americans and Britons, including Winston Churchill, for his economic program.” (Richman)
      7. Mussolini’s elaborate economic plan
         1. “Labor and management were organized into twenty-two industry and trade “corporations,” each with Fascist Party members as senior participants. The corporations were consolidated into a National Council of Corporations . . .” (Richman)
         2. “. . . however, the real decisions were made by state agencies such as the Instituto per la Ricosstruzione Industriale, which held shares in industrial, agricultural, and real estate enterprises, and the Instituto Mobiliare, which controlled the nation’s credit.” (Richman)
   2. Adolf Hitler
      1. 1933: Hitler’s “National Socialist (Nazi) Party adapted fascism to Germany beginning in 1933 . . .” (Richman)
      2. Hitler (Qtd. in: Barkai, Avraham. *Nazi Economics*: *Ideology*, *Theory*, *and Policy*. Trans. Ruth Hadass-Vashitz. Oxford: Berg, 1990. 26-27) : “The state should retain supervision and each property owner should consider himself appointed by the state. It is his duty not to use his property against the interests of others among his own people. This is the crucial matter. The Third Reich will always retain its right to control the owners of property.” (Qtd. in Richman)
      3. Hitler’s elaborate economic plan
         1. “Hitler’s regime eliminated small corporations and made membership in cartels mandatory.” (Richman)
            1. William L. Shirer (*The Rise and Fall of the Third Reich*. New York: Simon and Schuster, 1960. 262): “Laws decreed in October 1937 simply dissolved all corporations with a capital under $40,000 and forbade the establishment of new ones with a capital less than $20,000.” (Qtd. in Richman)
         2. hierarchy
            1. “. . . nearly two hundred organizations [were] organized along industry, commercial, and craft lines . . .” (Richman)
            2. Above them were “several national councils.” (Richman)
            3. “The Reich Economic Chamber was at the top of a complicated bureaucracy . . .” (Richman)
            4. “The Labor Front, an extension of the Nazi Party, directed all labor matters, including wages and assignment of workers to particular jobs.” (Richman)
      4. 1936: Hitler “imposed a four-year plan to shift the nation’s economy to a war footing.” (Richman)
      5. 1938: “Labor conscription was inaugurated . . .” (Richman)
      6. “In Europe during this era, Spain, Portugal, and Greece also instituted fascist economies.” (Richman)
7. **the New Deal**
   1. “In the United States, beginning in 1933, the constellation of government interventions known as the New Deal had features suggestive of the corporate state.” (Richman)
      1. “The National Industrial Recovery Act created code authorities and codes of practice that governed all aspects of manufacturing and commerce.” (Richman)
      2. “The National Labor Relations Act made the federal government the final arbiter in labor issues.” (Richman)
      3. “The Agricultural Adjustment Act introduced central planning to farming. The object was to reduce competition and output in order to keep prices and incomes of particular groups from falling during the Great Depression.” (Richman)
   2. “It is a matter of controversy whether President Franklin Roosevelt’s New Deal was directly influenced by fascist economic policies.” (Richman)
      1. “Mussolini praised the New Deal as “boldly . . . interventionist in the field of economics” . . .” (Richman)
      2. “. . . Roosevelt complimented Mussolini for his “honest purpose of restoring Italy” and acknowledged that he kept “in fairly close touch with that admirable Italian gentleman.”” (Richman)
      3. “. . . Hugh Johnson, head of the National Recovery Administration, was known to carry a copy of Raffaello Viglione’s pro-Mussolini book, *The Corporate State*, with him, presented a copy to Labor Secretary Frances Perkins, and, on retirement, paid tribute to the Italian dictator.” (Richman)

Schools of Economics

Austrian School of Economics

Boettke, Peter J. “Austrian School of Economics.” *The Concise Encyclopedia of Economics*. Indianapolis: Liberty Fund, 2007. Ed. David R. Henderson. Library of Economics and Liberty. 13 Dec. 2008.

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2. **history**
   1. c. 1850-c. 1880: German historical school
      1. “The historical school, on the other hand, had argued that economic science is incapable of generating universal principles and that scientific research should instead be focused on detailed historical examination. The historical school thought the English classical economists mistaken in believing in economic laws that transcended time and national boundaries.” (Boettke)
      2. In the mid-1800s, the German historical school “dominated economic thinking in German-language countries.” (Boettke)
   2. c. 1870-c. 1900: Austrian school: Carl Menger (1840-1921)
      1. 1871: Carl Menger’s *Principles of Economics* founds the Austrian school of economics. (Boettke)
      2. “Menger dedicated *Principles of Economics* to his German colleague William Roscher, the leading figure in the German historical school . . .” (Boettke)
      3. “Menger, along with William Stanley Jevons and Leon Walras, developed the marginalist revolution in economic analysis. . . . Menger argued that economic analysis is universally applicable and that the appropriate unit of analysis is man and his choices. These choices, he wrote, are determined by individual subjective preferences and the margin on which decisions are made (see marginalism). The logic of choice, he believed, is the essential building block to the development of a universally valid economic theory.” (Boettke)
      4. “Menger’s *Principles of Economics* restated the classical political economy view of universal laws and did so using marginal analysis.” (Boettke)
      5. The students of William Roscher (leader of the German historical school), “especially Gustav Schmoller, took great exception to Menger’s defense of “theory” and gave the work of Menger and his followers, Eugen Böhm-Bawerk [major works, 1884-90] and Friedrich Wieser [major works, 1889, 1914], the derogatory name “Austrian school” because of their faculty positions at the University of Vienna.” (Boettke)
   3. 1900s
      1. “Since the 1930s, no economists from the University of Vienna or any other Austrian university have become leading figures in the so-called Austrian school of economics.” (Boettke)
      2. “In the 1930s and 1940s, the Austrian school moved to Britain and the United States, and scholars associated with this approach to economic science were located primarily at the London School of Economics (1931-1950), New York University (1944-), Auburn University (1983-), and George Mason University (1981-).” (Boettke)
      3. “. . . the leading mid-twentieth-century Austrian economists [were] Ludwig von Mises and F.A. Hayek . . .” (Boettke)
         1. Many of their ideas are rooted in:
            1. “the ideas of classical economists such as Adam Smith and David Hume,
            2. “or early-twentieth-century figures such as Knut Wicksell, as well as Menger, Böhm-Bawerk, and Friedrich von Wieser.” (Boettke)
      4. contemporary Austrian-school economists
         1. ‘This diverse mix of intellectual traditions in economic science is even more obvious in contemporary Austrian school economists, who have been influenced by modern figures in economics.” (Boettke)
         2. Contemporary Austrians include: Armen Alchian, James Buchanan, Ronald Coase, Harold Demsetz, Israel Kirzner, Axel Leijonhufvud, Douglass North, Mancur Olson, Murray Rothbard, Vernon Smith, Gordon Tullock, Oliver Williamson, and Leland Yeager. (Boettke)
         3. Some “argue that a unique Austrian school of economics operates . . . today . . . [Others] argue that the label “Austrian” no longer possesses any substantive meaning.” (Boettke)
3. **propositions about economics**
   1. “In this article I concentrate on the main propositions about economics that so-called Austrians believe.” (Boettke)
   2. foundational propositions
      1. “Proposition 1: Only individuals choose.” (Boettke)
         1. “Man, with his purposes and plans, is the beginning of all economic analysis. Only individuals make choices; collective entities do not choose.” (Boettke)
         2. “The primary task of economic analysis is to make economic phenomena intelligible by basing it on individual purposes and plans . . .” (Boettke)
         3. “. . . the secondary task of economic analysis is to trace out the unintended consequences of individual choices.” (Boettke)
      2. “Proposition 2: The study of the market order is fundamentally about exchange behavior and the institutions within which exchanges take place.” (Boettke)
         1. Greek *katallaxy* meant “exchange and bringing a stranger into friendship through exchange.” (Boettke)
         2. So “The price system and the market economy are best understood as a “catallaxy” . . .” (Boettke)
         3. catallactics
            1. “Catallactics” is “the science that studies the market order . . .” (Boettke)
            2. “Catallactics focuses analytical attention on the exchange relationships that emerge in the market, the bargaining that characterizes the exchange process, and the institutions within which exchange takes place.” (Boettke)
      3. “Proposition 3: The “facts” of the social sciences are what people believe and think.” (Boettke)
         1. “The sciences of human action are different from the natural sciences . . .” (Boettke)
            1. natural sciences

“. . . the purging of purposes and plans in the physical sciences led to advances by overcoming the problem of anthropomorphism . . .” (Boettke)

The natural sciences can predict, but they “cannot pursue a goal of intelligibility because they rely on knowledge from without.” (Boettke)

* + - * 1. human sciences

“. . . we impoverish the human sciences when we try to force them into the philosophical/scientific mold of the natural sciences. . . . in the human scien­ces, the elimination of purposes and plans results in purging the science of human action[,] of its subject matter.” (Boettke)

“Unlike the physical sciences, the human sciences begin with the purposes and plans of individuals. . . . In the human sciences, the “facts” . . . are what the actors think and believe.” (Boettke)

“The meaning that individuals place on things, practices, places, and people determines how they will orient themselves in making decisions. The goal of the sciences of human action is intelligibility, not prediction. The human sciences can achieve this goal because we are what we study, or because we possess knowledge from within . . . We can understand purposes and plans of other human actors because we ourselves are human actors.” (Boettke)

* + - * 1. “The classic thought experiment invoked to convey this essential difference between the sciences of human action and the physical sciences is a Martian observing the “data” at Grand Central Station in New York. Our Martian could observe that when the little hand on the clock points to eight, there is a bustle of movement as bodies leave these boxes, and that when the little hand hits five, there is a bustle of movement as bodies reenter the boxes and leave. The Martian may even develop a prediction about the little hand and the movement of bodies and boxes. But unless the Martian comes to understand the purposes and plans (the commuting to and from work), his “scientific” understanding of the data from Grand Central Station would be limited. The sciences of human action are different from the natural sciences, and we impoverish the human sciences when we try to force them into the philosophical/scientific mold of the natural sciences.” (Boettke)
  1. microeconomic propositions
     1. “Proposition 4: Utility and costs are subjective.” (Boettke)
        1. “Since the 1870s, economists have agreed that value is subjective, but, following Alfred Marshall, many argued that the cost side of the equation is determined by objective conditions. Marshall insisted that just as both blades of a scissors cut a piece of paper, so subjective value and objective costs determine price (see microeconomics).” (Boettke)
        2. But All economic phenomena are filtered through the human mind. . . . Marshall failed to appreciate that costs are also subjective because they are themselves determined by the value of alternative uses of scarce resources. Both blades of the scissors do indeed cut the paper, but the blade of supply is determined by individuals’ subjective valuations.” (Boettke)
        3. “In deciding courses of action, one must choose; that is, one must pursue one path and not others. The focus on alternatives in choices leads to one of the defining concepts of the economic way of thinking: opportunity costs. The cost of any action is the value of the highest-valued alternative forgone in taking that action. Since the forgone action is, by definition, never taken, when one decides, one weighs the expected benefits of an activity against the expected benefits of alternative activities.” (Boettke)
     2. “Proposition 5: The price system economizes on the information that people need to process in making their decisions.” (Boettke)
        1. “Prices summarize the terms of exchange on the market. The price system signals to market participants the relevant information, helping them realize mutual gains from exchange.” (Boettke)
        2. “In Hayek’s famous example, when people notice that the price of tin has risen, they do not need to know whether the cause was an increase in demand for tin or a decrease in supply. Either way, the increase in the price of tin leads them to economize on its use.” (Boettke)
        3. “Market prices change quickly when underlying conditions change, which leads people to adjust quickly.” (Boettke)
     3. “Proposition 6: Private property in the means of production is a necessary condition for rational economic calculation.” (Boettke)
        1. “Economists and social thinkers had long recognized that private ownership provides powerful incentives for the efficient allocation of scarce resources.” (Boettke)
        2. “But those sympathetic to socialism believed that socialism could transcend these incentive problems by changing human nature.” (Boettke)
        3. “Ludwig von Mises demonstrated that even if the assumed change in human nature took place, socialism would fail because of economic planners’ inability to rationally calculate the alternative use of resources. Without private ownership in the means of production, Mises reasoned, there would be no market for the means of production, and therefore no money prices for the means of production. And without money prices reflecting the relative scarcities of the means of production, economic planners would be unable to rationally calculate the alternative use of the means of production.” (Boettke)
     4. “Proposition 7: The competitive market is a process of entrepreneurial discovery.” (Boettke)
        1. “Many economists see competition as a state of affairs. But the term “competition” invokes an activity. If competition were a state of affairs, the entrepreneur would have no role. But because competition is an activity, the entrepreneur has a huge role as the agent of change who prods and pulls markets in new directions.” (Boettke)
        2. “The entrepreneur is alert to unrecognized opportunities for mutual gain. By recognizing opportunities, the entrepreneur earns a profit. The mutual learning from the discovery of gains from exchange moves the market system to a more efficient allocation of resources. Entrepreneurial discovery ensures that a free market moves toward the most efficient use of resources.” (Boettke)
        3. “In addition, the lure of profit continually prods entrepreneurs to seek innovations that increase productive capacity. For the entrepreneur who recognizes the opportunity, today’s imperfections represent tomorrow’s profit.” (Boettke)
        4. “Entrepreneurship can be characterized by three distinct moments: serendipity (discovery), search (conscious deliberation), and seizing the opportunity for profit.” (Boettke n. 1)
        5. “The price system and the market economy are learning devices that guide individuals to discover mutual gains and use scarce resources efficiently.” (Boettke)
  2. macroeconomic propositions
     1. “Proposition 8: Money is nonneutral.” (Boettke)
        1. “Money is defined as the commonly accepted medium of exchange.” (Boettke)
        2. “If government policy distorts the monetary unit, exchange is distorted as well. The goal of monetary policy should be to minimize these distortions. Any increase in the money supply not offset by an increase in money demand will lead to an increase in prices.” (Boettke)
        3. “But prices do not adjust instantaneously throughout the economy. Some price adjustments occur faster than others, which means that relative prices change. Each of these changes exerts its influence on the pattern of exchange and production. Money, by its nature, thus cannot be neutral.” (Boettke)
        4. “Since money is the link for almost all transactions in a modern economy, monetary distortions affect those transactions. The goal of monetary policy, therefore, should be to minimize these monetary distortions, precisely because money is nonneutral.” (Boettke)
           1. “The search for solutions to this elusive goal generated some of the most innovative work of the Austrian economists and led to the development in the 1970s and 1980s of the literature on free banking by F.A. Hayek, Lawrence White, George Selgin, Kevin Dowd, Kurt Schuler, and Steven Horwitz.” (Boettke n. 2)
        5. inflation
           1. “This proposition’s importance becomes evident in discussing the costs of inflation.” (Boettke)
           2. inflation in the quantity theory of money

“The quantity theory of money stated, correctly, that printing money does not increase wealth. Thus, if the government doubles the money supply, money holders’ apparent gain in ability to buy goods is prevented by the doubling of prices. . . . If prices simply doubled when the government doubled the money supply, then economic actors would anticipate this price adjustment by closely following money supply figures and would adjust their behavior accordingly. The cost of inflation would thus be minimal.” (Boettke)

“. . . the quantity theory of money represented an important advance in economic thinking . . .” (Boettke)

“But . . . a mechanical interpretation of the quantity theory underestimated the costs of inflationary policy.” (Boettke)

* + - * 1. “. . . inflation is socially destructive on several levels.” (Boettke)

“First, even anticipated inflation breaches a basic trust between the government and its citizens because government is using inflation to confiscate people’s wealth.” (Boettke)

“Second, unanticipated inflation is redistributive as debtors gain at the expense of creditors.” (Boettke)

“Third, because people cannot perfectly anticipate inflation and because the money is added somewhere in the system—say, through government purchase of bonds—some prices (the price of bonds, for example) adjust before other prices, which means that inflation distorts the pattern of exchange and production.” (Boettke)

“The search for solutions to this elusive goal generated some of the most innovative work of the Austrian economists and led to the development in the 1970s and 1980s of the literature on free banking by F. A. Hayek, Lawrence White, George Selgin, Kevin Dowd, Kurt Schuler, and Steven Horwitz.” (Boettke)

* + 1. “Proposition 9: The capital structure consists of heterogeneous goods that have multispecific uses that must be aligned.” (Boettke)
       1. “Right now, people in Detroit, Stuttgart, and Tokyo City are designing cars that will not be purchased for a decade. How do they know how to allocate resources to meet that goal? Production is always for an uncertain future demand, and the production process requires different stages of investment ranging from the most remote (mining iron ore) to the most immediate (the car dealership). The values of all producer goods at every stage of production derive from the value consumers place on the product being produced. The production plan aligns various goods into a capital structure that produces the final goods in, ideally, the most efficient manner. If capital goods were homogeneous, they could be used in producing all the final products consumers desired. If mistakes were made, the resources would be reallocated quickly, and with minimal cost, toward producing the more desired final product. But capital goods are heterogeneous and multispecific; an auto plant can make cars, but not computer chips. The intricate alignment of capital to produce various consumer goods is governed by price signals and the careful economic calculations of investors. If the price system is distorted, investors will make mistakes in aligning their capital goods. Once the error is revealed, economic actors will reshuffle their investments, but in the meantime resources will be lost.” (Boettke)
    2. “Propositions 8 and 9 form the core of the Austrian theory of the business cycle, which explains how credit expansion by the government generates a malinvestment in the capital structure during the boom period that must be corrected in the bust phase. In contemporary economics, Roger Garrison is the leading expositor of this theory.” (Boettke n. 3)
    3. “Proposition 10: Social institutions often are the result of human action, but not of human design.” (Boettke)
       1. “Many of the most important institutions and practices are not the result of direct design but are the by-product of actions taken to achieve other goals.” (Boettke)
          1. “A student in the Midwest in January trying to get to class quickly while avoiding the cold may cut across the quad rather than walk the long way around. Cutting across the quad in the snow leaves footprints; as other students follow these, they make the path bigger. Although their goal is merely to get to class quickly and avoid the cold weather, in the process they create a path in the snow that actually helps students who come later to achieve this goal more easily.” (Boettke)
          2. “The “path in the snow” story is a simple example of a “product of human action, but not of human design.”” (Hayek, F.A. *Individualism and Economic Order*. Chi­cago: U of Chicago P, 1948. 7) (Boettke)
       2. “Money, law, language, science, and so on are all social phenomena that can trace their origins not to human design, but rather to people striving to achieve their own betterment, and in the process producing an outcome that benefits the public.” (Boettke)
       3. “The market economy and its price system are examples of a similar process. People do not intend to create the complex array of exchanges and price signals that constitute a market economy. Their intention is simply to improve their own lot in life, but their behavior results in the market system.” (Boettke)
       4. “Not all spontaneous orders are beneficial . . .” (Boettke)
          1. “Whether individuals pursuing their own self-interest generate public benefits depends on the institutional conditions within which they pursue their interests. Both the invisible hand of market efficiency and the tragedy of the commons are results of individuals striving to pursue their individual interests; but in one social setting this generates social benefits, whereas in the other it generates losses.” (Boettke)
          2. “New institutional economics has refocused professional attention on how sensitive social outcomes are to the institutional setting within which individuals interact. It is important, however, to realize that classical political economists and the early neoclassical economists all recognized the basic point of new institutional economists, and that it was only the mid-twentieth-century fascination with formal proofs of general competitive equilibrium, on the one hand, and the Keynesian preoccupation with aggregate variables, on the other, that tended to cloud the institutional preconditions required for social cooperation.” (Boettke n. 4)
  1. “The implications of these ten propositions are rather radical. If they hold true, economic theory would be grounded in verbal logic and empirical work focused on historical narratives. With regard to public policy, severe doubt would be raised about the ability of government officials to intervene optimally within the economic system, let alone to rationally manage the economy.” (Boettke)
  2. “Perhaps economists should adopt the doctors’ creed: “First do no harm.” The market economy develops out of people’s natural inclination to better their situation and, in so doing, to discover the mutually beneficial exchanges that will accomplish that goal. Adam Smith first systematized this message in *The Wealth of Nations*. In the twentieth century, economists of the Austrian school of economics were the most uncompromising proponents of this message, not because of a prior ideological commitment, but because of the logic of their arguments.” (Boettke)

Keynesian Economics

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Hoover, Kevin D. “New Classical Macroeconomics.” *The Concise Encyclopedia of Economics*. Indianapolis: Liberty Fund, 2007. Ed. David R. Henderson. Library of Economics and Liberty. 13 Dec. 2008.

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   3. Gordon, Robert J. “What Is New-Keynesian Economics?” *Journal of Economic Literature* 28.3 (1990) 1115-71.
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   5. Mankiw, N. Gregory, et al. “A Symposium on Keynesian Economics Today.” *Journal of Economic Perspectives* 7 (Winter 1993) 3-82.
2. **introduction**
   1. “Keynesian economics” “has been used (and abused) to describe many things over the years . . .” (Blinder “Keynesian Economics”)
   2. “Keynesian economics is a theory of total spending in the economy (called aggregate demand) and its effects on output and inflation.” (Blinder “Keynesian Economics”)
      1. Aggregate demand (in a closed economy) is consumption, investment, and government expenditure. (Hoover)
      2. “According to Keynes, [classical economists] saw the price system in a free economy as efficiently guiding the mutual adjustment of supply and demand in all markets, including the labor market. Unemployment could arise only because of a market imperfection—the intervention of the government or the action of labor unions—and could be eliminated through removing the imperfection.” (Hoover)
      3. “In contrast, Keynes shifted the focus of his analysis away from individual markets to the whole economy. He argued that even without market imperfections, aggregate demand . . . might fall short of the aggregate productive capacity of its labor and capital (plant, equipment, raw material, and infrastructure). In such a situation, unemployment is largely involuntary—that is, workers may be unemployed even though they are willing to work at a wage lower than the wage the firms pay their current workers.” (Hoover)
3. **six principal tenets**
   1. “. . . six principal tenets seem central to Keynesianism. The first three describe how the economy works.” (Blinder “Keynesian Economics”)
   2. “1. . . . *aggregate demand is influenced by a host of economic decisions—both public and private—and sometimes behaves erratically*.” (Blinder “Keynesian Economics”)
      1. Public decisions most prominently include monetary and fiscal policies. (Blinder “Keynesian Economics”)
         1. “Some decades ago, [Keynesians] heatedly debated the relative strengths of monetary and fiscal policies . . .” (Blinder “Keynesian Economics”)
         2. “Nearly all Keynesians and monetarists now believe that both fiscal and monetary policies affect aggregate demand.” (Blinder “Keynesian Economics”)
         3. “A few economists, however, believe in debt neutrality—the doctrine that substitutions of government borrowing for taxes have no effects on total demand (more on this below).” (Blinder “Keynesian Economics”)
   3. “2. . . . *changes in aggregate demand*, *whether anticipated or unanticipated*, *have their greatest short-run effect on real output and employment*, *not on prices*.” (Blinder “Keynesian Economics”)
      1. For example, Phillips curves “show inflation rising only slowly when unemployment falls. Keynesians believe that what is true about the short run cannot necessarily be inferred from what must happen in the long run, and we live in the short run. They often quote Keynes’s famous statement, “In the long run, we are all dead,” to make the point.” (Blinder “Keynesian Economics”)
      2. “Monetary policy can produce real effects on output and employment only if some prices are rigid—if nominal wages (wages in dollars, not in real purchasing power), for example, do not adjust instantly. Otherwise, an injection of new money would change all prices by the same percentage. So Keynesian models generally either assume or try to explain rigid prices or wages. Rationalizing rigid prices is a difficult theoretical problem because, according to standard microeconomic theory, real supplies and demands should not change if all nominal prices rise or fall proportionally.” (Blinder “Keynesian Economics”)
      3. “But Keynesians believe that, because prices are somewhat rigid, fluctuations in any component of spending—consumption, investment, or government expenditures—cause output to fluctuate. If government spending increases, for example, and all other components of spending remain constant, then output will increase.” (Blinder “Keynesian Economics”)
      4. “Keynesian models of economic activity also include a so-called multiplier effect; that is, output increases by a multiple of the original change in spending that caused it. Thus, a ten-billion-dollar increase in government spending could cause total output to rise by fifteen billion dollars (a multiplier of 1.5) or by five billion (a multiplier of 0.5). Contrary to what many people believe, Keynesian analysis does not require that the multiplier exceed 1.0. For Keynesian economics to work, however, the multiplier must be greater than zero.” (Blinder “Keynesian Economics”)
   4. “3. . . . *prices*, *and especially wages*, *respond slowly to changes in supply and demand*, *resulting in periodic shortages and surpluses*, *especially of labor*.” (Blinder “Keynesian Economics”)
      1. “Even Milton Friedman acknowledged that “under any conceivable institutional arrangements, and certainly under those that now prevail in the United States, there is only a limited amount of flexibility in prices and wages.” In current parlance, that would certainly be called a Keynesian position.” (“The Role of Monetary Policy.” *American Economic Review* 58.1: 13.) (Blinder “Keynesian Economics”)
   5. “No policy prescriptions follow from the [first] three beliefs alone. And many economists who do not call themselves Keynesian would nevertheless accept [them]. What distinguishes Keynesians from other economists is their belief in the following three tenets about economic policy.” (Blinder “Keynesian Economics”)
   6. “4. *Keynesians do not think that the typical level of unemployment is ideal*—*partly because unemployment is subject to the caprice of aggregate demand*, *and partly because they believe that prices adjust only gradually*.” (Blinder “Keynesian Economics”)
      1. “. . . Keynesians typically see unemployment as both too high on average and too variable, although they know that rigorous theoretical justification for these positions is hard to come by.” (Blinder “Keynesian Economics”)
      2. “Keynesians also feel certain that periods of recession or depression are economic maladies, not, as in real business cycle theory, efficient market responses to unattractive opportunities.” (Blinder “Keynesian Economics”)
   7. “5. *Many*, *but not all*, *Keynesians advocate activist stabilization policy to reduce the amplitude of the business cycle*, *which they rank among the most important of all economic problems*.” (Blinder “Keynesian Economics”)
      1. “. . . however, even some conservative Keynesians part company by doubting either the efficacy of stabilization policy or the wisdom of attempting it.” (Blinder “Keynesian Economics”)
      2. “This does not mean that Keynesians advocate what used to be called fine-tuning—adjusting government spending, taxes, and the money supply every few months to keep the economy at full employment. Almost all economists, including most Keynesians, now believe that the government simply cannot know enough soon enough to fine-tune successfully. Three lags make it unlikely that fine-tuning will work.” (Blinder “Keynesian Economics”)
         1. “First, there is a lag between the time that a change in policy is required and the time that the government recognizes this.” (Blinder “Keynesian Economics”)
         2. “Second, there is a lag between when the government recognizes that a change in policy is required and when it takes action. In the United States, this lag can be very long for fiscal policy because Congress and the administration must first agree on most changes in spending and taxes.” (Blinder “Keynesian Economics”)
         3. “The third lag comes between the time that policy is changed and when the changes affect the economy. This, too, can be many months.” (Blinder “Keynesian Economics”)
      3. “Yet many Keynesians still believe that more modest goals for stabilization policy—coarse-tuning, if you will—are not only defensible but sensible. For example, an economist need not have detailed quantitative knowledge of lags to prescribe a dose of expansionary monetary policy when the unemployment rate is very high.” (Blinder “Keynesian Economics”)
   8. “6. *Finally*, *and even less unanimously*, *some Keynesians are more concerned about combating unemployment than about conquering inflation*.” (Blinder “Keynesian Economics”)
      1. “They [some Keynesians] have concluded from the evidence that the costs of low inflation are small. However, there are plenty of anti-inflation Keynesians. Most of the world’s current and past central bankers, for example, merit this title whether they like it or not. Needless to say, views on the relative importance of unemployment and inflation heavily influence the policy advice that economists give and that policymakers accept. Keynesians typically advocate more aggressively expansionist policies than non-Keynesians.” (Blinder “Keynesian Economics”)
4. **Keynesians and the rational expectations school**
   1. The rational expectations school existed primarily from the 1960s on.
   2. “Like Keynes himself, many Keynesians doubt [the rational expectations] school’s view that people use all available information to form their expectations about economic policy. Other Keynesians accept the view.” (Blinder “Keynesian Economics”)
   3. But when it comes to the large issues with which I have concerned myself, nothing much rides on whether or not expectations are rational. Rational expectations do not, for example, preclude rigid prices; rational expectations models with sticky prices are thoroughly Keynesian by my definition.” (Blinder “Keynesian Economics”)
   4. “I should note, though, that some new classicals see rational expectations as much more fundamental to the debate.” (Blinder “Keynesian Economics”)
5. **on the** “**natural rate**” **of unemployment**
   1. “. . . that there is a “natural rate” of unemployment in the long run” is an hypothesis. (Blinder “Keynesian Economics”)
   2. “Prior to 1970, Keynesians believed that the long-run level of unemployment depended on government policy, and that the government could achieve a low unemployment rate by accepting a high but steady rate of inflation.” (Blinder “Keynesian Economics”)
   3. “In the late 1960s, Milton Friedman, a monetarist, and Columbia’s Edmund Phelps, a Keynesian, rejected the idea of such a long-run trade-off on theoretical grounds. They argued that the only way the government could keep unemployment below what they called the “natural rate” was with macroeconomic policies that would continuously drive inflation higher and higher. In the long run, they argued, the unemployment rate could not be below the natural rate.” (Blinder “Keynesian Economics”)
   4. “Shortly thereafter, Keynesians like Northwestern’s Robert Gordon presented empirical evidence for Friedman’s and Phelps’s view.” (Blinder “Keynesian Economics”)
   5. “Since about 1972 Keynesians have integrated the “natural rate” of unemployment into their thinking. So the natural rate hypothesis played essentially no role in the intellectual ferment of the 1975-1985 period.” (Blinder “Keynesian Economics”)
6. **monetary vs**. **fiscal policy**
   1. “I have ignored the choice between monetary and fiscal policy as the preferred instrument of stabilization policy. Economists differ about this and occasionally change sides. By my definition, however, it is perfectly possible to be a Keynesian and still believe either that responsibility for stabilization policy should, in principle, be ceded to the monetary authority or that it is, in practice, so ceded. In fact, most Keynesians today share one or both of those beliefs.” (Blinder “Keynesian Economics”)
7. **1980s-90s**: **debate between Keynesians and new classical economists**
   1. “Keynesians’ belief in aggressive government action to stabilize the economy is based on value judgments and on the beliefs that (a) macroeconomic fluctuations significantly reduce economic well-being and (b) the government is knowledgeable and capable enough to improve on the free market.” (Blinder “Keynesian Economics”)
   2. “The brief debate between Keynesians and new classical economists in the 1980s was fought primarily over (a) and over the first three tenets of Keynesianism—tenets the monetarists had accepted.” (Blinder “Keynesian Economics”)
      1. “New classicals believed that anticipated changes in the money supply do not affect real output; that markets, even the labor market, adjust quickly to eliminate shortages and surpluses; and that business cycles may be efficient.” (Blinder “Keynesian Economics”)
      2. “For reasons that will be made clear below, I believe that the “objective” scientific evidence on these matters points strongly in the Keynesian direction.” (Blinder “Keynesian Economics”)
   3. There was much “intellectual ferment [in] the 1975-1985 period. . . . Keynesian theory was much denigrated in academic circles from the mid-1970s until the mid-1980s.” (Blinder “Keynesian Economics”)
   4. “It has staged a strong comeback since then, however. The main reason appears to be that Keynesian economics was better able to explain the economic events of the 1970s and 1980s than its principal intellectual competitor, new classical economics.” (Blinder “Keynesian Economics”)
      1. “True to its classical roots, new classical theory emphasizes the ability of a market economy to cure recessions by downward adjustments in wages and prices. The new classical economists of the mid-1970s attributed economic downturns to people’s misperceptions about what was happening to relative prices (such as real wages). Misperceptions would arise, they argued, if people did not know the current price level or inflation rate. But such misperceptions should be fleeting and surely cannot be large in societies in which price indexes are published monthly and the typical monthly inflation rate is less than 1 percent. Therefore, economic downturns, by the early new classical view, should be mild and brief.” (Blinder “Keynesian Economics”)
      2. “Yet, during the 1980s most of the world’s industrial economies endured deep and long recessions. Keynesian economics may be theoretically untidy, but it certainly predicts periods of persistent, involuntary unemployment.” (Blinder “Keynesian Economics”)
      3. “According to the early new classical theorists of the 1970s and 1980s, a correctly perceived decrease in the growth of the money supply should have only small effects, if any, on real output. Yet, when the Federal Reserve and the Bank of England announced that monetary policy would be tightened to fight inflation, and then made good on their promises, severe recessions followed in each country. New classicals might claim that the tightening was unanticipated (because people did not believe what the monetary authorities said). Perhaps it was, in part. But surely the broad contours of the restrictive policies were anticipated, or at least correctly perceived as they unfolded. Old-fashioned Keynesian theory, which says that any monetary restriction is contractionary because firms and individuals are locked into fixed-price contracts, not inflation-adjusted ones, seems more consistent with actual events.” (Blinder “Keynesian Economics”)
   5. “In the 1990s, the new classical schools also came to accept the view that prices are sticky and that, therefore, the labor market does not adjust as quickly as they previously thought.” (See the article, “New Classical Macroeconomics.”) (Blinder “Keynesian Economics”)
8. **government deficits and debt**
   1. “An offshoot of new classical theory formulated by Harvard’s Robert Barro is the idea of debt neutrality. [See the article “Government Debt and Deficits.”] Barro argues that inflation, unemployment, real GNP, and real national saving should not be affected by whether the government finances its spending with high taxes and low deficits or with low taxes and high deficits. Because people are rational, he argues, they will correctly perceive that low taxes and high deficits today must mean higher future taxes for them and their heirs. They will, Barro argues, cut consumption and increase their saving by one dollar for each dollar increase in future tax liabilities. Thus, a rise in private saving should offset any increase in the government’s deficit. Naïve Keynesian analysis, by contrast, sees an increased deficit, with government spending held constant, as an increase in aggregate demand. If, as happened in the United States in the early 1980s, the stimulus to demand is nullified by contractionary monetary policy, real interest rates should rise strongly. There is no reason, in the Keynesian view, to expect the private saving rate to rise.” (Blinder “Keynesian Economics”)
   2. “The massive U.S. tax cuts between 1981 and 1984 provided something approximating a laboratory test of these alternative views. What happened? The private saving rate did not rise. Real interest rates soared. With fiscal stimulus offset by monetary contraction, real GNP growth was approximately unaffected; it grew at about the same rate as it had in the recent past. Again, this all seems more consistent with Keynesian than with new classical theory.” (Blinder “Keynesian Economics”)
9. 1980s; **the European depression**
   1. “Finally, there was the European depression of the 1980s, the worst since the depression of the 1930s.” (Blinder “Keynesian Economics”)
   2. “The Keynesian explanation is straightforward. Governments, led by the British and German central banks, decided to fight inflation with highly restrictive monetary and fiscal policies. The anti-inflation crusade was strengthened by the European monetary system, which, in effect, spread the stern German monetary policy all over Europe.” (Blinder “Keynesian Economics”)
   3. “The new classical school has no comparable explanation. New classicals, and conservative economists in general, argue that European governments interfere more heavily in labor markets (with high unemployment benefits, for example, and restrictions on firing workers). But most of these interferences were in place in the early 1970s, when unemployment was extremely low.” (Blinder “Keynesian Economics”)

Monetarism

McCallum, Bennett T. “Monetarism.” *The Concise Encyclopedia of Economics*. Indianapolis: Liberty Fund, 2007. Ed. David R. Henderson. Library of Economics and Liberty. 13 Dec. 2008.

1. **bibliography** (McCallum)
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2. **introduction**
   1. definition
      1. “Monetarism is a macroeconomic school of thought that emphasizes (1) long-run monetary neutrality, (2) short-run monetary non-neutrality, (3) the distinction between real and nominal interest rates, and (4) the role of monetary aggregates in policy analysis.” (McCallum)
      2. “Some journalists—especially in the United Kingdom—have used the term to refer to doctrinal support of free-market positions more generally, but that usage is inappropriate; many free-market advocates would not dream of describing themselves as monetarists.” (McCallum)
3. **beliefs**
   1. “. . . the two fundamental monetarist propositions are”: (McCallum)
      1. “cyclical movements in nominal income are primarily attributable to movements in the stock of money . . .” (McCallum)
      2. “there is no permanent trade-off between unemployment and inflation.” (McCallum)
         1. According to “Friedman’s crucial “accelerationist” or “natural-rate” hypothesis, . . . there is no long-run trade-off between inflation and unemployment; that is, the long-run Phillips curve is vertical. The no-trade-off view was also promoted by Brunner and Meltzer.” (McCallum)
      3. “Together, these lead to monetarist-style policy positions.” (McCallum)
   2. long-run monetary neutrality
      1. “An economy possesses basic long-run monetary neutrality if an exogenous increase of *Z* percent in its stock of money would ultimately be followed, after all adjustments have taken place, by a *Z* percent increase in the general price level, with no effects on real variables (e.g., consumption, output, relative prices of individual commodities).” (McCallum)
      2. “. . . most economists believe that long-run neutrality is a feature of actual market economies, at least approximately . . .” (McCallum)
      3. But “no other group of macroeconomists emphasizes this proposition as strongly as do monetarists.” (McCallum)
      4. Some “object that, in practice, actual central banks almost never conduct policy so as to involve exogenous changes in the money supply. This objection is correct factually but irrelevant: the crucial matter is whether the supply and demand choices of households and businesses reflect concern only for the underlying quantities of goods and services that are consumed and produced. If they do, then the economy will have the property of long-run neutrality, and thus the above-described reaction to a hypothetical change in the money supply would occur.” (McCallum)
      5. “For long-run neutrality to obtain exactly, the economy would also have to possess the “Ricardian” property that makes bond-financed changes in government taxes inconsequential (see Government Debt and Deficits and New Classical Macroeconomics).” (McCallum n. 1)
      6. “Other neutrality concepts, including the natural-rate hypothesis, are mentioned below.” (McCallum)
   3. short-run monetary non-neutrality
      1. “Short-run monetary non-neutrality obtains, in an economy with long-run monetary neutrality, if the price adjustments to a change in money take place only gradually, so that there are temporary effects on real output (GDP) and employment.” (McCallum)
      2. “Most economists consider this property realistic . . .” (McCallum)
      3. But “an important school of macroeconomists, the so-called real business cycle proponents, denies it.” (McCallum)
   4. the distinction between real and nominal interest rates
      1. “. . . real interest rates are ordinary (“nominal”) interest rates adjusted to take account of expected inflation, as rational, optimizing people would do when they make trade-offs between present and future.” (McCallum)
      2. “As long ago as the very early 1800s, British banker and economist Henry Thornton recognized the distinction between real and nominal interest rates, and American economist Irving Fisher emphasized it in the early 1900s. However, the distinction was often neglected in macroeconomic analysis until monetarists began insisting on its importance during the 1950s.” (McCallum)
         1. “Many Keynesians did not disagree in principle, but in practice their models often did not recognize the distinction and/or they judged the “tightness” of monetary policy by the prevailing level of nominal interest rates.” (McCallum)
         2. “All monetarists emphasized the undesirability of combating inflation by nonmonetary means, such as wage and price controls or guidelines, because these would create market distortions. They stressed, in other words, that ongoing inflation is fundamentally monetary in nature, a viewpoint foreign to most Keynesians of the time.” (McCallum)
   5. the role of monetary aggregates in policy analysis
      1. “. . . the original monetarists all emphasized the role of monetary aggregates—such as M1, M2, and the monetary base—in monetary policy analysis . . .” (McCallum)
      2. But “details differed between Friedman and Schwartz, on the one hand, and Brunner and Meltzer, on the other.” (McCallum)
         1. “Friedman’s striking and famous recommendation was that, irrespective of current macroeconomic conditions, the stock of money should be made to grow “month by month, and indeed, so far as possible, day by day, at an annual rate of *X* per cent, where *X* is some number between 3 and 5.”” (Friedman, Milton. *Capitalism and Freedom*. Chicago: U of Chicago P, 1962. 54.) (McCallum)
         2. By contrast, “Brunner and Meltzer also favored monetary policy rules but recognized the attractiveness of *activist* rules that relate money growth rates to prevailing economic conditions.” (McCallum)
         3. Friedman was “concerned with M2 or M1 and, indeed, sought major changes in banking legislation, such as 100 percent reserve requirements on deposits, designed to make the chosen aggregate precisely controllable.” (McCallum)
         4. By contrast, Brunner and Meltzer “typically concentrated on the monetary base, adjusted to reflect changes in reserve requirements . . .” (McCallum)
   6. “Friedman’s constant-money-growth rule, rather than other equally fundamental aspects of monetarism, attracted the most attention, thereby detracting from the understanding and appreciation of monetarism.” (McCallum)
4. **history**
   1. “. . . early contributors outside the United States include[d] David Laidler, Michael Parkin, and Alan Walters.” (McCallum)
   2. Monetarism “is particularly associated with the writings of Milton Friedman, Anna Schwartz, Karl Brunner, and Allan Meltzer . . .” (McCallum)
   3. “Monetarism’s rise to intellectual prominence began with writings on basic monetary theory by Friedman and other University of Chicago economists during the 1950s, writings that were influential because of their adherence to fundamental neoclassical principles.” (McCallum)
      1. “The most outstanding in this series was Friedman’s presidential address to the American Economic Association in 1967, published in 1968 as “The Role of Monetary Policy.” In this paper Friedman developed the natural-rate hypothesis (which he had clearly stated two years earlier) and used it as a pillar in the argument for a constant-growth-rate rule for monetary policy.” (Friedman, Milton. “The Role of Monetary Policy.” *American Economic Review* 58 (Mar. 1968): 1-17.) (McCallum)
      2. “Almost simultaneously, Edmund Phelps, who was not a monetarist, developed a similar no-trade-off theory . . .” (McCallum)
   4. “. . . within a few years, events in the world economy apparently provided dramatic empirical support.” (McCallum)
      1. late 1970s-early 1980s: “after a decade of increasing influence, monetarism’s reputation began to decline for three main reasons.” (McCallum)
         1. “One was the growing belief, based on plausible interpretations of experience, that money demand is in practice highly “unstable,” shifting significantly and unpredictably from one quarter to the next.” (McCallum)
         2. “The second was the rise of rational expectations economics, which split analysts antagonistic to Keynesian activism into distinct camps. (A majority of monetarists themselves soon embraced the rational expectations hypothesis.)” (McCallum)
         3. “The third was the Federal Reserve’s famous “monetarist experiment” of 1979-1982.” (McCallum)
   5. 1979-82: the Fed’s “monetarist experiment” (McCallum)
      1. During the 1970s, inflation rose in the United States, as well as in many other industrial nations, to levels unprecedented on a multiyear basis during periods of relative peace. This occurred as a consequence of various “shocks” . . .” (McCallum)
         1. oil price increases
         2. the Vietnam War
         3. “. . . and especially the 1971-1973 demise of the Bretton Woods system of fixed exchange rates (itself caused largely by the failure of the United States to maintain the gold value of the dollar). This demise left central bankers with a major new responsibility; namely, to provide a nominal anchor for national fiat currencies to replace the gold standard.” (McCallum)
      2. “The Federal Reserve announced several times during the 1970s that it intended to bring inflation under control, but various attempts were unsuccessful.” (McCallum)
      3. 6 Oct. 1979: “the Fed, under Paul Volcker’s chairmanship, announced and put into effect a new attempt involving drastically revised operating procedures that had some prominent features in common with monetarist recommendations. In particular, the Fed would try to hit specified monthly targets for the growth rate of M1, with operating procedures that emphasized control over a narrow and controllable monetary aggregate, non-borrowed reserves (i.e., bank reserves minus borrowings from the Fed). The M1 targets were intended to bring inflation down from double-digit levels to unspecified but much lower values.” (McCallum)
      4. late 1979: “Short-term interest rates jumped dramatically . . . under the tightened conditions . . .” (McCallum)
      5. 1980: “a major fall in output in one quarter [was] followed by a major jump in the next, due primarily to the imposition, and then removal, of credit controls.” (McCallum)
      6. 1981-mid 1982: “a sustained period of monetary stringency brought about the deepest recession since the Great Depression of the 1930s and began to bring inflation down, more rapidly than many economists anticipated, toward acceptable values. Some relevant statistics, designed to put the episode in perspective, are reported in Table 1.” (McCallum)
      7. Oct. 1979-Sept. 1982: “Throughout the entire episode, . . . both interest rates and money growth rates were highly variable. To be specific, the standard deviation of monthly percentage growth rates of M1 increased from 3.73 (for the previous three years) to 8.22 for the period from October 1979 to September 1982, while the standard deviation of monthly percentage changes in the federal funds rate jumped from 2.86 to 23.1 (annualized units).” (McCallum)

Table 1 Selected Statistics, 1960-1999, percentages (average or changes)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Year or Average Over | CPI Inflation Dec.-Dec. | Fed Funds Rate | “Real” Funds Rate | M1 Growth Rate | Adjusted M1B Growth | Unemployment Rate |
| 1960-64 | 1.2 | 2.9 | 1.7 | 2.8 | — | 5.7 |
| 1965-69 | 3.9 | 5.4 | 1.5 | 5.0 | — | 3.8 |
| 1970-74 | 6.7 | 7.1 | 0.4 | 6.1 | — | 5.4 |
| 1975 | 6.9 | 5.8 | −1.1 | 4.7 | — | 8.5 |
| 1976 | 4.9 | 5.0 | 0.1 | 6.7 | 5.8 | 7.7 |
| 1977 | 6.7 | 5.5 | −1.2 | 8.0 | 7.9 | 7.1 |
| 1978 | 9.0 | 7.9 | −1.1 | 8.0 | 7.2 | 6.1 |
| 1979 | 13.3 | 11.2 | −2.1 | 6.9 | 6.8 | 5.8 |
| 1980 | 12.5 | 13.4 | 0.9 | 7.0 | 6.9 | 7.1 |
| 1981 | 8.9 | 16.4 | 7.5 | 6.9 | 2.4 | 7.6 |
| 1982 | 3.8 | 12.3 | 8.5 | 8.7 | 9.0 | 9.7 |
| 1983 | 3.8 | 9.1 | 5.3 | 9.8 | 10.3 | 9.6 |
| 1984 | 3.9 | 10.2 | 6.3 | 5.8 | 5.2 | 7.5 |
| 1985-89 | 3.7 | 7.8 | 4.1 | 7.7 | — | 6.2 |
| 1990-94 | 3.5 | 4.9 | 1.4 | 7.8 | — | 6.6 |
| 1995-99 | 2.4 | 5.4 | 3.0 | −0.4 | — | 4.9 |
| *Sources*: *Economic Report of the President*, 2003, except: Adjusted M1B Growth: Alfred Broaddus and Marvin Goodfriend, “Base Drift and the Longer Run M1 Growth Rate: Experience from a Decade of Monetary Targeting,” *Federal Reserve Bank of Richmond Economic Review* 70 (November-December 1984), pp. 3-14. | | | | | | |
| *Note*: Adjustments to M1 growth rates were made and used by the Fed, at the time, to take account of estimated distortions brought about by the introduction of NOW (negotiated order of withdrawal) accounts. [“NOW account”: “An interest-bearing transaction account that blends the payable upon demand feature of checks with the features of a savings account. . . . Think of a NOW account as an interest-bearing checking account.” (Takoma Group. “Ecommerce Glossary.” *The Takoma Group*. N.d. 9 Jan. 2008. <http://takomagroup.com/ecommerce\_glossary.html>.)] | | | | | | |

* + 1. assessments
       1. “. . . the “experiment” seemed anything but successful to many Americans.” (McCallum)
       2. “Many critics characterized the “experiment” as a macroeconomic disaster. Some believed, moreover, that it provided strong and definitive evidence invalidating monetarism—partly by showing how undesirable it was to have money growth targets and partly in showing how poor are operating procedures for controlling M1 money growth by means of tight control of a narrow monetary aggregate.” (McCallum)
       3. “Monetarists argued that the episode was actually *not* monetarist in its design because growth rates of M1 fluctuated very widely on a month-to-month basis; the operating procedures in place were, because of lagged reserve requirements, extremely poorly designed for the control of M1; and the Fed never forswore discretionary responses to current cyclical conditions.” (McCallum)
       4. “It now seems clear that the Fed’s use of a narrow monetary aggregate [non-borrowed reserves] for week-to-week control was highly effective in terms of public relations. The reason was that it permitted the Fed to escape political responsibility for the resulting high and, therefore, unpopular interest rate levels by claiming that these were simply the consequence of market forces.” (McCallum)
          1. “This claim was somewhat deceptive in the following way. Each period’s interest rate level was indeed market determined once the quantity of non-borrowed reserves for the period was determined, but this quantity was itself set by the Fed.” (McCallum n. 3)
       5. “At the same time, by adopting a putatively monetarist approach, the Fed could at least, even if the episode was a failure, discredit monetarism and the Fed’s annoying monetarist critics. As matters played out, the episode was soon seen as a strategic success, despite temporary unhappiness, and monetarism was discredited as well!” (McCallum)
       6. “In retrospect, the events that occurred from October 1979 to September 1982 are widely viewed as the crucial beginning of a necessary and successful attack on inflation that led, eventually, to the worldwide low-inflation environment of the 1990s.” (McCallum)
  1. present status
     1. “What is left today of monetarism? While some disagreement remains, certain things are clear.” (McCallum)
        1. “Interestingly, most of the changes to Keynesian thinking that early monetarists proposed are accepted today as part of standard macro/monetary analysis. After all, the main proposed changes were to distinguish carefully between real and nominal variables, to distinguish between real and nominal interest rates, and to deny the existence of a long-run trade-off between inflation and unemployment.” (McCallum)
        2. “Also, most research economists today accept, at least tacitly, the proposition that monetary policy is more potent and useful than fiscal policy for stabilizing the economy. There is some academic support, and a bit in central bank circles, for the real-business-cycle suggestion that monetary policy has no important effect on real variables, but this idea probably has marginal significance. It is hard to believe that the major recession of 1981-1983 in the United States was not caused largely by the Fed’s deliberate tightening of 1981—a tightening that shows up in ex-post real interest rates and in M1B growth rates as adjusted by the Fed at the time (Table 1, column 6) to take account of major institutional changes.” (McCallum)
        3. “In 2005, most academic specialists in monetary economics would probably describe their orientation as new Keynesian. Also, monetary aggregates currently play a small or nonexistent role in the monetary policy analysis of academic and central-bank economists. In terms of its underlying scientific rationale, however, today’s mainstream analysis is much closer to that of the monetarist than the Keynesian position of, for example, 1956-1978. In addition to the points noted above, current thinking clearly favors policy rules in contrast to “discretion,” however defined, and stresses the central importance of maintaining inflation at quite low rates. It is only in its emphasis on monetary aggregates that monetarism is not being widely espoused and practiced today.” (McCallum)

New Institutional Economics

Boettke, Peter J. “Austrian School of Economics.” *The Concise Encyclopedia of Economics*. Indianapolis: Liberty Fund, 2007. Ed. David R. Henderson. Library of Economics and Liberty. 13 Dec. 2008. Web.

“New Institutional Economics.” *Wikipedia*. 8 Sept. 2021. 19 Sept. 2021. Web.

1. New institutional economics “has its roots in two articles by Ronald Coase, “The Nature of the Firm” (1937) and “The Problem of Social Cost” (1960).” (“New Institutional Economics”)
2. “Many of the most important institutions and practices are not the result of direct design but are the by-product of actions taken to achieve other goals.” (Boettke)
   1. “A student in the Midwest in January trying to get to class quickly while avoiding the cold may cut across the quad rather than walk the long way around. Cutting across the quad in the snow leaves footprints; as other students follow these, they make the path bigger. Although their goal is merely to get to class quickly and avoid the cold weather, in the process they create a path in the snow that actually helps students who come later to achieve this goal more easily.” (Boettke)
   2. “The “path in the snow” story is a simple example of a “product of human action, but not of human design.”” (Hayek, F.A. *Individualism and Economic Order*. Chi­cago: U of Chicago P, 1948. 7) (Boettke)
3. “Money, law, language, science, and so on are all social phenomena that can trace their origins not to human design, but rather to people striving to achieve their own betterment, and in the process producing an outcome that benefits the public.” (Boettke)
4. “The market economy and its price system are examples of a similar process. People do not intend to create the complex array of exchanges and price signals that constitute a market economy. Their intention is simply to improve their own lot in life, but their behavior results in the market system.” (Boettke)
5. “Not all spontaneous orders are beneficial . . .” (Boettke)
   1. “Whether individuals pursuing their own self-interest generate public benefits depends on the institutional conditions within which they pursue their interests. Both the invisible hand of market efficiency and the tragedy of the commons are results of individuals striving to pursue their individual interests; but in one social setting this generates social benefits, whereas in the other it generates losses.” (Boettke)
   2. “New institutional economics has refocused professional attention on how sensitive social outcomes are to the institutional setting within which individuals interact. It is important, however, to realize that classical political economists and the early neoclassical economists all recognized the basic point of new institutional economists, and that it was only the mid-twentieth-century fascination with formal proofs of general competitive equilibrium, on the one hand, and the Keynesian preoccupation with aggregate variables, on the other, that tended to cloud the institutional preconditions required for social cooperation.” (Boettke n. 4)

Rational Expectations

Sargent, Thomas J. “Rational Expectations.” *The Concise Encyclopedia of Economics*. Indianapolis: Liberty Fund, 2007. Ed. David R. Henderson. Library of Economics and Liberty. 13 Dec. 2008.

1. **bibliography**
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   2. Lucas, Robert E., Jr. *Models of Business Cycles*. Oxford: Basil Blackwell, 1987.
   3. Muth, John A. “Rational Expectations and the Theory of Price Movements.” *Econometrica* 29.6 (1961): 315-35.
   4. Sargent, Thomas J. *Rational Expectations and Inflation*. New York: Harper and Row, 1986.
   5. Sheffrin, Steven M. *Rational Expectations*. 2nd ed. Cambridge: Cambridge UP, 1996.
2. **definition**
   1. “While rational expectations is often thought of as a school of economic thought, it is better regarded as a ubiquitous modeling technique used widely throughout economics.” (Sargent)
   2. “The use of expectations in economic theory is not new. . . . But proponents of the rational expectations theory are more thorough in their analysis of expectations.” (Sargent)
3. **history**
   1. “Many earlier economists, including A.C. Pigou, John Maynard Keynes, and John R. Hicks, assigned a central role in the determination of the business cycle to people’s expectations about the future. Keynes referred to this as “waves of optimism and pessimism” that helped determine the level of economic activity.” (Sargent)
   2. 1961: John A. Muth’s “Rational Expectations and the Theory of Price Movements”
      1. “The theory of rational expectations was first proposed by John F. Muth of Indiana University in the early 1960s. He used the term to describe the many economic situations in which the outcome depends partly on what people expect to happen.” (Sargent)
         1. “The price of an agricultural commodity, for example, depends on how many acres farmers plant, which in turn depends on the price farmers expect to realize when they harvest and sell their crops.” (Sargent)
         2. “As another example, the value of a currency and its rate of depreciation depend partly on what people expect that rate of depreciation to be. That is because people rush to desert a currency that they expect to lose value, thereby contributing to its loss in value.” (Sargent)
         3. “Similarly, the price of a stock or bond depends partly on what prospective buyers and sellers believe it will be in the future.” (Sargent)
   3. “The influences between expectations and outcomes flow both ways. In forming their expectations, people try to forecast what will actually occur. They have strong incentives to use forecasting rules that work well because higher “profits” accrue to someone who acts on the basis of better forecasts, whether that someone is a trader in the stock market or someone considering the purchase of a new car. And when people have to forecast a particular price over and over again, they tend to adjust their forecasting rules to eliminate avoidable errors. Thus, there is continual feedback from past outcomes to current expectations. Translation: in recurrent situations the way the future unfolds from the past tends to be stable, and people adjust their forecasts to conform to this stable pattern.” (Sargent)
   4. The concept of rational expectations asserts that outcomes do not differ systematically (i.e., regularly or predictably) from what people expected them to be.” (Sargent)
   5. “The concept is motivated by the same thinking that led Abraham Lincoln to assert, “You can fool some of the people all of the time, and all of the people some of the time, but you cannot fool all of the people all of the time.” From the viewpoint of the rational expectations doctrine, Lincoln’s statement gets things right. It does not deny that people often make forecasting errors, but it does suggest that errors will not persistently occur on one side or the other.” (Sargent)
   6. “Economists who believe in rational expectations base their belief on the standard economic assumption that people behave in ways that maximize their utility (their enjoyment of life) or profits.” (Sargent)
      1. “Rational expectations is a building block for the “random walk” or “efficient markets” theory of securities prices . . .” (Sargent)
      2. “Rational expectations is a building block for . . . the theory of the dynamics of hyperinflations . . .” (Sargent)
      3. “Rational expectations is a building block for . . . the “permanent income” and “life-cycle” theories of consumption . . .” (Sargent)
      4. “Rational expectations is a building block for . . . the design of economic stabilization policies.” (Sargent)
4. **@the efficient markets theory of stock prices**
   1. “One of the earliest and most striking applications of the concept of rational expectations is the efficient markets theory of asset prices. A sequence of observations on a variable (such as daily stock prices) is said to follow a random walk if the current value gives the best possible prediction of future values. The efficient markets theory of stock prices uses the concept of rational expectations to reach the conclusion that, when properly adjusted for discounting and dividends, stock price changes follow a random walk. The chain of reasoning goes as follows. In their efforts to forecast prices, investors comb all sources of information (see Information and Prices), including patterns that they can spot in past price movements.” (Sargent)
   2. “Investors buy stocks they expect to have a higher-than-average return and sell those they expect to have lower returns. When they do so, they bid up the prices of stocks expected to have higher-than-average returns and drive down the prices of those expected to have lower-than-average returns. The prices of the stocks adjust until the expected returns, adjusted for risk, are equal for all stocks. Equalization of expected returns means that investors’ forecasts become built into or reflected in the prices of stocks. More precisely, it means that stock prices change so that after an adjustment to reflect dividends, the time value of money, and differential risk, they equal the market’s best forecast of the future price. Therefore, the only factors that can change stock prices are random factors that could not be known in advance. Thus, changes in stock prices follow a random walk.” (Sargent)
   3. The random walk theory has been subjected to literally hundreds of empirical tests. The tests tend to support the theory quite strongly. While some studies have found situations that contradict the theory, the theory does explain, at least to a very good first approximation, how asset prices evolve (see Efficient Capital Markets).” (Sargent)
5. **the permanent income theory of consumption**
   1. “The Keynesian consumption function (see Keynesian Economics and New Keynesian Economics) holds that there is a positive relationship between people’s consumption and their income. Early empirical work in the 1940s and 1950s encountered some discrepancies in the theory, which Milton Friedman successfully explained with his celebrated “permanent income theory” of consumption. Friedman built on Irving Fisher‘s insight that a person’s consumption ought not depend on current income alone, but also on prospects of income in the future. Friedman posited that people consume out of their “permanent income,” which can be defined as the level of consumption that can be sustained while leaving wealth intact. In defining “wealth,” Friedman included a measure of “human wealth”—namely, the present value of people’s expectations of future labor income.” (Sargent)
   2. “Although Friedman did not formally apply the concept of rational expectations in his work, it is implicit in much of his discussion. Because of its heavy emphasis on the role of expectations about future income, his hypothesis was a prime candidate for the application of rational expectations. In work subsequent to Friedman’s, John F. Muth and Stanford’s Robert E. Hall imposed rational expectations on versions of Friedman’s model, with interesting results. In Hall’s version, imposing rational expectations produces the result that consumption is a random walk: the best prediction of future consumption is the present level of consumption. This result encapsulates the consumption-smoothing aspect of the permanent income model and reflects people’s efforts to estimate their wealth and to allocate it over time. If consumption in each period is held at a level that is expected to leave wealth unchanged, it follows that wealth and consumption will each equal their values in the previous period plus an unforecastable or unforeseeable random shock—really a forecast error.” (Sargent)
   3. “The rational expectations version of the permanent income hypothesis has changed the way economists think about short-term stabilization policies (such as temporary tax cuts) designed to stimulate the economy. Keynesian economists once believed that tax cuts boost disposable income and thus cause people to consume more. But according to the permanent income model, temporary tax cuts have much less of an effect on consumption than Keynesians had thought. The reason is that people are basing their consumption decision on their wealth, not their current disposable income. Because temporary tax cuts are bound to be reversed, they have little or no effect on wealth, and therefore have little or no effect on consumption. Thus, the permanent income model had the effect of diminishing the expenditure “multiplier” that economists ascribed to temporary tax cuts.” (Sargent)
   4. “The rational expectations version of the permanent income model has been extensively tested, with results that are quite encouraging. The evidence indicates that the model works well but imperfectly. Economists next extended the model to take into account factors such as “habit persistence” in consumption and the differing durabilities of various consumption goods. Expanding the theory to incorporate these features alters the pure “random walk” prediction of the theory and so helps remedy some of the empirical shortcomings of the model, but it leaves the basic permanent income insight intact.” (Sargent)
6. **expectational error models of the business cycle**
   1. “A long tradition in business cycle theory has held that errors in people’s forecasts are a major cause of business fluctuations. This view is embodied in the phillips curve (the observed inverse correlation between unemployment and inflation), with economists attributing the correlation to errors people make in their forecasts of the price level. Before the advent of rational expectations, economists often proposed to “exploit” or “manipulate” the public’s forecasting errors in ways designed to generate better performance of the economy over the business cycle. Thus, Robert Hall aptly described the state of economic thinking in 1973 when he wrote:” (Sargent)
   2. “The benefits of inflation derive from the use of expansionary policy to trick economic agents into behaving in socially preferable ways even though their behavior is not in their own interest.... The gap between actual and expected inflation measures the extent of the trickery.... The optimal policy is not nearly as expansionary [inflationary] when expectations adjust rapidly, and most of the effect of an inflationary policy is dissipated in costly anticipated inflation.” (Sargent)
   3. “Rational expectations undermines the idea that policymakers can manipulate the economy by systematically making the public have false expectations. Robert Lucas showed that if expectations are rational, it simply is not possible for the government to manipulate those forecast errors in a predictable and reliable way for the very reason that the errors made by a rational forecaster are inherently unpredictable. Lucas’s work led to what has sometimes been called the “policy ineffectiveness proposition.” If people have rational expectations, policies that try to manipulate the economy by inducing people into having false expectations may introduce more “noise” into the economy but cannot, on average, improve the economy’s performance.” (Sargent)
7. **design of macroeconomic policies**
   1. “The “policy ineffectiveness” result pertains only to those economic policies that have their effects solely by inducing forecast errors. Many government policies work by affecting “margins” or incentives, and the concept of rational expectations delivers no policy ineffectiveness result for such policies. In fact, the idea of rational expectations has been used extensively in such contexts to study the design of monetary, fiscal, and regulatory policies to promote good economic performance.” (Sargent)
   2. “The idea of rational expectations has also been a workhorse in developing prescriptions for optimally choosing monetary policy. Truman Bewley and William A. Brock have been important contributors to this literature. Bewley’s and Brock’s work describes precisely the contexts in which an optimal monetary arrangement involves having the government pay interest on reserves at the market rate. Their work supports, clarifies, and extends proposals to monetary reform made by Milton Friedman in 1960 and 1968.” (Sargent)
   3. “Rational expectations has been a working assumption in recent studies that try to explain how monetary and fiscal authorities can retain (or lose) “good reputations” for their conduct of policy. This literature has helped economists understand the multiplicity of government policy strategies followed, for example, in high-inflation and low-inflation countries. In particular, work on “reputational equilibria” in macroeconomics by Robert Barro and by David Gordon and Nancy Stokey showed that the preferences of citizens and policymakers and the available production technologies and trading opportunities are not by themselves sufficient to determine whether a government will follow a low-inflation or a high-inflation policy mix. Instead, reputation remains an independent factor even after rational expectations have been assumed.” (Sargent)
8. **conclusion**
   1. “While few economists want to assume that the government can fool the public systematically, many remain skeptical of the rational-expectations hypothesis as a description of people’s actual expectations. Some, including founding new classicals such as Sargent, have explored models of learning that emphasize that overcoming expectational errors is a process that may take some time.” (Hoover)

New Classical Macroeconomics

Hoover, Kevin D. “New Classical Macroeconomics.” *The Concise Encyclopedia of Economics*. Indianapolis: Liberty Fund, 2007. Ed. David R. Henderson. Library of Economics and Liberty. 13 Dec. 2008.

1. **bibliography**
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      1. “Important articles for and against real business cycle models . . .” (Hoover)
      2. Kydland, Finn E., and Edward C. Prescott. “Time to Build and Aggregate Fluctuations.” “Seminal.” (Hoover)
      3. “. . . the editors’ introduction . . . presents an accessible, critical account of the models.” (Hoover)
   2. Hoover, Kevin D. *The New Classical Macroeconomics*: *A Sceptical Inquiry*. Oxford: Blackwell, 1988.
      1. “General account of the new classical economics.” (Hoover)
   3. Lucas, Robert E., Jr. *Studies in Business Cycle Theory*. Oxford: Blackwell, 1981.
      1. A collection of “Some of Lucas’s own articles . . .” (Hoover)
      2. Lucas, Robert E., Jr. “Understanding Business Cycles.” “. . . lays out the basis for the new classical theory of the business cycle.” (Hoover)
      3. Lucas, Robert E., Jr. “Econometric Testing of the Natural Rate Hypothesis.” “. . . a formal but relatively accessible presentation of key new classical ideas . . .” (Hoover)
   4. Lucas, Robert E., Jr., and Thomas J. Sargent, eds. *Rational Expectations and Econometric Practice*. London: Allen and Unwin, 1981.
      1. “Many key articles covering the first decade of the new classical school, including Muth’s original article on rational expectations, Sargent and Wallace’s articles on the policy-ineffectiveness proposition, and Lucas and Sargent’s new classical manifesto, “After Keynesian Macroeconomics.”” (Hoover)
   5. Sheffrin, Steven M. *Rational Expectations*. 2nd ed. Cambridge: Cambridge UP, 1996.
      1. “General account of the new classical economics.” (Hoover)
2. **introduction**
   1. beliefs
      1. There are “two fundamental tenets of the new classical macroeconomics . . .” (Hoover)
      2. “First, individuals are viewed as optimizers: given the prices, including wage rates, they face and the assets they hold, including their education and training (or “human capital”), they choose the best options available. Firms maximize profits; people maximize utility.” (Hoover)
      3. “Second, to a first approximation, prices adjust, changing the incentives to individuals, and thereby their choices, to align quantities supplied and demanded.” (Hoover)
3. **after Keynesian macroeconomics**
   1. “The new classical macroeconomics is a school of economic thought that originated in the early 1970s in the work of economists centered at the Universities of Chicago and Minnesota—particularly, Robert Lucas (recipient of the Nobel Prize in 1995), Thomas Sargent, Neil Wallace, and Edward Prescott (corecipient of the Nobel Prize in 2004).” (Hoover)
   2. “The name draws on John Maynard Keynes’s evocative contrast between his own macroeconomics and that of his intellectual forebears. Keynes had knowingly stretched a point by lumping his contemporaries, A.C. Pigou and Alfred Marshall, in with the older classical political economists, such as David Ricardo, and calling them all “classical.”” (Hoover)
      1. “According to Keynes, [classical economists] saw the price system in a free economy as efficiently guiding the mutual adjustment of supply and demand in all markets, including the labor market. Unemployment could arise only because of a market imperfection—the intervention of the government or the action of labor unions—and could be eliminated through removing the imperfection.” (Hoover)
      2. “In contrast, Keynes shifted the focus of his analysis away from individual markets to the whole economy. He argued that even without market imperfections, aggregate demand (equal, in a closed economy, to consumption plus investment plus government expenditure) might fall short of the aggregate productive capacity of its labor and capital (plant, equipment, raw material, and infrastructure). In such a situation, unemployment is largely involuntary—that is, workers may be unemployed even though they are willing to work at a wage lower than the wage the firms pay their current workers.” (Hoover)
   3. “Later Keynesian economists achieved a measure of reconciliation with the classics.” (Hoover)
      1. “Paul Samuelson argued for a “neoclassical synthesis” in which classical economics was viewed as governing resource allocation when the economy was kept, through judicious government policy, at full employment.” (Hoover)
      2. “the program of “microfoundations for macroeconomics””: “Other Keynesian economists sought to explain consumption, investment, the demand for money, and other key elements of the aggregate Keynesian model in a manner consistent with the assumption that individuals behave optimally.” (Hoover)
4. **origins**
   1. “Although its name suggests a rejection of Keynesian economics and a revival of classical economics, the new classical macroeconomics began with Lucas’s and Leonard Rapping’s attempt to provide microfoundations for the Keynesian labor market. Lucas and Rapping applied the rule that equilibrium in a market occurs when quantity supplied equals quantity demanded. This turned out to be a radical step. Because involuntary unemployment is exactly the situation in which the amount of labor supplied exceeds the amount demanded, their analysis leaves no room at all for involuntary unemployment.” (Hoover)
   2. “Keynes’s view was that recessions occur when aggregate demand falls—largely as the result of a fall in private investment—causing firms to produce below their capacity. Producing less, firms need fewer workers, and thus employment falls. Firms, for reasons that Keynesian economists continue to debate, fail to cut wages to as low a level as job seekers will accept, and so involuntary unemployment rises. The new classicals reject this step as irrational. Involuntary unemployment would present firms with an opportunity to raise profits by paying workers a lower wage. If firms failed to take the opportunity, then they would not be optimizing. Employed workers should not be able to resist such wage cuts effectively since the unemployed stand ready to take their places at the lower wage. Keynesian economics would appear, then, to rest either on market imperfections or on irrationality, both of which Keynes denied.” (Hoover)
   3. These criticisms of Keynesian economics illustrate the two fundamental tenets of the new classical macroeconomics [see “beliefs” under “introduction” above].” (Hoover)
5. **business cycles**
   1. “Business cycles pose a special challenge for new classical economists: How are large fluctuations in output compatible with the two fundamental tenets of their doctrine [see “beliefs” under “introduction” above]?” (Hoover)
   2. “The economy, they believe, is often buffeted by unexpected shocks. Shocks to aggregate demand are typically unanticipated changes in monetary or fiscal policy. Shocks to aggregate supply are typically changes in productivity that may result, for example, from transient changes to technology, prices of raw materials, or the organization of production. Ideally, firms would choose to produce more and to pay their workers more when the economy has been hit by favorable shocks and less when hit by unfavorable shocks. Similarly, workers would be willing to work more when productivity and wage rates are higher and to take more leisure when their rewards are lower. For both, the rule is “make hay while the sun shines.” Employment, like output, would clearly rise with favorable shocks and fall with unfavorable shocks.” (Hoover)
   3. “But having rejected the very notion of involuntary unemployment, why do new classicals think that the unemployment rate would fall in the boom and rise in the slump? When a worker is laid off, he must seek a new job. He weighs the value of taking a lower-paid job that might be easily available (a machinist might become a day laborer) against the value of a better-paid, more suitable job that is harder to find. The new classicals do not argue that the unemployed job searcher is happy with his choice: [everyone] prefers good luck to bad. Rather, they argue that the worker chooses what he regards as the best available option, even when the options are poor. To remain unemployed (and to show up in the unemployment statistics) is something that he chooses based on his judgment that the benefits of the search outweigh the costs; this is not an exception to the rule that amount supplied equals amount demanded.” (Hoover)
   4. “The fact that the economy experiences good and bad shocks is not enough to explain business cycles. An adequate theory must account for persistence—the fact that business cycles typically display long runs of good times followed by shorter, but still significant, runs of bad times. Those new classicals who regard demand shocks as dominant argue that the shocks are propagated slowly. It is always costly to adjust production levels quickly. Similarly, when higher production requires new capital, it takes time to build it up. And when lower production renders existing capital redundant, it takes time to wear it out or use it up. New classicals of the “real-business-cycle school” (led by Edward Prescott and Finn Kydland, corecipients of the 2004 Nobel Prize) regard changes in productivity as the driving force in business cycles. Because changes in technology may also come in waves, runs of favorable or unfavorable productivity (or technology) shocks may account for some of the persistence characteristic of business cycles.” (Hoover)
6. **rational expectations and policy ineffectiveness**
   1. “The new classicals adopted John Muth’s “rational-expectations hypothesis” (see Rational Expectations).” (Hoover)
      1. “Most economic decisions are forward looking. To know whether today is a day for work or for leisure, we need to decide whether tomorrow will be more or less productive than today; in short, we must have an expectation of the future. How should economists analyze expectations?” (Hoover)
      2. “Muth argued that an economic model in which people’s expectations differ from the outcomes predicted by the model itself is poorly formulated. If the predictions of the model were correct—and therefore people’s expectations were wrong—then they could use the model to correct their own expectations. To fail to do so would result in economic losses and would be irrational. At one level, Muth’s hypothesis is just a technical consistency criterion for models. At another level, it appeals to the economic insight that people will not persist in easily correctable, systematic, and costly errors.” (Hoover)
      3. “The new classicals appeal implicitly (and sometimes explicitly) to Lincoln’s well-known adage: “You can fool some of the people all of the time, and all of the people some of the time, but you cannot fool all of the people all of the time.” They warn policymakers that a policy that depends on the assumption that the public systematically misunderstands its own interest is likely to fail.” (Hoover)
   2. “Keynesian economists of the 1960s often appealed to the Phillips curve, taking it to imply that monetary or fiscal policy that lowered the unemployment rate also caused a higher inflation rate. The interesting policy question was the trade-off: How much extra inflation was a one-point fall in the unemployment rate worth? The new classicals rejected the idea that there was any useful trade-off. They argued that an expansion of aggregate demand lowered unemployment only because the acceleration in prices was not anticipated. Firms that mistook higher market prices for higher real returns would be willing to produce more. Workers who mistook higher market wages for higher purchasing power would be willing, if unemployed, to take a job sooner. Increased output and lower unemployment would, however, be temporary because neither the returns to firms nor the purchasing power of workers was, corrected for inflation, really higher. As soon as they realized the mistake, firms and workers would return to old levels of production and labor supply.” (Hoover)
   3. “What is more, having made the mistake once, they would not be easily fooled again by the same policy. The combination of rational expectations and the central tenet of new classical analysis that quantity supplied equals quantity demanded ensures that *systematic*, *pure* aggregate-demand policies do not have real effects on the economy. The Phillips curve trade-off can be observed in the data because some part of policy is always unanticipated. But policymakers cannot exploit it because the public will see through any systematic policy. Because it rejected the prevailing Keynesian view that monetary policy could offset a recession, this “policy-ineffectiveness proposition” became the most startling and controversial conclusion of the early new classical macroeconomics.” (Hoover)
   4. “The policy-ineffectiveness proposition is frequently misunderstood. It is not a claim that no government policy affects the economy. Policies on government spending, for example, represent changes in the real claims the government makes on GDP and may affect output and employment. Rather, the proposition is limited to the effects of changes in government liabilities (the monetary base and the government debt) that may affect the rate of inflation. In this respect, the policy-ineffectiveness proposition is related to another new classical proposition: Ricardian equivalence (see Government Debt and Deficits). Ricardian equivalence is the claim that whether a given path of government expenditure is financed through taxes or debt is unimportant: substituting debt for taxes appears to increase disposable income today. But since the debt must be repaid with interest, a rational taxpayer would save the entire windfall in order to afford the future tax bill, leaving his expenditure unchanged. Ricardian equivalence remains controversial because it depends on assumptions about the public’s foresight and grasp of the fiscal system closely related to the rational-expectations hypothesis and on debatable assumptions about the incidence of taxes and expenditure.” (Hoover)
7. **the Lucas critique**
   1. “Unanticipated policy has real effects, but, because it is unanticipated, it cannot be systematic—and therefore it cannot be used to direct the economy. The systematic element of policy can be viewed, implicitly at least, as a policy rule. Consider the Phillips curve again. How much does unemployment fall for a one-percentage-point increase in the price level? Lucas argued that the answer depends on the policy rule. If the rule had been one that held the inflation rate to zero (prices are constant), then the increase would be unanticipated and unemployment would fall. If the rule had been one that maintained a steady 1 percent rate of inflation (each year prices grow by 1 percent), then the increase would be just what systematic policy implied, the inflation would be perfectly anticipated, and unemployment would not change. And if the rule had been one that maintained a steady 2 percent rate of inflation, then a one-percentage-point increase would fall short of what had been anticipated, and unemployment would rise. These different trade-offs suggest that there is a different Phillips curve for each policy rule. A Phillips curve estimated under one policy regime would not predict accurately what would happen under a different regime.” (Hoover)
   2. “Lucas argued that what is true of the Phillips curve in this example is true of the most important relationships in the econometric macroeconomic models used to evaluate economic policy. His analysis has come to be known as the “policy non-invariance” or “Lucas” critique.” (Hoover)
8. **assessment**
   1. “The new classicals profoundly changed the technical underpinnings of modern macroeconomics. Economists now widely accept the Lucas critique. To avoid it [i.e., incorporate it], economists sought ways to predict exactly how estimated relationships would change with the policy regime by integrating rational expectations and the public’s response to policy rules into their models. Because rational expectations depend on the structure of the whole economy, the program of microfoundations is no longer content to look at different markets separately, but concentrates on general equilibrium among them. Dynamic models have replaced static models: policy actions cannot be evaluated merely for what they do today, but for how they change people’s judgments about the future.” (Hoover)
   2. “While few economists want to assume that the government can fool the public systematically, many remain skeptical of the rational-expectations hypothesis as a description of people’s actual expectations. Some, including founding new classicals such as Sargent, have explored models of learning that emphasize that overcoming expectational errors is a process that may take some time.
   3. Most economists, even among the new classicals, no longer accept the policy-ineffective­ness proposition. It is widely agreed that wages and prices do not move quickly and smoothly to the values needed for long-run equilibrium between quantities supplied and demanded. Consequently, even if monetary policy is ineffective in the long run, it may be of considerable use in the short run.” (Hoover)
   4. “While optimal search and voluntary changes in labor supply may explain a large portion of routine unemployment rates, many economists question whether they explain high unemployment in recessions. Was the 25 percent unemployment rate of the Great Depression the result of a mass decision to take a vacation? New Keynesian critics typically maintain that unemployment is, in fact, characterized by wages above the level needed to clear the labor market. But what, exactly, prevents firms from taking profitable advantage of the situation remains controversial.” (Hoover)

Concepts Helpful in Understanding Economic History

Balance of Payments

Stein, Herbert. “Balance of Payments.” *The Concise Encyclopedia of Economics*. Indianapolis: Liberty Fund, 2007. Ed. David R. Henderson. Library of Economics and Liberty. 13 Dec. 2008.

1. **introduction**
   1. bibliography
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      2. *Economic Report of the President*. 2004. “For good, clear reasoning about balance of payments, see pp. 239-264.” (Stein)
      3. *Survey of Current Business*. <http://www.bea.gov/bea/pubs.htm> (“for current data”). (Stein)
   2. definition: balance of payments is “the payments and receipts of the residents of [a] country in their transactions with residents of other countries.” (Stein)
2. **total account balance**
   1. Fear “that a country might have a deficit in its balance of payments . . . is groundless for two reasons: (1) there never is a deficit, and (2) it would not necessarily hurt anything if there was one.” (Stein)
   2. “there never is a deficit” (Stein)
      1. “If all transactions are included, the payments and receipts of each country are, and must be, equal. Any apparent inequality simply leaves one country acquiring assets in the others.” (Stein)
      2. “For example, if Americans buy automobiles from Japan, and have no other transactions with Japan, the Japanese must end up holding dollars, which they may hold in the form of bank deposits in the United States or in some other U.S. investment. The payments Americans make to Japan for automobiles are balanced by the payments Japanese make to U.S. individuals and institutions, including banks, for the acquisition of dollar assets. Put another way, Japan sold the United States automobiles, and the United States sold Japan dollars or dollar-denominated assets such as treasury bills and New York office buildings.” (Stein)
3. **deficits and surpluses**
   1. “. . . the totals of payments and receipts are necessarily equal . . .” (Stein)
   2. But “there will be inequalities—excesses of payments or receipts, called deficits or surpluses—in particular kinds of transactions. . . . The statement that a country has a deficit or surplus in its “balance of payments” must refer to some particular class of transactions.” (Stein)
      1. merchandise trade (goods)
      2. services trade
      3. foreign investment income
      4. unilateral transfers (foreign aid)
      5. private investment
      6. “the flow of gold and money between central banks and treasuries”
      7. “or any combination of these or other international transactions.” (Stein)
      8. “As Table 1 shows, in 2004 the United States had a deficit in goods of $665.4 billion but a surplus in services of $48.8 billion.” (Stein)

Table 1 The U.S. Balance of Payments, 2004 (in billions)

|  |  |
| --- | --- |
|  |  |
| goods | −665.4 |
| services | +48.8 |
| investment income | +30.4 |
| balance on goods, services, and income | −587.2 |
|  |  |
| unilateral transfers | −80.9 |
| current account balance [defined below] | −668.1 |
|  |  |
| nonofficial capital [includes statistical discrepancy] | +270.6 |
| official reserve assets | +397.5 |
|  |  |
| capital account balance [defined below] | +668.1 |
| total balance | 0 |
|  |  |
| *Source*: U.S. Department of Commerce, *Survey of Current Business*. | |

* 1. balance of payments and the gold standard
     1. pre-c. 1973: the “definition of the balance of payments [was] intended to measure a country’s ability to meet its obligation to exchange its currency for other currencies or for gold at fixed exchange rates.” (Stein)
        1. “To meet this obligation, countries maintained a stock of official reserves, in the form of gold or foreign currencies, that they could use to support their own currencies. A decline in this stock was considered an important balance-of-payments deficit because it threatened the ability of the country to meet its obligations.” (Stein)
        2. “But that particular kind of deficit, by itself, was never a good indicator of the country’s financial position. The reason is that it ignored the likelihood that the country would be called on to meet its obligation and the willingness of foreign or international monetary institutions to provide support.” (Stein)
     2. post-c. 1973: “interest in official reserve positions as a measure of balance of payments greatly diminished as the major countries gave up their commitment to convert their currencies at fixed exchange rates. This reduced the need for reserves and lessened concern about changes in the size of reserves.” (Stein)
  2. total account, current account, capital account
     1. *total account*: capital account + current account. It is necessarily balanced. (Stein)
     2. *current account*: “trade in goods and services, investment income earned abroad, and unilateral transfers.” (Stein)
        1. “It excludes the capital account . . .” (Stein)
        2. post-c. 1973: balance-of-payments “deficit” or “surplus” usually means the current account. (Stein)
     3. *capital account*: purchase or sale of property (including securities) (Stein)
     4. Because the total account is necessarily balanced, “a deficit in the current account is always accompanied by an equal surplus in the capital account, and vice versa.” (Stein)
  3. current-account deficits
     1. factors that cause a current-account deficit: a country has (versus other countries)
        1. a higher price level
        2. a higher gross national product
        3. a higher exchange rate
        4. higher interest rates
        5. lower import barriers
        6. better investment opportunities (Stein)
        7. “The effects of a change in one of these factors on the current account balance cannot be predicted without considering the effect on the other causal factors. For example, if the U.S. government increases tariffs, Americans will buy fewer imports, thus reducing the current account deficit. But this reduction will occur only if one of the other factors changes to bring about a decrease in the capital account surplus. If none of these other factors changes, the reduced imports from the tariff increase will cause a decline in the demand for foreign currency (yen, deutsche marks, etc.), which in turn will raise the value of the U.S. dollar (see Foreign Exchange). The increase in the value of the dollar will make U.S. exports more expensive and imports cheaper, offsetting the effect of the tariff increase. The net result is that the tariff increase brings no change in the current account balance.” (Stein)
     2. “. . . a current account deficit is not in itself a sign of bad economic policy or bad economic conditions.” (Stein)
        1. A current account deficit only means “that the United States is importing capital. And importing capital is no more unnatural or dangerous than importing coffee.” (Stein)
        2. “The deficit is a response to conditions in the country.” Conditions include:
           1. excessive inflation
           2. low productivity
           3. inadequate saving
           4. better investments in the United States (Stein)
        3. The conditions “may be good or bad and may be the results of good or bad policy; but if there is a problem, it is in the underlying conditions and not in the deficit per se.” (Stein)

1. **history**
   1. 1980s
      1. fear of a large deficit
         1. 1981 current account balance: $5 billion surplus
         2. 1987 current account balance: $161 billion deficit (Stein)
         3. “This shift was accompanied by an increase of about the same amount in the U.S. deficit in goods.” (Stein)
         4. “Claims that this shift in the international position was causing a loss of employment in the United States were common, but that was not true.” (Stein)
            1. 1981-87: employment rose by 12 million people
            2. 1981-87: employment rose from 60% of population to 62.5%
      2. fear of foreign ownership
         1. “Many people [thought] the inflow of foreign capital that accompanied the current account deficit [meant] the United States was becoming owned by foreigners. The inflow of foreign capital did not, however, reduce the assets owned by Americans. Instead, it added to the capital within the country.” (Stein)
         2. “In any event, the amount was small relative to the U.S. capital stock. Measurement of the net amount of foreign-owned assets in the United States (the excess of foreign assets in the United States over U.S. assets abroad) is very uncertain. At the end of 1988, however, it was surely much less than 4 percent of the U.S. capital stock and possibly even zero.” (Stein)
         3. “Later, there was fear of what would happen when the capital inflow slowed down or stopped. But after 1987 it did slow down and the economy adjusted, just as it had adjusted to the big capital inflow earlier, by a decline in the current account and trade deficits.” (Stein)
   2. 1990s-2000s
      1. fear of a large deficit
         1. 1991 current account balance: $4 billion surplus
         2. 2004 current account balance: $666 billion deficit (Stein)
      2. the issue of foreign ownership
         1. end of 2003: Americans own $7.86 trillion of foreign assets
         2. end of 2003: foreigners own $10.52 trillion of U.S. assets (Stein)
         3. “The net international investment position of the United States, therefore, was $2.66 trillion. This was only 8.5 percent of the U.S. capital stock.” (Stein)
            1. “If by capital stock we mean the net value of U.S. fixed reproducible assets, which was $31.4 trillion in 2003.” (Stein n. 1)
            2. See *Survey of Current Business* (Sept. 2004). <http://www.bea.gov/bea/ARTICLES/2004/09S

eptember/Fixed\_Assets.pdf.> (Stein n. 1)

* 1. 1980s and 1990s-2000s compared
     1. In both, “The increase in the current account deficit . . . was accompanied by an almost equal increase in the deficit in goods.” (Stein)
     2. In both 1981 and 1991, the current account surpluses “occurred in the midst of a U.S. recession, and the large surpluses occurred during U.S. economic expansions.” (Stein)
        1. The reason: U.S. imports fall “more than proportionally when U.S. GDP falls and [rise] more than proportionally when U.S. GDP rises.” (Stein)
        2. “Just as in the 1980s, U.S. employment expanded . . .” (Stein)
           1. 1991-2004: the U.S. economy adds more than 21 million jobs (Stein)
           2. 1991-2000: employment rose from 61.7% of population to 64.4%
           3. 2004: though employment fell to 62.3%, it “was still modestly above its 1991 level.” (Stein)

Business Cycles

Hammond, Brett. “A Brief History of Bear Markets.” *Market Monitor*. TIAA-CREF. 1 Dec. 2008. 8 Dec. 2008.

Hoover, Kevin D. “New Classical Macroeconomics.” *The Concise Encyclopedia of Economics*. Indianapolis: Liberty Fund, 2007. Ed. David R. Henderson. Library of Economics and Liberty. 13 Dec. 2008.

Romer, Christina D. “Business Cycles.” *The Concise Encyclopedia of Economics*. Indianapolis: 2007. Ed. David R. Henderson. *Library of Economics and Liberty*. 7 Dec. 2008.

Schoen, John. “Stopping the Recession.” *MSNBC*. 7 Dec. 2008. 8 Dec. 2008. <http://www.­newsvi

ne.com/\_news/2008/12/07/2189023-answer-desk-stopping-the-recession>.

The average bear market is 12-15 months; returns fall 27%-33%.

The average bull market is 4-4½ years; returns gain 140%-160%.

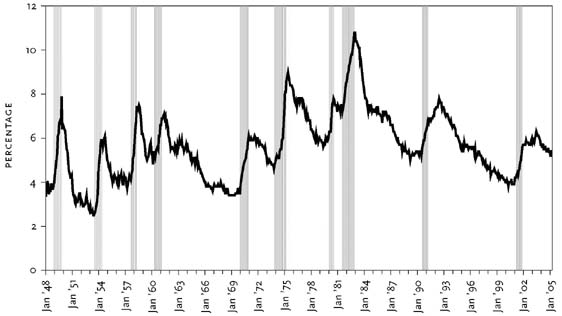
(Hammond)

1. **introduction**
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      2. Friedman, Milton, and Anna Jacobson Schwartz. *A Monetary History of the United States*, *1867-1960*. Princeton: Princeton UP for NBER, 1963.
      3. Romer, Christina D. “Changes in Business Cycles: Evidence and Explanations.” *Journal of Economic Perspectives* 13 (Spring 1999): 23-44.
      4. Romer, Christina D. “Remeasuring Business Cycles.” *Journal of Economic History* 54 (Sept. 1994): 573-609.
   2. All “modern industrial economies experience significant swings in economic activity.” (Romer)
   3. “Periods of economic prosperity are typically called expansions or booms . . .” (Romer)
   4. “Periods of . . . economic decline are called recessions or depressions.” (Romer)
   5. “business cycle”
      1. definition: the ebb and flow of expansions and recessions.
      2. “Cycle” is misleading: it “seems to imply that there is some regularity [in timing or duration]. Most economists, however, do not think there is.” (Romer)
         1. “[Figure 1](http://www.econlib.org/library/Enc/BusinessCycles.html#lfHendersonCEE2-017_figure_003) shows that “expansions and recessions occur at irregular intervals and last for varying lengths of time.” (Romer)
         2. examples
            1. 1973-1982: three recessions
            2. 1982-1990: uninterrupted expansion
            3. 1980 recession: six months
            4. 1981 recession: sixteen months
      3. Many economists now prefer “short-run economic fluctuations.”
2. **history of concept**
   1. 1946: Burns, Arthur, and Wesley Mitchell. *Measuring Business Cycles*.
   2. “Burns and Mitchell defined a recession as a period when a broad range of economic indicators falls for a sustained period, roughly at least half a year.” (Romer)
   3. A key insight “was that many economic indicators move together.” (Romer)
      1. expansion: output, employment, new construction, and inflation rise
      2. recession: output, employment, new construction, and inflation decline
         1. recessions before World War II: deflation (inflation was usually negative)
         2. recessions since the 1950s: disinflation (the rate of inflation is slower)
3. **history of cycles**
   1. method
      1. “Business cycles [begin] when the direction of economic activity changes.” (Romer)
      2. “The peak of the cycle refers to the last month before several key economic indicators—such as employment, output, and retail sales—begin to fall.” (Romer)
      3. “The trough of the cycle refers to the last month before the same economic indicators begin to rise.” (Romer)
      4. “Because key economic indicators often change direction at slightly different times, the dating of peaks and troughs is necessarily somewhat subjective. The National Bureau of Economic Research (NBER) is an independent research institution that dates the peaks and troughs of U.S. business cycles.” (Romer)
         1. “Recent research has shown that the NBER’s reference dates for the period before World War I are not truly comparable with those for the modern era because they were determined using different methods and data.” (Romer)

|  |  |  |  |
| --- | --- | --- | --- |
| Table 1 Business Cycle Peaks and Troughs in the United States, 1890-2004 (Romer) | | | |
| *Peak* | *Trough* | *Peak* | *Trough* |
| July 1890 | May 1891 | May 1937 | June 1938 |
| Jan. 1893 | June 1894 | Feb. 1945 | Oct. 1945 |
| Dec. 1895 | June 1897 | Nov. 1948 | Oct. 1949 |
| June 1899 | Dec. 1900 | July 1953 | May 1954 |
| Sep. 1902 | Aug. 1904 | Aug. 1957 | Apr. 1958 |
| May 1907 | June 1908 | Apr. 1960 | Feb. 1961 |
| Jan. 1910 | Jan. 1912 | Dec. 1969 | Nov. 1970 |
| Jan. 1913 | Dec. 1914 | Nov. 1973 | Mar. 1975 |
| Aug. 1918 | Mar. 1919 | Jan. 1980 | July 1980 |
| Jan. 1920 | July 1921 | July 1981 | Nov. 1982 |
| May 1923 | July 1924 | July 1990 | Mar. 1991 |
| Oct. 1926 | Nov. 1927 | Mar. 2001 | Nov. 2001 |
| Aug. 1929 | Mar. 1933 | [Nov. 2007?] |  |

* + - 1. “[Figure 1](http://www.econlib.org/library/Enc/BusinessCycles.html#lfHendersonCEE2-017_figure_003) shows the unemployment rate since 1948, with periods that the NBER classifies as recessions shaded in gray. Clearly, a key feature of recessions is that they are times of rising unemployment.”

Figure 1. *Unemployment Rate and Recessions*

[[](http://www.econlib.org/library/Enc/art/lfHendersonCEE2_figure_003.jpg)](http://www.econlib.org/library/Enc/art/lfHendersonCEE2_figure_003.jpg" \o "Click to enlarge in new window" \t "new)

*Source*: Bureau of Labor Statistics. *Note*: The series graphed is the seasonally adjusted civilian unemployment rate for those age sixteen and over. The shaded areas indicate recessions. (Romer)

1. **causes**
   1. Most economists think the economy could stay at full employment forever. (Romer)
      1. “full employment”: “a level of production in which all the inputs to the production process are being used, but not so intensively that they wear out, break down, or insist on higher wages and more vacations.” (Romer)
      2. “. . . there is no reason why cycles have to occur at all.” (Romer)
      3. “There is no reason why a time of full employment has to give way to either an inflationary boom or a recession.” (Romer)
         1. above-normal output: inflation tends to rise (Romer)
         2. full employment: inflation tends to stay constant (Romer)
         3. below-normal output: inflation tends to fall (Romer)
      4. “If nothing disturbs the economy, the full-employment level of output, which naturally tends to grow as the population increases and new technologies are discovered, can be maintained forever.” (Romer)
   2. disturbances to the economy
      1. “. . . to explain business cycles [an] adequate theory must account for persistence—the fact that business cycles typically display long runs of good times followed by shorter, but still significant, runs of bad times.” (Hoover)
      2. “Business cycles [occur] because disturbances . . . push the economy above or below full employment.” (Romer)
      3. causes of disturbances: the Keynesian or new Keynesian view
         1. Business cycles “are the result of nominal rigidities . . .” (Romer)
         2. “Only when prices and inflationary expectations are not fully flexible can fluctuations in overall demand cause large swings in real output.” (Romer)
         3. causes of expansions
            1. “Inflationary booms can be generated by surges in private or public spending.” (Romer)
            2. *increased demand*: “if the government spends a lot to fight a war but does not raise taxes, the increased demand will cause not only an increase in the output of war matériel, but also an increase in the take-home pay of defense workers. The output of all the goods and services that these workers want to buy with their wages will also increase, and total production may surge above its normal, comfortable level.” (Romer)
            3. *increased optimism*: “a wave of optimism that causes consumers to spend more than usual and firms to build new factories may cause the economy to expand more rapidly than normal.” (Romer)
            4. *monetary policy*

“The Federal Reserve System strongly influences the size and growth rate of the money stock . . .” (Romer)

The money stock influences “the level of interest rates in the economy.” (Romer)

“Interest rates, in turn, are a crucial determinant of how much firms and consumers want to spend. . . . a consumer may be lured into buying a new home if interest rates are low and mortgage payments are therefore more affordable. Thus, by . . . lowering interest rates, the Federal Reserve is able to generate . . . booms.” (Romer)

* + - 1. causes of recessions
         1. *decreased demand*: “A substantial cut in government spending . . . may cause the output of all types of goods to fall.” (Romer)
         2. *decreased optimism*: “a wave of pessimism among consumers and firms may cause the output of all types of goods to fall.” (Romer)
         3. *monetary policy*

“The Federal Reserve System strongly influences the size and growth rate of the money stock . . .” (Romer)

The money stock influences “the level of interest rates in the economy.” (Romer)

“Interest rates, in turn, are a crucial determinant of how much firms and consumers want to spend. A firm faced with high interest rates may decide to postpone building a new factory because the cost of borrowing is so high. . . . Thus, by raising . . . interest rates, the Federal Reserve is able to generate recessions . . .” (Romer)

* + 1. causes of disturbances: the new classical framework view
       1. “. . . modern industrial economies are quite flexible. As a result, a change in spending does not necessarily affect real output and employment.” (Romer)
       2. “For example, in the new classical view a change in the stock of money will change only prices; it will have no effect on real interest rates and thus on people’s willingness to invest.” (Romer)
       3. “In this alternative framework, business cycles are largely the result of disturbances in productivity and tastes, not of changes in aggregate demand.” (Romer)
          1. Aggregate demand (in a closed economy) is consumption, investment, and government expenditure. (Hoover)
    2. Evidence supports the Keynesian or new Keynesian view.
       1. “The empirical evidence is strongly on the side of the view that deviations from full employment are often the result of spending shocks.” (Romer)
       2. “Monetary policy . . . played a crucial role in causing business cycles in the United States . . . before World War II.” (Romer)
          1. “Many of the worst prewar depressions, including the recessions of 1908, 1921, and the Great Depression of the 1930s, were to a large extent the result of monetary contraction and high real interest rates.” (Romer)
          2. In this era, “most monetary swings were engendered not by deliberate monetary policy but by financial panics, policy mistakes, and international monetary developments.” (Romer)
       3. “Monetary policy . . . played a crucial role in causing business cycles in the United States since World War II.” (Romer)
          1. “. . . the inflationary booms of the mid-1960s and the late 1970s were both at least partly due to monetary ease and low interest rates.” (Romer)
          2. “. . . the severe recessions of both the early 1970s and the early 1980s were directly attributable to decisions by the Federal Reserve to raise interest rates.” (Romer)

1. **historical record of business cycles**
   1. “Table 2 shows the peak-to-trough decline in industrial production . . .in each recession since 1890.” (Romer)
   2. Industrial production is “a broad monthly measure of manufacturing and mining activity . . .” (Romer)
      1. “The industrial production series used was constructed to be comparable over time.” (Romer)
      2. “Many other conventional macroeconomic indicators, such as the unemployment rate and real GDP, are not consistent over time. The prewar versions of these series were constructed using methods and data sources that tended to exaggerate cyclical swings. As a result, these conventional indicators yield misleading estimates of the degree to which business cycles have moderated over time.” (Romer)

|  |  |  |  |
| --- | --- | --- | --- |
| [Table 2 Modified:] Recessions (with % Decline in Industrial Production), 1890-2007 | | | |
| (based on Romer) | | | |
|  | *Period* | *Months* | *% Decline* |
| 1890-91 (1890-07 to 1891-05) | | 11 | −5.3 |
| 1893-94 (1893-01 to 1894-06) | | 18 | −17.3 |
| 1895-97 (1895-12 to 1897-06) | | 19 | −10.8 |
| 1899-1900 (1899-06 to 1900-12) | | 19 | −10.0 |
| 1902-04 (1902-09 to 1904-08) | | 24 | −9.5 |
| 1907-08 (1907-05 to 1908-06) | | 14 | −20.1 |
| 1910-12 (1910-01 to 1912-01) | | 25 | −9.1 |
| 1913-14 (1913-01 to 1914-12) | | 24 | −12.1 |
| 1918-19 (1918-08 to 1919-03) | | 8 | −6.2 |
| 1920-21 (1920-01 to 1921-07) | | 19 | −32.5 |
| 1923-24 (1923-05 to 1924-07) | | 15 | −18.0 |
| 1926-27 (1926-10 to 1927-11) | | 14 | −6.0 |
| 1929-33 (1929-08 to 1933-03) | | 44 | −53.6 |
| 1937-38 (1937-05 to 1938-06) | | 14 | −32.5 |
| 1945 (1945-02 to 1945-10) | | 9 | −35.5 |
| 1948-49 (1948-11 to 1949-10) | | 12 | −10.1 |
| 1953-54 (1953-07 to 1954-05) | | 12 | −9.5 |
| 1957-58 (1957-08 to 1958-04) | | 10 | −13.6 |
| 1960-61 (1960-04 to 1961-02) | | 11 | −8.6 |
| 1969-70 (1969-12 to 1970-11) | | 12 | −7.0 |
| 1973-75 (1973-11 to 1975-03) | | 5 | −13.1 |
| 1980 (1980-01 to 1980-07) | | 7 | −6.6 |
| 1981-82 (1981-07 to 1982-11) | | 17 | −9.4 |
| 1990-91 (1990-07 to 1991-03) | | 9 | −4.1 |
| 2001 (2001-03 to 2001-11) | | 9 | −6.2 |
| 2007- (2007-12 to ) | |  |  |
|  | average: | 15.24 | −14.67 |

“*Source*: The industrial production data for 1919-2004 are from the Board of Governors of the Federal Reserve System. The series before 1919 is an adjusted and smoothed version of the Miron-Romer index of industrial production. This series is described in the appendix to “Remeasuring Business Cycles” by Christina D. Romer. *Note*: The peak-to-trough decline is calculated using the actual peaks and troughs in the industrial production series. These turning points often differ from the NBER dates by a few months, and occasionally by as much as a year.” (Romer)

* 1. “The empirical record on the duration and severity of recessions over time reflects the evolution of economic policy.” (Romer)
  2. before World War I
     1. “The recessions of the pre-World War I era were relatively frequent and quite variable in size [because] the government had little influence on the economy.” (Romer)
     2. Causes were a “range of private-sector-induced fluctuations in spending, such as investment busts and financial panics . . .” (Romer)
  3. interwar era
     1. “. . . the government became much more involved in managing the economy.” (Romer)
     2. There was “extreme volatility. . . . A key factor in these extreme fluctuations was the replacement, by the 1920s, of some of the private-sector institutions that had helped the U.S. economy weather prewar fluctuations with government institutions that were not yet fully functional. The history of the interwar era is perhaps best described as a painful learning period for the Federal Reserve.” (Romer)
     3. 1914: the Federal Reserve is established.
     4. 1920s-1930s: “Government spending and taxes as a fraction of GDP rose substantially . . .” (Romer)
     5. The “recessions of 1920, 1929, and 1937 were larger than in any recessions in the pre-World War I and post-World War II periods.” (Romer)
     6. 1929-38: “The Great Depression brought about large strides in the understanding of the economy and the capacity of government to moderate cycles.” (Romer)
     7. World War II “generated an incredible boom in economic activity, as production surged in response to massive government spending.” (Romer)
     8. “The downturn of the mid-1940s obviously reflects the effect of World War II. . . . The end of wartime spending led to an equally spectacular drop in industrial production as the economy returned to more normal levels of labor and capital utilization.” (Romer)
  4. after World War II
     1. “The decreasing frequency of downturns reflects progress in economic policymaking. . . . economic policy since World War II has almost certainly counteracted some shocks and hence prevented some recessions.” (Romer)
     2. 1946: the Employment Act “mandated that the government use the tools at its disposal to stabilize output and employment.” (Romer)
     3. 1945-82: ““In the early postwar era, however, policymakers tended to carry expansionary policy too far, and in the process caused inflation to rise.” (Romer)
        1. “Recessions in the early postwar era were of roughly the same average severity as those before World War I, although they were somewhat less frequent than in the earlier period and were more consistently of moderate size.” (Romer)
        2. “As a result [of causing inflation], policymakers, particularly the Federal Reserve, felt compelled to adopt contractionary policies that led to moderate recessions in order to bring inflation down. This boom-bust cycle was a common feature of the 1950s, 1960s, and 1970s.” (Romer)
        3. 1980-82
           1. “. . . the recession of the early 1980s . . . came on fast and hard. The recovery, when it came, was also pretty fast because the recession was, in fact, engineered by the government. It was a bit like getting knocked out before major surgery . . .” (Schoen)
           2. “The 1980-82 recession was actually two separate downturns, each brought about by the Paul Volcker Fed to kill a decade of 1970s inflation once and for all.” (Schoen)

“In 1980, the Fed jacked up rates to double digits and held them there for a bit. . . . But when the Fed let go, . . . inflation shot right back up.” (Schoen)

“So the Fed jacked up rates again—this time rates to 20 percent. Bond traders’ phones stopped ringing. . . . When the Fed finally cut rates sharply in 1982, inflation stayed low. Hiring picked up and the stock market began one of the biggest bull runs in history. Ronald Reagan declared Morning in America and reappointed Volcker, who was a national hero . . .” (Schoen)

* + 1. 1990-2007: “Recessions in the United States have become noticeably less frequent and severe since the mid-1980s.” (Romer)
       1. The “nearly decade-long expansion” of 1982-90 was followed by the mild recession of 1990-91. (Romer)
       2. The “decade-long expansion” of 1991-2001 was followed by the mild recession of 2001. (Romer)
       3. causes of “this moderation of cycles” (Romer)
          1. “the increasing importance of services (a traditionally stable sector of the economy)” (Romer)
          2. “a decline in adverse shocks, such as oil price increases and fluctuations in consumer and investor sentiment” (Romer)
          3. “improvements in monetary policy, particularly the end of overexpansion followed by deliberate contraction” (Romer)
    2. “In addition . . ., the effects of recessions on individuals . . . have been lessened in recent decades. The advent of unemployment insurance and other social welfare programs means that recessions no longer wreak the havoc on individuals’ standards of living that they once did.” (Romer)

Comparative Advantage

Boudreaux, Donald J. “Comparative Advantage.” *The Concise Encyclopedia of Economics*. Indianapolis: Liberty Fund, 2007. Ed. David R. Henderson. Library of Economics and Liberty. 13 Dec. 2008.

1. **introduction**
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  1. definition: “what matters is not absolute production ability but ability in producing one good relative to another.” (Boudreaux)
  2. 1817: David Ricardo first states the principle of comparative advantage in *Principles of Political Economy and Taxation*. (Boudreaux)
  3. Economist Paul Samuelson said the principle of comparative advantage is “both universally true and not obvious.” (Boudreaux)
  4. “Reckoned in physical output—for example, bunches of bananas produced per day—a producer’s efficiency at growing bananas depends on the amounts of other goods and services he sacrifices by producing bananas (instead of other goods and services) compared with the amounts of other goods and services sacrificed by others who do, or who might, grow bananas.” (Boudreaux)
  5. example
     1. “Ann and Bob are the only two people on an island. They use only two goods: bananas and fish. (The assumption of two persons and two goods is made only to make the example as clear as possible; it is not essential to the outcome.)” (Boudreaux)
     2. “If Ann spends all of her working time gathering bananas, she gathers one hundred bunches per month but catches no fish. If, instead, she spends all of her working time fishing, she catches two hundred fish per month and gathers no bananas. If she divides her work time evenly between these two tasks, each month she gathers fifty bananas and catches one hundred fish. If Bob spends all of his working time gathering bananas, he gathers fifty bunches. If he spends all of his time fishing, he catches fifty fish. Table 1 shows the maximum quantities of bananas and fish that each can produce.” (Boudreaux)

Table 1 Production Possibilities

|  |  |  |
| --- | --- | --- |
|  | Bob | Ann |
| Bananas | 50 | 100 |
| Fish | 50 | 200 |

* + 1. “Suppose Ann and Bob divide their work time evenly between fishing and banana gathering. Table 2 shows the amounts that Ann and Bob each produce and consume every month.” (Boudreaux)

Table 2 Accounts Produced *and* Consumed

before Specialization and Trade

|  |  |  |
| --- | --- | --- |
|  | Bob | Ann |
| Bananas | 25 | 50 |
| Fish | 25 | 100 |

* + 1. “If Ann and Bob do not trade, then the amounts that each can consume are strictly limited to the amounts that each can produce. Trade allows specialization based on comparative advantage and thus undoes this constraint, enabling each person to consume more than each person can produce.” (Boudreaux)
    2. “Now Ann meets Bob and, after observing Bob’s work habits, offers Bob the following deal: “I’ll give you thirty-seven of my fish,” says Ann, “in exchange for twenty-five of your bananas.” Bob accepts.” (Boudreaux)
    3. “Purely for expositional simplicity, assume that both Ann and Bob want to consume the same number of bananas with trade that each consumed before trade. Table 3 shows the amounts of bananas and fish that Ann and Bob *produce* in anticipation of trading with each other.” (Boudreaux)

Table 3 Amounts *Produced* with Specialization and Trade

|  |  |  |
| --- | --- | --- |
|  | Bob | Ann |
| Bananas | 50 | 25 |
| Fish | 0 | 150 |

* + 1. “On trading day . . . Ann gives Bob thirty-seven fish and Bob gives Ann twenty-five bananas. Table 4 shows the amounts of bananas and fish that Ann and Bob each *consume* with trade.” (Boudreaux)

Table 4 Amounts *Consumed* with Specialization and Trade

|  |  |  |
| --- | --- | --- |
|  | Bob | Ann |
| Bananas | 25 | 50 |
| Fish | 37 | 113 |

* + 1. “Note that Ann and Bob are both better off than they were before trade. Each has the same number of bananas to consume as before, but Ann now has thirteen more fish and Bob has twelve more fish to consume. This small society . . . is wealthier by a total of twenty-five fish.” (Boudreaux)
    2. “This increase in total output is not the result of any of the factors Adam Smith identified. It is the result exclusively of Ann specializing more in fishing and Bob specializing more in gathering bananas. This happy outcome occurs because in this society (here, just two people), each person concentrates more fully on producing those goods that each produces comparatively efficiently—that is, efficiently compared with others.” (Boudreaux)
    3. “For each fish she catches, Ann sacrifices one-half of a banana; that is, for each fish she catches, she produces one-half fewer bananas than otherwise. For each banana she gathers, she sacrifices two fish. Standing alone, these numbers are meaningless. But when compared with the analogous numbers for Bob, the results tell where each person’s comparative advantage exists.” (Boudreaux)
    4. “For each fish Bob catches, he sacrifices one banana. So Ann’s cost of producing fish is lower than Bob’s—one half of a banana per fish for Ann compared with one banana per fish for Bob. Ann should specialize in fishing.” (Boudreaux)
    5. “But if Ann catches fish at a lower cost than does Bob, then Bob produces bananas at a lower cost than does Ann. While Ann’s cost of producing a banana is two fish, Bob’s cost is only one fish. Bob should specialize in gathering bananas.” (Boudreaux)
    6. “Viewed from each individual’s perspective, Ann knows that each fish she catches costs her half a banana; so she is willing to sell each of her fish at any price higher than one-half of a banana. (In our example, she sold thirty-seven fish to Bob at a price of roughly two-thirds of a banana per fish.) Bob knows that each banana costs him one fish to produce, so he will sell bananas at any price higher than one fish per banana. (In our example, he sold twenty-five bananas at a price of about one and one-half fish per banana.)” (Boudreaux)
    7. “There is nothing special about this particular price. Any price of fish between half a banana and one full banana will generate gains from trade for both Ann and Bob. What is important is the existence of at least one price that is mutually advantageous for both persons. And such a price (or range of prices) will exist if comparative advantage exists—which is to say, if each person has a different cost of producing each good.” (Boudreaux)
    8. “When the lower-cost fisherman (Ann) produces more fish than she herself plans to consume—that is, catches fish that she intends to trade—Bob taps in to her greater efficiency at fishing. He cannot produce fish himself at a cost lower than one banana per fish, but by trading with Ann he acquires fish at a cost of two-thirds of a banana. Likewise, by trading with Bob, Ann taps in to Bob’s greater efficiency at gathering bananas.” (Boudreaux)
  1. “The above example, though simple, reveals comparative advantage’s essential feature. Making the example more realistic by adding millions of people and millions of goods and services only increases the applicability and power of the principle, because larger numbers of people and products mean greater scope for mutually advantageous specialization and exchange.” (Boudreaux)

1. **international trade**
   1. “. . . this principle is the root reason for *all* specialization and trade. Nothing about the presence or absence of a geopolitical border separating two trading parties is essential.” (Boudreaux)
   2. But “the principle of comparative advantage is typically introduced to explain international trade . . . this principle *does* make clear that foreigners are willing to export only because they want to import. It is the desire for profitable exchange of goods and services that motivates all specialization and exchange.” (Boudreaux)

Corruption

Melese, François. “Corruption.” *The Concise Encyclopedia of Economics*. Indianapolis: 2007. Ed. David R. Henderson. Library of Economics and Liberty. 7 Dec. 2008.

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   2. “In the world’s worst offending countries, corrupt government officials steal public money and collude with businesses to sell laws, rules, regulations, and government contracts.” (Melese)
   3. “The World Bank reports that “higher levels of corruption are associated with lower per capita income.” (World Bank 2001, 105) (Melese)
      1. “By discouraging investment, corruption crushes economic growth and slashes per capita incomes.” (Melese)
         1. “Corruption hurts investment in at least three ways.” (Melese)
            1. “First, it increases the cost of doing business, which then raises the threshold revenues required for businesses to break even.” (Melese)
            2. “Second, it causes producers, on the margin, to bribe officials rather than invest in cost-saving technology or new products.” (Melese)
            3. “Third, if public funds end up in the pockets of government officials, taxes will be higher and public investment lower, hurting economic growth.” (Melese)
         2. “. . . if Bangladesh had cut corruption over the period 1960-1985 to the level of one of the world’s cleanest countries (Singapore), it would have increased its growth rate by 1.8 percentage points per year. By 1985, its per capita income would have been more than 50 percent higher.” [Mauro 1995] (Melese)
      2. “Corruption breeds poverty, and poverty kills. In other words, corruption kills.” (Melese)
         1. “Low-per-capita-income countries suffer higher infant mortality—54 deaths per 1,000 live births in Bangladesh versus 3 per 1,000 in Singapore—and lower average life expectancies—fifty-nine years versus eighty years.” (U.S. Census Bureau 2000) (Melese)
         2. “Another insidious way in which corruption kills is that it skews public spending away from operating budgets such as health care and toward capital budgets—military spending, for example, where bribes are easier to extract.” (Klitgaard 1988; Mauro 1996; Tanzi and Davoodi 1997) (Melese)
2. **business corruption**
   1. Business-to-business corruption “is almost always either beneficial or self-correcting . . .” (Melese 2002) (Melese)
   2. good instances
      1. In its mildest and most benign form, business-to-business bribery facilitates communication and helps cement relationships between principals (customers) and agents (suppliers).” (Melese)
      2. ““Facilitation payments” (anything from generous commissions to free meals and entertainment) can replace costly contingent contracts with implicit contracts that ensure quality, quantity, and meeting of schedule requirements.” (Melese)
      3. Thus, “business-to-business bribery has an offsetting benefit: it reduces transaction costs and greases the wheels of commerce.” (Melese)
   3. bad instances
      1. “Bad cases of business-to-business bribery typically involve private gains with no offsetting benefits. This . . . eats into corporate profits.” (Melese)
      2. “For instance, by concealing debt and overstating revenues, corporate managers might boost a firm’s stock price, increasing the value of their stock options. In the case of fraudulent financing and accounting, shareholders are the victims.” (Melese)
         1. “Such corruption, if revealed early, is self-limiting because shareholders want to avoid its costs.” (Melese)
         2. “If revealed too late, the outcome is bankruptcy.” (Melese)
   4. “Honest and transparent market institutions are all that are required, [though that’s not] always easy.” (Melese)
3. **government corruption**
   1. “Government corruption “does not involve a self-correcting market mechanism. It occurs because government officials, whether politicians or bureaucrats, have the power and discretion to grant favors in the form of subsidies, contracts, tax breaks, regulations, and permits. . . . The key to [government] corruption is the combination of power and discretion in the hands of government officials.” (Melese)
   2. “Some economists argue that paying bribes to the right officials can mitigate the harmful effects of excessive government regulation. If firms had a choice to wade through red tape or pay to circumvent it, paying bribes might actually improve efficiency and spur investment. Although this view is plausible, a pioneering study by Mauro found that corruption “is strongly negatively associated with the investment rate, regardless of the amount of red tape.” [Mauro 1995, 695] In fact, allowing firms to pay bribes to circumvent regulations encourages public officials to create new opportunities for bribery.” (Melese)
   3. Lyndon B. Johnson “built his family fortune from approximately zero in 1943 to at least fourteen million dollars by the time he was first elected U.S. president in 1964. About half his family’s wealth derived from a single permit his wife held that allowed her to operate KTBC, a radio station in Austin, Texas. Johnson’s wife bought the license for a very low price and then applied for permission to operate the radio station twenty-four hours a day and on a much better part of the AM band. The Federal Communications Commission granted her permission within one month. In return, Johnson helped save the FCC from budget cuts. [Caro 82-111] Here is a case of corruption that was probably completely legal.” (Melese)
   4. “Most government corruption is “negative sum”: losers lose more than winners gain. This explains the economics literature’s almost exclusive focus on government corruption.” (Melese)
   5. “Government corruption allows long-established, politically connected firms to monopolize markets. Typically it is the long-established firms that figure out which government official has the power, or can obtain the power, to keep new firms from competing; then they bribe him, either with outright payments or with promises of future employment and shares. These bribes eat up some of the monopoly profits. Competition shifts from the marketplace to the political arena. Instead of investing in better products or processes, firms invest in government-sanctioned barriers (exclusive licenses, contracts, permits, etc.) or political favors (regulations, tariffs, quotas, etc.) to gain and preserve market power.” (Melese)
      1. “Krueger (1974) and Tullock (1980) referred to this as “rent seeking,” and Bhagwati (1982) introduced the term “directly unproductive profit seeking (DUP)” for it. Perhaps a better term is “privilege seeking.”” (Melese)
      2. “Nobel laureate George Stigler also pointed out that government regulation creates opportunities for corruption, which, he wrote, “turns regulations into gold” (cited in “Corporate Bribery,” *Cato Policy Report*, February 1980). The LBJ example mentioned earlier illustrates the point.” (Melese)
   6. “. . . the IMF and World Bank inadvertently contribute to corruption by lending to corrupt governments.” (Easterly; McNab and Melese) (Melese)
4. **example**: **sub-Saharan Africa**
   1. sub-Saharan Africa is “the poorest region on earth . . .” (Melese)
   2. “In many African countries, political coalitions and special interest groups enrich themselves and preserve their political power at the expense of their populations. Throughout the region, governments control many of the most valuable resources. African governments are often the primary investors, importers, and bankers in their countries and employ a large fraction of the educated labor force. This leaves few options for new businesses. Meanwhile, to preserve their grip on government, dominant political coalitions forcibly transfer income and wealth to their supporters.” (Melese)
   3. Transparency International published a “Corruption Perceptions Index” (2004), where 0 very corrupt and 10 is very clean. 60 countries scored below 3; “more than a third were from sub-Saharan Africa.” (Melese)
   4. “the ratio of investment to GDP . . . throughout the 1990s” (Melese)
      1. Asia: 27-29%
      2. Latin America: 20-22%
      3. sub-Saharan Africa: c. 17%

(Hernández-Catá 2000, 6, citing International Monetary Fund)

1. **reducing corruption**
   1. To make corruption unprofitable, governments increase penalties or increase “the probability of detection.” (Melese)
   2. U.S. Code title 18 section 201 (“Bribery of public officials”): perpetrators can be “fined . . . not more than three times the monetary equivalent of the thing of value . . . or imprisoned for not more than fifteen years, or both.” (Melese)
   3. 1977 Foreign Corrupt Practices Act
      1. It “forbids U.S. companies to make payments to foreign officials . . .” (Melese)
      2. It allows “grease payments,” “payments to speed up or otherwise facilitate international transactions.” (Bardhan 1337) (Melese)
   4. 1998 OECD anti-corruption treaty
      1. “The 1998 OECD anti-corruption treaty follows in its [U.S. Code’s] footsteps.” (Melese)
      2. “Although the treaty threatens multinationals that bribe foreign governments, the hidden danger is that it invites more creative ways to cheat.” (Melese)
   5. “There are three main strategies for reducing corruption.” (Melese)
      1. “The first—and in this author’s view, better—strategy is to reduce the power and discretion of public officials. . . . In some cases, eliminating corruption is as simple as removing government, such as through deregulation or privatization.” (Melese)
         1. “The fewer rules, regulations, and contracts public officials have the discretion to write, modify, or enforce, the less opportunity there will be for corruption. The more transparent their actions and the more they have to lose, the better.” (Melese)
         2. “. . . increasing competition reduces corruption.” (Clarke and Xu) (Melese)
         3. “. . . as trade barriers fall, so does corruption.” (Mohtadi, Polasky, Roe) (Melese)
         4. “. . . devolving more tax and decision-making authority to state and local governments reduces the central government’s monopoly power and reduces the gains from corruption.” (Martinez-Vazquez and McNab 1998, 2002a, 2002b) (Melese)
      2. “The second strategy, somewhat paradoxically, is to pay more to government officials who have discretion so that they will have more to lose by exercising their discretion corruptly.” (Melese)
         1. “Under the Ch’ing dynasty, . . . district magistrates received an extra allowance called *yang-lien yin*, or “money to nourish honesty.”” (Bardhan) (Melese)
         2. “Today, one of the world’s cleanest countries, Singapore, pays its public officials so-called efficiency wages that always remain above prevailing wages; government officials who are tempted to be corrupt know that they will give up a lucrative job.” (Melese)
      3. The third way to reduce bureaucratic corruption is to reduce the monopoly power of the bureaucrat.” (Melese)
         1. “. . . if instead of a single corrupt official there are many competing corrupt officials, competition can cause bribes to drop to close to zero.” (Shleifer and Vishny) (Melese)
         2. “Rose-Ackerman (1994) suggested that multiple officials with overlapping jurisdictions might help reduce corruption because the potential briber would face the costly prospect of persuading every official involved. She pointed to overlapping involvement of local, state, and federal drug enforcement agencies in helping reduce police corruption in the United States.” (Melese)
            1. But, “Instead of protecting consumers and businesses, the danger is that competing and overlapping jurisdictions might crush market activity, investment, and economic growth.” (Melese)
            2. “Competition works well if regulators monitor each other to prevent bribes or compete with each other to grant permits. Competition does not work well if permission is required of each one. If several public agents (agencies) have overlapping jurisdiction and each has veto power, this rapidly increases the cost of doing business and reduces the probability of success for legitimate projects (such as obtaining a permit to launch a new business).” (Melese)
            3. “Suppose there is a 50 percent chance that a single public agent will grant a permit. Now, if two agents must be consulted and each has the same veto power, then the probability of success drops to 25 percent; with four layers, the probability drops further to only 6.25 percent.” (Melese)
            4. “. . . starting a business in Mozambique takes *nineteen* steps, five months, and a year’s worth of income.” (World Bank World Development Report 2002) (Melese)

Demand

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1. **introduction**
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   2. definitions
      1. *demand*: demand in economics is usually “not just a single quantity demanded, but a demand curve, which traces the quantity of a good or service that is demanded at successively different prices.” (Henderson)
      2. *law of demand*: “when the price of a good rises, the amount demanded falls, and when the price falls, the amount demanded rises.” (Henderson)
         1. “The most famous law in economics, and the one economists are most sure of, is the law of demand.” (Henderson)
         2. “On this law is built almost the whole edifice of economics.” (Henderson)
2. **examples**
   1. Economists “believe so strongly in the law of demand [because] it is so plausible . . .” (Henderson)
   2. “. . . when people learn that frost will strike the orange groves in Florida, they know that the price of orange juice will rise. The price rises in order to reduce the amount demanded to the smaller amount available because of the frost.” (Henderson)
   3. “No one thinks, for example, that the way to sell a house that has been languishing on the market is to raise the asking price. . . . the number of potential buyers for any given house varies inversely with the asking price.” (Henderson)
   4. The law of demand “is even part of our language.” “On sale” means the seller lowered the price “to increase the amount of goods demanded.” (Henderson)
3. **counter-examples**
   1. “How do we know that there are no instances in which the amount demanded rises and the price rises?” (Henderson)
   2. “A few instances have been cited, but most have an explanation that takes into account something other than price.” (Henderson)
   3. If “consumption of a good rose as its price rose, . . . economists would assume that some factor other than price caused the increase in demand.” (Henderson)
   4. “A standard example . . . of a good whose quantity demanded will not fall when the price increases is water. How, they ask, can people reduce their use . . . of drinking water or household consumption . . .? Even here, there is room to reduce consumption when the price of water rises. Households can do larger loads of laundry or shower quickly instead of bathe, for example. The main users of water, however, are agriculture and industry. Farmers and manufacturers can substantially alter the amount of water used in production. Farmers, for example, can do so by changing crops or by changing irrigation methods for given crops.” (Henderson)
   5. Marketers have found exceptions to the law of demand. A new car wax, “when it was introduced, faced strong resistance until its price was raised from $.69 to $1.69. The reason, according to economist Thomas Nagle [Nagle 67], was that buyers could not judge the wax’s quality before purchasing it. Because the quality of this particular product was so important—a bad product could ruin a car’s finish—consumers “played it safe by avoiding cheap products that they believed were more likely to be inferior.”” (Henderson)
4. **elasticity of demand**
   1. When a price increases, people “might cut back only a little. Economists . . . have developed a measure of the degree of cutback, which they call the “elasticity of demand.”” (Henderson)
   2. definition: “The elasticity of demand is the percentage change in quantity demanded divided by the percentage change in price. The greater the absolute value of this ratio, the greater is the elasticity of demand.” (Henderson)
   3. *high elasticity*: “When there is a close substitute for one firm’s brand, for example, a small percentage increase in that firm’s price may lead to a large percentage cut in the amount of the firm’s good demanded. In such a case, economists say that the demand for the good is highly elastic.” (Henderson)
   4. *low elasticity*: “when there are few good substitutes for a firm’s product, the firm might be able to raise its price substantially with only a small decrease in the quantity demanded resulting. In such a case, demand is said to be highly inelastic.” (Henderson)
   5. “Interestingly, though, if a firm is in a position whereby it can increase a price substantially and reduce sales only a little, and if its owners want to maximize profits, the firm is well advised to raise the price until it reaches a portion of the demand curve where demand is elastic. Otherwise, the firm is forsaking an increase in revenue that it could have had with no increase in costs. One important implication of this fact is that the elasticity of demand in a market is a negative test for whether the firms are acting together as a monopoly. If, at the existing price, the elasticity of the market demand for the good is less than one, that is, if the demand is inelastic, then the firms are not acting monopolistically. If the elasticity of demand exceeds one—that is, if the demand is elastic—then we do not know whether they are acting monopolistically or not.” (Henderson)
5. **factors other than price that affect demand**
   1. income (normal vs. inferior goods)
      1. “It is not just price that affects the quantity demanded. Income affects it too. As real income rises, people buy more of some goods (which economists call “normal goods”) and less of others (called “inferior goods”).” (Henderson)
      2. *normal good*: “Environmental quality is a normal good, and that is a major reason why Americans have become more concerned about the environment in recent decades.” (Henderson)
      3. *inferior good*: “Urban mass transit and railroad transportation are classic examples of inferior goods. That is why the usage of both of these modes of travel declined so dramatically as postwar incomes were rising and more people could afford automobiles.” (Henderson)
   2. price of substitutes
      1. “Another influence on demand is the price of substitutes.” (Henderson)
      2. “When the price of Toyota Cam­rys rises, all else being equal, the quantity of Camrys demanded falls and the demand for Nissan Maximas, a substitute, rises.” (Henderson)
   3. price of complements
      1. ““Also important is the price of complements, or goods that are used together.” (Henderson)
      2. “When the price of gasoline rises, the demand for cars falls.” (Henderson)

The Great Depression

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2. **causes**
   1. “. . . economists do not completely agree on what caused it.” (Smiley)
   2. “There is less agreement on why the contraction phase was longer and more severe in some countries and why the depression lasted so long in some countries, particularly the United States.” (Smiley)

global history

1. **1928-29**
   1. “A worldwide depression struck countries with market economies at the end of the 1920s.” (Smiley)
   2. “Although the Great Depression was relatively mild in some countries, it was severe in others, particularly in the United States . . .” (Smiley)
   3. “By 1928, Germany, Brazil, and the economies of Southeast Asia were depressed.” (Smiley)
   4. “By early 1929, the economies of Poland, Argentina, and Canada were contracting . . .” (Smiley)
   5. “. . . the U.S. economy followed in the middle of 1929.” (Smiley)
2. **gold standard**
   1. “Recent research by Peter Temin, Barry Eichengreen, David Glasner, Ben Bernanke, and others has led to an emerging consensus on why the contraction began in 1928 and 1929.” (Smiley)
   2. “As Temin, Eichengreen, and others have shown, the larger factor that tied these countries together [Southeast Asia, Poland, Germany, Canada, the US, Brazil, Argentina] was the international gold standard.” (Smiley)
   3. “By 1914, most developed countries had adopted the gold standard with a fixed exchange rate between the national currency and gold—and therefore between national currencies. In World War I, European nations went off the gold standard to print money, and the resulting price inflation drove large amounts of the world’s gold to banks in the United States. The United States remained on the gold standard without altering the gold value of the dollar. Investors and others who held gold sent their gold to the United States, where gold maintained its value as a safe and sound investment. At the end of World War I, a few countries, most notably the United States, continued on the gold standard while others temporarily adopted floating exchange rates. The world’s international finance center had shifted from London to New York City, and the British were anxious to regain their old status. Some countries pledged to return to the gold standard with devalued currencies, while others followed the British lead and aimed to return to gold at prewar exchange rates.” (Smiley)
   4. “This was not possible, however. Too much money had been created during the war to allow a return to the gold standard without either large currency devaluations or price deflations. In addition, the U.S. gold stock had doubled to about 40 percent of the world’s monetary gold. There simply was not enough monetary gold in the rest of the world to support the countries’ currencies at the existing exchange rates. As a result, the leading nations established a gold exchange system whereby the governments of the United States and Great Britain would be willing, at all times, to redeem the dollar and the pound for gold, and other countries would hold much of their international reserves in British pounds or U.S. dollars.” (Smiley)
   5. “The demand for gold increased as countries returned to the gold standard. Because the franc was undervalued when France returned to the gold standard in June 1928, France began to receive gold inflows. The undervalued franc made French exports less expensive in foreign countries’ currencies and made foreign imports into France more expensive in francs. As French exports rose and French imports fell, their international accounts were balanced by gold shipped to France. France’s government, contrary to the tenets of the gold standard, did not use these inflows to expand its money supply. In 1928, the Federal Reserve System raised its discount rate—that is, the rate it charged on loans to member banks—in order to raise interest rates in the United States, which would stem the outflow of American gold and dampen the booming stock market. As a result, the United States began to receive shipments of gold. By 1929, as countries around the world lost gold to France and the United States, these countries’ governments initiated deflationary policies to stem their gold outflows and remain on the gold standard. These deflationary policies were designed to restrict economic activity and reduce price levels, and that is exactly what they did. Thus began the worldwide Great Depression.” (Smiley)
3. **1931**
   1. “In most countries, such as Britain, France, Canada, the Netherlands, and the Nordic countries, the depression was less severe and shorter [than in the US], often ending by 1931.” (Smiley)
   2. “Those countries did not have the banking and financial crises that the United States did, and most left the gold standard earlier than the United States did.” (Smiley)

US history

1. **The Great Depression “was officially** **two recessions** . . .” (Schoen)
   1. 1929-33 (1929-08 to 1933-03) (43 months) (Romer)
   2. 1937-38 (1937-05 to 1938-06) (13 months) (Romer)
2. **1929**
   1. artificial wage rates
      1. “In previous depressions, wage rates typically fell 9-10 percent during a one- to two-year contraction; these falling wages made it possible for more workers than otherwise to keep their jobs.” (Smiley)
      2. 1929: wages did not fall in part because “. . . President Herbert Hoover prevented them from falling. He had been appalled by the wage rate cuts in the 1920-1921 depression and had preached a “high wage” policy throughout the 1920s. By the late 1920s, many business and labor leaders and academic economists believed that policies to keep wage rates high would maintain workers’ level of purchasing, providing the “steadier” markets necessary to thwart economic contractions. When President Hoover organized conferences in December 1929 to urge business, industrial, and labor leaders to hold the line on wage rates and dividends, he found a willing audience.” (Smiley)
      3. 1930-31: “manufacturing firms kept wage rates nearly constant into 1931, something commentators considered quite unusual. With falling prices and constant wage rates, real hourly wages rose sharply in 1930 and 1931. Though some spreading of work did occur, firms primarily laid off workers. As a result, unemployment began to soar amid plummeting production, particularly in the durable manufacturing sector, where production fell 36 percent between the end of 1929 and the end of 1930 and then fell another 36 percent between the end of 1930 and the end of 1931.” (Smiley)
   2. 29 Oct. 1929: stock market crash
      1. “The onset of the contraction led to the end of the stock-market boom and the crash in late October 1929.” (Smiley)
      2. “However, the stock market collapse did not cause the depression; nor can it explain the extraordinary length and depth of the American contraction.” (Smiley)
3. **1930**
   1. 17 June 1930: Smoot-Hawley Tariff Act
      1. This Act was “highly protective . . . [It] was supposed to provide protection from lower-cost imports for firms that maintained wage rates.” (Smiley)
      2. “The Smoot-Hawley Tariff was another piece of Hoover’s strategy. Though there was not a general call for tariff increases, Hoover proposed it in 1929 as a means of aiding farmers. He quickly lost control of the bill and it ended up protecting American businesses in general with much less real protection for farmers.” (Smiley)
         1. It “raised U.S. tariffs on over 20,000 imported goods to record levels.” (“Smoot-Hawley Tariff Act”)
         2. “Many of the tariff increases . . . were quite large . . .” (Smiley)
            1. tariff rate on Canadian hard winter wheat: 40% rise (Smiley)
            2. tariff rate on scientific glass instruments: up from 65% to 85% (Smiley)
            3. average on all dutiable imports: up from 40.1% to 53.21% (Smiley)
      3. 1,028 US economists “signed a petition against this legislation . . .” (“Smoot-Hawley Tariff Act”)
      4. “. . . many countries retaliated with their own increased tariffs on U.S. goods, and American exports and imports plunged by more than half.” (“Smoot-Hawley Tariff Act”)
         1. Spain’s Wais Tariff was “explicit retaliation . . .” (Smiley)
         2. “Some other countries’ planned tariff increases were encouraged and probably expedited by the action of the United States.” (Smiley)
      5. Because Smoot-Hawley only protected “firms that maintained wage rates . . ., it was not until well into 1931 that the steadily deteriorating business conditions led the boards of directors of a number of larger firms to begin significant wage rate cuts, often over the protest of the firms’ top executives, who had pledged to maintain wage rates.” (Smiley)
   2. “Firms also heeded Hoover’s call to let the contraction fall on profits rather than on dividends.” (Smiley)
      1. 1929-1930
         1. 1929 US GNP: $103.1 billion
         2. 1929 undistributed corporate profits: $2.8 billion
         3. 1930: dividends are “almost as large as in 1929”
         4. 1930 undistributed corporate profits: −$2.6 billion (Smiley)
      2. “The value of firms’ securities fell sharply, leading to a significant deterioration in the portfolios of banks.” (Smiley)
4. **1930-33**: **banks**
   1. “As conditions worsened and banks’ losses increased, bank runs and bank failures increased.” (Smiley)
   2. November 1930: “The first major bank runs and failures occurred in the Southeast . . .” (Smiley)
   3. December 1930: “more runs and failures . . .” (Smiley)
   4. late spring and early summer, 1931: “another flurry of bank runs and bank failures . . .” (Smiley)
   5. “Between 1929 and 1933, 10,763 of the 24,970 commercial banks in the United States failed.” (Smiley)
   6. 1933: out of fear of bank failures, “the public increasingly held more currency and fewer deposits, and as banks built up their excess reserves, the money supply fell 30.9 percent from its 1929 level. Though the Federal Reserve System did increase bank reserves, the increases were far too small to stop the fall in the money supply. As businesses saw their lines of credit and money reserves fall with bank closings, and consumers saw their bank deposit wealth tied up in drawn-out bankruptcy proceedings, spending fell, worsening the collapse in the Great Depression.” (Smiley)
5. **1931-32**: **interest rate increase**
   1. “After Great Britain left the gold standard in September 1931, the Federal Reserve System initiated relatively large increases in the discount rate to stem the gold outflow. Overseas investors in nations still on the gold standard expected the United States to either devalue the dollar or go off the gold standard as Great Britain had done. The result would be that the dollars they held, or their dollar-denominated securities, would be worth less. To prevent this they sold dollars to obtain gold from the United States. The Fed’s policy moves gave overseas investors confidence that the United States would honor its gold commitment. The rise in American interest rates also made it more costly to sell American assets for dollars to redeem in gold. The resulting rise in interest rates caused not only more business failures, but also a sharp rise in bank failures. In the late spring and early summer of 1932, the Federal Reserve System finally undertook open market purchases, bringing some signs of relief and possible recovery to the beleaguered American economy.” (Smiley)
6. **1932**
   1. “Hoover’s fiscal policy accelerated the decline.” (Smiley)
      1. December 1929: to demonstrate “the administration’s faith in the economy, Hoover . . . reduced all 1929 income tax rates by 1 percent because of the continuing budget surpluses.” (Smiley)
      2. “By 1930 the surplus had turned into a deficit that grew rapidly as the economy contracted.” (Smiley)
      3. “By the end of 1931 Hoover had decided to recommend a large tax increase in an attempt to balance the budget; Congress approved the tax increase in 1932. Personal exemptions were reduced sharply to increase the number of taxpayers, and rates were sharply increased. The lowest marginal rate rose from 1.125 percent to 4.0 percent, and the top marginal rate rose from 25 percent on taxable income in excess of $100,000 to 63 percent on taxable income in excess of $1 million as the rates were made much more progressive. We now understand that such a huge tax increase does not promote recovery during a contraction. By reducing households’ disposable income, it led to a reduction in household spending and a further contraction in economic activity.” (Smiley)
   2. “The Fed’s expansionary monetary policy ended in the early summer of 1932.” (Smiley)
   3. November 1932: Franklin Delano Roosevelt is elected.
      1. “President-elect Roosevelt refused to outline his policies or endorse Hoover’s, and he refused to deny that he would devalue the dollar against gold after he took office in March 1933. Bank runs and bank failures resumed with a vengeance, and American dollars began to be redeemed for gold as the gold outflow resumed.” (Smiley)
7. **1933**
   1. 1933 was the Depression’s “nadir.” (Smiley)
      1. 25% of all workers are unemployed.
      2. 37% of all nonfarm workers are unemployed. (Smiley)
      3. “Some people starved; many others lost their farms and homes. Homeless vagabonds sneaked aboard the freight trains that crossed the nation. Dispossessed cotton farmers, the “Okies,” stuffed their possessions into dilapidated Model Ts and migrated to California in the false hope that the posters about plentiful jobs were true.” (Smiley)
   2. banking holidays
      1. “As financial conditions worsened in January and February 1933, state governments began declaring banking holidays, closing down states’ entire financial sectors.” (Smiley)
      2. “Roosevelt’s national banking holiday stopped the runs and banking failures and finally ended the contraction.” (Smiley)
      3. “The national banking holiday ended the protracted banking crisis, began to restore the public’s confidence in banks and the economy, and initiated a recovery from April through September 1933.” (Smiley)
   3. the New Deal
      1. “President Roosevelt came into office proposing a New Deal for Americans, but his advisers believed, mistakenly, that excessive competition had led to overproduction, causing the depression.” (Smiley)
      2. “The centerpieces of the New Deal were the Agricultural Adjustment Act (AAA) and the National Recovery Administration (NRA), both of which were aimed at reducing production and raising wages and prices. Reduced production, of course, is what happens in depressions, and it never made sense to try to get the country out of depression by reducing production further. In its zeal, the administration apparently did not consider the elementary impossibility of raising *all* real wage rates and *all* real prices.” (Smiley)
   4. Agricultural Adjustment Act (AAA)
      1. “Where persuasion was ineffective in inducing the many independent farmers to reduce production, the federal government intended to mandate production cutbacks and purchase the product to take it off the market and raise prices.” (Smiley)
         1. “The AAA immediately set out to slaughter six million baby pigs and reduce breeding sows to reduce pork production and raise prices.” (Smiley)
         2. “Since cotton plantings were thought to be excessive, cotton farmers were paid to plow under one-quarter of the forty million acres of cotton to reduce marketed production to boost prices.” (Smiley)
         3. “Most of the payments went to the landowners, not the tenants, making conditions desperate for tenant farmers. Though landowners were supposed to share the payments with their tenant farmers, they were not legally obligated to do so and most did not. As a result, tenant farmers, and especially black tenants, who were more easily discriminated against, received none of the payments and less or no income from cotton production after large portions of the crop were plowed under.” (Smiley)
   5. National Recovery Administration (NRA)
      1. “The NRA was a vast experiment in cartelizing American industry. Code authorities in each industry were set up to determine production and investment, as well as to standardize firm practices and costs. The entire apparatus was aimed at raising prices and reducing, not increasing, production and investment. As the NRA codes began to take effect in the fall of 1933, they had precisely that effect. The recovery that had seemed so promising in the summer largely stopped, and there was little increase in economic activity from the fall of 1933 through midsummer 1935.” (Smiley)
      2. “Enforcement of the codes was sporadic, disagreement over the codes increased, and, in smaller, more competitive industries, fewer firms adhered to the codes.” (Smiley)
      3. “The introduction of the NRA had initially brought about a sharp increase in money and real wage rates as firms attempted to comply with the NRA’s blanket code. As firms’ enthusiasm for the NRA waned, money wage rates increased little and real average wage rates actually fell slightly in 1934 and early 1935.” (Smiley)
8. **summary**, **1929-33**: the US “contraction continued for four years . . .” (Smiley)
   1. real GNP: down 30.5%
   2. wholesale prices: down 30.8%
   3. consumer prices: down 24.4% (Smiley)
   4. 1933, second quarter: the economy begins to recover (Smiley)
9. **1935**
   1. “The Supreme Court ruled the NRA unconstitutional on May 27, 1935, and the AAA unconstitutional on January 6, 1936. Released from the shackles of the NRA, American industry began to expand production. By the fall of 1935 a vigorous recovery was under way.” (Smiley)
   2. labor unions
      1. “In addition, many workers decided not to join independent labor unions. [This] helped the recovery.” (Smiley)
      2. Unhappy with the lack of union power, however, Senator Robert Wagner, in the summer of 1935, authored the National Labor Relations Act to ensure that union members could force other workers to join their unions with a simple majority vote, thus effectively monopolizing the labor force. Internal dissension and the new Congress of Industrial Organizations’ (CIO) development of strategies to use the new law kept labor unions from taking advantage of the new act until late in 1936. In the first half of 1937, the CIO’s massive organizing drives led to labor union recognition at many large firms. Generally, the new contracts raised hourly wage rates and created overtime wage rates as real hourly labor costs surged.” (Smiley)
10. **1936-37**
    1. “Several other factors also pushed up real labor costs. One factor was the new Social Security taxes instituted in 1936 and 1937. Also, Roosevelt had pushed through a new tax on undistributed corporate profits, expecting this to cause firms to pay out undistributed profits in dividends. Though some firms did pay out part of the retained earnings in larger dividends, others, such as the firms in the steel industry, also paid bonuses and raised wage rates to avoid paying their retained earnings in new taxes. As these three policies came together, real hourly labor costs jumped without corresponding increases in demand or prices, and firms responded by reducing production and laying off employees.” (Smiley)
    2. “The second major policy change was in monetary policy. Following the end of the contraction, banks, as a precaution against bank runs, had begun to hold large excess reserves. Officials at the Federal Reserve System knew that if banks used a large percentage of those excess reserves to increase lending, the money supply would quickly expand and price inflation would follow. Their studies suggested that the excess reserves were distributed widely across banks, and they assumed that these reserves were due to the low level of loan demand. Because banks were not borrowing at the discount window and the Fed had no bonds to sell on the open market, its only tool to reduce excess reserves was the new one of varying reserve requirements. Between August 1, 1936, and May 1, 1937, in three steps, the Fed doubled reserve requirements for all classes of member banks, wiping out much of the excess reserves, especially at the larger banks. The banks, burned by their lack of excess reserves in the early 1930s, responded by beginning to restore the excess reserves, which entailed reducing loans. Within eighteen months, excess reserves were almost as large as before the reserve requirement increases, and, necessarily, the stock of money was lower.” (Smiley)
    3. business cycle changes
       1. most of 1934 and 1935: “the recovery largely stalled” (Smiley)
       2. late 1935 and early 1937: “A more vigorous recovery commenced” (Smiley)
       3. May 1937: “a new depression occurred” (Smiley)
11. **1937**
    1. “By June 1937, the recovery—during which the unemployment rate had fallen to 12 percent—was over. Two policies, labor cost increases and a contractionary monetary policy, caused the economy to contract further.” (Smiley)
12. **1938**
    1. “Although the contraction ended around June 1938, the ensuing recovery was quite slow. The average rate of unemployment for all of 1938 was 19.1 percent, compared with an average unemployment rate for all of 1937 of 14.3 percent.”
13. **1940**
    1. “Even in 1940, the unemployment rate still averaged 14.6 percent.” (Smiley)
14. **1930s as a whole**
    1. “Because of this agonizingly slow recovery, the entire decade of the 1930s in the United States is often referred to as the Great Depression.” (Smiley)
15. **1941**
    1. “The American economy had yet to fully recover from the Great Depression when the United States was drawn into World War II in December 1941.” (Smiley)
16. **1929-41**: **Why was the recovery was slow**
    1. “Why was the recovery from the Great Depression so slow? A number of economists now argue that the NRA and monetary policy were important factors.” (Smiley)
    2. “Some maintain that Roosevelt’s vacillating policies and new federal regulations hindered recovery (Gary Dean Best, Richard Vedder and Lowell Gallaway, and Gary Walton), while others emphasize monetary factors (Milton Friedman and Anna Schwartz, Christian Saint-Etienne, and Barry Eichengreen).” (Smiley)
    3. “The New Deal’s NRA has received much criticism (Gary Dean Best, Gene Smiley, Richard Vedder and Lowell Gallaway, Gary Walton, and Michael Weinstein).” (Smiley)
    4. “A now discredited explanation from Alvin Hansen argued that the United States had exhausted its investment opportunities.” (Smiley)
    5. “E. Cary Brown, Larry Peppers, and Thomas Renaghan emphasize federal fiscal policies that were a drag on the return to full employment.” (Smiley)
    6. “Michael Bernstein argues that investment problems retarded the recovery because the older established industries could not generate sufficient investment while newer, growing industries had trouble obtaining investment funds in the depressed environment.” (Smiley)
    7. “Alexander Field argues that the uncontrolled housing investment of the 1920s severely reduced housing investment in the 1930s.” (Smiley)
    8. “One of the most coherent explanations, which pulls together several of these themes, is what economic historian Robert Higgs calls “regime uncertainty.”” (Smiley)
       1. “According to Higgs, Roosevelt’s New Deal led business leaders to question whether the current “regime” of private property rights in their firms’ capital and its income stream would be protected. They became less willing, therefore, to invest in assets with long lives.” (Smiley)
          1. “Roosevelt had first suspended the antitrust laws so that American businesses would cooperate in government-instigated cartels; he then switched to using the antitrust laws to prosecute firms for cooperating.” (Smiley)
          2. “New taxes had been imposed, and some were then removed . . .” (Smiley)
          3. “. . . increasing regulation of businesses had reduced businesses’ ability to act independently and raise capital . . .” (Smiley)
          4. “. . . new legislation had reduced their freedom in hiring and employing labor.” (Smiley)
       2. “Public opinion surveys of business at the end of the 1930s provided evidence of this regime uncertainty.” (Smiley)
          1. “Public opinion polls in March and May 1939 asked whether the attitude of the Roosevelt administration toward business was delaying recovery, and 54 and 53 percent, respectively, said *yes* while 26 and 31 percent said *no*. Fifty-six percent believed that in ten years there would be more government control of business while only 22 percent thought there would be less. Sixty-five percent of executives surveyed thought that the Roosevelt administration policies had so affected business confidence that the recovery had been seriously held back.” (Smiley)
       3. “Initially many firms were reluctant to engage in war contracts. The vast majority believed that Roosevelt’s administration was strongly antibusiness, and this discouraged practical cooperation with Washington on rearmament.” (Smiley)
17. **1941-45**: **World War II**
    1. “It is commonly argued that World War II provided the stimulus that brought the American economy out of the Great Depression.” (Smiley)
    2. “The number of unemployed workers declined by 7,050,000 between 1940 and 1943, but the number in military service rose by 8,590,000. The reduction in unemployment can be explained by the draft, not by the economic recovery.” (Smiley)
    3. “The rise in real GNP presents similar problems. Most estimates show declines in real consumption spending, which means that consumers were worse off during the war. Business investment fell during the war. Government spending on the war effort exceeded the expansion in real GNP. These figures are suspect, however, because we know that government estimates of the value of munitions spending, to name one major area, were increasingly exaggerated as the war progressed. In fact, the extensive price controls, rationing, and government control of production render data on GNP, consumption, investment, and the price level less meaningful. How can we establish a consistent price index when government mandates eliminated the production of most consumer durable goods? What does the price of, say, gasoline mean when it is arbitrarily held at a low level and gasoline purchases are rationed to address the shortage created by the price controls? What does the price of new tires mean when no new tires are produced for consumers?” (Smiley)
    4. “For consumers, the recovery came with the war’s end, when they could again buy products that were unavailable during the war and unaffordable during the 1930s.” (Smiley)
18. **effects**
    1. “During the Great Depression, suicide rates rose from 14 to 17.4 per 100,000 people in 1933, according to the American Association of Suicidology, a nonprofit organization . . .” (Dahl)
    2. “The Great Depression is often called a “defining moment” in the twentieth-century history of the United States. Its most lasting effect was a transformation of the role of the federal government in the economy.” (Smiley)
       1. “The long contraction and painfully slow recovery led many in the American population to accept and even call for a vastly expanded role for government, though most businesses resented the growing federal control of their activities.” (Smiley)
       2. “The federal government took over responsibility for the elderly population with the creation of Social Security . . .” (Smiley)
       3. “The federal government . . . gave the involuntarily unemployed unemployment compensation.” (Smiley)
       4. “The Wagner Act dramatically changed labor negotiations between employers and employees by promoting unions and acting as an arbiter to ensure “fair” labor contract negotiations.” (Smiley)
       5. “All of this required an increase in the size of the federal government.” (Smiley)
          1. number of federal paid civilian employees
             1. 1920s: c. 553,000 (on average)
             2. 1939: 953,891
             3. 1940: 1,042,420 (Smiley)
          2. federal budget
             1. “Federal budget” here means the “administrative budget”: “the administrative budget excludes any amounts received for or spent from trust funds and any amounts borrowed or used to pay down the debt . . .” (Smiley)
             2. 1928 and 1929

receipts: 3.80% of GNP (on average)

expenditures 3.04% of GNP (on average)

* + - * 1. 1939

receipts: 5.50% of GNP

expenditures: 9.77% of GNP (triple)

* + - * 1. “These figures provide an indication of the vast expansion of the federal government’s role during the depressed 1930s.” (Smiley)
  1. “The Great Depression also changed economic thinking. Because many economists and others blamed the depression on inadequate demand, the Keynesian view that government could and should stabilize demand to prevent future depressions became the dominant view in the economics profession for at least the next forty years. Although an increasing number of economists have come to doubt this view, the general public still accepts it.” (Smiley)

1. **future depressions**?
   1. “Could the Great Depression happen again? It could, but such an event is unlikely because the Federal Reserve Board is unlikely to sit idly by while the money supply falls by one-third.” (Smiley)
   2. “The wisdom gained in the years since the 1930s probably gives our policymakers enough insight to make decisions that will keep the economy out of such a major depression.” (Smiley)

Marginal Tax Rates

Reynolds, Alan. “Marginal Tax Rates.” *The Concise Encyclopedia of Economics*. Indianapolis: Liberty Fund, 2007. Ed. David R. Henderson. Library of Economics and Liberty. 13 Dec. 2008.

1. **introduction**
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* 1. definition
     1. “The marginal tax rate is the rate on the last dollar of income earned. This is very different from the average tax rate, which is the total tax paid as a percentage of total income earned.” (Reynolds)
     2. Imagine that in 2003 a US married taxpayer filing separately earns $160,000.
        1. He pays 10% tax on every dollar of taxable income of the first $7000.
        2. He pays 15% on the next $14,400.
        3. He pays ??
        4. He pays 35% on everything above $155,975.
        5. “Depending on deductions, a taxpayer might pay a relatively modest *average* tax on total earnings, yet nonetheless face a 28-35 percent *marginal* tax on any activities that could push income higher . . .” (Reynolds)
        6. “Marginal decisions . . . depend mainly on marginal incentives (extra income, after taxes).” (Reynolds) Marginal decisions include
           1. extra effort
           2. education
           3. entrepreneurship
           4. investment.
  2. misunderstandings
     1. “. . . there remains considerable misunderstanding about what marginal tax rates are . . .” (Reynolds)
     2. The common practice is to measure “tax receipts as a percentage of GDP” (a ratio with tax revenues as the numerator and GDP growth as the denominator). But that “is too static.” It ignores tax avoidance’s destructive effects on both tax revenues and the growth of GDP. (Reynolds)

1. **negative effects of high marginal tax rates**
   1. “. . . a plethora of economic studies” (surveyed by Karabegovic et al.) show “several ways in which high marginal tax rates can adversely affect economic performance.” (Reynolds)
      1. These include work effort, entrepreneurship, education, and slowed “national output (i.e., economic growth).” (Reynolds)
         1. “People react to tax incentives for the same reason they react to price incentives. Supply (of effort and investment) and demand (for government transfer payments) respond to marginal incentives. To increase income, people may have to study more, accept added risks and responsibilities, relocate, work late or take work home, tackle the dangers of starting a new business or investing in one, and so on. People earn more by producing more. Because it is easier to earn less than to earn more, marginal incentives matter.” (Reynolds)
      2. There is also tax avoidance’s destructive effects on both tax revenues and the growth of GDP. (Reynolds)
         1. “A sizable portion of productive activity may cease, move abroad, or vanish into inefficient little “informal” enterprises.” (Reynolds)
         2. “. . . tax havens attract foreign investment and immigrants . . .” (Reynolds)
         3. “. . . countries in which the combined marginal impact of taxes and benefits is to punish success and reward indolence often face “capital flight” and a “brain drain.”” (Reynolds)
   2. Karabegovic (15): high “marginal taxes have serious negative consequences on economic growth, labor supply, and capital formation.” (Qtd. in Reynolds)
   3. “. . . high marginal tax rates reduce people’s willingness to work up to their potential, to take entrepreneurial risks, and to create and expand a new business . . .” (Reynolds)
   4. Edward Prescott is senior adviser to the Federal Reserve Bank of Minneapolis and was corecipient in 2004 of the Nobel Prize in economics. (Reynolds)
      1. Prescott (7): “low labor supplies in Germany, France, and Italy are due to high [marginal] tax rates.” (Qtd. in Reynolds)
      2. “He noted that adult labor force participation in France has fallen about 30 percent below that of the United States, which accounts for the comparably higher U.S. living standards.” (Reynolds)
   5. “Nobel laureate Robert Lucas emphasized the deleterious effect on economic growth of high tax rates on capital.” (Reynolds)
      1. “To the extent to which a country’s tax system punishes added *income* with high marginal tax rates, it must also punish added *output*—that is, economic growth.” (Reynolds)
   6. “Philip Trostel focused on the impact on human capital, finding that high marginal tax rates on labor income reduce the lifetime reward from investing time and money in education.” (Reynolds)
   7. “. . . each separate effect of high marginal tax rates is typically examined separately, which makes the overall economic distortions and disincentives appear less significant than if they were all combined.” (Reynolds)
2. **1980-2000**: **dropping marginal tax rates**
   1. “. . . marginal tax rates became the central theme of a revolution in economic policy that swept the globe during the last two decades of the twentieth century, with more than fifty nations significantly reducing their highest marginal tax rates on individual income (most of which are shown in Table 1). Tax rates on corporate income (not shown) were also reduced in most cases (e.g., to 12.5 percent in Ireland).” (Reynolds)
      1. “East Asia, Ireland, Russia, and India are a few of the economies that began expanding impressively after their governments sharply reduced marginal tax rates.” (Reynolds)
      2. “Why did so many . . . countries so dramatically reduce marginal tax rates?” (Reynolds)
         1. “Perhaps they were influenced by new economic analysis and evidence from optimal tax theorists, new growth economics (see economic growth), and supply-side economics.” (Reynolds)
         2. “But the sheer force of example may well have been more persuasive. Political authorities saw that other national governments fared better by having tax collectors claim a medium share of a rapidly growing economy (a low marginal tax) rather than trying to extract a large share of a stagnant economy (a high average tax).” (Reynolds)
      3. “Table 1 also shows, however, that a handful of countries did comparatively little to reduce the highest, most damaging tax rates—notably, most of Western Europe, Scandinavia, Canada, and Japan.”

|  |  |  |  |
| --- | --- | --- | --- |
| Table 1 Maximum Marginal Tax Rates on Individual Income  [The original order is alphabetical. Here, the order is lowest to highest in 2002.] | | | |
|  | 1979 | 1990 | 2002 |
| Bolivia | 48 | 10 | 13 |
| Russia | NA | 60 | 13 |
| Hong Kong | 25[\*](http://www.econlib.org/library/Enc/MarginalTaxRates.html" \l "fn_lfHendersonCEE2-105_footnote_nt301) | 25 | 16 |
| Botswana | 75 | 50 | 25 |
| Jamaica | 58 | 33 | 25 |
| Mauritius | 50 | 35 | 25 |
| Singapore | 55 | 33 | 26 |
| Brazil | 55 | 25 | 28 |
| Malaysia | 60 | 45 | 28 |
| India | 60 | 50 | 30 |
| Guatemala | 40 | 34 | 31 |
| Philippines | 70 | 35 | 32 |
| Puerto Rico | 79 | 43 | 33 |
| Argentina | 45 | 30 | 35 |
| Colombia | 56 | 30 | 35 |
| Indonesia | 50 | 35 | 35 |
| Iran | 90 | 75 | 35 |
| Pakistan | 55 | 45 | 35 |
| Trinidad and Tobago | 70 | 35 | 35 |
| South Korea | 89 | 50 | 36 |
| Finland | 71 | 43 | 37 |
| Thailand | 60 | 55 | 37 |
| New Zealand | 60 | 33 | 39 |
| **United States**  [emphasis added] | 70 | 33 | 39[\*\*](http://www.econlib.org/library/Enc/MarginalTaxRates.html" \l "fn_lfHendersonCEE2-105_footnote_nt302) |
| Egypt | 80 | 65 | 40 |
| Greece | 60 | 50 | 40 |
| Hungary | 60 | 50 | 40 |
| Mexico | 55 | 35 | 40 |
| Portugal | 84 | 40 | 40 |
| United Kingdom | 83 | 40 | 40 |
| Ireland | 65 | 56 | 42 |
| Chile | 60 | 50 | 43 |
| Turkey | 75 | 50 | 45 |
| Canada (Ontario) | 58 | 47 | 46 |
| Australia | 62 | 48 | 47 |
| Norway | 75 | 54 | 48 |
| Spain | 66 | 56 | 48 |
| Germany | 56 | 53 | 49 |
| Austria | 62 | 50 | 50 |
| France | 60 | 52 | 50 |
| Israel | 66 | 48 | 50 |
| Japan | 75 | 50 | 50 |
| Belgium | 76 | 55 | 52 |
| Italy | 72 | 50 | 52 |
| Netherlands | 72 | 60 | 52 |
| Sweden | 87 | 65 | 56 |
| Denmark | 73 | 68 | 59 |
| [\*](http://www.econlib.org/library/Enc/MarginalTaxRates.html#ref_lfHendersonCEE2-105_footnote_nt301) Hong Kong’s maximum tax (the “standard rate”) has normally been 15 percent, effectively capping the marginal rate at high income levels (in exchange for no personal exemptions). | | | |
| [\*\*](http://www.econlib.org/library/Enc/MarginalTaxRates.html#ref_lfHendersonCEE2-105_footnote_nt302) The highest U.S. tax rate of 39.6 percent after 1993 was reduced to 38.6 percent in 2002 and to 35 percent in 2003. | | | |
| *Source*: PricewaterhouseCoopers; International Bureau of Fiscal Documentation. | | | |

* 1. “ . . . among the world’s twenty fastest-growing economies” are:
     1. “. . . Taiwan, Singapore, South Korea, Hong Kong, Botswana, Thailand, Ireland, Malayasia, Portugal, Mauritius, and Indonesia.” (Reynolds)
        1. Barro, Robert J., and Xavier Sala-i-Martin. *Economic Growth*. Cambridge: MIT, 2004. 514.
     2. “As Table 1 shows, all these countries either had low marginal tax rates to begin with (Hong Kong) or cut their highest marginal tax rates in half between 1979 and 2002 (Botswana, Mauritius, Singapore, Portugal, etc.).” (Reynolds)

1. **countries with high marginal tax rates**
   1. United States
      1. “Even in the United States, marginal tax rates are really higher than statutory rates suggest.” (Reynolds)
      2. Jagadeesh Gokhale et al. (“Does It Pay to Work?” 2002) included “state and local taxes, the marginal impact of losing government benefits (such as Medicaid and food stamps) if income rises, the progressive nature of Social Security benefits (which are least generous to those who work the most), and the phasing out of deductions and exemptions as income rises.” (Reynolds)
         1. Jagadeesh Gokhale et al. (abstract): “those with earnings that exceed 1.5 times the minimum wage face marginal net taxes on full-time work above 50 percent.” (Qtd. in Reynolds)
         2. “At higher incomes, the estimated federal, state, and local marginal tax rate is about 56-57 percent.” (Reynolds)
   2. France vs. US
      1. According to the Organization for Economic Co-operation and Development (*OECD in Figures*, 2003) “total taxes [were] 45.3 percent of GDP in France, compared with 29.6 percent in the United States.” (Reynolds)
      2. “But it would be a mistake to conclude that the higher average tax burden in France is a result of that country’s more steeply graduated income tax. French income tax rates claim half of any extra dollar at incomes roughly equivalent to $100,000 in the United States, and exceed the highest U.S. tax rates at even middling income levels. Yet these high individual income taxes account for only 18 percent of revenues in France, about 8.2 percent of GDP, while much lower individual income tax rates in the United States account for 42.4 percent of total tax receipts, or 12.5 percent of GDP. Countries such as France and Sweden do not collect high revenues from high marginal tax rates, but from flat rate taxes on the payrolls and consumer spending of people with low and middle incomes. Revenues are also high relative to GDP partly because private GDP (the tax base) has grown unusually slowly, not because tax revenues have grown particularly fast.” (Reynolds)

Microeconomics

Harberger, Arnold C. “Microeconomics.” *The Concise Encyclopedia of Economics*. Indianapolis: Liberty Fund, 2007. Ed. David R. Henderson. Library of Economics and Liberty. 13 Dec. 2008.

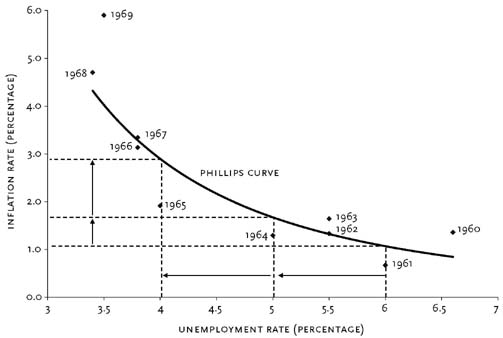
1. **introduction**
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      5. Mankiw, N. Gregory. *Principles of Microeconomics*. 3rd ed. Mason, OH: Thomson/South-Western, 2004.
      6. Nicholson, Walter. *Intermediate Microeconomics and Its Applications*. 9th ed. Mason, OH: Thomson/South-Western, 2004.
   2. definition: “In a nutshell, microeconomics has to do with supply and demand, and with the way they interact in various markets.” (Harberger)
   3. macroeconomics and microeconomics
      1. pre-1940s (before the “Keynesian revolution of the late 1930s and 1940s”): the two main parts of economic theory were typically labeled “monetary theory” and “price theory.” Today, the corresponding dichotomy is between “macroeconomics” and “microeconomics.”” (Harberger)
      2. “The motivating force for the change came from the macro side, with modern macroeconomics being far more explicit than old-fashioned monetary theory about fluctuations in income and employment (as well as the price level).” (Harberger)
      3. “In contrast, no revolution separates today’s microeconomics from old-fashioned price theory; one evolved from the other naturally and without significant controversy.” (Harberger)
      4. “The strength of microeconomics comes from the simplicity of its underlying structure [i.e., supply and demand] and its close touch with the real world.” (Harberger)
   4. Microeconomics “lies at the center of most of the recognized subfields of economics.” (Harberger)
      1. “Agricultural economics deals with the demand and supply of agricultural products and of farmland, farm labor, and the other factors of production involved in agriculture.” (Harberger)
      2. “Labor economics . . . is built largely on the analysis of the supply and demand for labor of different types.” (Harberger)
      3. Industrial organization “deals with the different mechanisms (monopoly, cartels, different types of competitive behavior) by which goods and services are sold.” (Harberger)
      4. “International economics worries about the demand and supply of individual traded commodities, as well as of a country’s exports and imports taken as a whole, and the consequent demand for and supply of foreign exchange.” (Harberger)
      5. “Public finance (see Public Choice) looks at how the government enters the scene.” (Harberger)
         1. “Traditionally, its focus was on taxes,” which distort markets (see below). (Harberger)
         2. “More recently, public finance has reached into the expenditure side as well, attempting to analyze (and sometimes actually to measure) the costs and benefits of various government outlays and programs.” (Harberger)
      6. “Applied welfare economics is the fruition of microeconomics. It deals with the costs and benefits of just about anything—government projects, taxes on commodities, taxes on factors of production (corporation income taxes, payroll taxes), agricultural programs (like price supports and acreage controls), tariffs on imports, foreign exchange controls, various forms of industrial organization (like monopoly and oligopoly), and various aspects of labor market behavior (like minimum wages, the monopoly power of labor unions, and so on).” (Harberger)
      7. “It is hard to imagine a basic course in microeconomics failing to include numerous cases and examples drawn from all of the fields listed above. This is because microeconomics is so basic. It represents the trunk of the tree from which all the listed subfields have branched.” (Harberger)
2. **supply and demand**
   1. “At the root of everything is supply and demand.” (Harberger)
   2. Supply and demand are basic “human characteristics. If human beings are not going to be totally self-sufficient, they will end up producing certain things that they trade in order to fulfill their demands for other things.” (Harberger)
   3. “People specialize in what they think they can do best—or more [precisely], in what heredity, environment, fate, and their own volition have brought them to do. They trade their services and/or the products of their specialization for those produced by others. Markets evolve to organize this sort of trading, and money evolves to act as a generalized unit of account and to make barter unnecessary.” (Harberger)
   4. “The specialization of production and the institutions of trade, commerce, and markets long antedated the science of economics. . . . [Economics studied] the market forms that arose quite naturally (and without any help from economists) out of human behavior.” (Harberger)
   5. “In this market process, people try to get the most from what they have to sell, and to satisfy their desires as much as possible. In microeconomics this is translated into the notion of people maximizing their personal “utility,” or welfare. This process helps them to decide what they will supply and what they will demand.” (Harberger)
   6. “maximizing behavior”
      1. maximizing behavior on the supply side
         1. “When hybrid corn first appeared in the United States, it was in experiment stations, not on ordinary farms. But over a period of decades it became the product of choice of hundreds of thousands of farmers. At the beginning of the process, those who adopted the new hybrids made handsome profits. By the time the transition was complete, any farmer who clung stubbornly to the old nonhybrid seed was likely to be driven out of business, leaving only farmers who acted as if they were profit maximizing; the ones who did not had failed.” (Harberger)
         2. “By a very similar process new varieties of wheat spread through the Punjab and other parts of India in the 1960s, and new varieties of rice through the Philippines and the rest of East Asia. What economists call “maximizing behavior” explains the real-world behavior of these millions of farmers, whose actions increased the supply of corn, wheat, and rice, making much more of these products available to the consumers of the world at lower prices.” (Harberger)
      2. maximizing behavior on the demand side
         1. “Similar scenarios reveal how maximizing behavior works on the demand side. Today’s textiles include vast amounts of artificial fibers, nearly all of them unknown a century ago. They conquered markets for themselves, at the expense of the older natural fibers, because consumers perceived them to be either better or cheaper, or both. In the end, when old products end up on the ash heap of history, it is usually because consumers have found new products that they greatly prefer to the old ones.” (Harberger)
   7. “The great unifying principles of microeconomics are, ever and always, supply and demand. The normative overtone of microeconomics comes from the fact that competitive supply price represents value as seen by suppliers, and competitive demand price represents value as seen by demanders. The motivating force is that of human beings, always gravitating toward choices and arrangements that reflect their tastes. The miracle of it all is that on the basis of such simple and straightforward underpinnings, a rich tapestry of analysis, insights, and understanding can be woven.” (Harberger)
3. **market distortions**
   1. “In an undistorted market, buyers pay the market price up to the point where they judge further units not to be worth that price, while competitive sellers supply added units as long as they can make money on each increment. At the point where supply just equals demand in an undistorted market, the price measures both the worth of the product to buyers and the worth of the product to sellers.” (Harberger)
   2. “That is not so when an artificial distortion intervenes. With a 50 percent tax based on selling price, an item that costs $1.50 to the buyer is worth only $1.00 to the seller. The tax creates a wedge . . . between the value to the buyer and the return to the seller.” (Harberger)
      1. *wedges*: “differences between the price the buyer pays and the price the seller re­ceives . . .” (Harberger)
   3. “The anomaly thus created could be eliminated if the distortion were removed; then the market would find its equilibrium at some price in between (say, $1.20) where the product’s worth would be the same to buyers and to sellers.” (Harberger)
   4. “The economics of supply and demand has a sort of moral or normative overtone, at least when it comes to dealing with a wide range of market distortions.” (Harberger)
      1. “Whenever we start with a distortion, we can usually assert that society as a whole can benefit from its removal. This is epitomized by the fact that buyers gain as they get extra units at less than $1.50, while sellers gain as they get to sell extra units at more than $1.00.” (Harberger)
   5. types of wedges
      1. price controls
         1. “If price controls keep bread (or anything else) artificially cheap, the predictable result is that less will be supplied than is demanded. Nine times out of ten, the excess demand will end up being reflected in a gray or black market, whose existence is probably the clearest evidence that the official price is artificially low.” (Harberger)
         2. “. . . nearly always . . . pushing prices down via price controls will end up reducing the amount supplied and generating black-market prices not only well above the official price, but also above the market price that would prevail in the absence of controls.” (Harberger)
      2. subsidies
         1. “If cotton is subsidized, the price farmers get will exceed, by the amount of the subsidy, the value to consumers. Society thus stands to gain by eliminating the subsidy and moving to a price that is the same for both buyers and sellers.” (Harberger)
         2. “In the 1930s the U.S. government adopted so-called parity prices for the major grains and a few other farm products. Basically, if the market price was below the parity price, the government would pay farmers the difference or buy any unsold crops at the parity price.” (Harberger)
            1. “The predictable result was production in excess of the amount demanded—leading to surpluses that were bought up (and stored) by the government.” (Harberger)
            2. “Then, in an effort to eliminate the purchase of surpluses (but without reducing the parity price), the government instituted acreage controls under which it paid farmers to take land out of production. Some people were surprised to see that a 20 percent cut in wheat acreage did not lead to a 20 percent fall in the production of wheat. The reason was that other factors of production could be (and were) used more intensively, with the result that in order to get a 20 percent cut in wheat, acreage “had to” be cut by 30-40 percent.” (Harberger)
            3. “Economists have a better solution. Had the government given wheat farmers coupons, each of which permitted the farmer to market one bushel of wheat, wheat marketings could have been cut by the desired amount. Production inefficiencies could be avoided by allowing the farmers to buy and sell coupons among themselves. Low-cost farmers would buy coupons from high-cost farmers, thus ensuring efficient production. This is known as a “second-best” solution to a policy problem. It is second rather than first best because consumers would still be paying the artificially high parity price for wheat.” (Harberger)
      3. monopolies
         1. “Monopoly represents the artificial restriction of production by an entity having sufficient “market power” to do so. The economics of monopoly are most easily seen by thinking of a “monopoly markup” as a privately imposed, privately collected tax.” (Harberger)
            1. “This was, in fact, a reality a few centuries ago when feudal rulers sometimes endowed their favorites with monopoly rights over certain products. The recipients need not ever “produce” such products themselves. They could contract with other firms to produce the good at low prices and then charge consumers what the traffic would bear (so as to maximize monopoly profit). The difference between these two prices is the “monopoly markup,” which functions like a tax. In this example it is clear that the true beneficiary of monopoly power is the one who exercises it; both producers and consumers end up losing.” (Harberger)
            2. “Modern monopolies are a bit less transparent, for two reasons. First, even though governments still grant monopolies, they usually grant them to the producers. Second, some monopolies just happen without government creating them, although these are usually short-lived. Either way, the proceeds of the monopoly markup (or tax) are commingled with the return to capital of the monopoly firms.” (Harberger)
            3. “Similarly, labor monopoly is usually exercised by unions, which are able to charge a monopoly markup (or tax), which then becomes commingled with the wages of their members. The true effect of labor monopoly on the competitive wage is seen by looking at the nonunion segment of the economy. Here, wages end up lower because the union wage causes fewer workers to be hired in the unionized firms, leaving a larger labor supply (and a consequent lower wage) in the nonunion segment.” (Harberger)
      4. rent seeking
         1. “Rent seeking” occurs “when someone enters a business to earn a profit that the government has tried to make unusually high.” (Harberger)
         2. “A simple example is a city that imposes a high official meter rate for taxis but allows free entry into the taxi business. The fare must cover the cost of paying a driver plus a market rate of return on the capital costs involved. Labor and capital will flow into the cab industry until each ends up getting its expected, normal return instead of the high returns one would expect with high fares. What will adjust is simply the number of cabs and the fraction of the time they actually carry passengers. Cabs will get more for each rider, but each cab will have fewer riders.” (Harberger)
         3. “Other situations of rent seeking occur when artificially high urban wages attract migrants from rural areas. If the wage does not adjust downward to equate supply and demand, the rate of urban unemployment will rise until further migration is deterred.” (Harberger)
         4. “When the “margin” in banking is set too high, new banks enter and/or branches of old ones proliferate until further entry is deterred.” (Harberger)
         5. “Artificially maintained drug prices led, in several Latin American countries (Argentina, Chile, and Uruguay before their major liberalizations of recent decades), to a pharmacy on almost every block.” (Harberger)
         6. lobbying
            1. “Rent seeking also occurs when something of value (like import licenses or radio/TV franchises) is being given away or sold below its true value. In such cases potential buyers often spend large amounts “lobbying” to improve their chances of getting the prize.” (Harberger)
            2. “Indeed, a broad view of rent seeking easily covers most cases of lobbying (using real resources in efforts to gain legislative or executive “favors”).” (Harberger)

Phillips Curve

Hoover, Kevin D. “Phillips Curve.” *The Concise Encyclopedia of Economics*. Indianapolis: Liberty Fund, 2007. Ed. David R. Henderson. Library of Economics and Liberty. 13 Dec. 2008.

1. **introduction**
   1. bibliography
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      3. Lucas, Robert E., Jr. “Econometric Testing of the Natural Rate Hypothesis.” *The Econometrics of Price Determination*. Ed. Otto Eckstein. Washington: Federal Reserve System, 1972.
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      5. Phillips, A.W.H. “The Relation between Unemployment and the Rate of Change of Money Wage Rates in the United Kingdom, 1861-1957.” *Economica* n.s. 25.2 (1958): 283-99.
      6. Samuelson, Paul A., and Robert M. Solow. “Analytical Aspects of Anti-Inflation Policy.” *American Economic Review* 50.2 (1960): 177-94.
      7. Sheffrin, Steven M. *Rational Expectations*. 2d ed. Cambridge: Cambridge UP, 1996.
      8. “The Natural Rate of Unemployment [Symposium].” *Journal of Economic Perspectives* 11.1 (1997): 3-108.
   2. definition
      1. “The Phillips curve represents the relationship between the rate of inflation and the unemployment rate. . . . [There is] a consistent inverse relationship:” (Hoover)
         1. high unemployment = slow wage inflation
         2. low unemployment = fast wage inflation
         3. (note: wage inflation also usually translates into price inflation)
   3. “Phillips’s “curve” represented the average relationship between unemployment and wage behavior over the business cycle.” (Hoover)
   4. “It showed the rate of wage inflation that would result if a particular level of unemployment persisted for some time.” (Hoover)

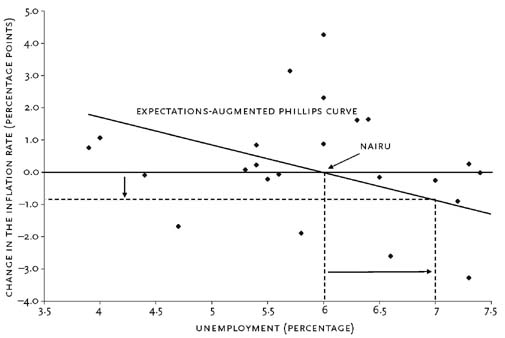
Figure 1 The Phillips Curve, 1961-1969 [for the U.S.]

[](http://www.econlib.org/library/Enc/art/lfHendersonCEE2_figure_036.jpg)

*Source*: Bureau of Labor Statistics. *Note*: Inflation based on the Consumer Price Index.

1. **history**
   1. “Although he had precursors, A.W.H. Phillips’s study of wage inflation and unemployment in the United Kingdom from 1861 to 1957 [found the] consistent inverse relationship . . .” (Phillips, A.W.H. “The Relation between Unemployment and the Rate of Change of Money Wage Rates in the United Kingdom, 1861-1957.” *Economica* n.s. 25.2 (1958): 283-99.) (Hoover)
      1. “Phillips conjectured that the lower the unemployment rate, the tighter the labor market and, therefore, the faster firms must raise wages to attract scarce labor. At higher rates of unemployment, the pressure abated.” (Hoover)
   2. “Economists soon estimated Phillips curves for most developed economies. Most related general price inflation, rather than wage inflation, to unemployment. Of course, the prices a company charges are closely connected to the wages it pays.” (Hoover)
   3. “The close fit between the estimated curve and the data encouraged many economists, following the lead of Paul Samuelson and Robert Solow [in 1960], to treat the Phillips curve as a sort of menu of policy options.” (Hoover)
      1. Samuelson, Paul A., and Robert M. Solow. “Analytical Aspects of Anti-Inflation Policy.” *American Economic Review* 50.2 (1960): 177-94.
      2. “For example, with an unemployment rate of 6 percent, the government might stimulate the economy to lower unemployment to 5 percent. Figure 1 indicates that the cost, in terms of higher inflation, would be a little more than half a percentage point.” (Hoover)
      3. “But if the government initially faced lower rates of unemployment, the costs would be considerably higher: a reduction in unemployment from 5 to 4 percent would imply more than twice as big an increase in the rate of inflation—about one and a quarter percentage points.” (Hoover)
   4. 1967-68
      1. Phelps, Edmund S. “Phillips Curves, Expectations of Inflation and Optimal Employment over Time.” *Economica* n.s. 34.3 (1967): 254-81.
      2. Friedman, Milton. “The Role of Monetary Policy.” *American Economic Review* 58.1 (1968): 1-17.
      3. “At the height of the Phillips curve’s popularity as a guide to policy, Edmund Phelps and Milton Friedman independently challenged its theoretical underpinnings.” (Hoover)
      4. “They argued that well-informed, rational employers and workers would pay attention only to real wages—the inflation-adjusted purchasing power of money wages. In their view, real wages would adjust to make the supply of labor equal to the demand for labor, and the unemployment rate would then stand at a level uniquely associated with that real wage—the “natural rate” of unemployment.” (Hoover)
      5. “Both Friedman and Phelps argued that the government could not permanently trade higher inflation for lower unemployment.” (Hoover)
         1. “Imagine that unemployment is at the natural rate. The real wage is constant: workers who expect a given rate of price inflation insist that their wages increase at the same rate to prevent the erosion of their purchasing power.” (Hoover)
         2. “Now, imagine that the government uses expansionary monetary or fiscal policy in an attempt to lower unemployment below its natural rate. The resulting increase in demand encourages firms to raise their prices faster than workers had anticipated. With higher revenues, firms are willing to employ more workers at the old wage rates and even to raise those rates somewhat. For a short time, workers suffer from what economists call money illusion: they see that their money wages have risen and willingly supply more labor. Thus, the unemployment rate falls. They do not realize right away that their purchasing power has fallen because prices have risen more rapidly than they expected. But, over time, as workers come to anticipate higher rates of price inflation, they supply less labor and insist on increases in wages that keep up with inflation. The real wage is restored to its old level, and the unemployment rate returns to the natural rate. But the price inflation and wage inflation brought on by expansionary policies continue at the new, higher rates.” (Hoover)
      6. “Friedman’s and Phelps’s analyses provide a distinction between the “short-run” and “long-run” Phillips curves. So long as the average rate of inflation remains fairly constant, as it did in the 1960s, inflation and unemployment will be inversely related. But if the average rate of inflation changes, as it will when policymakers persistently try to push unemployment below the natural rate, after a period of adjustment, unemployment will return to the natural rate. That is, once workers’ expectations of price inflation have had time to adjust, the natural rate of unemployment is compatible with any rate of inflation. The long-run Phillips curve could be shown on Figure 1 as a vertical line above the natural rate. The original curve would then apply only to brief, transitional periods and would shift with any persistent change in the average rate of inflation. These long-run and short-run relations can be combined in a single “expectations-augmented” Phillips curve. The more quickly workers’ expectations of price inflation adapt to changes in the actual rate of inflation, the more quickly unemployment will return to the natural rate, and the less successful the government will be in reducing unemployment through monetary and fiscal policies.” (Hoover)

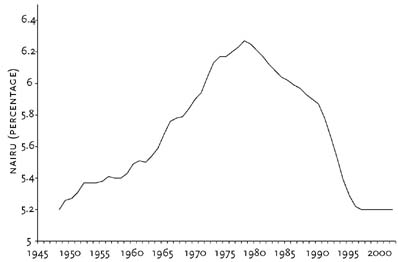
Figure 2 The Expectations-Augmented Phillips Curve, 1976-2002

[](http://www.econlib.org/library/Enc/art/lfHendersonCEE2_figure_037.jpg)

*Source*: Bureau of Labor Statistics. *Note*: Inflation based on the Consumer Price Index.

* 1. “The 1970s provided striking confirmation of Friedman’s and Phelps’s fundamental point. Contrary to the original Phillips curve, when the average inflation rate rose from about 2.5 percent in the 1960s to about 7 percent in the 1970s, the unemployment rate not only did not fall, it actually rose from about 4 percent to above 6 percent.” (Hoover)
  2. “Most economists now accept a central tenet of both Friedman’s and Phelps’s analyses: there is some rate of unemployment that, if maintained, would be compatible with a stable rate of inflation. Many, however, call this the “nonaccelerating inflation rate of unemployment” (NAIRU) because, unlike the term “natural rate,” NAIRU does not suggest that an unemployment rate is socially optimal, unchanging, or impervious to policy.” (Hoover)
  3. “A policymaker might wish to place a value on NAIRU. To obtain a simple estimate, Figure 2 plots changes in the rate of inflation (i.e., the acceleration of prices) against the unemployment rate from 1976 to 2002. The expectations-augmented Phillips curve is the straight line that best fits the points on the graph (the regression line). It summarizes the rough inverse relationship. According to the regression line, NAIRU (i.e., the rate of unemployment for which the change in the rate of inflation is zero) is about 6 percent. The slope of the Phillips curve indicates the speed of price adjustment. Imagine that the economy is at NAIRU [i.e., 6%,] with an inflation rate of 3 percent and that the government would like to reduce the inflation rate to zero. Figure 2 suggests that contractionary monetary and fiscal policies that drove the average rate of unemployment up to about 7 percent (i.e., one point above [i.e., to the right of] NAIRU) would be associated with a reduction in inflation of about one percentage point per year. Thus, if the government’s policies caused the unemployment rate to stay at about 7 percent, the 3 percent inflation rate would, on average, be reduced one point each year—falling to zero in about three years.” (Hoover)

Figure 3 Nonaccelerating Inflation Rate of Unemployment (Hoover)

[](http://www.econlib.org/library/Enc/art/lfHendersonCEE2_figure_038.jpg)

*Source*: Congressional Budget Office.

* 1. “Using similar, but more refined, methods, the Congressional Budget Office estimated (Figure 3) that NAIRU was about 5.3 percent in 1950, that it rose steadily until peaking in 1978 at about 6.3 percent, and that it then fell steadily to about 5.2 by the end of the century. Clearly, NAIRU is not constant. It varies with changes in so-called real factors affecting the supply of and demand for labor such as demographics, technology, union power, the structure of taxation, and relative prices (e.g., oil prices). NAIRU should not vary with monetary and fiscal policies, which affect aggregate demand without altering these real factors.” (Hoover “Phillips Curve”)
     1. “Aggregate demand (in a closed economy) is consumption, investment, and government expenditure.” (Hoover “Phillips Curve”)
  2. “The expectations-augmented Phillips curve is a fundamental element of almost every macroeconomic forecasting model now used by government and business. It is accepted by most otherwise diverse schools of macroeconomic thought. Early new classical theories assumed that prices adjusted freely and that expectations were formed rationally—that is, without *systematic* error. These assumptions imply that the Phillips curve in Figure 2 should be very steep and that deviations from NAIRU should be short-lived (see new classical macroeconomics and rational expectations). While sticking to the rational-expectations hypothesis, even new classical economists now concede that wages and prices are somewhat sticky. Wage and price inertia, resulting in real wages and other relative prices away from their market-clearing levels, explain the large fluctuations in unemployment around NAIRU and slow speed of convergence back to NAIRU.” (Hoover “Phillips Curve”)

1. “Some “new Keynesian” and some free-market economists hold that, at best, there is only a weak tendency for an economy to return to NAIRU. They argue that there is no natural rate of unemployment to which the actual rate tends to return. Instead, when actual unemployment rises and remains high for some time, NAIRU also rises. The dependence of NAIRU on actual unemployment is known as the hysteresis hypothesis. One explanation for hysteresis in a heavily unionized economy is that unions directly represent the interests only of those who are currently employed. Unionization, by keeping wages high, undermines the ability of those outside the union to compete for employment. After prolonged layoffs, employed union workers may seek the benefits of higher wages for themselves rather than moderating their wage demands to promote the rehiring of unemployed workers. According to the hysteresis hypothesis, once unemployment becomes high—as it did in Europe in the recessions of the 1970s—it is relatively impervious to monetary and fiscal stimuli, even in the short run. The unemployment rate in France in 1968 was 1.8 percent, and in West Germany, 1.5 percent. In contrast, since 1983, both French and West German unemployment rates have fluctuated between 7 and 11 percent. In 2003, the French rate stood at 8.8 percent and the German rate at 8.4 percent. The hysteresis hypothesis appears to be more relevant to Europe, where unionization is higher and where labor laws create numerous barriers to hiring and firing, than it is to the United States, with its considerably more flexible labor markets. The unemployment rate in the United States was 3.4 percent in 1968. U.S. unemployment peaked in the early 1980s at 10.8 percent and fell back substantially, so that by 2000 it again stood below 4 percent.” (Hoover “Phillips Curve”)
2. “Modern macroeconomic models often employ another version of the Phillips curve in which the output gap replaces the unemployment rate as the measure of aggregate demand relative to aggregate supply. The output gap is the difference between the actual level of GDP and the potential (or sustainable) level of aggregate output expressed as a percentage of potential. This formulation explains why, at the end of the 1990s boom when unemployment rates were well below estimates of NAIRU, prices did not accelerate. The reasoning is as follows. Potential output depends not only on labor inputs, but also on plant and equipment and other capital inputs. At the end of the boom, after nearly a decade of rapid investment, firms found themselves with too much capital. The excess capacity raised potential output, widening the output gap and reducing the pressure on prices.” (Hoover “Phillips Curve”)
3. “Many articles in the conservative business press criticize the Phillips curve because they believe it both implies that growth causes inflation and repudiates the theory that excess growth of money is inflation’s true cause. But it does no such thing. One can believe in the Phillips curve and still understand that increased growth, all other things equal, will reduce inflation. The misplaced criticism of the Phillips curve is ironic since Milton Friedman, one of the coinventors of its expectations-augmented version, is also the foremost defender of the view that “inflation is always, and everywhere, a monetary phenomenon.”” (Hoover “Phillips Curve”)
4. “The Phillips curve was hailed in the 1960s as providing an account of the inflation process hitherto missing from the conventional macroeconomic model. After four decades, the Phillips curve, as transformed by the natural-rate hypothesis into its expectations-augmented version, remains the key to relating unemployment (of capital as well as labor) to inflation in mainstream macroeconomic analysis.” (Hoover “Phillips Curve”)

Poverty in America

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Sawhill, Isabel V. “Poverty in America.” *The Concise Encyclopedia of Economics*. Indianapolis: Liberty Fund, 2007. Ed. David R. Henderson. Library of Economics and Liberty. 13 Dec. 2008.

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    4. Slesnick, Daniel T. “Gaining Ground: Poverty in the Postwar United States.” *Journal of Political Economy* 101.1 (1993): 1-38.
    5. Thomas, Adam, and Isabel Sawhill. “For Richer or for Poorer: Marriage as an Antipoverty Strategy.” *Journal for Policy Analysis and Management* 21.4 (2002): 587-99.
  1. “The United States produces more per capita than any other industrialized country, and in recent years governments at various levels have spent about $350 billion per year, or about 3.5 percent of gross domestic product, on programs serving low-income families.” (Committee on Ways and Means, U.S. House of Representatives. *2004 Green Book*: *Background Material and Data on Programs within the Jurisdiction of the Committee on Ways and Means*. Tables I-5 and K-9. <http://waysandmeans.house.gov/Documents.asp?section=813>.) (Sawhill)
  2. “Despite this, measured poverty is more prevalent in the United States than in most of the rest of the industrialized world. In the mid-1990s, the U.S. poverty rate was twice as high as in Scandinavian countries, and one-third higher than in other European countries and Japan.” (Forster, Michael, and Mark Pearson. “Income Distribution and Poverty in the OECD Area: Trends and Driving Forces.” *OECD Economic Studies* 1 (2002): 13.) (Sawhill)
  3. “Poverty is also as prevalent now as it was in 1973, when the incidence of poverty in America reached a postwar low of 11.1 percent. According to the Census Bureau, 37 million Americans were poor in 2005, just over 12.5 percent of the population.” (De Navas-Walt et al. 6) (Sawhill)

1. **measuring poverty**
   1. “. . . official figures represent the number of people whose annual family income is less than an absolute “poverty line” developed by the federal government in the mid-1960s. The poverty line is roughly three times the annual cost of a nutritionally adequate diet. It varies by family size and is updated every year to reflect changes in the consumer price index. In 2005, the poverty line for a family of four was $19,971.” (U.S. Census Bureau. “Poverty Thresholds for 2002 by Size of Family and Number of Related Children Under 18 Years.” <http://­www.census.gov/hhes/www/poverty/threshld/thresh05.html>.) (Sawhill)
   2. problems
      1. “Many researchers believe that the official method of measuring poverty is flawed. Some argue that poverty is a state of relative economic deprivation, that it depends not on whether income is lower than some arbitrary level but on whether it falls far below the incomes of others in the same society.” (Sawhill)
         1. “But if we define poverty to mean relative economic deprivation, then no matter how wealthy everyone is, there will always be poverty.” (Sawhill)
      2. “Others point out that the official measure errs by omission. For example, official poverty figures take no account of refundable tax credits or the value of noncash transfers such as food stamps and housing vouchers, which serve as income for certain purchases. Incorporating these factors into family income would have reduced the measured poverty rate by an estimated 1.9 percentage points (or by approximately 16 percent) in 2002.” (Primus, Wendell. Committee on Ways and Means, U.S. House of Representatives. Unpublished data.) (Sawhill)
      3. “Official poverty figures also ignore work-related expenses that affect families’ disposable incomes. Child care is a case in point. Isabel Sawhill and Adam Thomas estimated that deducting this expense from family incomes would have increased the measured poverty rate by up to one percentage point (or 8 percent) in 1998.” (Isabel Sawhill and Adam Thomas, “A Hand up for the Bottom Third: Toward a New Agenda for Low-Income Working Families,” Brookings Institution, 2001. <www.brook.edu/views/papers/sawhill/­20010522.pdf>.) (Sawhill)
      4. “Also, smaller, more fragmented households are more common today than a few decades ago, suggesting that some poor households were formed for the privacy and autonomy of their members. To the extent that some people have willingly sacrificed their access to the economic resources of parents, spouses, or adult children, some of the increase in poverty may actually represent an improvement in well-being.” (Sawhill)
      5. “Another problem with the official measure arises from the dynamic nature of poverty. Most Americans who experience poverty do so only temporarily. In the four years from 1996 through 1999, only 2 percent of the population was poor for two years or more. During the same period, 34 percent of the population was poor for at least two months. In short, persistent poverty is relatively uncommon.” (Iceland, John. “Dynamics of Economic Well-Being: Poverty 1996-1999.” U.S. Census Bureau. July 2003. P. 4. <http://www.cen­sus.gov/prod/2003pubs/p70-91.pdf>.) (Sawhill)
      6. “In recent years, income mobility has fallen slightly. According to one estimate, 40 percent of families occupied the same position in the income distribution at the beginning and end of the 1990s, compared with 36 percent in the 1970s.” (Bradbury, Katherine, and Jane Katz. “Are Lifetime Incomes Growing More Unequal?” *Federal Reserve Bank of Boston Regional Review* (4th quarter 2002): 4.) (Sawhill)
      7. “Another criticism of the poverty measures is that they are based on income rather than on consumption. Consumption spending may be a better measure of well-being than reported income is, although data from the consumer expenditure survey have their own limitations. Daniel Slesnick found, using consumption spending, that the poverty rate fell from 31 percent in 1949 to 13 percent in 1965 and to 2 percent at the end of the 1980s. One rough indicator of the decline in poverty is the range of items that most poor homes now contain—from color TVs to VCRs to washing machines to microwaves—compared with the relative lack of these items in poor homes in the early 1970s.” (Cox, W. Michael, and Richard Alm. *Myths of Rich and Poor*. New York: Basic Books, 1999. 15.) (Sawhill)
   3. “Despite their flaws, the official figures are widely used to measure poverty.” (Sawhill)
2. **history**
   1. historical poverty rates (according to the Census Bureau)
      1. 1939: more than 67% of the population “was poor by today’s standards.” (Ross et al.) (Sawhill)
      2. 1960: 22.2%
      3. 1970: 12.6%
      4. 1970s: 11-13%, “fluctuating primarily with the state of the economy” (Sawhill)
      5. 2005: 12.6%
      6. So “Most of this decline occurred in the 1960s.” (Sawhill)
   2. “poverty among various demographic groups” (Sawhill)
      1. elderly
         1. 1959: 35.2%
         2. 2005: 10.1%
         3. The elderly poverty rate “is now lower than for any other age group.” (Sawhill)
      2. children
         1. “declined between 1959 and 1970” (Sawhill)
         2. 1993: increased to 22.7%
         3. 1993-2005: the poverty rate “fell steadily” (Sawhill)
         4. 2005: 17.6%
         5. The children’s poverty rate “remains higher than poverty rates among other age groups.” (Sawhill)
      3. blacks
         1. “The poverty rate among black households has also declined over the last forty years . . .” (Sawhill)
         2. 2005: 24.9%, “more than twice as high as the rate among white households.” (Sawhill)
      4. households headed by women
      5. 1959: 49.4%
      6. 2005: 28.7%
      7. This poverty rate “is still much higher than for other types of households.” (Sawhill)
      8. “This higher incidence of reported poverty, together with the rising share of households headed by women, has led to what researchers call the “feminization of poverty.”” (Sawhill)
         1. “proportion of the poor in female-headed households” (Sawhill)
            1. 1959: 17.8%
            2. 2005: 31.1% (De Navas-Walt et al. 14)
         2. “Some of these women (about 13 percent) live with unrelated men or have unreported income from casual jobs that enable them to cope . . .” (Sawhill)
         3. “. . . but there is little doubt that the growth of single-parent families has contributed importantly to the rise in poverty.” (Sawhill)
3. **causes of change**
   1. “Researchers have suggested a number of plausible explanations for both positive and negative trends in poverty.” (Sawhill)
   2. “U.S. poverty, measured by income, ebbs and flows with the state of the economy and with demographic shifts, especially immigration and the growth of single-parent families.” (Sawhill)
   3. economic growth
      1. “. . . recessions have a disproportionate impact on the poor because they cause rising unemployment, a reduction in work hours, and stagnant family incomes.” (Sawhill)
      2. “. . . economic downturns have been accompanied by rising poverty rates during each of the six recessions in the past thirty years.” (Proctor, Bernadette D., and Dalaker. “Poverty in the United States: 2002.” U.S. Census Bureau. 3.) (Sawhill)
      3. But “The relationship between the changes in the unemployment rate and the poverty rate was stronger during the 1960s and 1990s than during the 1970s and 1980s.” (Haveman 281) (Sawhill)
   4. “changes in the composition of households” (Sawhill)
      1. “The rapid growth of households headed by women and unrelated individuals, who typically cannot earn as much as married-couple families, has left a larger share of the population in poverty.” (Sawhill)
      2. “The rapid growth of households headed by women . . . has increased poverty rates among children.” (Sawhill)
         1. “children living in female-headed households” (Sawhill)
            1. 1970: 11.6%
            2. 2003: 23.6% (it doubled) (U.S. Census Bureau. “*Historical Poverty Table 10*: *Related Children in Female Householder Families as a Proportion of All Related Children*, *by Poverty Status*: *1959 to 2003*. <http://www.census.gov/hhes/poverty/histpov/hstpov10.html>.)
         2. “Had that proportion remained constant since 1970, the child poverty rate would have been about 4.4 percentage points lower in 1998.” (Thomas and Sawhill) (Sawhill)
   5. immigration
      1. “Immigration increases the poverty rate because newly arrived immigrants are, on average, poorer than native-born citizens.” (Sawhill)
         1. 1999: 11.2% of native-born population were poor.
         2. 1999: 16.8% of the foreign-born population were poor. (U.S. Census Bureau. “Profile of the Foreign-Born Population in the United States: 2000.” Dec. 2001. P23-206. 6.)
      2. 1930s-1940s: the foreign-born population declined (Sawhill)
      3. 1970s-2000s: the foreign-born population surged (Sawhill)
         1. 1970: 4.7% of population
         2. 2000: 10.4% of population (U.S. Census Bureau. “Profile of the Foreign-Born Population in the United States: 2000.” Dec. 2001. P23-206. 9.)
      4. “. . . the characteristics of immigrants also affect poverty.” (Sawhill)
         1. “. . . immigrants with minimal training tend . . . to depress incomes among native workers at the bottom.” (Sawhill)
         2. “. . . half of the drop in the relative wage of high school dropouts between 1980 and 1995 [is attributable] to immigration.” (Borjas, George J., ed. *Issues in the Economics of Immigration*. National Bureau of Economic Research Conference Report. Chicago: U of Chicago P, 2000. 6.) (Sawhill)
   6. “efforts to increase the education and skills of the poor” (see “education and skills training” below) (Sawhill)
   7. “structure and generosity of the welfare system” (see “direct income support” below) (Sawhill)
4. **antipoverty programs**
   1. “Policy measures—whether in the form of direct income support or education and skills training of the poor—have swum against these strong tides [economic downturns, immigration, single-parent families] and have had a mixed record of success.” (Sawhill)
   2. education and skills training
      1. “Training and compensatory education programs such as the Job Corps and Head Start, designed as part of the War on Poverty to increase the skills of the poor, may also have reduced poverty.” (Sawhill)
      2. “Many of these programs have not been carefully evaluated, but some of those that have are modestly successful. For example, some early education programs have had a positive effect on poor children, helping them to complete school, avoid crime, and achieve higher test scores.” (Heckman, James J. “Policies to Foster Human Capital.” *Research in Economics* 54.1 (2000): 3-56.) (Sawhill)
      3. “Some employment and training programs have raised earnings for adult women, although these programs have been less helpful to adult men and young people.” (Gueron, Judith M., and Gayle Hamilton. “The Role of Education and Training in Welfare Reform.” Welfare Reform and Beyond Policy Brief no. 20. April 2002.) (Sawhill)
   3. direct income support
      1. There are two types of safety-net program. (Sawhill)
         1. public assistance
            1. examples: Temporary Assistance for Needy Families, food stamps, Medicaid
            2. These “were designed to help people who are already poor . . .” (Sawhill)
         2. social insurance
            1. examples: Social Security, unemployment insurance, Medicare
            2. These “were designed to prevent poverty when events such as layoff or retirement threaten a household’s well-being.” (Sawhill)
      2. pre-1996: “means-tested cash transfers such as Aid to Families with Dependent Children (AFDC), which decline as the welfare recipient earns more reported income, have long been understood to be antiwork and antifamily.” (Sawhill)
         1. “This criticism of the program led to its reform in 1996.” (Sawhill)
      3. 1996: TANF (the revised law, Temporary Assistance for Needy Families)
         1. This program was created by the “Personal Responsibility and Work Opportunity Reconciliation Act of 1996.” (Lee)
         2. “. . . welfare mothers are required to work . . .” (Sawhill)
         3. “. . . federal benefits are limited to five years.” (Sawhill)
      4. post-1996: results
         1. “. . . some families are worse off as a result of welfare reform . . .” (Sawhill)
         2. But there was “a sharp fall in caseloads in the late 1990s.” (Sawhill)
         3. “Employment rates among single mothers rose . . . [The] majority of former welfare mothers have been able to earn enough to improve their economic situation.” (Sawhill)
         4. “. . . after increasing for decades, the share of births to unmarried mothers has leveled off and teen birth rates have declined. (The reasons for these changes in fertility are not well understood and may or may not be related to welfare reform.) “ (Sawhill)
         5. “. . . child poverty fell.” (Sawhill)
         6. But these results were aided by:
            1. a strong economy
            2. “more generous assistance for the working poor in the form of an expanded Earned Income Tax Credit and other measures . . .” (Sawhill)
         7. “The longer-term effects of welfare reform, especially those that might be expected in a less robust economy, are more uncertain and are likely to depend, to some extent, on the provision of additional supports such as child care for low-income working families.” (Sawhill)
      5. “. . . safety-net programs have contributed to the decline” in poverty. (Sawhill)
         1. 2002: $1.279 trillion was spent on these programs
            1. This was “up 160 percent in real terms since 1975.” (Committee on Ways and Means, U.S. House of Representatives. *2004 Green Book*. Tables I-5 and K-9.) (Sawhill)
            2. “However, much of this spending was for noncash assistance (especially health care) that improves the well-being of the poor but has no effect on measured poverty.” (Sawhill)
         2. “The antipoverty effectiveness of these programs is typically measured by counting the number of people with . . . incomes below the poverty line whose incomes are raised above the poverty line by income transfers.” (Sawhill)
            1. 2002: safety-net programs raised 50% of the poor above the poverty line (Sawhill)
            2. I.e., the programs reduced the poverty rate by 10%. (Primus, Wendell. Committee on Ways and Means, U.S. House of Representatives. Unpublished data.) (Sawhill)
         3. conclusion: “Since the mid-1990s, policies that have both required and supported work as the best strategy for reducing poverty have had considerable success.” (Sawhill)

Property Rights

Alchian, Armen A. “Property Rights.” *The Concise Encyclopedia of Economics*. Indianapolis: Liberty Fund, 2007. Ed. David R. Henderson. Library of Economics and Liberty. 13 Dec. 2008.

Janet Beales Kaidantzis: “Property Rights for “Sesame Street.”” In Alchian, Armen A. “Property Rights.” *The Concise Encyclopedia of Economics*. Indianapolis: Liberty Fund, 2007. Ed. David R. Henderson. Library of Economics and Liberty. 13 Dec. 2008.

1. **introduction**
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      2. Alchian, Armen, and Harold Demsetz. “The Property Rights Paradigm.” *Journal of Economic History* 33.1 (1973): 16-27.
      3. Demsetz, Harold. “When Does the Rule of Liability Matter?” *Journal of Legal Studies* 1 (Jan. 1972): 13-28.
      4. Sachs, Jeffrey. Interview. *Omni* (June 1991): 98.
      5. Siegan, Bernard. *Economic Liberties and the Constitution*. Chicago: U of Chicago P, 1980.
   2. definition
      1. “A property right is the exclusive authority to determine how a resource is used . . .” (Alchian)
         1. “Society approves the uses selected by the holder of the property right with governmental administered force and with social ostracism.” (Alchian)
         2. “If the resource is owned by the government, the agent who determines its use has to operate under a set of rules determined, in the United States, by Congress or by executive agencies it has charged with that role.” (Alchian)
   3. “The definition, allocation, and protection of property rights comprise one of the most complex and difficult sets of issues that any society has to resolve, but one that must be resolved in some fashion.” (Alchian)
2. **the three basic private-property rights**
   1. “. . . the three basic elements of private property are (1) exclusivity of rights to choose the use of a resource, (2) exclusivity of rights to the services of a resource, and (3) rights to exchange the resource at mutually agreeable terms.” (Alchian)
   2. “the right to determine the use”: an apartment owner has the right to live in the apartment, to rent it (and to choose the tenant), “or to use it in any other peaceful way.” (Alchian)
   3. “the right to the services of the resources (the rent)”: if the owner rents the apartment, he has the right to the rent. (Alchian)
   4. the right to sell the rights
      1. The owner has “the right to delegate, rent, or sell any portion of the rights by exchange or gift at whatever price the owner determines (provided someone is willing to pay that price) . . .” (Alchian)
      2. “If I am not allowed to buy some rights from you and you therefore are not allowed to sell rights to me, private property rights are reduced.” (Alchian)
      3. “The U.S. Supreme Court has vacillated about this third aspect of property rights.” (Alchian)
         1. “. . . such limitations as price controls and restrictions on the right to sell at mutually agreeable terms are reductions of private property rights.” (Alchian)
         2. “. . . the justices use [words] to rationalize such decisions . . .” (Alchian)
         3. “Many economists (myself included) believe that most such restrictions on property rights are detrimental to society.” (Al­chian)
3. **critics**
   1. “For decades social critics in the United States and throughout the Western world have complained that “property” rights too often take precedence over “human” rights, with the result that people are treated unequally and have unequal opportunities. Inequality exists in any society. But the purported conflict between property rights and human rights is a mirage. Property rights are human rights.” (Alchian)
   2. “Private property rights do not conflict with human rights. They are human rights. Private property rights are the rights of humans to use specified goods and to exchange them.” (Alchian)
   3. “For the most part, social critics of “property” rights do not want to abolish those rights. Rather, they want to transfer them from private ownership to government ownership. Some transfers to public ownership (or control, which is similar) make an economy more effective. Others make it less effective. The worst outcome by far occurs when property rights really are abolished (see Tragedy of the Commons).” (Alchian)
   4. “The two extremes in weakened private property rights are socialism and “commonly owned” resources.” (Alchian)
      1. socialism
         1. “Under socialism, government agents—those whom the government assigns—exercise control over resources. The rights of these agents to make decisions about the property they control are highly restricted. People who think they can put the resources to more valuable uses cannot do so by purchasing the rights because the rights are not for sale at any price. Because socialist managers do not gain when the values of the resources they manage increase, and do not lose when the values fall, they have little incentive to heed changes in market-revealed values. The uses of resources are therefore more influenced by the personal characteristics and features of the officials who control them. Consider the socialist manager of a collective farm under the old Soviet communist system. By working every night for one week, he could have made, say, one million rubles of additional profit for the farm by arranging to transport the farm’s wheat to Moscow before it rotted. But because neither the manager nor those who worked on the farm were entitled to keep even a portion of this additional profit, the manager was more likely than the manager of a capitalist farm to go home early and let the crops rot.” (Alchian)
      2. common ownership of resources
         1. “Similarly, common ownership of resources—whether in the former Soviet Union or in the United States—gives no one a strong incentive to preserve the resource. A fishery that no one owns, for example, will be overfished. The reason is that a fisherman who throws back small fish to wait until they grow is unlikely to get any benefit from his waiting. Instead, some other fisherman will catch the fish. The same holds true for other common resources whether they be herds of buffalo, oil in the ground, or clean air. All will be overused.” (Alchian)
         2. “Indeed, a main reason for the spectacular failure of the 1980s and early 1990s economic reforms in the former Soviet Union is that resources were shifted from ownership by government to de facto common ownership. How? By making the Soviet government’s revenues de facto into a common resource. Harvard economist Jeffrey Sachs, who advised the Soviet government, once pointed out that when Soviet managers of socialist enterprises were allowed to open their own businesses but still were left as managers of the government’s businesses, they siphoned out the profits of the government’s business into their private corporations. Thousands of managers doing this caused a large budget deficit for the Soviet government. In this case the resource that no manager had an incentive to conserve was the Soviet government’s revenues. Similarly, improperly set premiums for U.S. deposit insurance gave banks and S&Ls (see Savings and Loan Crisis) an incentive to make excessively risky loans and to treat the deposit insurance fund as a “common” resource.” (Alchian)
   5. “Accompanying and conflicting with the desire to secure private property rights for oneself is the desire to acquire more wealth by “taking” from others. This is done by military conquest and by forcible reallocation of rights to resources (also known as stealing). But such coercion is antithetical to—rather than characteristic of—a system of private property rights. Forcible reallocation means that the existing rights have not been adequately protected.” (Alchian)
   6. “One of the most fundamental requirements of a capitalist economic system . . . is a strong system of property rights.” (Alchian)
   7. “Under a private property system the market values of property reflect the preferences and demands of the rest of society. No matter who the owner is, the use of the resource is influenced by what the rest of the public thinks is the most valuable use. The reason is that an owner who chooses some other use must forsake that highest-valued use—and the price others would pay him for the resource or for the use of it. This creates an interesting paradox: although property is called “private,” private decisions are based on public, or social, evaluation.” (Alchian)
   8. “The fundamental purpose of property rights, and their fundamental accomplishment, is that they eliminate destructive competition for control of economic resources. Well-defined and well-protected property rights replace competition by violence with competition by peaceful means.” (Alchian)
4. **private property vs**. **preferential treatment**
   1. “The extent and degree of private property rights fundamentally affect the ways people compete for control of resources. With more complete private property rights, market exchange values become more influential. The personal status and personal attributes of people competing for a resource matter less because their influence can be offset by adjusting the price. In other words, more complete property rights make discrimination more costly.” (Alchian)
   2. “Consider the case of a black woman who wants to rent an apartment from a white landlord. She is better able to do so when the landlord has the right to set the rent at whatever level he wants. Even if the landlord would prefer a white tenant, the black woman can offset her disadvantage by offering a higher rent. A landlord who takes the white tenant at a lower rent anyway pays for discriminating.” (Alchian)
   3. “But if the government imposes rent controls that keep the rent below the free-market level, the price the landlord pays to discriminate falls, possibly to zero. The rent control does not magically reduce the demand for apartments. Instead, it reduces every potential tenant’s ability to compete by offering more money. The landlord, now unable to receive the full money price, will discriminate in favor of tenants whose personal characteristics—such as age, sex, ethnicity, and religion—he favors. Now the black woman seeking an apartment cannot offset the disadvantage of her skin color by offering to pay a higher rent.” (Alchian)
   4. “Competition for apartments is not eliminated by rent controls. What changes is the “coinage” of competition. The restriction on private property rights reduces competition based on monetary exchanges for goods and services and increases competition based on personal characteristics. More generally, weakening private property rights increases the role of personal characteristics in inducing sellers to discriminate among competing buyers and buyers to discriminate among sellers.” (Alchian)
   5. “Any restraint on private property rights shifts the balance of power from impersonal attributes toward personal attributes and toward behavior that political authorities approve. That is a fundamental reason for preference of a system of strong private property rights: private property rights protect individual liberty.” (Alchian)
5. **group-held property rights**
   1. “Private property rights to a resource need not be held by a single person. They can be shared, with each person sharing in a specified fraction of the market value while decisions about uses are made in whatever process the sharing group deems desirable.” (Alchian)
   2. corporations
      1. “A major example of such shared property rights is the corporation. In a limited liability corporation, shares are specified and the rights to decide how to use the corporation’s resources are delegated to its management. Each shareholder has the unrestrained right to sell his or her share.” (Alchian)
      2. “Limited liability insulates each shareholder’s wealth from the liabilities of other shareholders, and thereby facilitates anonymous sale and purchase of shares.” (Alchian)
   3. joint ventures, “mutuals,” and partnerships
      1. Here, “property rights in the group endeavor are usually salable only if existing members approve of the buyer.” (Alchian)
      2. This is typical “especially where each member’s wealth will become uniquely dependent on each other member’s behavior . . .” (Alchian)
6. **complexity of property rights**
   1. “While more complete property rights are preferable to less complete rights, any system of property rights entails considerable complexity and many issues that are difficult to resolve. If I operate a factory that emits smoke, foul smells, or airborne acids over your land, am I using your land without your permission? This is difficult to answer.” (Alchian)
   2. “The cost of establishing private property rights—so that I could pay you a mutually agreeable price to pollute your air—may be too high. Air, underground water, and electromagnetic radiation, for example, are expensive to monitor and control. Therefore, a person does not effectively have enforceable private property rights to the quality and condition of some parcel of air. The inability to cost-effectively monitor and police uses of your resources means “your” property rights over “your” land are not as extensive and strong as they are over some other resources such as furniture, shoes, or automobiles. When private property rights are unavailable or too costly to establish and enforce, substitute means of control are sought. Government authority, expressed by government agents, is one very common such means. Hence the creation of environmental laws.” (Alchian)
   3. “Depending on circumstances, certain actions may be considered invasions of privacy, trespass, or torts. If I seek refuge and safety for my boat at your dock during a sudden severe storm on a lake, have I invaded “your” property rights, or do your rights not include the right to prevent that use? The complexities and varieties of circumstances render impossible a bright-line definition of a person’s set of property rights with respect to resources.” (Alchian)
   4. “Similarly, the set of resources over which property rights may be held is not well defined and demarcated. Ideas, melodies, and procedures, for example, are almost costless to replicate explicitly (near-zero cost of production) and implicitly (no forsaken other uses of the inputs). As a result, they typically are not protected as private property except for a fixed term of years under a patent or copyright.” (Alchian)
   5. “Private property rights are not absolute. The rule against the “dead hand,” or perpetuities, is an example. I cannot specify how resources that I own will be used in the indefinitely distant future. Under our legal system, I can specify the use only for a limited number of years after my death or the deaths of currently living people. I cannot insulate a resource’s use from the influence of market values of all future generations. Society recognizes market prices as measures of the relative desirability of resource uses. Only to the extent that rights are salable are those values most fully revealed.” (Alchian)
7. **property rights among children**
   1. “Ever seen two children quarreling over a toy? Such squabbles had been commonplace in Katherine Hussman Klemp’s household. But in the *Sesame Street Parent’s Guide* she tells how she created peace in her family of eight children by assigning property rights to toys.” (Kaidantzis)
   2. “As a young mother, Klemp often brought home games and toys from garage sales. “I rarely matched a particular item with a particular child,” she says. “Upon reflection, I could see how the fuzziness of ownership easily led to arguments. If everything belonged to everyone, then each child felt he had a right to use anything.”” (Kaidantzis)
   3. “To solve the problem, Klemp introduced two simple rules: First, never bring anything into the house without assigning clear ownership to one child. The owner has ultimate authority over the use of the property. Second, the owner is not required to share. Before the rules were in place, Klemp recalls, “I suspected that much of the drama often centered less on who got the item in dispute and more on whom Mom would side with.” Now, property rights, not parents, settle the arguments.” (Kaidantzis)
   4. “Instead of teaching selfishness, the introduction of property rights actually promoted sharing. The children were secure in their ownership and knew they could always get their toys back. Adds Klemp, “‘Sharing’ raised their self-esteem to see themselves as generous persons.”” (Kaidantzis)
   5. “Not only do her children value their own property rights, but also they extend that respect to the property of others. “Rarely do our children use each other’s things without asking first, and they respect a ‘No’ when they get one. Best of all, when someone who has every right to say ‘No’ to a request says ‘Yes,’ the borrower sees the gift for what it is and says ‘Thanks’ more often than not,” says Klemp.” (Kaidantzis)

Income Redistribution

Lee, Dwight R. “Redistribution.” *The Concise Encyclopedia of Economics*. Indianapolis: Liberty Fund, 2007. Ed. David R. Henderson. Library of Economics and Liberty. 13 Dec. 2008.

1. **introduction**
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   2. “The federal government has increasingly assumed responsibility for reducing poverty in America. Its primary approach is to expand programs that transfer wealth, supposedly from the better off to the poor.” (Lee)
   3. 1962
      1. federal transfers\* to individuals was 5.2% of GDP
      2. federal transfers were 27% of federal spending (Stein and Foss 212) (Lee)
      3. (\* Does not include “payments for goods and services [or] interest for money loaned . . .” Lee)
   4. 2000 (Lee)
      1. federal transfers were 10.9% of GDP (GDP was $9.82 trillion)
      2. federal transfers were 60% of federal spending (federal spending was $1.79 trillion)
   5. “These transfers are commonly referred to as government redistribution programs, presumably from the wealthy to the poor. The unstated implication is that income was originally distributed by someone. But no one distributes income. Rather, incomes are determined in the marketplace by millions of people providing and purchasing services through voluntary exchanges, and government transfers necessarily limit these exchanges. That explains the quotation marks around the term “redistribution.”” (Lee)
   6. “Almost without exception, academic studies and journalistic accounts of government’s effect on the well-being of the poor focus exclusively on the effectiveness of programs that actually transfer income to the poor. [This leaves out] programs that transfer income away from the poor. To know the net amount the poor receive after considering transfers to and transfers from them, we need to consider all government transfer programs.” (Lee)
   7. “Such an examination yields a striking fact: most government transfers are not from the rich to the poor. Instead, government takes from the relatively unorganized (e.g., consumers and general taxpayers) and gives to the relatively organized (groups politically organized around common interests, such as the elderly, sugar farmers, and steel producers). The most important factor in determining the pattern of redistribution appears to be political influence, not poverty. Of the $1.07 trillion in federal transfers in 2000, only about 29 percent, or $312 billion, was means tested (earmarked for the poor) [Rector 2]. The other 71 percent—about $758 billion in 2000—was distributed with little attention to need.” (Lee)
   8. “. . . direct transfer of cash and services is . . . one way that government transfers income . . .” (Lee)
      1. Social Security: “The net worth per family of the elderly is about twice that of families in general. Yet, Social Security payments transferred $406 billion in 2003 to the elderly, regardless of their wealth.” (Lee)
      2. Medicare: qualifying “requires only that one be sixty-five or older. Because this age group’s poverty rate is quite low (only 10.4 percent in 2002), most of the more than $280 billion in annual Medicare benefits go to the nonpoor.” (Lee)
      3. agricultural subsidies: “wealthy farmers receive most of the government’s direct agricultural subsidies.” (Lee)
   9. “Another way the “government transfers income . . . is by restricting competition among producers. The inevitable consequence—indeed, the intended consequence—of these restrictions is to enrich organized groups of producers at the expense of consumers. Here, the transfers are more perverse than with Medicare and Social Security. They help relatively wealthy producers at the expense of relatively poor (and, in some cases, absolutely poor) consumers.” (Lee)
      1. agricultural subsidies: “Many government restrictions on agricultural production, for example, allow farmers to capture billions of consumer dollars through higher food prices (see Agricultural Subsidy Programs). Most of these dollars go to relatively few large farms, whose owners are far wealthier than the average taxpayer and consumer (or the average farmer).” (Lee)
      2. import restrictions: “Restrictions on imports also transfer wealth from consumers to domestic producers of the products. Again, those who receive these transfers are typically wealthier than those who pay for them.” (Lee)
         1. steelworkers: “Consider, for example, the tariffs imposed on steel imports in 2002 to save steelworkers’ jobs. A study done for the Consuming Industries Trade Action Coalition in 2003 found that the steel tariffs eliminated the jobs of about 200,000 U.S. workers in industries that, because of the tariffs, had to pay more for the steel needed in their production processes. This is far more jobs than were saved, because the entire American steel industry employs only 187,500 workers, only a fairly small fraction of whom would have lost their jobs without the steel tariffs. Also, consumers had to pay more for products containing steel. Since unionized steelworkers earn more than the average worker and consumer, the steel tariffs transferred wealth to a few well-paid and politically organized workers at the expense of many less-well-paid workers and consumers.” (Lee)
   10. in-kind subsidies
       1. “Not only do the poor receive a smaller percentage of income transfers than most people realize, but also the transfers they do get are worth less to them, dollar for dollar, than transfers going to the nonpoor. The reason is that subsidies to the poor tend to be in kind rather than in cash.” (Lee)
       2. “Slightly over half of all the transfers targeted to the poor are in the form of medical care. In addition to medical care, the poor receive a significant proportion of their assistance for such things as housing, energy, and job training. This means that well over half of the transfers going to the poor are in-kind transfers.” (Lee)
       3. “However, transfers that are not means tested are more likely to be in the form of cash.” (Lee)
          1. 2000: “Social Security retirement payments were $353 billion, more than 46 percent of non-means-tested government transfers during that year.” (Lee)
          2. “Many other non-means-tested transfers are also in the form of cash payments.” (Lee)
             1. farm subsidy programs, 1995-2002: “corn farmers received $34.5 billion in government subsidies, wheat farmers received $17.2 billion, soybean growers received almost $11 billion, and cotton farmers received $10.7 billion.” (Lee)
          3. “When all non-means-tested cash transfers are added up, they come to more than 50 percent of all non-means-tested transfers.” (Lee)
          4. “While in-kind transfers are worth having, economists who study poverty point out that the poor, like the rest of us, value cash more than in-kind transfers because with cash they can choose what to buy. So a higher percentage of the transfer dollars going to the nonpoor is actually *worth* a dollar to the recipients than is the case with the transfer dollars going to the poor.” (Lee)
   11. “The most important question, of course, is whether the poor have benefited from the large increase in the percentage of national income that has been channeled through government in the name of reducing poverty.” (Lee)
       1. “The answer, surprising though it may seem, is that we really do not know. To determine the effect of government transfer programs on the poor, we would have to know how the poor would have fared had these programs never existed, and that is difficult to estimate with much confidence.” (Lee)
       2. “Most attempts to measure the benefit to the poor from government transfers compare the income of the recipients with what their incomes would be if all transfer income were eliminated. The assumption is that the entire transfer is an increase in the income of the recipients. Such studies conclude that government programs have significantly reduced the poverty rate.” (Lee)
       3. “But such studies overstate the benefits to the poor because they fail to account for the negative effect of the benefit programs on the income-earning actions of the beneficiaries. When, for example, transfers are means tested, recipients who work lose a large part of their transfer payment. This penalty on working has the same effect as a high marginal income tax and creates a disincentive for the poor to work their way out of poverty, trapping the most vulnerable poor into permanent dependency. Ending the transfer payment, therefore, would motivate the former recipient to earn more income. Failing to account for this higher earning in the absence of welfare payments causes analysts to overstate welfare programs’ positive effect on recipients’ income. In fact, ending the welfare trap was part of the motivation for the welfare reform of 1996 (the Personal Responsibility and Work Opportunity Reconciliation Act of 1996), which limits the time an individual can remain on welfare.” (Lee)
   12. Earned Income Tax Credit (EITC)
       1. “The Earned Income Tax Credit program (EITC), which was expanded in the 1980s and 1990s, is an attempt to transfer income to the poor without significantly reducing their incentive to work. The EITC is a federal income tax credit that low-income workers receive through lower (in some cases negative) taxes, and which they can take as a cash refund.” (Lee)
       2. “There is evidence that the program has increased the incentive for people on welfare to enter the workforce.” (Lee)
          1. “But it also reduces the incentive for those already working to work as many hours as before: the more income a worker earns, the smaller the tax credit received.” (Lee)
       3. “A clear advantage of the EITC is that it transfers income in the form of cash, with this transfer coming to about $33 billion in 2002.” (Lee)
          1. “Workers covered by the EITC, though, receive less than this $33 billion. The reason is that the net effect of the EITC is an increase in the supply of workers, which causes wages to fall.” (Lee)
          2. “This downward pressure on wages is not negated by the minimum wage, because more than 60 percent of the workers receiving EITC make more than the minimum. And even those at minimum wage can have their wages reduced through the loss of fringe benefits.” (Lee)
       4. “Although there is controversy over the magnitude, all economists agree that means-tested programs, even the EITC, create disincentives. The late Arthur Okun, President Lyndon B. Johnson’s chief economist and a strong advocate of government transfers to the poor, compared transfer programs to a leaky bucket to illustrate the fact that the increase in recipient income is less than the amount transferred. Okun’s bucket leaks from both ends. The higher taxes needed to pay for transfers to the poor also create disincentives for those with higher incomes to work as hard, earn as much, and invest in businesses, which can reduce not only the money available for transfers, but also economic activity and job opportunities for the poor.” (Lee)
   13. “. . . government transfers have done less to help the poor than most people think [because] competition for political favor determines transfer decisions, as it does most government decisions.” (Lee)
       1. “People are poor because they do not have the skills, drive, and connections to compete effectively in the marketplace. For those same reasons, they are unlikely to compete very effectively politically. The result is that the best-organized, and generally the wealthiest, groups consistently outcompete the poor for government transfers.” (Lee)
       2. agricultural subsidies: “For example, according to the Environmental Working Group Farm Subsidy Database . . ., “Nationwide, ten percent of the biggest (and often most profitable) subsidized crop producers collected 71 percent of all subsidies, averaging $34,800 in annual payments between 1995 and 2002. The bottom 80 percent of the recipients saw only $846 on average per year.” The same pattern occurs with contract set-asides, that is, contracts to perform services for the federal government that are set aside from the normal bidding process for particular types of business. Thomas Sowell [120] reports on a study that found that more than two-thirds of a random sample of minority recipients of contract set-asides by the Small Business Administration were millionaires. [Sowell 120] These are only some of many examples.” (Lee)
   14. state and local programs
       1. “This discussion has been entirely about the effect of federal taxes and transfers on the poor, even though state and local government policies also affect income inequality. State and local programs are more difficult to discuss because there are so many of them and they differ in details, but there is little reason to believe that they are any more effective at transferring income from the wealthy to the poor than are federal programs. First, those with the skills and connections to compete best for federal programs that serve their interests are also more effective competing at the state and local levels. The best public schools, for example, are in wealthy suburbs, not inner cities. Second, state and local taxes are regressive; that is, they take a larger percentage of income from those with less income. Finally, even if they wanted to, state and local policymakers have less ability to reduce income inequality than the federal authorities because states must compete with each other for residents.” (Lee)
   15. “Despite the significant increase in the percentage of national income transferred through government programs since the 1960s, there is no evidence that the distribution of income (again, after taxes and transfers at all levels of government) has shifted in favor of the poor. We can never know for certain what would have happened if government transfers had not increased. But even if transfer programs have somewhat increased the share of national income going to the poor, their disincentive effects have made national income smaller than otherwise. A slightly higher share of a smaller pie could be a smaller slice.” (Lee)

Social Security

Saving, Thomas R. “Social Security.” *The Concise Encyclopedia of Economics*. Indianapolis: Liberty Fund, 2007. Ed. David R. Henderson. Library of Economics and Liberty. 13 Dec. 2008.

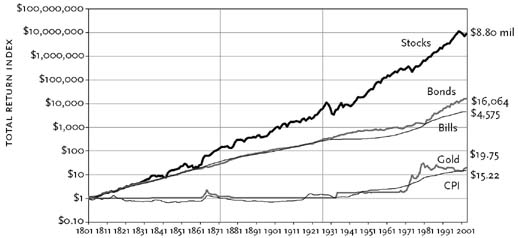
1. **introduction**
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   2. definition
      1. Social Security is really “Old Age, Survivors and Disability Insurance” (OASDI). (Saving)
      2. Social Security is “the U.S. government program that pays benefits to workers after retirement, to spouses and children of deceased workers, and to workers who become disabled before they retire.” (Saving)
      3. 2003: 47 million recipients (Saving)
         1. 32.6 million “retired workers and their dependent family members”
         2. 6.8 million “survivors of deceased workers”
         3. 7.6 million “disabled former workers and their dependent family members”
   3. “Social Security comprises two distinct programs, . . . each with its own method of financing.” (Saving)
      1. “Old Age and Survivor Insurance (OASI) provides two types of benefits: retirement benefits for retired workers and benefits to the spouses and children of deceased workers.” (Saving)
      2. “Disability Insurance (DI) provides benefits for disabled workers and their dependents on the same basis as retirement benefits are determined.” (Saving)
2. **history**
   1. 1889: “The first social security program originated in Germany in 1889 under Chancellor Otto von Bismarck.” (Saving)
   2. by 1935: “thirty-four European nations operated some form of old-age retirement plan based on transfers from workers to retirees.” (Saving)
   3. 1935: “President Franklin Delano Roosevelt signed the U.S. Social Security law . . .” (Saving)
      1. It includes retirees and survivors but not the disabled. (Saving)
      2. It “is financed through a payroll deduction (FICA) tax . . .” (Saving)
   4. 1935-57: the only changes were “increases in benefits and in taxes.” (Saving)
   5. 1957: Congress includes “disability insurance benefits for severely disabled workers.” (Saving)
   6. 1972: Congress approves COLAs (automatic cost-of-living adjustments). (Saving)
   7. 1977: Congress changes “the benefit formula to provide a constant percentage of work income.” (Saving)
   8. 1983: “in response to a funding crisis, Congress raised the payroll tax rate to its current level, increased the retirement age, and started to tax benefits.” (Saving)
3. **method of funding**
   1. “Social Security comprises two distinct programs, . . . each with its own method of financing.” (Saving)
   2. Old Age and Survivor Insurance (OASI) retirement benefits
      1. “Social Security retirement benefits are based on average indexed monthly earnings for the thirty-five highest earnings years prior to retirement.” (Does “indexed” mean that earlier earnings are brought up to current dollars?) (Saving)
      2. “The benefit formula is set up to favor lower-income workers.” (Saving) E.g., in 2004:
         1. “someone with average monthly earnings of $624 received a benefit that replaced 90 percent of earnings.” (Saving)
         2. “Someone whose average monthly earnings were $3,760 received a benefit that replaced 42 percent of earnings . . .” (Saving)
         3. “someone with monthly earnings at the then-taxable maximum of $7,325 received a benefit that replaced only 28 percent of earnings.” (Saving)
      3. full-benefit age
         1. 1935-2000: 65
         2. 2000-05: “two-month-a-year rise” (Saving)
         3. 2005: 66, “where it will remain until 2017” (Saving)
         4. 2017-22: “two-month-a-year rise” (Saving)
         5. 2022: 67
      4. Early retirement (i.e., between 62 and full-benefit age) “results in a deduction from full benefits based on the actuarial assumption that early retirees will collect benefits for a longer period of time.” (Saving)
   3. Old Age and Survivor Insurance (OASI) survivor benefits
      1. Deceased individuals must have “worked for at least ten years.” (Saving)
      2. Survivors are children, and “surviving spouses with children under sixteen years of age . . .” (Saving)
      3. Each survivor receives “75 percent of the deceased’s benefits, subject to a family maximum.” (Saving)
      4. “Older surviving spouses are also eligible for benefits.” (Saving)
   4. Disability Insurance (DI) disability benefits
      1. Disabled individuals must have “worked for at least ten years prior to disability, although younger workers with fewer than ten years of work may qualify for some benefits.” (Saving)
      2. “Benefits are determined by a worker’s earnings, ability to work in previous employment, ability to adjust to another job, and the expected duration of the disability.” (Saving)
      3. “Children and spouses of disabled workers may also be eligible for benefits.” (Saving)
   5. FICA taxes “arrive at the U.S. Treasury and are used for current retirees’ benefits and other government expenditures.” (Saving)
      1. “If, at the end of the year, revenue from FICA taxes exceeds total benefits paid, which it has every year since 1983, the Treasury issues special government bonds to the Social Security Administration. These bonds prove that the Treasury used Social Security’s money for other purposes and promise that when FICA revenues are too small to pay benefits, the Treasury will redeem the bonds. These bonds are, in essence, an IOU from the federal government to itself. It matters little whether the IOUs amount to zero, $100 billion, or $10 trillion.” (Saving)
4. **future**
   1. The FICA (payroll deduction) tax “is more than adequate now, but soon will be less than the amount needed to pay benefits.” (Saving)
      1. 1945: 40+ workers per 1 retiree, “so a minimal tax on workers could support all retirees.” Few received benefits. (Saving)
      2. 2004: 3 workers per 1 retiree. Causes: (Saving)
         1. increased life expectancy
            1. “those born in 1935”: 61
            2. “those born in 2004”: 76
         2. increased benefits
         3. falling birthrates
      3. 2030: 2 workers per 1 retiree (Saving)
   2. revenues
      1. “The OASDI’s revenues are expected to be relatively stable . . .” (Saving)
         1. 2004: 12.71% of payroll
         2. 2080: 13.39% of payroll
      2. The rise is “attributable to increased revenues from the taxation of Social Security benefits.” (Saving)
   3. expenditures
      1. “Costs will rise rapidly . . .” (Saving)
         1. 2008: 10.8% of payroll (the first baby boomers are “eligible for early retirement”)
         2. 2031: 17% of payroll (the last “baby boomers reach normal retirement age”)
         3. “Even after the last baby boomer retires, costs will continue to rise steadily . . .” (Saving)
      2. until 2018: “tax revenues are expected to exceed costs” (Saving)
      3. 2019 on: “a funding deficit [will] grow in dollar terms and as a percentage of payroll.” (Saving)
   4. “Traditionally, media reports have summarized Social Security’s financial health by reporting two numbers, the seventy-five-year actuarial deficit and the year of Trust Fund exhaustion.” (Saving)
      1. seventy-five-year actuarial deficit
         1. 2004: 1.89%
            1. “The 1.89 actuarial deficit means that if the OASDI tax rate were raised in 2004 from its 2004 level of 12.4 percent of payroll to 14.29 percent of payroll, Trust Fund exhaustion would occur exactly seventy-five years later—in this case, 2078.” (Saving)
         2. “Even if this payroll tax increase were enacted immediately, however, the system would go into deficit in 2023, just five years later than is currently forecast.” (Saving)
         3. “Furthermore, there would be large deficits after 2078.” (Saving)
         4. 1983: “The last time the Social Security system was brought back into actuarial balance . . . [An] increased tax rate, gradual increase in full retirement age, and partial taxation of benefits reduced the actuarial deficit from 1.82 to −0.02. However, the government anticipated in 1983 that the actuarial deficit would be high again twenty years later.” (Saving)
      2. Trust Fund exhaustion date
         1. 2004: 2042
         2. “. . . the Treasury is not legally obligated to fund benefit payments that exceed Social Security revenues once there are no Trust Fund bonds to redeem.” (Saving)
         3. “That date is artificial, though. Starting in 2018, paying benefits will require transfers from the rest of the federal budget. While the Trust Fund is an asset to Social Security, it is a Treasury obligation, not a Treasury asset, and provides no revenue to the Treasury for the payment of benefits.” (Saving)
         4. “Thus, the redemption of Trust Fund assets will require some combination of increased federal taxes, reduced federal expenditures on other programs, or increased debt sales to the public.” (Saving)
      3. “Because Social Security is popular, it is difficult to change; without change, however, the program is financially doomed. As the Social Security trustees repeatedly point out, by 2018, Social Security will no longer be able to contribute to the Treasury revenue that, in 2003, equaled 7 percent of total income tax revenues. In fact, by 2024, the payment of Social Security benefits will require a transfer from the Treasury of more than 7.5 percent of total income tax revenues; by 2042, this transfer will grow to more than 15 percent of total income tax revenues.” (Saving)
   5. “Further, if Congress chooses to cover the looming deficits by raising the existing payroll tax, the tax rate required to pay benefits will grow from its current level of 12.4 percent of payroll to 17.8 percent of payroll by 2042 and to 19.4 percent by 2080, the end of the trustees’ normal seventy-five-year horizon. Given that current Social Security replaces on average 42 percent of earned income, if in the long run there are two workers per retiree—the level expected by 2030—the required tax rate will be 21 percent. To the extent people view payroll taxes as pure taxes rather than as generating future benefits, such taxes reduce the supply of labor and result in a deadweight loss to the economy. At best, the current tax rate, if invested at the 3 percent rate assumed by the trustees, would just yield the benefits currently promised. Thus, the current payroll tax could be viewed by participants as buying them their promised benefits. However, the ultimate 21 percent payroll tax could not be so viewed and would result in a real reduction in the nation’s output.” (Saving)
   6. “If currently scheduled Social Security benefits are paid, other government spending will have to be reduced or income taxes increased by almost 15 percent of projected income tax revenue. The Medicare program faces similar financial shortfalls. By 2030, maintaining currently scheduled Social Security and Medicare benefits would require all the payroll taxes and other revenues earmarked for these programs, plus more than 50 percent of all projected income tax revenues. This burden would fall on future workers, who would have to pay much higher payroll taxes.” (Saving)
   7. “To put the Social Security problem in perspective, the trustees calculated that the debt the system owed its current participants (those fifteen years old and older) at the close of 2003 was thirteen trillion dollars. If the government continued paying scheduled benefits and collecting only scheduled taxes from current participants, all new entrants to the workforce would have to pay off this thirteen-trillion-dollar debt in their lifetime. This is the equivalent of saddling each newborn with a substantial mortgage for which he will receive nothing in return.” (Saving)
   8. “With the Medicare debt added to the Social Security debt, new entrants to the workforce owe current participants almost forty-two trillion dollars. Because these debts are so enormous, they cannot and will not be honored. If the government solves the problem well and soon, the solution will be less painful. The required changes will cost something, but doing nothing will cost even more and will pass that cost on to future generations.” (Saving)
   9. “Even if benefits currently scheduled for the future are paid, the participants in Social Security will have received a rate of return on their taxes that is near zero. This low rate of return has formed the basis for increasing calls for reform. In 2001, President George W. Bush established the President’s Commission to Strengthen Social Security (CSSS), of which I was a member. The CSSS considered alternative ways of dealing with the thirteen-trillion-dollar debt and suggested adjusting the benefit formula and allowing workers to invest part of their FICA taxes in individual retirement accounts. Thus, part of each worker’s FICA would be deposited to an account in his or her name and would not become part of general Treasury revenue.” (Saving)
   10. “Currently, benefits are scheduled to increase with the increase in real wages. The CSSS benefit formula adjustment would fix the real purchasing power of benefits at the level that would be achieved in 2009. The individual accounts would replace future benefit increases, so that the benefit structure would remain virtually unchanged. These changes would pay off about $4.4 trillion of the $13 trillion Social Security debt, largely through a significant reduction in the level of future promised benefits. Even with this reform, however, future generations would be saddled with $8.6 trillion in extra debt. Several other reforms are being considered, ranging from retaining much of the current pay-as-you-go financing to completely privatizing the system. To the extent that we replace a system in which individuals depend on future generations to pay for their retirement with one in which each generation saves for its own retirement, the U.S. capital stock will grow. Further, contributions to private accounts, even if equal to current tax rates, would correctly be viewed by participants as buying direct benefits and would have little negative effect on labor supply. Thus, the reform path that is ultimately chosen will have long-run implications for capital growth and income growth, and, ultimately, will determine which generation bears the burden of financing retirement.” (Saving)

Stock Market

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      3. Graham, Benjamin, and Jason Zweig. *The Intelligent Investor*: *The Definitive Book on Value Investing*. Rev. ed. New York: HarperBusiness Essentials, 2003.
      4. Malkiel, Burton. *A Random Walk down Wall Street*: *The Time-Tested Strategy for Successful Investing*. New York: Norton, 2003.
      5. Shiller, Robert J. *Irrational Exuberance*. 2nd ed. Princeton: Princeton UP, 2005.
      6. Siegel, Jeremy J. *Stocks for the Long Run*: *The Definitive Guide to Financial Market Returns and Long-Term Investment Strategies*. 3rd ed. New York: McGraw-Hill, 2002.
   2. “The price of a share of stock, like that of any other financial asset, equals the present value of the sum of the expected dividends or other cash payments to the shareholders, where future payments are discounted by the interest rate and risks involved.” (Siegel)
      1. “Most of the cash payments to stockholders arise from dividends, which are paid out of earnings and other distributions resulting from the sale or liquidation of assets.” (Siegel)
   3. “The cash payments available to a shareholder are uncertain and subject to the earnings of the firm. This uncertainty contrasts sharply with cash payments to bondholders, the value of which is fixed by contractual obligation and is paid in a timely manner unless the firm encounters severe financial stress, such as bankruptcy. As a result, the price of stocks normally fluctuates more than the price of bonds.” (Siegel)
   4. “Over time, most firms pay rising dividends. Dividends increase for two reasons.” (Siegel)
      1. “First, because firms rarely pay out all their earnings as dividends, the difference, called retained earnings, is available to the firm to invest or buy back its shares. This, in turn, often produces greater future earnings and, hence, higher prospective dividends.” (Siegel)
      2. “Second, a firm’s earnings will rise as the price of its output rises with inflation, as demand for its products grows, and as the firm operates more efficiently. Firms with steadily rising dividends are sought after by investors, who often pay premium prices to own such firms.” (Siegel)
   5. “Cash payments to shareholders also result from the sale of some of the firm’s assets, outright liquidation, or a buyout.” (Siegel)
      1. “A firm may sell some of its operations, using the revenues from the sale to provide a lump-sum distribution to stockholders.” (Siegel)
      2. “When a firm sells all its operations and assets, this total liquidation results in a cash distribution after obligations to creditors are satisfied.” (Siegel)
      3. “Finally, if another firm or individual purchases the firm, existing shareholders are often eligible to receive cash distributions.” (Siegel)
2. **U.S. stock markets**
   1. “In the United States, most stocks are traded either on the New York Stock Exchange (NYSE, or “Big Board”) or on NASDAQ . . .” (Siegel)
   2. *NYSE*
      1. 1792: the NYSE is founded. (Siegel)
      2. “The NYSE . . . trades most of the large U.S. stocks through a series of specialists who are assigned stocks and facilitate trading on the floor of the exchange.” (Siegel)
   3. *NASDAQ*
      1. 1970: NASDAQ is founded. (Siegel)
      2. NASDAQ is “an electronic market that grew out of the “over-the-counter” market in 1970.” (Siegel)
      3. “. . . the NASDAQ has no specialists and no specific physical location since market makers and traders operate wholly through electronic systems.” (Siegel)
   4. *Amex*
      1. The American Stock Exchange is “a smaller exchange, also located in New York . . .” (Siegel)
      2. It “trades in small stocks that are not large enough to qualify for trading on the NYSE.” (Siegel)
      3. “Many of the newly issued ETFs, or exchange-traded funds, that are designed to match the major stock market indexes are traded on the Amex.” (Siegel)
3. **stock indexes**
   1. “The aggregate movement of individual stocks is measured by stock indexes.” (Siegel)
   2. *the DOW*
      1. 1897: the Dow Jones Industrial Average is founded. (Siegel)
      2. The DOW is “The world’s most famous stock index, and the one that has the longest continuous history . . .” (Siegel)
      3. The DOW “currently contains thirty large firms.” (Siegel)
   3. *S&P 500*
      1. 1957: the S&P (Standard and Poor’s) 500 Stock Index is founded. (Siegel)
      2. The S&P 500 “contains five hundred stocks and is a value-weighted price index . . .” (Siegel)
      3. It “contains about 80 percent of the value of all U.S. stocks.” (Siegel)
      4. “It is considered the benchmark index for large stocks . . .” (Siegel)
   4. *Nasdaq Index*
      1. 1970?: the Nasdaq Index is founded. (Siegel)
      2. “The Nasdaq index represents stocks traded on the NASDAQ market . . .” (Siegel)
      3. “This index is also value-weighted and is heavily influenced by the large technology stocks (such as Microsoft and Intel) that trade on the NASDAQ market.” (Siegel)
   5. *Russell 2000*
      1. It is the best known small-stock index. (Siegel)
      2. The Russell 2000 “contains the smallest two thousand of the top three thousand stocks traded.” (Siegel)
   6. *EAFE*
      1. Developed by Morgan Stanley. (Siegel)
      2. The EAFE (Europe, Australasia, and Far East) “contains almost all non-U.S. stocks.” (Siegel)
   7. *others*
      1. “Standard and Poor’s also publishes mid-cap and small-stock indexes.” (Siegel)
      2. “Morgan Stanley has developed many indexes for international stock markets abroad . . .” (Siegel)
4. **returns on stocks**
   1. “The total return from owning stock arises from two sources: dividends and capital gains. A total return index for stocks can be computed by assuming that all dividends are reinvested by buying additional shares of the stock. A total return index would be akin to the accumulation of a pension plan that reinvested all dividends and capital gains back into the market, or to a mutual fund that reinvested all distributions back into the fund.” (Siegel)
   2. “Over time, the total return on stocks has exceeded that of any other class of asset.” (Siegel)

Figure 1 Total Nominal Return Indexes, 1802-2003

[](http://www.econlib.org/library/Enc/art/lfHendersonCEE2_figure_041.jpg)

* + 1. Figure 1 “compares the total returns to stocks, long- and short-term government bonds, gold, and commodities (measured by the Consumer Price Index, or CPI.).” (Siegel)
    2. “One dollar invested in stocks in 1802 would have grown to $8.8 million in 2003, in bonds to $16,064, in treasury bills to $4,575, and in gold to $19.75. The CPI has risen by a factor of 14.22 [*sic*], almost all of it after World War II.” (Siegel)
    3. “The average compound after-inflation rate of return on stocks from 1802 through 2002 was 6.8 percent per year, and this number has remained remarkably steady over time. A 6.8 percent annual rate of return means that if all dividends are reinvested, the purchasing power of stocks has doubled, on average, every ten years over the past two centuries. This return far exceeds that of other financial assets. This evidence shows that, over long periods of time, the price of stocks fully compensates stockholders for any inflation, as the real return on stocks since World War II is virtually identical to that prior to that war.” (Siegel)

1. **factors affecting stock prices**
   1. “Two major factors affect stock prices: earnings, which determine the dividends on the stocks; and interest rates, which “discount” future cash payments to the present.” (Siegel)
   2. “As interest rates rise, all other things being equal, stock prices will fall. However, interest rates often rise in an environment of increasing economic activity and, hence, higher expected earnings. Therefore, stock prices may not fall and may actually rise when interest rates rise. Notwithstanding, low-interest-rate environments are usually deemed good for the stock market, and stocks usually respond favorably when the Federal Reserve lowers rates and unfavorably when it raises rates.” (Siegel)
   3. “Stock prices are quite variable in the short run. The annual standard deviation of after-inflation returns has averaged about 18 percent, which means that about two-thirds of the time, stock returns will be in a range from −12 percent to +24 percent over a twelve-month period. However, the worst average annual real return for stocks over any twenty-year period has been 1.0 percent, and the worst return over all thirty-year periods is 2.6 percent per year after inflation.” (Siegel)
   4. “Over twelve-month periods, stocks outperform bonds only about 60 percent of the time. But as the holding period becomes greater, the frequency of stock outperformance becomes very large. Over twenty-year periods, stocks outperform bonds about 95 percent of the time. We recently passed through a rare twenty-year period in which bonds outperformed stocks as recently as 2002. But since 1872, stocks have always outperformed bonds over thirty-year periods.” (Siegel)
   5. “The stock market almost always falls before recessions. In fact, thirty-nine of the forty-two recessions the United States has experienced from 1802 through 1990 were preceded or accompanied by declines of at least 10 percent in the stock index. In the postwar period, the peak of the stock market preceded the peak of the business cycle by between six months and eight months, but this is quite variable. In 1990, stocks and the economy peaked in the same month, but in the 2001 recession, stocks peaked about one year earlier.” (Siegel)
   6. “Stock prices can move dramatically even within a day. Over the past 120 years, there have been about 120 days when the Dow Jones Industrial Average changed by at least 5 percent. In only about one-quarter of these periods has there been an identifiable cause of such a change. On other occasions, stock movements were caused by accumulated optimism or pessimism of investors.” (Siegel)
   7. “The largest one-day drop in stock-market history occurred on Monday, October 19, 1987, when the Dow Jones Industrial Average fell 508 points, or 22.6 percent. No significant news event explains the decline, although rising interest rates and a falling dollar began to weigh on a market that had become temporarily overvalued after a five-year bull run.” (Siegel)
   8. “Because a recession did not follow this huge decline and stock prices subsequently recovered to new highs, many pointed to “Black Monday,” as that day was called, as a confirmation of the “irrationality” of the stock market.” (Siegel)
   9. “Stock prices, however, are determined by expectations of the future, which must, by definition, be unknown. Shifts in sentiment and psychology can sometimes cause substantial changes in the valuation of the market. Despite occasional false alarms, the stock market is still considered an important indicator of future business conditions.” (Siegel)

Supply

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   4. definitions
      1. *law of supply*: “the quantity of a good supplied (i.e., the amount owners or producers offer for sale) rises as the market price rises, and falls as the price falls.” (Ehrbar)
         1. “Economists do not really have a “law” of supply, though they talk and write as though they do.” (Ehrbar)
         2. “The law of supply puts a . . . limit on consumers. They always would prefer to pay a lower price than the current one. But if they successfully insist on paying less (say, through price controls), suppliers will produce less and some demand will go unsatisfied.” (Ehrbar)
      2. *law of demand*: “the quantity of a good demanded falls as the price rises, and vice versa.” (Ehrbar)
         1. “Naturally, producers always would like to charge higher prices. But even if they have no competitors, they are limited by the law of demand: if producers insist on a higher price, consumers will buy fewer units.” (Ehrbar)
   5. “The most basic laws in economics are the law of supply and the law of demand. Indeed, almost every economic event or phenomenon is the product of the interaction of these two laws.” (Ehrbar)
2. **supply curves and demand curves**
   1. “A demand curve traces the quantity of a good that consumers will buy at various prices. As the price rises, the number of units demanded declines. That is because everyone’s resources are finite; as the price of one good rises, consumers buy less of that and, sometimes, more of other goods that now are relatively cheaper.” (Ehrbar)
   2. A “supply curve traces the quantity of a good that sellers will produce at various prices. As the price falls, so does the number of units supplied.” (Ehrbar)
3. **equilibrium price**
   1. “One function of markets is to find “equilibrium” prices that balance the supplies of and demands for goods and services. An equilibrium price (also known as a “market-clearing” price) is one at which each producer can sell all he wants to produce and each consumer can buy all he demands.” (Ehrbar)
   2. “Equilibrium is the point at which the demand and supply curves intersect—the single price at which the quantity demanded and the quantity supplied are the same.” (Ehrbar)
   3. “Markets in which prices can move freely are always in equilibrium or moving toward it.” (Ehrbar)
      1. “For example, if the market for a good is already in equilibrium and producers raise prices, consumers will buy fewer units than they did in equilibrium, and fewer units than producers have available for sale. In that case producers have two choices. They can reduce price until supply and demand return to the old equilibrium, or they can cut production until the quantity supplied falls to the lower number of units demanded at the higher price. But they cannot keep the price high and sell as many units as they did before.” (Ehrbar)
   4. “Why does the quantity supplied rise as the price rises and fall as the price falls?” (Ehrbar)
      1. A company “will buy the cheapest materials (not the lowest quality, but the lowest cost for any given level of quality). As production (supply) increases, the company has to buy progressively more expensive (i.e., less efficient) materials or labor, and its costs increase. It charges a higher price to offset its rising unit costs.” (Ehrbar)
   5. “Are there any examples of supply curves for which a higher price does not lead to a higher quantity supplied?” (Ehrbar)
      1. “Economists believe that there is one main possible example, the so-called backward-bending supply curve of labor.” (Ehrbar)
         1. “Imagine a graph in which the wage rate is on the vertical axis and the quantity of labor supplied is on the horizontal axis. It makes sense that the higher the wage rate, the higher the quantity of labor supplied, because it makes sense that people will be willing to work more when they are paid more.” (Ehrbar)
         2. “But workers might reach a point at which a higher wage rate causes them to work less because the higher wage makes them wealthier and they use some of that wealth to “buy” more leisure—that is, to work less.” (Ehrbar)
         3. But “Recent evidence suggests that even for labor, a higher wage leads to more hours worked.” (Welch, Finis. “In Defense of Inequality.” *American Economic Review* 89.2 (1999): 1-17.) (Ehrbar)
4. **fixed supply**
   1. apartments in a condominium
      1. “If prospective buyers suddenly begin offering higher prices for apartments, more owners will be willing to sell and the supply of “available” apartments will rise.” (Ehrbar)
      2. “But if buyers offer lower prices, some owners will take their apartments off the market and the number of available units will drop.” (Ehrbar)
   2. “History has witnessed considerable controversy over the prices of goods whose supply is fixed in the short run.” (Ehrbar)
      1. “Economists call the portion of a price that does not influence the amount of a good in existence in the short run an “economic quasi-rent.”” (Ehrbar)
      2. “Critics of market prices have argued that rising prices for these types of goods serve no economic purpose because they cannot bring forth additional supply, and thus serve merely to enrich the owners of the goods at the expense of the rest of society. This has been the main argument for fixing prices . . .” (Ehrbar)
         1. The United States fixed “the price of domestic oil in the 1970s . . .” (Ehrbar)
         2. New York City has fixed “apartment rents since World War II (see Rent Control).” (Ehrbar)
      3. “The vast majority of economists believe that economic rents do serve a useful purpose.” (Ehrbar)
         1. “Most important, they allocate goods to their highest-valued use.” (Ehrbar)
         2. “If price is not used to allocate goods among competing claimants, some other device becomes necessary, such as the rationing cards that the U.S. government used to allocate gasoline and other goods during World War II.” (Ehrbar)
   3. “Economists generally believe that fixing prices will actually reduce both the quantity and the quality of the good in question. In addition, economic rents serve as a signal to bring forth additional supplies in the future and as an incentive for other producers to devise substitutes for the good in question.” (Ehrbar)

Tragedy of the Commons

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      2. Hardin, Garrett. *Filters against Folly*. New York: Viking-Penguin, 1985.
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      4. Hardin, Garrett. “The Tragedy of the Commons.” *Science* 162 (1968): 1243-48. (“. . . the epithet “tragedy” . . . I introduced in 1968.” Hardin)
      5. Hardin, Garrett, and John Baden, eds. *Managing the Commons*. San Francisco: W.H. Freeman, 1977.
      6. Hiatt, Howard H. *America’s Health in the Balance*. New York: Harper and Row, 1987.
      7. McCay, Bonnie J., and James M. Acheson, eds. *The Question of the Commons*. Tucson: U of Arizona P, 1987.
      8. McGoodwin, James R. *Crisis in the World’s Fisheries*. Stanford: Stanford UP, 1990.
      9. Ostrom, Elinor. *Governing the Commons*. New York: Cambridge UP, 1990.
   2. “common”: “i.e., not privately owned . . .” (Hardin)
2. **examples of** “**tragedies of the common**”
   1. 1800s: common pastures in England
      1. 1832: William Forster Lloyd, “political economist at Oxford University”: “Why are the cattle on a common so puny and stunted? Why is the common itself so bare-worn, and cropped so differently from the adjoining inclosures?” (Qtd. in Hardin)
      2. “Lloyd’s answer assumed that each human exploiter of the common was guided by self-interest. At the point when the carrying capacity of the commons was fully reached, a herdsman might ask himself, “Should I add another animal to my herd?” Because the herdsman owned his animals, the gain of so doing would come solely to him. But the loss incurred by overloading the pasture would be “commonized” among all the herdsmen. Because the privatized gain would exceed his share of the commonized loss, a self-seeking herdsman would add another animal to his herd. And another. And reasoning in the same way, so would all the other herdsmen. Ultimately, the common property would be ruined.” (Hardin)
   2. 1974: “satellite photos . . . of northern Africa showed an irregular dark patch 390 square miles in area. Ground-level investigation revealed a fenced area inside of which there was plenty of grass. Outside, the ground cover had been devastated.” (Hardin)
      * 1. “The fenced area was private property, subdivided into five portions. Each year the owners moved their animals to a new section. Fallow periods of four years gave the pastures time to recover from the grazing. The owners did this because they had an incentive to take care of their land.” (Hardin)
        2. “But no one owned the land outside the ranch. It was open to nomads and their herds. . . . The herds exceeded the natural “carrying capacity” of their environment . . . Many cattle died, and so did humans.” (Hardin)
   3. Fish populations in the oceans have been decimated because people have interpreted the “freedom of the seas” to include an unlimited right to fish them.” (Hardin)
      1. “In the 1970s, nations began to assert their sole right to fish out to two hundred miles from shore (instead of the traditional three miles). But these exclusive rights did not eliminate the problem of the commons. They merely restricted the commons to individual nations. Each nation still has the problem of allocating fishing rights among its own people on a noncommonized basis.” (Hardin)
      2. “If each government allowed ownership of fish within a given area, so that an owner could sue those who encroach on his fish, owners would have an incentive to refrain from overfishing.” (Hardin)
      3. “But governments do not do that. Instead, they often estimate the maximum sustainable yield and then restrict fishing either to a fixed number of days or to a fixed aggregate catch. Both systems result in a vast overinvestment in fishing boats and equipment as individual fishermen compete to catch fish quickly.” (Hardin)
   4. 1980s: savings and loan crisis
      1. “The federal government created this tragedy [of the commons] by forming the Federal Savings and Loan Insurance Corporation (FSLIC). The FSLIC relieved S&L depositors of worry about their money by guaranteeing that it would use taxpayers’ money to repay them if an S&L went broke.” (Hardin)
      2. “In effect, the government made the taxpayers’ money into a commons that S&Ls and their depositors could exploit. S&Ls had the incentive to make overly risky investments, and depositors did not have to care because they did not bear the cost. This, combined with faltering federal surveillance of the S&Ls, led to widespread failures. The losses were “commonized” among the nation’s taxpayers, with serious consequences to the federal budget (see Savings and Loan Crisis).” (Hardin)
3. **reasons why commons become tragic**
   1. “Idealists may appeal to individuals . . . to let the long-term effects govern their actions. But each individual must first survive in the short run.” James Madison (*Federalist* no. 51, 1788): “If men were angels, no Government would be necessary.” “That is, if *all* men were angels. . . . a single nonangel in the commons spoils the environment for all.” (Hardin)
   2. “An unmanaged commons in a world of limited material wealth and unlimited desires inevitably ends in ruin. . . . In other words, every workable distribution system must meet the challenge of human self-interest.” (Hardin)
      1. “The spoilage process comes in two stages.” (Hardin)
      2. “First, the non-angel gains from his “competitive advantage” (pursuing his own interest at the expense of others) over the angels.” (Hardin)
      3. “Then, as the once noble angels realize that they are losing out, some of them renounce their angelic behavior. They try to get their share out of the commons before competitors do.” (Hardin)
   3. “Whenever a distribution system malfunctions, we should be on the lookout for some sort of commons.” (Hardin)
4. **factors affecting the success of commons**
   1. management
      1. “Some of the common pastures of old England were protected from ruin by the tradition of stinting—limiting each herdsman to a fixed number of animals (not necessarily the same for all). Such cases are spoken of as “managed commons,” which is the logical equivalent of socialism.” (Hardin)
      2. “Viewed this way, socialism may be good or bad, depending on the quality of the management. As with all things human, there is no guarantee of permanent excellence. The old Roman warning must be kept constantly in mind: *Quis custodiet ipsos custodes?* (Who shall watch the watchers themselves?)
   2. ratio of supply to demand
      1. “Under special circumstances even an unmanaged commons may work well. The principal requirement is that there be no scarcity of goods. Early frontiersmen in the American colonies killed as much game as they wanted without endangering the supply, the multiplication of which kept pace with their needs. But as the human population grew larger, hunting and trapping had to be managed.” (Hardin)
      2. “Thus, the ratio of supply to demand is critical.” (Hardin)
   3. number of people using a common
      1. ““The scale of the commons (the number of people using it) also is important . . . Whenever size alters the properties of a system, engineers speak of a “scale effect.” A scale effect, based on human psychology, limits the workability of commonistic systems.” (Hardin)
      2. “If any group could make a commonistic system work, an earnest religious community like the Hutterites should be able to. But numbers are the nemesis. In Madison’s terms, nonangelic members then corrupt the angelic.” (Hardin)
      3. Hutterite communities are “devoutly religious people in the northwestern United States [who] live by Marx’s formula: “From each according to his ability, to each according to his needs.” (They give no credit to Marx, however; similar language can be found several places in the Bible.)” (Hardin)
      4. “At first glance Hutterite colonies appear to be truly unmanaged commons.” (Hardin)
      5. “But appearances are deceiving. The number of people included in the decision unit is crucial. As the size of a colony approaches 150, individual Hutterites begin to undercontribute from their abilities and overdemand for their needs.” (Hardin)
      6. “The experience of Hutterite communities indicates that below 150 people, the distribution system can be managed by shame; above that approximate number, shame loses its effectiveness.” (Hardin)
5. **difficult cases**
   1. “Even when the shortcomings of the commons are understood, areas remain in which reform is difficult.” (Hardin)
   2. “Congestion on public roads [is] a government-created tragedy of the commons.” (Hardin)
      1. “If roads were privately owned, owners would charge tolls and people would take the toll into account in deciding whether to use them. Owners of private roads would probably also engage in what is called peak-load pricing, charging higher prices during times of peak demand and lower prices at other times.” (Hardin)
      2. “But because governments own roads that they finance with tax dollars, they [make] roads into a commons. The result is congestion.” (Hardin)
   3. “No one owns the Earth’s atmosphere. Therefore, it is treated as a common dump into which everyone may discharge wastes. Among the unwanted consequences of this behavior are acid rain, the greenhouse effect, and the erosion of the Earth’s protective ozone layer. Industries and even nations are apt to regard the cleansing of industrial discharges as prohibitively expensive.” (Hardin)
   4. “The oceans are also treated as a common dump. Yet continuing to defend the freedom to pollute will ultimately lead to ruin for all. Nations are just beginning to evolve controls to limit this damage.” (Hardin)

Unemployment

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1. **introduction**
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      5. Summers, Lawrence H. *Understanding Unemployment*. Cambridge: MIT, 1990.
      6. Summers, Lawrence H. “Why Is the Unemployment Rate So Very High Near Full Employment?” *Brookings Papers on Economic Activity* 2 (1986): 339-83.
      7. Summers, Lawrence H., and Kim B. Clark. “Labor Market Dynamics and Unemployment: A Reconsideration.” *Brookings Papers on Economic Activity* 1 (1979): 13-60.
   2. definitions
      1. “unemployed”: those are out of work and seeking it (Summers)
      2. “nonemployed”: those out of work and not seeking it (Summers)
   3. measuring unemployment
      1. “Each month, the federal government’s Bureau of Labor Statistics randomly surveys sixty thousand individuals around the nation.” (Summers)
         1. “If respondents say they are both out of work and seeking employment, they are counted as unemployed members of the labor force.” (Summers)
         2. “Jobless respondents who have chosen not to continue looking for work are considered out of the labor force and therefore are not counted as unemployed.” (Summers)
            1. “Ironically, those who drop out of the labor force—because they are discouraged, have household responsibilities, or are sick—actually make unemployment rates look better . . .” (Summers)
            2. “Almost half of all unemployment spells end because people leave the labor force.” (Summers)
   4. types of unemployment
      1. “Not all unemployment is the same.” (Summers)
      2. “Unemployment can be long term or short term.” (Summers)
      3. “It can be frictional, meaning someone is between jobs; or it may be structural, as when someone’s skills are no longer demanded because of a change in technology or an industry downturn.” (Summers)
2. **unemployment**: **small or big problem**?
   1. small problem
      1. June 2005: 1 out of every 6 unemployed is a teenager. (Summers)
      2. June 2005: 33.5% of unemployed are under 24. Few are “the main source of income for their families.” (Summers)
      3. June 2005: average duration of unemployment is short, 16.3 weeks. (Summers)
      4. June 2005: median duration of unemployment is even shorter, 7.0 weeks (“meaning that half of all spells last 7.0 weeks or less”). (Summers)
      5. “A few weeks of unemployment seems . . . like just enough time for people to move from one job to another.” (Summers)
   2. big problem
      1. “Much of the reason why unemployment spells appear short is that many workers drop out of the labor force at least temporarily because they cannot find attractive jobs. Often two short spells of unemployment mean a long spell of joblessness because the person was unemployed for a short time, withdrew from the labor force, and then reentered the labor force.” (Summers)
      2. “And even if most unemployment spells are short, most weeks of unemployment are experienced by people who are out of work for a long time. To see why, consider the following example. Suppose that each week, twenty spells of unemployment lasting 1 week begin, and only one begins that lasts 20 weeks. Then the average duration of a completed spell of unemployment would be only 1.05 weeks. But half of all unemployment (half of the total of 40 weeks that the twenty-one people are out of work) would be accounted for by spells lasting 20 weeks.” (Summers)
         1. June 2005: 42.9% of unemployed were unemployed less than 5 weeks
         2. June 2005: but 16.9% were unemployed 6 months or more (Summers)
3. **causes of long-term unemployment**
   1. changes in the supply of labor (government intervention and unions)
      1. welfare and unemployment insurance
         1. “. . . two causes are welfare payments and unemployment insurance. These government assistance programs contribute to long-term unemployment in two ways.” (Summers)
         2. “First, government assistance increases the *measure* of unemployment by prompting people who are not working to claim that they are looking for work even when they are not.” (Summers)
            1. *welfare*: “The work-registration requirement for welfare recipients, for example, compels people who otherwise would not be considered part of the labor force to register as if they were a part of it. This requirement effectively increases the measure of unemployed in the labor force even though these people are better described as nonemployed [out of work and not seeking it].” (Summers)

1979: “a study using state data on registrants in Aid to Families with Dependent Children and food stamp programs . . . found that the work-registration requirement actually increased measured unemployment by about 0.5 to 0.8 percentage points.” (Summers)

2005: “If this same relationship holds in 2005, this requirement increases the measure of unemployment by 750,000 to 1.2 million people. Without the condition that they look for work, many of these people would not be counted as unemployed [but rather as nonemployed].” (Summers)

* + - * 1. *unemployment insurance*: “Similarly, unemployment insurance increases the measure of unemployment by inducing people to say that they are job hunting in order to collect benefits.” (Summers)
      1. “The second way government assistance programs contribute to long-term unemployment is by providing an incentive, and the means, not to work.” (Summers)
         1. “Each unemployed person has a “reservation wage”—the minimum wage he or she insists on getting before accepting a job. Unemployment insurance and other social assistance programs increase that reservation wage, causing an unemployed person to remain unemployed longer.” (Summers)
         2. Example: an unemployed person was “making $15.00 an hour. On unemployment insurance this person receives about 55 percent of normal earnings, or $8.25 per lost work hour. If that person is in a 15 percent federal tax bracket and a 3 percent state tax bracket, he or she pays $1.49 in taxes per hour not worked and nets $6.76 per hour after taxes as compensation for not working. If that person took a job that paid $15.00 per hour, governments would take 18 percent for income taxes and 7.65 percent for Social Security taxes, netting him or her $11.15 per hour of work. Comparing the two payments, this person may decide that an hour of leisure is worth more than the extra $4.39 the job would pay. If so, this means that the unemployment insurance raises the person’s reservation wage to above $15.00 per hour. Unemployment, therefore, may not be as costly for the jobless person as previously imagined.” (Summers)
      2. “Unemployment insurance also extends the time a person stays off the job. Clark and I estimated that the existence of unemployment insurance almost doubles the number of unemployment spells lasting more than three months. If unemployment insurance were eliminated, the unemployment rate would drop by more than half a percentage point, which means that the number of unemployed people would fall by about 750,000. This is all the more significant in light of the fact that less than half of the unemployed receive insurance benefits, largely because many have not worked enough to qualify.” (Summers)
    1. unions
       1. “High union wages that exceed the competitive market rate are likely to cause job losses in the unionized sector of the economy. Also, those who lose high-wage union jobs are often reluctant to accept alternative low-wage employment.” (Summers)
       2. 1970-1985
          1. The average unionization rate across all states was 20%. (Summers)
          2. Compared to “a hypothetical state that had no unions,” the average state’s unemployment rate was 1.2% higher. (Summers)
          3. “. . . 1.2 percentage points is about 60 percent of the increase in normal unemployment between 1970 and 1985.” (Summers)
  1. changes in the demand for labor (macroeconomic causes)
     1. It is “a great mistake (made by some conservative economists) to attribute most unemployment to government interventions in the economy or to any lack of desire to work on the part of the unemployed.” (Summers)
     2. cyclical fluctuations
        1. “Unemployment was a serious economic problem in the late nineteenth and early twentieth centuries prior to the welfare state and widespread unionization.” (Summers)
        2. “The great depression, when unemployment in the United States reached 25 percent, is the classic example of the damage that collapses in credit can do.” (Summers)
        3. “Since then, most economists have agreed that cyclical fluctuations in unemployment are caused by changes in the demand for labor, not by changes in workers’ desires to work, and that unemployment in recessions is involuntary.” (Summers)
     3. “Even leaving aside cyclical fluctuations, a large part of unemployment is due to demand factors rather than supply.” (Summers)
        1. “High unemployment in New England in the early 1990s, for example, was due to declines in computer and other industries in which New England specialized.” (Summers)
        2. “High unemployment in northern California in the early 2000s was caused by the dot-com bust.” (Summers)
     4. “The process of adjustment following shocks is long and painful, and recent research suggests that even temporary declines in demand can have permanent effects on unemployment, as workers who lose jobs are unable to sell their labor due to a loss of skills or for other reasons. Therefore, most economists who study unemployment support an active government role in training and retraining workers and in maintaining stable demand for labor.” (Summers)

1. **the natural rate of unemployment**
   1. “. . . Milton Friedman and Edmund Phelps advanced the notion of the natural rate of unemployment (the lowest rate of unemployment tolerable without pushing up inflation) . . .” (Summers)
   2. Long before Friedman and Phelps, “policymakers had contented themselves with striving for low, not zero, unemployment.” (Summers)
   3. “Just what constitutes an acceptably low level of unemployment has been redefined over the decades.” (Summers)
   4. “In the early 1960s an unemployment rate of 4 percent was both desirable and achievable.” (Summers)
   5. “Over time, the unemployment rate drifted upward and, for the most part, has hovered around 7 percent.” (Summers)
   6. “Lately, it has fallen to 5 percent.” (Summers)
      1. “I suspect that some of the reduction . . . in recent years has to do with reduced transitional unemployment, both because fewer people are between jobs and because they are between jobs for shorter periods.” (Summers)
      2. “Union power has been eroded by domestic regulatory action and inaction, as well as by international competition.” (Summers)
      3. “More generally, international competition has restrained wage increases in high-wage industries.” (Summers)
      4. “Another factor making unemployment lower is a decline in the fraction of the unemployed who are supported by unemployment insurance.” (Summers)
2. **the cost of unemployment to taxpayers**
   1. “. . . Harvard economist Martin Feldstein pointed out in the 1970s [that] the costs of unemployment to taxpayers are very great . . .” (Summers)
   2. “Take the example above of the individual who could work for $15.00 an hour or collect unemployment insurance of $8.25 per hour. The cost of unemployment to this unemployed person was only $4.39 per hour [because of the $6.75 difference, $2.36 would go to taxes]. And as compensation for this cost, the unemployed person gained leisure, whose value could well be above $4.39 per hour. But other taxpayers as a group paid $8.25 in unemployment benefits for every hour the person was unemployed, and got back in taxes only $1.49 on this benefit. Moreover, they gave up $3.85 in lost tax and Social Security revenue that this person would have paid per hour employed at a $15.00 wage. Net loss to other taxpayers: $10.61 ($8.25 − $1.49 + $3.85) per hour. Multiply this by millions of people collecting unemployment, each missing hundreds of hours of work, and you get a cost to taxpayers in the billions.” (Summers)

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Aghion and Williamson, Growth, Inequality and Globalization: Theory, History and Policy 1999

Hanson, John R. “[Review of Aghion, Philippe, and Jeffrey C. Williamson. *Growth*, *Inequality and Globalization*: *Theory*, *History and Policy*. New York: CUP, 1999. 207 pp.]” *EH*.*net*. June 2015. Web.

Williamson accepts “a “long” nineteenth century ending at World War I. A case could be made, however, for a “short” nineteenth century ending in 1896 and a “long” twentieth century beginning at the same time. The so-called Great Depression (1873-96) gave way to a global boom that continued until World War I . . . During the Great Depression, as is well known, the rate of growth of world trade was lower than at almost any time [between 1800-1914].”

“. . . the transportation and communication revolution of the nineteenth century, especially post-1860 when, as many scholars have documented, the long-run decline in transportation costs accelerated sharply because of technological improvements in international shipping, the opening of the Suez Canal, and so on. The professional tradition in which Williamson writes ascribes nearly magical trade-creating powers to this market-integrating revolution.” But if the transportation revolution created so much trade, “why was growth in British imports or consumption of such notable foreign products as coffee, rice, silk, cotton, and wheat negligible or even negative between 1880 and 1900 [the Great Depression]?”

“Staying within the traditional neoclassical framework, [Philippe Aghion] introduces a host of new factors into the analysis, including credit-market imperfections, moral hazard, non-neutral technical and organizational change, labor-market institutions, and international trade. . . . In the first half of his presentation he discusses the effect of inequality on a nation’s economic growth; in the second half he analyzes the effect of growth on inequality. He organizes the discussion around the recent upsurge in wage and income inequality in developed countries, evaluating candidate explanations . . . He particularly favors technological change as the most likely [cause].”

“Still, there is a debatable subtext . . . Economic theory is nothing more than informed speculation . . . Aghion’s conclusions and recommendations are not backed up by empirical research of his own; he likes to cite empirical research by others of which he approves. He also makes frequent use of the concept of market failure, a staple of liberal politics and economics. The Kuznets Curve is conservative in that it suggests that in the early stages of economic development high income inequality promotes saving and investment. Aghion, despite his restrained academic tone, appears to be a committed egalitarian and redistributionist. . . . it is hard to overlook the congruity of his theoretical exegesis with a familiar political posture . . . But this does not change [his clear and] thorough . . . account of many key issues . . .”

Appleby, The Relentless Revolution: A History of Capitalism 2010

Hohenberg, Paul M. “[Review of Appleby, Joyce. *The Relentless Revolution*: *A History of Capitalism*. New York: Norton, 2010. 494 pp.]” *EH*.*net*. 2 June 2015. Web.

“. . . She is a distinguished historian and a fine writer, but much of the subject she has undertaken here lies outside her previous areas of scholarship. . . . [She] focuses on . . . [those] who paid much of the price—from slaves, women, factory workers, and people displaced by economic change, to whole populations and cultures shoved aside . . .” “. . . many economic historians have found the term [capitalism] slippery . . . Is the essence of capitalism free markets; secure property rights; individual enterprise; innovation; capital accumulation; commodifying labor; openness to change; exchange value as the sole measure of worth?” “Appleby insists that capitalism is above all a matter of culture. . . . She situates the decisive mental turn that produced capitalism in the political upheavals that swept England between 1640 and the Glorious Revolution [1688]. . . . she argues that England emerged from the time of troubles with at least some share of power in the hands of people who viewed economic activity as legitimate and not as demeaning or morally suspect. . . . Institutions favorable to economic development grew out of the changed attitudes . . .”

“Appleby tries hard to bring the Western land grab in Africa and elsewhere under the umbrella of capitalism, but to this reader less than convincingly. In fact, nineteenth century imperialism, like the wars of the first half of the twentieth century, owes more to militant nationalism, in my view, than to capitalism.”

“. . . a single dismissive reference to D. Landes and none to F. Braudel, and almost nothing on pre-factory industry seems to me to leave out too much. There is also, in my view, too great an emphasis on nation states as units of analysis, and too little on the role of cities and regions.”

Backhouse, The Ordinary Business of Life 2002

Samuels, Warren J. “[Review of Backhouse, Roger E. *The Ordinary Business of Life*: *A History of Economics from the Ancient World to the Twenty-First Century*. Princeton: Princeton UP, 2002.]” *EH*.*net*. 3 June 2015. Web.

Backhouse “has written three different histories of economic thought.” (*A History of Modern Economic Analysis*. New York: Blackwell, 1985. *Economists and the Economy*: *The Evolution of Economic Ideas*, *1600 to the Present Day*. New York: Blackwell, 1988. Now *Ordinary Business*.) “Not many historians of economic thought have the combined knowledge of economic history, intellectual history and economic theory that Backhouse offers . . .” *Ordinary Business* is intended for “the advanced undergraduate and lay reader.” “Through chapter 6 on the Scottish Enlightenment . . ., the emphasis is clearly on political, social, and broad intellectual developments. Thereafter, the focus is on the development of economic theory . . .”

Barro, Determinants of Economic Growth 1997

Dawson, John W. “[Review of Barro, Robert J. *Determinants of Economic Growth*: *A Cross-Country Empirical Study*. Cambridge: MIT, 1997. 145pp.]” *EH*.*net*. 4 June 2015. Web.

“Robert Barro and his associates have been leaders in assembling a vast empirical growth literature during the past decade. This book summarizes many of Barro’s own findings in this area and provides a general overview of the empirical research on growth to date.”

The book is an “overview of modern growth theory with particular emphasis on the convergence hypothesis, and [it] provides a fairly complete statement of current methodology and conclusions in the empirical growth literature. . . . a lecture or two on basic regression analysis makes even the large tables of regression results accessible to advanced undergraduates. The exposition keeps mathematical notational to an absolute minimum, and uses everyday terminology in many cases to describe the more difficult concepts. Only in the discussion of the debate over cross-section versus panel estimation in Chapter 1 and the choice of instruments in Chapter 3 does the text become sufficiently thick to hinder the interested undergraduate reader.”

“The text of the book is divided into three chapters . . . The first chapter briefly reviews the history of growth theory and, in particular, describes the convergence hypothesis associated with neoclassical growth theory. The discussion quickly turns to the regression framework to be used throughout the rest of the book, which is based on the neoclassical framework.”

“In Chapter 1, the regression framework is applied to a panel of data covering roughly a hundred countries over the years 1965-1990 in an effort to determine what factors are important in explaining long-run growth. . . . [The findings] are that the growth rate of real per capita GDP is enhanced by better maintenance of the rule of law, smaller government consumption, longer life expectancy, more male secondary and higher levels of schooling, lower fertility rates, and improvements in the terms of trade. The data also support the notion of conditional convergence; that is, for given values of these variables, countries with a lower initial level of real per capita GDP grow faster. The analysis also looks at democracy and inflation as potential factors determining growth rates, but their roles are the topics of Chapters 2 and 3.”

Chapter 2 finds that “increases in political rights initially increase growth but tend to retard growth once a moderate level of democracy has been attained, but Barro states that “one cannot conclude from this evidence that more or less democracy is a critical element for economic growth” (p. 61). . . . the main finding is that levels of democracy are a function of economic factors. In particular, “the positive relation between democracy and prior measures of prosperity—the Lipset hypothesis—is well established as an empirical regularity” (p. 86).” (Lipset, S.M. “Some Social Requisites of Democracy: Economic Development and Political Legitimacy.” *American Political Science Review* 53 (1959) 69-105.)

“Chapter 2 states that “one cannot conclude from this evidence that more or less democracy is a critical element for economic growth” (p. 61). In the concluding observations following Chapter 3, however, the results concerning democracy are reported as a main result of the analysis: “Increases in political rights initially increase growth but tend to retard growth once a moderate level of democracy has been attained” (p. 119).”

On chapter 3: “Inflation has received relatively little attention as a potential determinant of long-run growth, but the issue is particularly timely given many central banks’ apparent preoccupation with price stability as a policy goal. The major result is that inflation is estimated to have a negative effect on growth, but “the clear evidence for adverse effects of inflation comes from the experiences of high inflation [annual rates in excess of 20%]” (p.117). Barro devotes a large part of this chapter to dealing with endogeneity issues; that is, ensuring that causation is running from inflation to growth and not in the other direction.”

“. . . the role of institutions in the growth process. The analysis in Chapter 1 includes a “rule of law” index which is intended to “gauge the attractiveness of a country’s investment climate by considering the effectiveness of law enforcement, the sanctity of contracts, and the state of other influences on the security of property rights” (p. 27). The rule of law index is found to be statistically significant in explaining growth. Chapter 1 also introduces a democracy index [used in chapter 2, where] the role of other institutional and cultural issues such as ethnolinguistic fractionalization, colonial heritage, and religious affiliation are considered in the growth-democracy relationship.”

Baumol, The Free-Market Innovation Machine 2002

Mokyr, Joel. “[Review of Baumol, William J. *The Free-Market Innovation Machine*: *Analyzing the Growth Miracle of Capitalism*. Princeton: Princeton UP, 2002. 318 pp.]” *EH*.*net*. 5 June 2015. Web. (Joel Mokyr is at Northwestern University. He has written *The Gifts of Athena*: *Historical Origins of the Knowledge Economy*. Princeton UP.)

This is a “most learned and thoughtful book . . .” “Whence innovation? Theory suggests that most societies tend to underinvest in the generation of new useful knowledge because property rights in it cannot be established very well, and the bulk of the benefits [Baumol says 80%] accrue to others. [But] technological progress has been . . . responsible for the unprecedented rise in living standards . . .”

Baumol’s view: “new technology [is] manufactured by an innovation assembly-line (his term) and more or less resembles other inputs. “At heart, novel technology is simply another (durable) input to the production process” [p. 80]. . . . Baumol, who freely acknowledges his debt to Schumpeter, insists that innovation has been as important as price as the primary variable in the competitive process.”

According to Baumol, “technological change is the outcome of a rational process of R&D and the market for new knowledge, which is amenable to the rules of microeconomics with some minor modifications (many of which are worked out in this book). The competitive process produces far more cooperation and sharing in the market for new technology than one would suppose . . .”

“The book consists of three parts. The first part argues that in an oligopolistic capitalist free market system, innovation is inevitable and economic growth will ensue naturally. The second part adapts some of the tools of price theory to deal with innovation, and the third part takes a long-term macroeconomic view of growth in history. . . . Baumol [shows] the unique success of free market capitalism as the only system capable of generating sustained innovation and through it growth. He maintains that other systems were capable of invention, but that continuing innovation by making technological progress itself an industry that provides inputs to others is the particular contribution of the industrialized West, and it is what made for the modern world. . . . A kind of technological arms race or “Red Queen Effect” forces firms to keep innovating just to stay even with their rivals . . . however, market processes see to it that such firms share and license their new knowledge among their competitors . . .” Baumol discusses cooperative “R&D, pointing out that firms often stand to gain from colluding . . . there are many detailed discussions of patent licensing and Baumol rightly criticizes the view that patents create monopolies, arguing instead that they create markets in new knowledge, in which innovators license their new techniques to those who can use them efficiently . . .”

“The dichotomy between “free market capitalist” systems and “all others,” employed by Baumol, may be a bit too rough . . . Large parts of Medieval Europe and China under the Ch’ing dynasty were market economies, with a great deal of internal trade, financial institutions, well-defined and enforceable contracts, effective property rights, and so on. . . . [Clearly] not all commercialized market economies [were] technologically creative and innovative. And the generation and selection of new techniques in the “free” markets in capitalist economies have a large component of political decision-making in them, and thus the essence of “free markets” is more of a continuum than a dichotomous variable.”

“. . . does new useful knowledge really behave much like a commodity? . . . Baumol is correct [about] microinventions, the cumulative small improvements in existing techniques that are responsible for most of the productivity gains that technological progress provides us. This kind of research can be and is routinized and surely responds to market incentives. Without major breakthroughs or macroinventions that launch the economy into new “technological paradigms,” however, such innovations will eventually run into diminishing returns and peter out. . . . [By macroinventions] new domains of natural phenomena were explored and then harnessed . . . But were these discoveries themselves—and not just their exploitation—the result of free markets? Can one infer, for instance that the nineteenth century discoveries in the fields of organic chemistry, electricity, or bacteriology (to pick a few areas almost at will) were driven by free market capitalism?” “. . . the second Industrial Revolution (1865-1914) . . .”

Baumol, Litan, and Schramm, *Good Capitalism*, *Bad Capitalism* 2007

Keech, William R. “[Review of Baumol, William J., Robert E. Litan, and Carl J. Schramm. *Good Capitalism*, *Bad Capitalism and the Economics of Growth and Prosperity*. New Haven: Yale UP, 2007. 321 pp.]” *EH*.*net*. 6 June 2015. Web.

“The book is a unique and original contribution to the literature on economic growth, which for the most part does not consider varieties of capitalism and does not emphasize the kinds of institutions that are discussed here. Baumol, Litan and Schramm highlight the importance of innovation in economic growth, the role of the entrepreneur in creating innovation, and the institutional setting in which new ideas are put into production and create economic growth.”

“The core of the book is in chapter 4, which differentiates four types of capitalism and their impacts on economic growth.”

State-guided capitalism has problems: “excessive investment, picking the wrong winners, susceptibility to corruption and difficulties of ending support . . .”

Oligarchic capitalism enriches “a very narrow fraction of the population . . .”

“Big-firm capitalism is a variety that takes advantage of economies of scale and network effects . . . but although its firms have research and development capabilities, these are not central, and big firms often lose their competitive edge and engage in rent-seeking.”

Entrepreneurial capitalism is the kind that produces new breakthroughs like the automobile, the telephone and the computer. These innovations are, according to the authors, usually the product of individuals and new firms. However, it takes big firms to mass produce and market them, so the optimal combination of capitalism is a mix of big-firm and entrepreneurial varieties.”

The four types of capitalism contrast with other “varieties of capitalism, such as the contrast between “liberal market capitalism” and “coordinated market capitalism,” which is oriented more toward different degrees of dependence on markets or non-market institutions to coordinate financial and industrial relations systems.” See Hall, Peter A., and David Soskice, eds. *Varieties of Capitalism*: *The Institutional Foundations of Comparative Advantage*. New York: OUP, 2001. Esp ch 1.

Bernstein, Perilous Progress: Economists and Public Purpose 2001

Barber, William J. “[Review of Bernstein, Michael A. *Perilous Progress*: *Economists and Public Purpose in Twentieth-Century America*. Princeton: Princeton, UP, 2001. 358 pp.]” *EH*.*net*. 7 June 2015. Web.

Bernstein is professor of history and associated faculty member in economics at the University of California, San Diego.

“This volume is part chronicle and part sermon. Both parts are rewardingly excellent. . . . The chronicle traces the course of the American economics profession from its beginning in the late nineteenth century to the close of the twentieth century.” “The author adds a richness of detail to [an] oft-told story”:

1946: “creation of the Council of Economic Advisers . . .”

early 1960s: Keynesian triumphalism: confidence that economists could ““fine tune” macroeconomic policies to achieve full employment and to accelerate economic growth . . .”

later 1960s: “military spending in Vietnam fueled inflationary pressures that the Johnson administration failed to contain.”

1970s: confidence was “shattered in the “stagflation” of the 1970s.”

1970s on: “The backlash brought monetarist and supply-side doctrines into prominence.”

“Bernstein argues that unfortunate consequences . . . have flowed from exercises in deregulation and in the privatizing of functions formerly performed in the public sector.”

Blyth, Great Transformations: Economic Ideas and Institutional Change 2002

Knoedler, Janet T. “[Review of Blyth, Mark. *Great Transformations*: *Economic Ideas and Institutional Change in the Twentieth Century*. Cambridge: Cambridge UP, 2002. 284pp. “Janet T. Knoedler is at Bucknell University. “For most of the twentieth century, thanks [to Keynes and] Karl Polanyi’s *The Great Transformation* [1944; Boston: Beacon, 1957], it was for the most part not disputed that governments had an important role in softening the rough edges of capitalism. Polanyi argued that . . . [governments] should take action to manage the rate and direction of change so as to protect those most vulnerable to the ravages of capitalism. Moreover, because protective social institutions and legislation had appeared almost immediately after the rise of the self-regulating market and had been strengthened since that time, Polanyi believed that the very notion of a self-regulating capitalism had been effectively repudiated.”

“In *Great Transformations*, Blyth questions whether activist government and the social safety net are permanent. “If the first great transformation led to workers demanding protection from self-regulating market processes, it is reasonable to expect “another reaction [by] capitalists” (p. 4). . . . over the past two decades, . . . many governments have come to diagnose their economic problems as being rooted in their own activist policies . . .”

Blyth also contributes a theoretical analysis of how economic ideas “are vitally important components of institutional construction and change” (p. 6). . . . [He] sets forth five specific hypotheses about how economic ideas lead to the kind of institutional change that we have witnessed . . .: 1) economic ideas reduce uncertainty; 2) economic ideas allow for coalitions of various interest groups to be built around them; 3) economic ideas can be used as weapons by the major actors in a given society to challenge existing institutions, these major actors being the state, the business sector, and labor; 4) economic ideas are used in the construction of new institutions to supplant the old; and finally, 5) economic ideas help to coordinate the expectations of the various actors, helping to produce institutional stability.”

“In the 1930s U.S., a number of competing theories were offered to explain the economic crisis. The dominant economic idea then prevailing, that this (and any) depression, Great or otherwise, was temporary and would therefore self-correct, was quickly rejected by Hoover. However, his attempts to use alternative theories met with little success. Throughout Franklin Roosevelt’s first administration, other economic theories, such as the administered prices thesis and “sound finance” (or as we call it today, balancing the federal budget), were tested. Business rejection of the National Recovery Administration and failure of sound finance in the crisis of 1937 led the Roosevelt administration to seize upon a fourth theory, the theory of underconsumption, to diagnose the continuing economic crisis as one of insufficient aggregate demand. Both labor and business came to support this approach, labor because of the earlier Wagner and Social Security Acts, and business due to its involvement in wartime production and in many wartime institutions. . . . after the war, the business sector formed the Committee on Economic Development to develop the theory of growthmanship—a peacetime variation of FDR’s Keynesian approach that supported sustained high employment and high production and an activist state, in part to quash socialist-stagnationist theories but in part to signal its formal support for activist government. Several major institutions emerged during the 1930s and 1940s to become instruments of embedded liberalism and expanded in the 1950s and 1960s. The resulting institutional stability benefited labor with growing real wages and business with rising profits for three decades.”

“. . . the mid-to-late 1970s ushered in a turning point, or in Blyth’s phrasing, the second great transformation. A major contribution of this book is Blyth’s analysis of the role of ideas and the complicity of the business sector in bringing about this second transformation. This time, the Great Inflation of the 1960s and 1970s, accompanied by periods of high unemployment and stagflation, created an environment of great uncertainty for business, labor and government. Once again, an economic crisis called for new theories, or more precisely, the repackaging of several old neoliberal theories that were taken “off the shelf” (p. 267). Both Milton Friedman’s theory of monetarism and the rational expectations school of macroeconomics challenged the effectiveness of activist monetary policy. Supply-siders resuscitated Say’s Law. Public choice theorists attacked government spending as the self-interested behavior of political actors. All four of these theories challenged important foundations of activist government, and posited that inflation and the current economic crisis, rather than being something that government should try to solve, was in fact the very product of that activist government. . . . [The business sector became] “directly involved in the production and dissemination of alternative ideas” (p. 154). The rise of corporate PACs beginning in the 1970s was one important step. A second step was business funding of conservative think tanks: the American Enterprise Institute, the Hoover Institute, and the Heritage Foundation . . . A third step occurred when publications as diverse as the *Wall Street Journal*, *The Public Interest*, and *Reader*’*s Digest* began to popularize supply-side theories. Finally, the financial markets and the Fed together embraced monetarism, making “the state’s role in economic management obsolete almost at a stroke” (p. 171). . . . All that was left was the actual dismantling. Reagan used the refrain, “government is the problem,” to win the 1980 presidential campaign and proceeded to roll back activist government on many fronts throughout the 1980s. A decade later, Clinton continued this . . . by embracing deficit reduction (the sound finance rejected decades earlier by FDR), substantially reducing the welfare entitlement, and proclaiming that “the era of big government is over.” The result of this second great transformation in the U.S, according to Blyth, is a greater concentration in both income and wealth . . . Falling real wages have been exacerbated by higher interest rates (until recently) due to the burgeoning federal deficit of the Reagan and first Bush eras. Citing William Berman, Blyth states that an average of $140 billion annually has been transferred to the wealthiest 5% in the United States.”

Blyth asks: “Why has labor been so quiescent . . .?” Blyth (201): “While the Democrats defeated the ideas of business in order to build embedded liberalism, business was able to dismantle embedded liberalism only once the Democrats had lost sight of what they were defending.”

Blyth also asks: “Why were the ideas used to attack and dismantle embedded liberal institutions . . . essentially the same ideas discredited a generation before?” Blyth speculates that the “mythology of competition, individualism, and markets” (p. 267) may hold residual power over enough of the core constituencies to maintain belief in these powerful theories.”

Bruni, Civil Happiness: Economics and Human Flourishing 2006

Noell, Edd. “[Review of Bruni, Luigino. *Civil Happiness*: *Economics and Human Flourishing in Historical Perspective*. New York: Routledge, 2006. 169 pp.]” *EH*.*net*. 8 June 2015. Web.

Bruni is at the Universita degli Studi di Milano Bicocca. Edd Noell is at Westmont College and is an editor of the journal *Faith and Economics*.

Bruni “finds that mainstream economics has lost its reliance on the civil happiness tradition and thus is ironically ill-equipped to explain the [Easterlin] paradox.” Easterlin’s Paradox is that increasing income does not correlate with increasing happiness. Bruni “claims that happiness invariably involves interpersonal relationships yet this consideration is excluded by economics. . . . happiness understood in a civil sense does not necessarily rise and fall with changing income levels.” Bruni’s 11 chapters examine both well-known and somewhat overlooked primary works in the history of economic thought to describe the manner in which this banishment [of the interpersonal dimension of happiness from economics] occurred and the consequences . . .”

Aristotle said “wealth, health and other goods are merely means for achieving *eudaimonia* (classical happiness), which is only achieved indirectly through the practice of relational virtues of intrinsic value such as friendship and participation in civic life. After being supplanted by Neo-Platonism for over a thousand years, [eudaimonism] was revived in the form of civic humanism during the Renaissance. Civic humanists describe man as a “civil animal” pursuing civic virtue. However, the bitter civil strife in Europe generated reflection on a different view of human nature, dubbed by Bruni the “uncivil animal” tradition and represented by Machiavelli, Hobbes, Mandeville, and Hume. Each have in common “an asocial and selfish anthropology” (p. 39). . . . the notion of “public happiness” instead stems from the natural law tradition of Scholasticism and Civic Humanism.”

Chs 4-6 discuss the Italian public happiness school of the 1700s. “A key element in this tradition is that “there is no happiness outside society and there is no society without civil virtues and intentional love for the public good” (p. 42). Genovesi [was] a leader of the Neapolitan School of Civil Economy . . . for Genovesi “engagement in economic relations is an exercise of civil virtues” (p. 70) because “making oneself happy doesn’t mean impoverishing others, but means making them rich as you enrich yourself . . .” (p. 76).”

Ch 7: the British classical school is both continuous and discontinuous “with the Italian school in understanding civil happiness. Both Smith and Genovesi claim that “wealth is a means for obtaining the distinction and admiration from others, upon which our happiness chiefly depends” (p. 80) but wealth is not an end in itself. Yet Smith does not see “civil virtues as *a precondition for markets*” (as Genovesi does) . . . (p. 83, emphasis in the original). [Smith sees] the classic relational virtues of friendship, benevolence and/or sympathy . . . as “natural sentiments [but] *the market* [works] better without them” (pp. 87-88, emphasis in original).”

Chs 8-9: Smith’s understanding “shaped nineteenth-century classical economics.” Buni examines two schools. The Cambridge civil tradition (ch 8): “Bruni focuses particularly on the works of Malthus, Marshall, and J.S. Mill. While Malthus and Marshall acknowledge that wealth is merely a means to happiness, and that happiness depends on elements in life such as friendships, leisure, and religion, they also consider these components of happiness to be “external” to economics. Malthus finds them “. . . to be too ill-defined for inclusion in the economic domain, since economic analysis needs data and objective measurement . . .” (p. 91). At the same time, Mill’s particular recognition of the public, relational dimension of happiness places him close to the civil economy tradition and in opposition to Bentham’s reduction of happiness to hedonist utility.” Bentham’s utilitarianism (ch 9): Bruni . . . highlights the manner in which hedonic utility penetrates neoclassical economics in England (Jevons, Edgeworth) and Italy (Pantaleoni) . . .” Bruni (104): “Once Economics broke away from the classical idea of happiness, happiness became pleasure and Public Happiness became the sum of individual pleasures.”

Ch 10: Bruni “discusses “the solipsistic foundations of contemporary Economics” for which even the hedonist approach to happiness is abandoned. At the turn of the twentieth century, Pareto and Wicksteed play a key role in excluding “non-instrumental interpersonal relations”; Bruni makes a convincing case that in their work we find the reasons for “the passage from happiness/pleasure to purely instrumental choices without any reference to the psychology of the subject” (p. 108). Where Pareto drops consideration of motives and focuses exclusively on rational choice, Wicksteed understands economics to be “compatible with any motive, including altruism” and indeed holds that “most non-selfish behaviour is instrumental” (pp. 115, 117). Bruni ends the chapter with a short discussion of two examples of modern research agendas which continue to rely on an instrumental framework and exclude interpersonal relationships, i.e., game theory and Becker’s extension of economic logic to a very wide range of human behavior.”

Ch 11 (conclusion): “While many economists explain “genuine sociality” as a positive externality, they don’t see “family life, friendships, and close relationships” (p. 122) as relevant for happiness. While they expound positional theories of happiness, for the most part they don’t recognize relational goods “which cannot be produced, consumed or acquired by a single individual, because they depend on interaction with others and are enjoyed only if shared with others” (p. 124). Yet particular fields of economics are emerging which emphasize the significance of interpersonal relations. Bruni is hopeful that developments recognizing the role of “reciprocity, trust, intentions, fairness, esteem and similar concepts” in both behavioral and experimental economics indicate “a new season of interest for the interpersonal dimension” (p. 123).”

Bruni’s weaknesses: [1] Bruni should have “more fully explored the role of sentiments, passions and instincts lying behind rational decisions which are emphasized by Smith and others prior to nineteenth-century classical and neoclassical economics.” [2] Bruni “leaves out any sense of why Bentham’s identification of happiness with pleasure is so influential upon Jevons, Edgeworth and Pantaleoni. . . . Schabas (2005) on how economists came to more narrowly depict individuals as rational utility-maximizing human agents would be particularly helpful.” (Schabas, Margaret. *The Natural Origins of Economics*. Chicago: U of Chicago P, 2005.) Bruni’s strengths: [1] “Bruni’s observation that the term “happiness” rarely is found in either of Smith’s two major works and his interpretation of Smith’s position on “happiness as deception” could well generate a new line of inquiry for Smithian scholarship.” [2] Bruni presents “an analysis of the key turning points in economic thought. Bruni is particularly helpful in demonstrating the implicit connections between earlier sources in economics and two quite different facets of modern thought. One is the work of behavioral and experimental economists which draws on nineteenth-century utilitarianism . . . The other feature is characteristic of mainstream economics. It [excludes] subjectivist considerations . . .”

Caradonna, Sustainability: A History 2014

Hill, Joshua P. “[Review of Caradonna, Jeremy. *Sustainability*: *A History*. New York: OUP, 2014. 331 pp.]” *EH*.*net*. 9 June 2015. Web.

On the environment. “Those looking for deeper treatments of the issues raised in this book should look to . . . others . . .” Hill recommends instead:

Anderson, Terry, and Donald Leal. *Free Market Environmentalism*. New York: Palgrave, 2001.

Coyle, Diane. *GDP*: *A Short but Affectionate History*. Princeton: Princeton UP, 2014.

Heyne, Paul. “*Are Economists Basically Immoral*?” *and Other Essays on Economics*, *Ethics*, *and Religion*. Ed. Geoffrey Brennan and A.M.C. Waterman. Indianapolis: Liberty Fund, 2008.

Carroll, A Future of Capitalism: The Economic Vision of Robert Heilbroner 1998

Emmett, Ross B. “[Review of Carroll, Michael C. *A Future of Capitalism*: *The Economic Vision of Robert Heilbroner*. New York: St. Martin’s, 1998. 117 pp.]” *EH*.*net*. 10 June 2015. Web.

Carroll is at West Virginia State College. Heilbroner’s books include The Future as History, The Great Ascent, An Inquiry into the Human Prospect, Beyond Boom and Bust, and Marxism: For and Against. “Carroll argues that Heilbroner combines Marx’s socioanalysis with a psychoanalytic perspective on human behavior and an economics focused on how power and social organization intersect in the material provisioning of humankind . . . [Heilbroner focuses on] three central internalized institutions and values in capitalism: the drive to accumulate capital, the market, and division between private and public realms.” Structural unemployment “emerges from the drive to accumulate and the market’s organizing features, yet undermines future productivity [and] aggregate demand . . .” Carroll is “enamored with Heilbroner’s ideas . . . Far more interesting would be a serious effort to seek out the reasons why Heilbroner’s ideas have had such little impact on the modern economics profession . . .”

Chapra, Muslim Civilization: The Causes of Decline and the Need for Reform 2008

Rubin, Jared. “[Review of Chapra, M. Umer. *Muslim Civilization*: *The Causes of Decline and the Need for Reform*. Leicestershire: The Islamic Foundation, 2008. 225pp.

(See esp. ch 5.) This book “represents a necessary step in the advancement of Islamic economics (a “field” quite eloquently deconstructed in Timur Kuran’s *Islam and Mammon*, a book which is inexplicably not cited by Chapra). The introduction presents the problems that Chapra attempts to tackle. These are, namely, “Why has the Islamic world declined economically over the last seven centuries after such a brilliant rise in its first few centuries?” “Did Islam play a positive role in the early rise of the Muslims?” “Did it play a role in the decline?” “How can we use the lessons of the past to help shape the future?” . . .

[Ch 1:] Chapra employs the framework of the fourteenth century philosopher/historian Ibn Khaldun. [This framework] which is circular in nature. It suggests that a functioning government is needed to uphold Shara (Islamic law), a functioning government can only be sustained by its people, who are sustained by wealth, which is attained by development, which is attained by justice, which is the responsibility of the government. . . . to Ibn Khaldun, Islamic societies began to decline with the failure of the political authority. . . .

[Ch 2:] Islam . . . helped develop early Muslim society. It did so by replacing tribal ties with broader religious ties and an associated (political and legal) institutional structure. While Chapra undoubtedly exaggerates the degree to which Islamic ideals were followed, he rightly places the advent of Islam as crucial in the build-up of Middle Eastern institutions. . . .

[Ch 3:] employs Ibn Khaldun’s methodology to address factors responsible for the “decline” of Muslim civilization. Chapra implicitly admits his agenda in the first paragraph of this chapter, providing the specious argument that (p. 45): “given the upward push that Islam provided to these societies, there would be little justification in blaming it for their later decline.” He attempts to substantiate this claim by deconstructing Timur Kuran’s argument that certain aspects of Islamic law (the inheritance system, the lack of a concept of limited liability and legal personhood, and the *waqf* [mortmain inheritance]) inhibited development in the Islamic world. The deconstruction largely fails: Chapra does not adequately counter Kuran’s claim that the Islamic inheritance system inhibited the creation of long-lasting partnerships, and he oddly claims that it was democratic governments in the West that promoted property rights and encouraged the corporation (both of which existed before democracy). Like Ibn Khaldun, Chapra ascribes the oncoming of political illegitimacy . . . precipitated the decline. . . .

[Ch 4:] Chapra furthers his thesis that political illegitimacy was the root cause of underdevelopment, citing a general overindulgence in military campaigns, unjust taxation, and other detrimental economic policies. . . .

[Ch 5: Chapra links] the decline in education, science, and technology . . . to lack of political support. This is a very useful chapter, as Chapra provides a nice discussion of the philosophical debates that were a result of and resulted in the decline.

[Ch 6:] Chapter six discusses “social decline,” claiming that political discord drove Muslims away from the Shari’a.

[Chs 7-8:] lessons from the Islamic historical experience. Harkening back to Ibn Khaldun’s circular theory of development, Chapra notes that the initial “spark” which started the “self-reinforcing” process of decline was the political authority’s neglecting of responsibility. This leads to the conclusion that: 1) development is dependent on the accountability of rulers to the people, 2) the lack of political accountability gives rise to numerous ills, and 3) Islam itself is not to blame for Muslim decline.

Chapra concludes with a call for reform. This includes a series of vague suggestions (at least, in the sense that few realistic suggestions are made for implementation), such as moral reform, proliferation of education, and political reform. His ultimate suggestion is that democracy and democratic institutions within an Islamic context are what is needed in order to reform the Islamic world.

Beyond the fact that Chapra fails to confront many salient alternative hypotheses for the “rise and decline of Muslim civilization,” his analysis is unconvincing on two fronts. For one, his account of the “decline of Muslim civilization,” based on the corruptibility of certain early Islamic leaders, too easily excuses institutions fundamental to Islam from culpability. Not only does Chapra overemphasize the glory of the four “rightly guided caliphs” who reigned for the first thirty years after Muhammad’s death—three of whom were assassinated—but he denies that the subsequent “illegitimate” leaders could have emerged from the perverse incentives established by the newly founded Islamic political structure. Indeed, Chapra does not even address this as a possibility. This is where Chapra may have best benefited by including more recent advances in economic and institutional history into his framework. While he quite honorably cites Douglass North, there is no attempt to either deny or incorporate North’s framework. More importantly, Chapra fails to consider other “big question” answers such as those of David Landes, Eric Jones, Kenneth Pomeranz, Jared Diamond, and Avner Greif (the latter being an especially curious omission given Chapra’s frequent use of the term ‘self-reinforcing’ in attempting to explain the extended stagnation of the Islamic world).

The other aspect of Chapra’s analysis which I find untenable is that the recommendations he derives for “reform” are largely devoid of institutional context and instead rely too much on Muslims everywhere acting like the ideal-type *homo islamicus*. This problem is the same one Kuran confronts in *Islam and Mammon* (p. x): “There are several reasons why Islamic economics has largely been spared the sort of critical analysis to which the typical economic doctrine or program is subjected routinely. The most basic is that its prescriptions are considered too unrealistic to threaten prevailing economic structures. Another is that evaluating an economic doctrine grounded in Islam requires familiarity with economic theory, Islamic history, and the contemporary Islamic world—realms of analysis that rarely intersect.” Take, for example, Chapra’s suggestion on how to bring political reform in a region where political illegitimacy is well-entrenched. Eschewing the fact that Chapra never really defines legitimate political authority (besides reverting to the idealized notion of the early caliphs), his answer is not implementable (or at the very least, incomplete) given the institutional context: “the best strategy for political reform is, therefore, political and non-violent struggle, even though this may appear time consuming” (p. 172-173). How is this implemented? For Chapra, it is through the establishment of democratic governments, which should arise because “the international environment is now unfriendly towards illegitimate governments” and “globalization is also acting as a check on despotic governments,” two dubious claims given recent experiences in (amongst others) Saddam’s Iraq, Suharto’s Indonesia, and the Myanmar junta. He never suggests how democratic institutions can arise within the broader institutional context. Indeed, can democratic governments and Shari’a co-exist? Chapra assumes so without providing any evidence or even an argument for why democratic governments could arise in this setting. This passage is indicative of Chapra’s style, where pleasing yet non-implementable suggestions are proposed (most of which come to fruition when all Muslims abide by certain Islamic tenets).

But these deficiencies should not take away from the primary advance that this book makes in the field of Islamic economics—at the very least, it attempts to reconcile this agenda-driven field with “Western” economic thought. A quick look at the reference list reflects this, as Chapra cites the likes of Kenneth Arrow, Benjamin Friedman, Douglass North, and Robert Solow. The significance of this attempt at reconciliation with economic theory should not be trivialized—indeed, the lack of such attempts in previous Islamist tracts provides the basis for Kuran’s criticisms of the field. Thus, while Chapra’s book is not likely to be of much use to economists studying the “rise of the West” or the relative “stagnation of the Islamic world,” it provides a nice building block for future attempts at providing a practical, context-driven theory of the “rise and fall” of the Islamic world within an Islamist framework.

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Christian, Maps of Time: An Introduction to Big History 2004

Drukker, J.W. “[Review of Christian, David. *Maps of Time*: *An Introduction to Big History*. 2004.]” *EH*.*net*. 11 June 2015. Web.

Christian “was a well known authority on the history of Central Asia, before he got into what is called ‘world’ or ‘global history.’ . . . Taking a extremely broad perspective, both in time and in space, is in itself not a novelty in our discipline. Fernand Braudel was famous for it, and so is Emmanuel Wallerstein. Rondo Cameron’s *A Concise Economic History of the World*: *From Paleolothic Times to the Present*, covering the whole world over a period of roughly 1.99 million years, is, to my best knowledge, champion in this field, even when one takes into account that the first 1.98 million years are only dealt with in the first two pages, while the rest of the book is devoted to the remaining 0.01 million years.

. . . but Cameron’s perspective is peanuts compared to *Maps of Time*. It does not only cover the whole history of our planet, but the history of the universe is also included . . ., until its unavoidable collapse. . . .

[The book] is rich in detail, and a pleasure to read. The author . . . seems equally well read in such diverse disciplines as cosmology and chemistry (Part 1, from the Big Bang until the formation of the planet Earth), evolutionary biology (Part 2 and 3, the history of life on earth until the dawning of human civilization), prehistory and economic history (Part 4 and 5, from the origins of agriculture until our modern world), futurology and again cosmology (Part 6, perspectives on the future).

. . . Christian essentially claims to offer with his book a “Modern Creation Myth,” based on scientific knowledge, to be distinguished from the “pre-modern” ones that are offered by different religions. [But] how to tell a coherent story about Creation when the familiar main character, God, is conspicuous by His absence? This problem is solved in an elegant way, as the author builds his chronologically ordered magnum opus strictly around a central theme, what he calls “the endless waltz of chaos and complexity,” by which is meant . . . the existence of order [that temporarily] seems to withstand the second law of thermodynamics. With “order” as a central theme, David Christian’s creation myth is transformed from a straightforward chronology into a unified and fascinating story on growing complexity over time. . . . *Maps of Time* tells the reader: A hydrogen molecule is a less complex structure than an amoeba, which, in its turn, is less complex than a human being. Hydrogen molecules were already there, when there were no amoebae, and human beings came even later into existence than amoebae, while you would expect, according to the second law of thermodynamics, that the order of appearance should be exactly the other way round. Isn’t that wonderful?

The theme of increasing complexity over time is in Part 4 and 5 carried over from organisms to the way in which human beings have organized their habitat since the days of early agricultural settlement, and there it enters the field of economic history. And it is exactly at that point that this reviewer becomes gradually more critical . . . building a chronologically ordered story on human organization around a central theme is . . . the same approach as the German Historical School advocated from the second half of the nineteenth century onwards, from Von Schmoller up to Rostow, so to speak? . . . the standard criticism on the so called “Stufen”-theories [applies,] that the choice for one central theme, around which the story of development is woven, has the tendency to overshadow other important factors to such an extent, that the whole is in danger of becoming a bit one-sided, and therefore, speculative. I’m afraid this also applies to some extent to *Maps of Time*, especially where it deals with the future. . . .

If you really want to talk about the future, one would expect, given the overall tendency of the first five parts, that the principle of growing complexity would be once more carried over, now from the forms of human organization to the nature of machines, as that is, as far as I can see, the most revolutionary change that is actually taking place, seen from a perspective of increasing complexity. Moreover, so far machines seem to survive better in orbit, than we do, and that is the place, according to Christian, where we are ultimately going. Not so: It is not so much complexity that is leading the waltz in Part 6, but chaos, looming in the dark. This part of the book is clearly inspired by late Meadows- and Brundtland-adherents, which explains the rather unexpected theme in the finale of this book, taken from Paul Kennedy’s *Preparing for the Twenty-First century*: “a modern ‘Malthusian cycle’” (1750-2100)?” . . .

As a dazzling ‘Encore’ there is a really superb bibliography. . . .

J.W. Drukker is Professor of Design History, Delft University of Technology in the Netherlands. An English version of his last book, which was published in the Netherlands in 2003, will be on the market in the course of 2006 (*The Revolution That Bit Its Own Tail*: *How Economic History Changed Our Ideas on Economic Growth*, Aksant Publishers, Amsterdam). He is currently working on an introduction to design history, seen through the eyes of an economic historian.

Coelho, Philip R.P. “[Review of Costanza, Robert, Lisa J. Graumlich, and Will Steffen, eds. *Sustainability or Collapse*? *An Integrated History and Future of People on Earth*. Cambridge: MIT, 2007. (Conference publication.) 495 pp.]” *EH*.*net*. 12 June 2015. Web.

Introduction and 22 essays.

Most of the essays are very poor. “Critics of catastrophic environmentalism are completely ignored.”

“. . . a very good chapter is John R McNeill’s essay on the twentieth century, “Social, Economic, and Political Forces in Environmental Change: Decadal Scale (1900 to 2000).”

“Inherent in any prediction of “collapse” are necessary corollary predictions on the basic limits to human knowledge. There will be no fusion, fission energy will remain costly and politically difficult, nanotechnology will be fruitless, genetic engineering will never produce organisms that reduce the carbon dioxide content of the atmosphere, and so on, and on. I suspect that most predictions that today’s futurologists make about future technology will prove to have been overly modest given what we have seen happen to humanity’s knowledge and control of the material world over the past quarter century. So, when we talk about “sustainability,” what level of technology are we specifying and what margin of error is “reasonable” for that specification?”

Crouzet, A History of the European Economy, 1000-2000 2001

Liebowitz, Jonathan J. “[Review of Crouzet, François C. *A History of the European Economy*, *1000-2000*. Charlottesville: UP of Virginia, 2001. 329 pp.]” *EH*.*net*. 13 June 2015. Web.

“. . . the author is fully engaged with the cutting edge issues of contemporary economic history, and any economist or historian could assign it to students with assurance that they would obtain a solid grounding in Economic History.”

“Within chronological chapters, the approach is topical, based on the central issues of the time. Except perhaps toward the end of the volume, where he gives vent to his anti-statist, pro-free market attitudes, Crouzet adopts a judicious posture. No reader will be startled by his interpretations, which are traditional with a tilt toward the Mokyr-Landes emphasis on technology as a causal factor in economic change. Differing or opposing views are often considered, and Crouzet is prepared to accept what is valid in them.”

“. . . actually the discussion starts with the fall of Rome. Like most surveys, Crouzet’s concentrates on more recent times, with the tenth through thirteenth centuries being covered in thirty-six pages, while the most recent eighty-five or so years take about ninety pages.” “The early medieval chapter adopts the by-now-commonplace position that the history of Europe after the fall of Rome and the barbarian invasions was one of progress. Crouzet places the prime cause for this progress in population growth without denying a role to improvements in technology and higher agricultural productivity. The manorial system was “rational . . .” (p. 15) and had the potential of expanding trade. Crouzet’s treatment of the latter topic will be familiar, with emphasis on fairs, towns, and regions like northern Italy and Flanders. He does accept the contention expressed by many scholars recently that various Asian economies held a considerable advantage over Europe . . .”

Deaton, The Great Escape: Health, Wealth and the Origins of Inequality 2013

Parman, John. “[Review of Deaton, Angus. *The Great Escape*: *Health*, *Wealth and the Origins of Inequality*. Princeton: Princeton UP, 2013. 360 pp.]” *EH*.*net*. 14 June 2015. Web.

Economics professor at Princeton. “Deaton sets out to demonstrate just how impressive the escape from poverty and death has been and identify which groups have made that escape and which have not, a task the book accomplishes quite well. In the process, many questions are raised about the underlying causal relationships between health, wealth and inequality. It is here that the book leaves the reader with much to think about but few definitive answers.” “Deaton offers a clear, compelling story of how nutrition, scientific advance and particularly the rise of germ theory helped the Western world reduce mortality from infectious disease. . . . [But] Scientific advance brings about solutions to health problems that are initially affordable only for the wealthy. . . . the improvement in wellbeing throughout the income distribution, is dependent on public health programs and, more generally, politics and institutions. The benefits of germ theory were not widespread until there was the political will and the state capacity to implement public health programs such as water treatment . . .” “Life expectancies are rising in rich countries because we are making progress in extending the lives of our elderly, tackling issues of chronic adult diseases with expensive medical innovations. The rise of life expectancies in the poor countries, however, is being driven by reductions in childhood mortality.”

“. . . governments fail in the provision of public health goods and underinvest in their health care systems. He hints at a version of the resource curse; governments that gain their revenue and power from natural resources do not depend on the people for revenue and are therefore uninterested in the population’s general health and wellbeing.” “In the later chapters, the book shifts from improvements in health to improvements in material wellbeing. GDP per capita and poverty rates do the work that longevity and height did in the earlier chapters . . .”

Degen, The Triumph of Capitalism 2008

Santos, Joseph M. “[Review of Degen, Robert A. *The Triumph of Capitalism*. New Brunswick NJ: Transaction, 2008. 204 pp.]” *EH*.*net*. 15 June 2015. Web.

“The author begins with a brief history of economic thought and method . . . he addresses (in a single chapter) the origins of money, early examples of specialization and trade, medieval commerce, scholasticism, mercantilism, Adam Smith, and the Industrial Revolution . . .”

“Degen writes for a general audience and, as such, offers readers an accessible first pass at the history of twentieth-century economic thought and organization. . . . [The book is] reminiscent of Daniel Yergin and Joseph Stanislaw’s *Commanding Heights*: *The Battle for the World Economy* (New York: Simon and Schuster, 1998) and its derivative PBS documentary series. Indeed, in light of this earlier and very popular contribution to this pedagogical genre, readers of The Triumph of Capitalism may wish that the author had traded breadth for depth . . .”

Diamond, Guns, Germs and Steel: The Fates of Human Societies 1997

Mokyr, Joel. “[Review of Diamond, Jared. *Guns*, *Germs and Steel*: *The Fates of Human Societies*. New York: Norton, 1997. 480 pp.]” *EH*.*net*. 16 June 2015. Web.

“Jared Diamond is a physiologist and evolutionary biologist with a passion for archaeology and linguistics. . . . [His book, which won the Pulitzer,] is one of the more important contributions to long-term economic history and is simply mandatory to anyone who purports to engage Big Questions in the area of long-term global history.” “Diamond joins such heavyweights in economic history as Eric Jones, Douglass North, Nathan Rosenberg, [and] David Landes in asking why “we” are so rich and “they” are so poor.”

“Is it institutions? Culture? Technology? Religion? Diamond does not reject any of these answers altogether, but instead formulates models in which they become endogenous variables. The real exogenous variable, when all is said and done, is geography. Diamond, to put it bluntly, is a geographical determinist. [Geography includes] The shape and location of continents, flora, fauna, microbes, water, climate, topography . . .”

“. . . the world’s population bifurcated for geographical reasons. Once on different paths, Africa, America, and “Eurasia” diverged more and more through positive feedback effects, in which geography fed into technology, technology fed into power structures and culture, feeding back into technology and growth until we got a world of Western economic hegemony. Such “autocatalytic” models which view economic history as a disequilibrium process once were shunned by the neoclassical cliometric orthodoxy. Today, thanks to the efforts of scholars as diverse as Douglass North and Paul David, we are getting used to them . . .”

Production– especially in agriculture– depends on the geographical hand we have been dealt. Yet Diamond’s emphasis is not on soil fertility and minerals as in the writings of most geographers, but on the ability of homo sapiens to domesticate plants and animals.”

Eurasia “had the wild animals from which our cows, sheep, horses and chickens could be bred. This gave the Europeans huge advantages, not only in terms of the development of technology (e.g. mixed farming and wheeled transport) but also in providing them eventually with immunity against infectious diseases caused by the proximity of these animals. . . . Eurasia was simply lucky in that its environment provided a much larger stock of plants that lent themselves to domestication, and plants that had better quality in terms of the nutrients supplied, resistance to disease, ease of cultivation and so on.”

Criticism: “How much of the performance of non-Europeans was really constrained by their environment and how much their own making? In Diamond’s view, the answer is “all and nothing.””

“Diamond’s insight is that nature differs from place to place and that certain environments are easier to manipulate than others. The economic historian must add two qualifications to this. One is that environments can be manipulated or abandoned. While Diamond describes in detail pre-historic population movements (which he deduces from linguistic evidence), he does not realize that he tells the story of regions, not necessarily of people who always had the option to move to a more generous and flexible area. Secondly, it could be argued that much technology emerges precisely because the environment is not generous and requires hard work and ingenuity. What is the partial derivative of technological creativity with respect to initial geographical endowment? In the final analysis, this is still unknown.”

Dimson, Marsh, and Staunton, *Triumph of the Optimists* 2002

James, John A. “[Review of Dimson, Elroy, Paul R. Marsh, and Mike Staunton. *Triumph of the Optimists*: *101 Years of Global Investment Returns*. Princeton: Princeton UP, 2002. 339 pp.]” *EH*.*net*. 17 June 2015. Web.

“The authors are “all affiliated with the London Business School . . .” John A. James is University of Virginia. “. . . the best-known long-term series on returns to equities, those based on US stocks from the Center for Research in Security Prices (CRSP) database beginning in 1926, might be potentially misleading. After all, the [US had] done pretty well . . . such evidence might be too high. What we need are more data, extending farther back in time and covering more countries.”

The authors present “a century of as-consistent-as-they-can-make-it data for most variables . . .” Their dataset covers “annual real and nominal returns on equities, bonds, and bills, as well as GDP, inflation, and exchange rate data, over 101 years (1900-2000) for sixteen countries (Australia, Belgium, Canada, Denmark, France, Germany, Ireland, Italy, Japan, Netherlands, South Africa, Spain, Sweden, Switzerland, United Kingdom, and United States). . . . The countries selected are those for which a century run of financial data exists . . . [i.e.,] North American and European countries plus Australia, South Africa, and Japan.”

“Long-term performance is measured based on total returns, dividends as well as capital gains. . . . return series are weighted by company market capitalization. Arithmetic rather than geometric averaging is used. . . . the German hyperinflation is almost always excluded since it would otherwise dominate . . .”

However, to have 101 years of consistent data, “countries in which financial markets disappeared for a while—Russia, China, etc.—are excluded. Emerging markets and developing countries are similarly excluded. [But] the countries in the sample did account for 88 percent of world stock market value in 2000, perhaps more in 1900.”

The authors “avoid survivor bias, overweighting companies that last and/or become more important. . . . [They] avoid easy data bias, that is a preference for data which is easy to obtain, steering clear of difficult periods such as wars and their aftermath or periods for which numbers are hard to get, usually earlier ones. Omitting such periods could bias average returns upward . . .”

The “wholistic emphasis . . . captures the influence of lots of different institutions and events,” including wars and crashes. Stocks did better than bonds “over the twentieth century (one important word here—inflation). Value stocks (those with higher dividend yields and/or higher ratios of book value to market value of equity) yielded higher returns in the long run than did growth stocks (Chapter 10). Generalizing from historical equity returns in the United States turned out to be not that misleading after all. While average returns in the US were higher than the sample average, they weren’t extraordinarily higher. . . . The average annual 1900-2000 equity-risk premium [equities’ return minus US bonds or bills’ return] in the US was 5.8 percent; for the weighted whole sample, 4.9 percent. Relative to long bonds it was 5.0 percent for the US, 4.6 percent for the world index. . . . The authors argue (Chapter 13) that the future equity premium is going to be lower than it used to be.”

There is no “significant amount of historical or institutional detail. It would have been nice to have a bit of a story or some context as to why the graphs and charts look as they do.” “The repetitive style makes reading it through from cover to cover, as I did, a bittersweet experience. Rather, it would seem much more felicitous to use it as a reference book . . .”

Dodd, The Social Life of Money 2014

Caton, James. “[Review of Dodd, Nigel. *The Social Life of Money*. Princeton: Princeton UP, 2014. 444 pp.]” *EH*.*net*. 18 June 2015. Web.

James Caton is at George Mason University.

Dodd takes the reader on a tour through the history of sociological and economic thought. The tour is divided into eight categories: Origins, Capital, Debt, Guilt, Waste, Territory, Culture, and Utopia. . . . I will focus on some of Dodd’s core claims: that politics and economics are inseparable and that price theory does not hold analytical primacy in interpreting the role of money . . .”

The charge of “academic imperialism . . . has commonly been leveled against cliometricians whose statistical analyses sometimes ignore broad consideration of historical context (North 1997). [Dodd] casts a much broader net in his critique of economists. For Dodd, economic theory, not just its technical manifestations, misrepresents the role of money in society. Throughout the book, Dodd presents his skepticism toward price theory. He discounts the traditional framing of money as a medium of exchange, store of value, unit of account, and standard of deferred payment that price theory implies and argues that money “is not an objective entity whose value is independent of social and political relations” [p. 386] . . . Dodd continually reiterates that “money is a process, not a thing” (p. 272).”

The “author builds on insights from . . . Proudhon, Marx, Lenin, Bukharin . . . money, often in the process of fulfilling its economic function, can be employed in the pursuit, exercise, and reinforcement of power within social structure. Past manifestations of this process include debtors’ prisons, legal tender monopolies and publicly funded corporate bailouts. Also included are socially obligatory gift exchange and wealth accumulation enabled by money’s lowering of transaction costs . . . This finds one form of expression in the proliferation of financial instruments and the importance of the subsidiary role of those instruments as money. This double role gives financiers a privileged political position as harm generated from the collapse of the credit structure and subsequent price volatility serve to justify intervention that favors those “too big to fail.” . . . Power begets power.”

“. . . Dodd challenges the traditional interpretation of money’s emergence as proposed by Menger . . .” (Menger, Carl. *Principles of Economics*. 1883. Auburn: Ludwig von Mises Institute, 2007. Menger, Carl. “On the Origins of Money.” 1892. *Economic Journal* 2 (2007) 239-55.) Menger says that money “arose through barter. Once the concept of money, a good with exchange value, arises, money takes [many forms]. While we [lack] evidence of the world’s first monetary exchanges, . . . the rapidity with which commodities like cigarettes are adopted as money in places where money is not allowed—prison—or where money’s value has been debauched—hyperinflation—suggest that the theory is coherent (Radford 1945; Burdett, Trejos, and Wright 2001). Dodd . . . connects an apparent libertarian love for gold and public austerity with Menger’s theory of money’s emergence. . . . Money’s primary elements are economic in nature. The addition of politics—i.e., power—and other social phenomena to the analysis complicates, rather than invalidates, these dynamics.”

But Dodd is right “that the application of economic theory must always consider the effect of social and political context on the functioning of market processes. As Wagner (2010) argues, we need always to consider the entangled nature of economics and politics.” (Wagner, Richard. *Mind*, *Society*, *and Human Action*: *Time and Knowledge in a Theory of Social Economy*. Routledge, 2010.)

Eltis, Lewis, and Sokoloff, *Human Capital and Institutions* 2009

Mitch, David. “[Review of Eltis, David, Frank D. Lewis, and Kenneth L. Sokoloff, eds. *Human Capital and Institutions*: *A Long Run View*. New York: CUP, 2009. 342 pp.]” *EH*.*net*. 19 June 2015. Web.

“The same editors, David Eltis (Emory University), Frank Lewis (Queens University), and Kenneth Sokoloff (late of UCLA), put together Slavery in the Development of the Americas published in 2004 which also honors Engerman . . .” “. . . the manifesto of the cliometric movement” was Fogel, Robert, and Stanley Engerman. The Reinterpretation of American Economic History. New York: Harper and Row, 1972. “Steinfeld’s is the only non-cliometric chapter in the volume, making minimal use of quantification and with no tables or figures.”

Only three of the 10 essays deal with human capital and institutions “directly; of the rest, two are anthropometric, one deals with employment and income stability, two with human talent, one with legal standing of labor contracts and one with usury laws. . . . [But] their cumulative quality more than offset any lack of cohesiveness . . .”

“The third essay . . . is by George Boyer on income and employment instability in Victorian and Edwardian England. . . . provision for poverty “was not a “unilinear progression in collective benevolence” from poor relief to national insurance” (p. 83). Instead, compared to what came before or after, the Victorian era was dominated by the role of self-help, friendly societies and other forms of mutual assistance rather than government-funded poor relief.”

Stanley Engerman, Elisa Mariscal, and Kenneth Sokoloff write “on the evolution of schooling in the Americas. . . . [They present] the now influential Engerman/Sokoloff thesis on the importance of resource endowments in shaping long run institutional change. They attribute the much more advanced state of schooling in North America over Central and Southern America to the more equal distributions of land and wealth in the former area. This chapter is a model of careful comparative argument . . .”

Claudia Goldin and Lawrence Katz also consider “why the U.S. led in education over other countries . . . Like Engerman et al. they attribute much of the advance to social homogeneity in U.S. communities but . . . give less consideration to the franchise.” See Goldin, Claudia, and Lawrence Katz. The Race between Education and Technology. Cambridge: Harvard UP, 2008.)

Michael Edelstein gives “new time series estimates of engineering graduates in the State of New York . . . he argues convincingly [that engineering] has been central to modern economic growth.”

Peter Temin studies “why there have been a disproportionate number of very wealthy Jews. . . . Temin argues that Jews attaining great wealth were able to do so not as is sometimes suggested because discrimination in large business corporations spurred their entrepreneurial endeavors but rather because of the social networks they could draw on due to their clearly defined religious and ethnic identity. . . . I was surprised that Temin did not reference Andrew Godley’s (2001) comparison of Russian immigrant Jews in London versus New York City as a way of ascertaining the role of institutional environment in influencing the promotion of entrepreneurship . . .” (Godley, Andrew. Jewish Immigrant Entrepreneurs in New York and London, 1880-1914. New York: Palgrave, 2001.)

Robert Steinfeld “takes up constraints in the labor market. His point of departure is the Fogel and Engerman finding in Time on the Cross that slave labor was not necessarily less efficient than free labor. He then argues that the emergence of free labor contracting and in particular the reform of the Masters and Servants Act in Victorian England was not due to market forces or the perception by employers that free labor was more efficient than coerced or constrained labor but rather to the extension of the franchise with the Reform Bill of 1867 and related political factors.”

Hugh Rockoff deals with usury laws in North America. “. . . both intellectual attitudes as well as competitive market forces” influenced them. Adam Smith advocated moderate “usury restrictions in The Wealth of Nations . . . the usury provision of the National Currency Act of 1863 [promoted] the flow of capital to Western states [by] allowing national banks in a given state to charge the highest allowed interest in that state rather than some lower uniform national level. . . . on balance usury laws in the U.S. did have an impact on capital markets, though he leaves it as an issue for future research to assess its magnitude.”

Fishback, Price, et al., Government and the American Economy 2007

Wright, Gavin. “[Review of Fishback, Price, et al., eds. *Government and the American Economy*: *A New History*. Chicago: U of Chicago P, 2007. 613 pp.]” *EH*.*net*. 20 June 2015. Web.

Fishback is University of Arizona; Wright is Stanford.

Dedicated to Robert Higgs. “In light of Bob Higgs’ well-known libertarian position, one might have expected to encounter skepticism and perhaps even hostility towards government actions, and such perspectives are indeed represented in the volume.” But so are others. “Thus Sylla paints a generally positive picture of the evolution of the U.S. financial system to its present status as “just about the best financial system in the world” (115) . . . growth-promoting policies of state governments in the antebellum era [accelerated] economic growth [and] this activism was “never seriously challenged” at that time (182). . . . Unfortunately, these . . . differences of opinion . . . are not . . . confronted explicitly in the volume.” Fishback’s concluding chapter: “after World War II the demand for government protection rose to new heights, and the corresponding loss of individual economic liberties proceeded apace” (508). On the New Deal Fishback “does not contend with the major interpretive syntheses of the New Deal, such as David Kennedy’s *Freedom from Fear*.” “When it comes to the postwar era, however, the chapter portrays an inexorable extension of government regulation and power, with no end in sight other than those set by the consideration that “an increasingly voracious predator must ultimately destroy its prey and therefore its means of sustenance” (546). The positive government-assisted economic and social achievements of the postwar era—expanded educational opportunities, improved access to home ownership, virtual abolition of poverty among the elderly, social and economic liberation for African-Americans, women, and other minorities, and dramatic improvement in environmental conditions, to list just a few—are barely or grudgingly mentioned.”

Frey, America’s Economic Moralists 2009

Gregg, Samuel. “[Review of Frey, Donald E. *America*’*s Economic Moralists*: *A History of Rival Ethics and Economics*. Albany: State U of New York P, 2009. 239 pp.]” *EH*.*net*. 21 June 2015. Web.

The book is “provide a useful lens for thinking through competing visions of economic morality in America, and underscores the truth that there is no such thing as a value-free economic science.” “Frey argues that the history of [economic ethics] in the United States can be viewed in terms of the on-going competition of two rival theories of economic morality. One is focused on relationships and human interconnectedness (often through the prism of different concepts of justice), while the other is essentially concerned with human freedom, understood primarily in terms of autonomy and choice . . .” The introduction spells out “the two competing school’s fundamental assumptions about the human person, the purpose of economic life . . .” “Another underlying theme of America?s Economic Moralists is the powerful role played by” American Protestantism. “A particularly intriguing aspect of this book is the way in which it highlights how different theologians and economists were willing to define various theological and economic emphasis and methodologies in terms drawn from their respective religious commitments.” Gregg is with the Acton Institute.

Hansen, European Economic History 2001

Reis, Jaime. “[Review of Hansen, Ejvind Damsgaard. *European Economic History*: *From Mercantilism to Maastricht and Beyond*. Copenhagen: Copenhagen Business School, 2001. 528 pp.]” *EH*.*net*. 22 June 2015. Web.

Reis is University of Lisbon.

A textbook. Chs 1-2 cover 500-1500. “. . . the circumstances which made the Industrial Revolution possible, in other words that fostered the technological breakthrough underpinning the emergence of mass production and distribution . . . [included] the growth of food surpluses, the development of markets and long distance trade, [and] the establishment of institutions favorable to complex but stable economic relationships . . . One may note with approval already here the accent, inspired by the New Institutional Economics, placed on political and institutional development . . .” But there is little about “the recent and important debate on late nineteenth century globalization and convergence about mass migration, or about the role of human capital in explaining national differences in macroeconomic performance [or the] controversy concerning the economic impact of railways . . .”

Harper and Gregg, *Christian Theology and Market Economics* 2008

Hammond, J. Daniel. “[Review of Harper, Ian R., and Samuel Gregg. *Christian Theology and Market Economics*. Cheltenham UK: Edward Elgar, 2008. 225pp.

“This volume consists of ten chapters, each written by a different author [or] co-authors. The chapters are grouped into three parts: Christianity and the history of economic thought; Christianity and economic theory; and Christianity and modern business.

Part I is four chapters on the history of economics: Ricardo Crespo on Aristotle’s economics; Stephen Grabill on pre-Enlightenment Christianity’s contribution to the development of economic thought, principally from Scholastic moral theologians; Samuel Gregg on Scottish natural law philosophers’ case for economic freedom; and Paul Oslington’s exploration of the role of natural theology in eighteenth and nineteenth century economics. The latter three chapters . . . provide a chronological account of the relationship between Christianity and economic ideas from the thirteenth century to the present. It is regrettable that Crespo’s opening chapter on Aristotle was not tied explicitly to Grabill’s chapter on the Scholastics . . .

[Part 2:] [ch 5:] Geoffrey Brennan and Anthony Waterman carefully parse the methodological principles of [contemporary] economics and theology to find points of consilience and conflict between the disciplines. [ch 6:] Gordon Menzies uses an imaginary conversation between an economic man and theological woman for the same purpose.

[Part 3, business ethics:] [ch 7:] Michael Miller [uses] John Paul II to argue that business is essentially a moral enterprise. His argument is an alternative view and critique of the popular notion of ‘corporate social responsibility.’ [ch 8:] [Phillip] Booth also bases his chapter on Catholic social teaching and examines specific ethical questions about the conduct of business, such as the agency role of managers, the profit motive, and unjustly high or low wages. Like Miller, Booth is critical of the corporate social responsibility movement, concluding that there is no substitute for people in business having well-formed consciences. [ch 9:] Ian Harper and Eric Jones examine the harmful effects of materialism under the pop culture rubric of ‘affluenza.’ [ch 10:] Peter Heslam argues against the widespread presumption that solutions to poverty are to be found in government transfers and private charity. Heslam contends that business is essential to economic prosperity, and that if businessmen and women live their Christian calling, business can be transformative.

The authors in this book are mostly professors of economics and business. Three contributors, including co-editor Gregg, are on the staff of the Acton Institute for the Study of Religion and Liberty. Harper, the other co-editor, is on the faculty of the Melbourne Business School, University of Melbourne. In light of the credentials of the authors, it is not surprising that they bring to their essays more expertise in economics and business than in theology. So far as I have been able to tell, only three, Stephen Grabill, Paul Oslington, and Anthony Waterman, have scholarly background in theology. [Hence] there is more to be learned from the book about economics and business than about theology. . . . There is plenty of discussion of Christianity, but not very much that qualifies as theology [OED definition: “the study or science which treats of God, His nature and attributes, and His relations with man and the universe . . .”] Even in their very nice essay on convergence and clashes between theology and economics, Brennan and Waterman deal more with Christian anthropology, i.e., Christian doctrine of man, than with Christian doctrine of God. It may be that the paucity of actual theology in the book, despite the book’s title, is a symptom of the widespread decline of theology in the academy. University course offerings in departments of religion and departments of religious studies are heavily weighted to history and social science, with few if any courses in theology. A more descriptive title might have been Christianity and Market Economics.

But there is also a bit of an issue with the second part of the title, market economics. The essays in parts I and II deal with economics as a social science, i.e., as an intellectual discipline. The essays in part III deal with business as a set of social institutions and activities. . . .

With a couple exceptions, I found the essays informative, well-crafted, and interesting. Several are appropriately provocative for readers who hold conventional ideas, for instance, that economics has little if any historical connection with Christianity, or that people in business are presumptively beset with more ethical challenges than people in the professions or in ‘public service.’

J. Daniel Hammond is Hultquist Family Professor of Economics at Wake Forest University. He is author of “Early Drafts of Friedman’s Methodology Essay” in Uskali Mäki, editor, The Methodology of Positive Economics: Reflections on the Milton Friedman Legacy. Cambridge: CUP, 2009.

Heller, Capitalism, Institutions, and Economic Development 2009

Dupont, Brandon. “[Review of Heller, Michael G. *Capitalism*, *Institutions*, *and Economic Development*. New York: Routledge, 2009. 312 pp.]” *EH*.*net*. 23 June 2015. Web.

Uses Weber, Max. *Economy and Society*: *An Outline of Interpretive Sociology*. 1954. Ed. Guenther Roth and Claus Wittich. Trans. Edward Shils and Max Rheinstein. (Irtschaft und Gesellschaft, 2nd ed., 1925.) “The notion of generalized rather than personal trust is not fully incorporated into precapitalist societies and this can impede the transition to capitalism. These kinds of impersonal governing principles are critical in every society because they create a regularity of action and reduce uncertainty.”

Heller “explains the risks associated with democratizing before market freedom, rule of law, and impersonal public administration have fully developed. . . . since communitarian ethics are abandoned as the transition from closed to open markets occurs, a switch to the law as the ultimate source of trust is important. . . . in Weber’s theory, the ethical principles of fair dealing in exchange are preserved and extended and eventually become broader general social norms of behavior. The process Weber described, and Heller adopts, is the transition from custom to convention and finally to formal law as society moves from the interpersonal market ethics of precapitalism to formal state enforcement of impersonal rights. . . . [Heller] writes that, “Like the ethical norms that precede them, legal mechanisms for the adequate regulation of economic action almost always follow from the expansion of markets” (p. 100). In a significant departure from the approach generally taken by the World Bank and other international agencies, Heller argues that modern policymakers have erred in attempting to create regulatory order prior to sufficient market liberalization.”

Ch 4: “The motives for institutional policy innovations are more complex than the economic motive of profit but are fundamentally still driven by self-interest; specifically, the pursuit of power, status, prestige and public approval.” Ch 5: “Heller draws on both Hayek and Parsons, who believed that to take root, capitalist ideology must appeal to neutral procedural concepts (impersonal norms, pluralism, equality of opportunity, for example) rather than an ideological focus on profit-making or democracy.” Ch 6: Grindle and Thomas (*Public Choices and Policy Change*, 1991)” argued that without a crisis, the stakes are too low [in developing countries] to generate the desired rapid reform . . . [For Heller,] While crisis can motivate change, the ideal path to capitalism for emerging market economies is Weberian in nature with a systematic order of: markets to law, law to bureaucracy and bureaucracy to democracy. Neoliberalism, which Heller defines as proto-capitalist policies that cope with failed state activism by restructuring economies along market lines but without corresponding reforms to the institutional framework of economic regulation, lost the opportunity to build this path.” Ch. 8: based “on the World Bank’s worldwide governance indicators conducted in 212 countries . . . it is difficult to share Heller’s optimism that transition can proceed as rapidly as he would like . . .”

Horn, Rosenband, and Smith, Reconceptualizing the Industrial Revolution 2010

Jones, Eric. “[Review of Horn, Jeff, Leonard N. Rosenband, and Merritt Roe Smith, eds. *Reconceptualizing the Industrial Revolution*. Cambridge: MIT, 2010. 366 pp.]” *EH*.*net*. 24 June 2015. Web.

Jones is at La Trobe University. 15 essays. Covers Britain, France, Germany, US, Russia, Japan, Scandinavia, Spain, Brazil, India, and China. “. . . unexpected exclusions are surely Italy and Australia.” “reconceptualization here is limited” but includes it heightens the roles of Chandler?s visible hand and continental European *dirigisme* . . . [and] armaments production and even geopolitics” as well as “useful knowledge and the Enlightenment . . .” “. . . the contribution to British industry of French science and a smattering of artisans from other countries has long been acknowledged.” Jones’s “favorites. Mokyr’s chapter on the English Enlightenment and the origins of modern economic growth . . . Perdue (Yale) develops a strong argument to the effect that the Qing in China suffered from Imperial overstretch through trying to defend a swollen land empire.”

Huston and Spencer, The Federal Reserve and the Bull Markets 2006

Santoni, Gary J. “[Review of Huston, Roger W., and John H. Spencer. *The Federal Reserve and the Bull Markets*: *From Benjamin Strong to Alan Greenspan*. Lewiston: Edwin Mellen, 2006. 251 pp.]” *EH*.*net*. 25 June 2015. Web.

“This book “examines the relationship of Federal Reserve policy to stock market activity by focusing on the monetary policy responses of Benjamin Strong, William McChesney Martin Jr. and Alan Greenspan to the three major bull markets that occurred during their respective tenures as leaders of the Federal Reserve. A fourth chapter presents an empirical evaluation . . .”

“This is an interesting book. It begins with a very informative discussion of the relationship between the twelve district Federal Reserve Banks (particularly, the New York district bank), the Washington Federal Reserve Board and the U.S. Treasury during the Fed’s formative years. It discusses the various roles played by Carter Glass as author of the legislation that formed the Fed and his service as Secretary of the Treasury and (at the same time) member of the Washington Federal Reserve Board. The discussion presents a rather detailed account of the clashes of personalities and the different views of Glass, Strong (president of the New York Fed) and William Harding (president of the Washington Board) regarding Fed independence, the appropriate tools of policy, their application and, in particular, the role of the Fed in controlling speculative activity in the stock market.”

“While this book studies the influence of stock market activity on the policy actions implemented by the Federal Reserve, the authors point out that each of their three principle characters (Strong, Martin and Greenspan) believed the Fed’s policy instruments to be ill suited to regulating prices in equity markets. Greenspan, for example, argued that the Fed can only check a bull market by rationing “credit severely enough to paralyze business itself.” Strong’s view was similar, suggesting that if the Fed forced interest rates up to curb speculation it could penalize the entire country by slowing economic growth. Consequently, it may be better to simply allow speculators to suffer the ultimate consequences of their own excesses. To do otherwise, according to Strong, would result in a degeneration of Fed policy actions to those of “regulating the affairs of gamblers.” Greenspan went even further in his critique of the use of monetary policy to curb speculative activity in a frothy market. Not only are the Fed’s tools too blunt to stem this activity without having unintended consequences, it is difficult to identify bubbles before they crash. Greenspan suggested that, “There is a fundamental problem with market intervention [on the part of the Fed]. It presumes that you know more than the market.” Later, in a speech given in 1996, he asked, “But how would we know when irrational exuberance has unduly escalated asset values . . .?”

“Despite their reservations, each of the three attempted to tame the bull markets that arose during their tenures. Each failed. The markets crashed and the monetary policies that were intended to prick the bubbles contributed to the following decline in business activity in general. The book does not tell us why these Fed leaders ignored their better instincts to become involved in attempts to regulate stock prices. That is disappointing. In fairness, Spencer and Huston do not completely buy the argument regarding the difficulty in detecting bubbles in equity prices, so, perhaps, they are more willing to accept the Fed’s intervention in these instances without question.” “Gary Santoni is an Emeritus Professor of Economics at Ball State University. His recent research is on federal regulation of securities markets and stock returns.”

Irwin, Against the Tide 1996

De Long, J. Bradford. “[Review of Irwin, Douglas. *Against the Tide*. Princeton: Princeton UP, 1996. 274 pp.]” *EH*.*net*. 26 June 2015. Web.

“Douglas Irwin has written the history of “free trade”—as an idea and as an economic policy—for our generation. His dominant organizing principle is that the move toward freer trade in economic policy has been “against the tide”—that there have been lots of reasons over the ages why free trade should not have triumphed . . .” Douglas Irwin has written the history of “free trade”—as an idea and as an economic policy—for our generation.” Free trade is “against the tide”: “there have been lots of reasons over the ages why free trade should not have triumphed . . .”

“Free trade as an idea was born in the shadow of mercantilism in early modern Britain. It is not the case that before Adam Smith’s Wealth of Nations thinkers rejected the idea of trade: the notion that countries, like individuals, stand to gain from specialization (producing what they make best and most efficiently) and exchange is powerful, fundamental, and obviously true. But before Adam Smith thinkers overwhelmingly believed that imposing delicately-calculated restrictions on international commerce could boost an economy’s resources and achieve important non-economic goals as well. For example, even Adam Smith wrote that “defense is more important than opulence.””

Mercantilists were “sharply critical of restrictions that limited export. Irwin sees their doctrines as having four components: [1] A moral argument that foreign-produced luxuries were not worth consuming, and that the state should (for the good of those who would buy French fripperies if unrestrained) restrict imports of foreign-produced luxuries. [2] An unemployment-equilibrium argument that allowing imports to increase would throw people out of work. [3] A belief that manufacturing should be promoted to enhance economic development—perhaps with some recognition that this argument required that the benefits to society from expanding manufacturing be greater than the profits to the manufacturer. [4] Non-economic goals: “defense more important than opulence.” Against mercantilism, Adam Smith established a strong presumption in favor of the economic benefits of free trade. David Ricardo nailed the case down with his exposition of “comparative advantage.”

Arguments against free trade: [1] “distributional effects of trade—. . . free trade can boost real national product but erode social welfare if it shifts the distribution of income . . . [2] protectionist measures that erode the total surplus from trade can nevertheless garner a larger surplus for the home country (under the assumption that foreign governments do not retaliate). [3] “Worries about the effect of free trade on high-externality industries—in which case policies that restrict trade might boost external benefits by more than enough to offset the lost gains from trade. [But all these arguments] are fragile.” “. . . the standard rent-seeking society arguments [are]: Beneficiaries from protection know who they are. Each beneficiary from protection gains a lot more than each consumer loses. Beneficiaries from protection can organize easily. The logic of politics is not the logic of market exchange—but the logic of power exercised, and identifiable favors done for those who can someday return them. . . . the returns to being a tame politician or a tame intellectual for protectionist interests are large too . . .”

“. . . the links between the strength of protectionist ideas and the potential benefits to those with the wherewithal to fund the creation and distribution of protectionist ideas are very strong and very interesting. But Irwin remains at the level of the intellect. He does not descend to the sociology of ideology . . .”

Paul Krugman: the most powerful case for free trade today “‘is not the old argument that free trade is optimal because markets are efficient . . . [but that] to abandon the free-trade principle in pursuit of the gains from sophisticated intervention could therefore open the door to adverse political consequences that would outweigh the potential gains.’”

“There are two reasons to be skeptical of the future of free trade: [First, East Asian economies have grown impressively without commitment to free trade. “There are arguments that they have been committed to free trade in what matters most for production (if not for consumer welfare): “a free-trade regime for exports and for imports for exporting industries” is the phrase often used. . . . [But] for the next generation opponents of free trade will say: “Japan, Korea, Taiwan, etc. did not adopt free trade—and look how fast they grew.” And at the level of economic policymaking and public ideology, this statement has the potential to erode a lot of support for free trade.” Second, protectionism destroys “jobs in developing countries . . . consumers in the first world do have moral obligations toward workers in developing countries, and the economic theory of free trade sheds little light on what policies are best in light of these moral obligations.”

Jones, Masters of the Universe: Hayek, Friedman, and the Birth of Neoliberal Politics 2012

Nik-Khah, Edward. “[Review of Jones, Daniel Stedman. *Masters of the Universe*: *Hayek*, *Friedman*, *and the Birth of Neoliberal Politics*. Princeton UP, 2012. 418 pp.]” *EH*.*net*. 26 June 2015. Web.

“In recent years policy historians, political theorists, political insiders, and a handful of historians of economics have [examined] the seemingly improbable rise of the postwar New Right. . . . *Masters of the Universe* provides an accessible introduction to many of the historical topics addressed by this literature . . . *Masters* is a good read. . . . Jones’s acknowledgement of accident, unintended consequences, and the sheer complexity of history will please historians. However, some of Jones’s framing choices get in the way of understanding this complex history.”

“*Masters* endeavors to explain how Friedrich Hayek, Milton Friedman, George Stigler, think-tankers such as Antony Fisher and Leonard Read, sympathetic journalists such as Samuel Brittan, and politicians such as Enoch Powell crafted a reconstituted form of economic liberalism (hence “neo”-liberalism) and endeavored to put it into practice. This book operates not as a conventional history of economics, but as an intellectual history of a political movement, covering economic and political ideas as they circulate in the polity . . . The basic historical narrative is this: stagflation led to the discrediting of the post-World War II economic policy consensus [basically Keynesianism]; neoliberals stood at the ready with a set of scientific ideas (in the first instance, monetarism; later, deregulation and a host of others); these ideas provided cover for a certain kind of free-market ideology that linked political freedom to economic freedom in a potentially objectionable way; over time, this ideology came to be regarded by public and policymakers alike as commonsense, leading to the enactment of all sorts of harmful policies and ultimately the present global crisis.”

An important reason it wasn’t different was that the “transatlantic” nature of neoliberalism buttressed its adherents’ political aspirations. A standing network of like-minded thinkers communicated between the U.S. and Britain a sense that the two nations shared similar political problems, a language for framing potential solutions, and lessons from attempts to put these solutions into practice. Jones takes inspiration from Daniel Rodgers’ *Atlantic Crossings*, a history of Progressive and New-Deal-era attempts to provide adequate housing for city dwellers, income security for the working poor, and reasonable protection from monopoly power, developed within a transnational “social politics” movement. In selecting that well-received book for a model, Jones has made an excellent choice, but the comparison does reveal an interesting disjunction. Jones’s “transatlantic” area (really, U.S.-plus-Britain) constitutes a much smaller area than Rodgers’ “Atlantic economies” (which includes the U.S., Britain, France, Germany), a choice that has the (possibly inadvertent) effect of making Hayek, Friedman, Fisher, and the rest appear less cosmopolitan than Rodgers’ progressives. [There is] historical work on neoliberalism in countries ranging from Germany to Peru (and, yes, Chile) . . . That said, Jones’s book stands as evidence of the value of attending to neoliberalism’s international transactions.”

“Crucial to the success of these borrowings, and therefore the realization of neoliberal political aspirations, was the formation of the FEE, AEI, IEA, IHS, an alphabet soup of think tanks. Jones draws upon archival work and interviews to discuss their activities Together these think tanks formed a network, held together by participation of the “ideological entrepreneurs” who ran them in the Mont Pelerin Society (MPS). This portion of the argument is complementary to the edited volume *The Road from Mont Pelerin* (reviewed on EH.Net in September 2010). By the 1970s, one could make a living as “a catalyst between the businessmen and the academic world” (p. 136), as Fisher would come to view himself. Hence, businesspersons formed a crucial part of the network. During the post-1970 era, think tanks became formidable intellectual actors—interdisciplinary, poised for the targeted political strike, and remarkably successful in attracting financial support.”

Hayek drew “lessons from the successes of the Fabian socialists and [used] these lessons to form a counter-Fabian/Keynesian/New Deal liberalism politico-intellectual movement (a motivation previously noted by Richard Cockett, and given elaboration by Dieter Plehwe and Bernhard Walpen, among others).” (Cockett, Richard. *Thinking the Unthinkable*: *Think-tanks and the Economic Counter-revolution*, *1931-83*. London: Harper Collins, 1995. Mirowski, Philip, and Dieter Plehwe, eds. *The Road from Mont Pelerin*. Cambridge: Harvard UP, 2009. Plehwe, Dieter, Bernhard Walpen, and Gisela Neunhöffer, eds. *Neoliberal Hegemony*: *A Global Critique*. New York: Routledge, 2006.)

“Friedman became the most successful proselytizer of (Chicago) neoliberal ideas; colleagues at Chicago and Virginia reinterpreted the meaning of politics and the appropriate role of the state. Here Jones rightly distinguishes the monetarism of Friedman from, say, Stigler’s economics of politics and regulation. But he fails to note the significance of this distinction for their (divergent) views of how best to mobilize ideas to effect social change. (Friedman and Stigler disagreed about the possibilities for and limitations of their own influence; one gets a sense of the depth of this disagreement from Stigler’s disparagement of popularizations—including Friedman’s—as “preaching.”) This leaves us with an interesting unanswered question: how could incompatible views of politics inform a political strategy that was so devastatingly effective?”

Jones, Revealed Biodiversity: An Economic History of the Human Impact 2014

Kanazawa, Mark. “[Review of Jones, Eric L. *Revealed Biodiversity*: *An Economic History of the Human Impact*. Singapore: World Scientific, 2014. 257 pp.]” *EH*.*net*. 27 June 2015. Web.

Jones is Eric L. Jones is author of *The European Miracle*: *Environments*, *Economies*, *and Geopolitics in the History of Europe and Asia* (Cambridge: CUP, 2003.). He is professor emeritus of La Trobe University and is now a professorial fellow at Melbourne Business School. Mark Kanazawa is professor of economics and former director of environmental studies at Carleton College in Northfield, MN.

“. . . there is a powerful prevailing wisdom out there—that ongoing economic growth is responsible for an inexorable, and perhaps universal, decline in non-human species . . . The enduring notion that things were better in the good old days and that the earth is going to heck in a hand-basket often substitutes for critical thought. . . . economists, with their focus on tradeoffs and opportunity costs, are perhaps uniquely equipped to contribute productively to public debates.”

The book presents these arguments. [1] Biodiversity policy “involves tradeoffs—we simply cannot . . . save everything.” [2] Because development has complex and unforeseeable impacts, it is “extremely challenging to evaluate its overall impact.” [3] “. . . it is difficult to even know the basic facts concerning such fundamental questions as how much have wild populations declined over time, and how generalized has been the loss . . . That requires] baselines from which to measure decline. But baselines vary depending upon timeframe, and people are in general susceptible to believing that the appropriate baseline is “how things used to be.”” [4] Are you “measuring a trend or some cyclical fluctuation”? [5] “the number of species out there is beside the point, as what is really important is our capacity to actually observe species in the wild (what the author refers to as revealed biodiversity).”

What I like about this strategy is that . . . Instead of being saddled with asking the simplistic question—what is the human impact on non-human species—the question becomes under what conditions will the human impact be more (or less) adverse to non-human species? Answering this latter question is likely to be much more useful for formulating practical policy regarding biodiversity.”

Jones argues correctly “that much public debate about biodiversity is largely ahistorical, because many . . . biologists and economists do not make explicit assumptions about exactly what they are measuring, over what period they are measuring, and from what starting point.”

But “everyone would probably agree that the trends, whatever they turn out to be, have both secular and cyclical components. The cyclical feature is evidenced by the recent (short-term?) recovery of some species from dangerously low levels, like the California condor, American bison, and the Minnesota grey wolf. One way to interpret Jones is that he is focusing on the cyclical component when he argues that human impacts can cause some species (locally) to flourish. . . . [But] If the secular trend is inexorably downward, they might argue, what does it really matter that some species have enjoyed a temporary reprieve . . .? And with ongoing economic growth, climate change, and the world population projected to increase to over nine billion by 2050, who can really doubt that without absolutely heroic measures, the secular declines are going to vastly dominate the cyclical fluctuations?”

“. . . it is not entirely clear what the practical take-away message is. I am convinced that contained in the approach taken by the book are implications—important ones—for what sorts of policies to pursue, but the book itself provided me with too little sense for exactly what they are.”

“. . . the book is in the best tradition of environmental histories by such authors as Patricia Limerick, William Cronin, Kathryn Morse, Mark Fiege and others, which examine the complex interplay between the economy, society, and the environment. But future studies need to go much further . . .” “Mark Kanazawa is professor of economics and former director of environmental studies at Carleton College in Northfield, MN.”

Jones, *Cultures Merging*: *A Historical and Economic Critique of Culture* 2006

Greif, Avner. “[Review of Jones, Eric L. *Cultures Merging*: *A Historical and Economic Critique of Culture*. Princeton: Princeton UP, 2006. 297 pp.]” *EH*.*net*. 29 June 2015. Web.

Jones is La Trobe University; Greif is Stanford.

“. . . an accessible, illuminating, and inspiring book on a complex issue . . .” “Jones views culture—patterns of beliefs, habits, values, ideals, and preferences shared by groups of people—as both sticky and fluid. Because culture reflects habituation which one acquires at young age, it is slow to change. Yet, culture is also fluid; it is often of relatively recent vintage, changes rapidly, and is promoted, or even created by those who stand to gain from it. Culture changes in response to economic, political, and social forces. Cultural change reflects better knowledge of alternative cultures and such knowledge leads to *cultural merger*, new syntheses in languages, religion, and other domains. Culture therefore exhibits *transient fixity*.”

“Culture and the economy interrelate. A given culture influences transaction costs . . . the economy shapes culture because it alters constraints and opportunities and provides knowledge regarding alternative cultures. . . . cultural change has accelerated . . . because of the decline in information cost and the global reach of goods . . . which embody alternative cultures.” “Culture and institutions also interrelate. [Culture] is informal, socially transmitted, and taken for granted while institutions tend to be conscious, even political constructs. Culture is relatively intangible while institutions have a more rule-bound existence.”

Following this general discussion, Jones devotes a lengthy discussion to the important controversy in economic history regarding economic growth in China and Europe. While the “California School” of Chinese history claims that Europe was first to industrialize because it had better endowments, Jones argued that institutional distinctions mattered, particularly those influencing the use of resources, motivating technological advances, and enabling complex contracting. Rule of law was the most important principle. More generally, the fragmentation of power led to diversity of institutional development and institutionalized equalities brought peace and prosperity. “The institutions of the West were impersonal and decentralized; its institutional network held out the promise of extension to fresh social groups and new societies; and . . . it evinced great power of self-correction” (p. 132).”

“Regarding the debate over culture being immutable or epiphenomenal, Jones advances an appealing and intuitively correct assertion: culture is neither immutable nor epiphenomenal. Jones has done a wonderful job of reviewing both sides of the debate while exposing and articulating on the deficiency of the opposing views. Furthermore, Jones exposes various political and economic reasons that motivate the opposing sides to adopt the positions they do. Among these reasons are nationalistic sentiments, the fear of political and social elites that new culture will erode their positions, and the desire of local cultural producers to gain from subsidies.” “. . . it is relatively easy to knock out the two extreme positions—that culture is either everything or nothing—by providing counter examples. Lacking, however, is good evidence regarding the stronger claims . . . that all cultures are similarly malleable, that distinct cultures do not differ in their endogenous dynamics, that the interrelationships between culture and institutions cannot undermine the process of cultural change that Jones is describing, that Western institutions were more accommodating to cultural diversity than those of other societies, that the cultural assimilation of immigrants is universal, that mediocre cultures can perpetuate even in the presence of cultural competition, etc.”

“Similarly unsatisfying . . . is [in the conclusion] an evolutionary model of cultural development in which [some] individuals respond to new information and exogenous shocks by altering their behavior and hence the resulting culture. . . . this individualistic model captures what may indeed be a mechanism for cultural change. Yet central to it is that individuals can freely choose their culture and a rejection of the importance of culture as social phenomenon . . . for example, that institutions influence culture, that the powerful attempt to shape culture, and that interest groups manipulate policies regarding culture.

Greif, Avner. *Institutions and the Path to the Modern Economy*: *Lessons from Medieval Trade*. Cambridge: CUP, 2006. Greif, Avner. “Commitment, Coercion, and Markets: The Nature and Dynamics of Institutions Supporting Exchange,” In Menard, Claude, and Mary M. Shirley, eds. *Handbook for New Institutional Economics*. Dordrecht: Springer, 2005.

Kuznets, *Modern Economic Growth*: *Rate*, *Structure and Spread* 1966

Easterlin, Richard A. “[Review of Kuznets, Simon. *Modern Economic Growth*: *Rate*, *Structure and Spread*. New Haven: Yale UP, 1966. 529 pp.]” *EH*.*net*. 30 June 2015. Web.

“With the emergence after World War II of the newly independent nations of the Third World, the problem of promoting economic growth came to the fore. . . . in 1948 Simon Kuznets developed a proposal for the comparative study of the economic growth of nations (Kuznets 1949). . . . Although comparative study had been advocated as early as the mid-nineteenth century by the German Historical School . . . [Kuznets worked] on the measurement of national income to supply the basic analytical structure missing from the approach of the German Historical School.”

“The basic organization of Kuznets’ Modern Economic Growth parallels the theoretical structuring of economic study in Alfred Marshall’s Principles of Economics and harkens back to John Stuart Mill’s Principles of Political Economy—production, allocation of resources, income distribution, consumption, and external relations.” “Among the most important findings . . . [is the similarity] of modern economic growth in countries varying as widely in institutional structure and culture as the United Kingdom, USSR, and Japan. . . . The paramount feature distinguishing this epoch is the application of scientific knowledge to problems of economic production and the development of a science-based technology.” It is now widely accepted that all countries’ “modern economic growth changes in a . . . quite similar way. . . . pre-World War I growth rates in Australia, New Zealand, Canada, and Denmark, based on modernization of agriculture, food processing, transportation, and distribution, [were all high]. . . . his findings demonstrated that economic growth did not necessarily require industrialization in the British heavy-industry style.”

“A major thrust of *Modern Economic Growth* is that massive structural changes in the economy and society are a necessary and integral part of the process of economic growth. . . . These encompass the shift from agriculture to industry and services, a replacement in many industries of small-scale by large-scale productive units, and related shifts from personal enterprise to impersonal organization of economic firms, and from blue-collar to white-collar occupations. Associated with these changes is a redistribution of the primary locus of economic activity from countryside to city, and thus in the geographic distribution of the population. Such changes, Kuznets emphasizes, all require an uprooting of the population—internal migration and occupational mobility . . . Economies undergoing rapid economic growth also experience disproportionate expansion of international trade . . . The income shares of farmers, landowners, and small-scale producers are adversely affected by the structural shifts. Manual work, and especially unskilled labor, is increasingly replaced by office work, and a middle class society of employees—white-collar workers and upper level blue-collar workers—comes to the fore.” These changes are “a process of controlled revolution” (Kuznets, Simon 1973. “Modern Economic Growth: Findings and Reflections.” (Nobel Memorial Lecture, 11 Dec. 1971.) *American Economic Review* 63.3 (June 1973) 247-58. 252.) “rapid economic growth upsets the world balance of political power, especially as populous countries undergoing modern economic growth acquire new and disproportionate military strength . . . The result is an increased tendency toward imperialism . . .”

“An enormous and ever-expanding quantitative data base now exists for the study of modern economic growth. The World Bank currently makes available a data archive for over two hundred countries since 1960 embracing a wide variety of economic and social indicators (World Bank, 2001). Working explicitly in Kuznets’ tradition, Angus Maddison (1995) has pieced together from the ever-growing data base time series on national product going back one to two centuries for 56 developed and less developed nations. Robert Summers and Alan Heston (1991) following the lead of Kuznets’ student, Irving B. Kravis, have developed data since 1950 for 152 countries on national product and its components . . .”

Landes, *The Wealth and Poverty of Nations* 1998

De Long, J. Bradford. “[Review of Landes, David S. *The Wealth and Poverty of Nations*: *Why Are Some So Rich and Others So Poor*. New York: Norton, 1998. 544 pp.]” *EH*.*net*. 1 June 2015. Web.

Landes’s history “is Europe-centered without apologies . . . he has stronger arguments than his intellectual adversaries, who believe that Chinese technology was equal to British until 1800, that had the British not appeared the royal workshops of Mughal India would have turned into the nucleus of an industrialized textile industry, that equatorial climates are as well-suited as mid-latitude climates to the kind of agriculture that can support an Industrial Revolution, that Britain’s industrial lead over France was a mere matter of chance and contingency . . .”

Chinese civilization had a clear half-millennium as the world’s leader in technological innovation from 500 to 1000. Thereafter innovation in China appears to flag. . . . Appeals to an inward turn supported by confident cultural arrogance under the Ming and Ch’ing that led to stagnation leave me puzzled. Between 1400 and 1800 we think that the population of China grew from 80 million to 300 million. That doesn’t suggest an economy of malnourished peasants at the edge of biological subsistence. That doesn’t suggest a civilization in which nothing new can be attempted. It suggests a civilization in which colonization of internal frontiers and improvements in agricultural technology are avidly pursued, and in which living standards are a considerable margin above socio-cultural subsistence to support the strong growth in populations.”

“If there is a single key to success—relative wealth—in Landes’s narrative, it is openness. . . . One thinks of Francis Bacon writing around 1600 of how three inventions–the compass, gunpowder, and the printing press–had totally transformed everything, and that all three of these came to Europe from China.”

“If there is a second key, it lies in politics: a government strong enough to keep its servants from confiscating whatever they please, limited enough for individuals to be confident that the state is unlikely to suddenly put all they have at hazard . . .”

“De Long is co-editor, *Journal of Economic Perspectives*; Research Associate with the National Bureau of Economic Research; visiting scholar, Federal Reserve Bank of San Francisco; and former (1993-1995) deputy assistant secretary (for economic policy), U.S. Treasury.”

Landes, *The Unbound Prometheus*: *Technological Change and Industrial Development* 1969

Hohenberg, Paul M. “[Review of Landes, David S. *The Unbound Prometheus*: *Technological Change and Industrial Development in Western Europe from 1750 to the Present*. Cambridge: CUP, 1969. 566 pp.]” *EH*.*net*. 2 June 2015. Web.

(de Long, J. Bradford. (review of Landes’s *The Wealth and Poverty of Nations*, *eh*.*net*): an “unsurpassed survey of technological change and its consequences in Europe since 1750 . . . the most important must-read book for serious students of the industrial revolution.”

“The core of it appeared in 1965 as an extended (390 pages in total!) chapter in Volume VI of the Cambridge Economic History of Europe (CEHE) . . .”

Landes, Mokyr, and Baumol, *The Invention of Enterprise*: *Entrepreneurship from ancient Mesopotamia to Modern Times* 2010

Brenner, Reuven. “[Review of Landes, David S., Joel Mokyr, and William J. Baumol, eds. *The Invention of Enterprise*: *Entrepreneurship from ancient Mesopotamia to Modern Times*. Princeton: Princeton UP, 2010. 566 pp.]” *EH*.*net*. 3 June 2015. Web.

“. . . the 18 chapters . . . are all over the map . . . How can one write anything about entrepreneurs without starting the examination with the ways they were financed?”

“it has been well documented that under the Ming, and even more under the Manchu dynasties, when rigid Confucianism was imposed by state power, Chinese inventiveness ceased for centuries . . . 90 percent of its pages are dry, tedious, and ... little more than jargon-ridden, superficial texts, providing zero insight.”

Lipset and Marks, *It Didn*’*t Happen Here*: *Why Socialism Failed in the United States* 2000

Rauchway, Eric. “[Review of Lipset, Seymour Martin, and Gary Marks. *It Didn*’*t Happen Here*: *Why Socialism Failed in the United States*. New York: Norton, 2000. 379 pp.]” *EH*.*net*. 4 June 2015. Web.

The book compares “the particulars of the American case and the predictions of Marxist theory. . . . It is the best-supported and subtlest version of the traditional thesis we are ever likely to get—but it looks over the heads of the present generation to the titans of the past without engaging current or recent scholarship to any great degree.” “the “dominant strain in American culture” was, they say, “egalitarian, antistatist, individualistic” (p. 97).”

“They use separate chapters to evaluate the respective influence of political structure, the American Federation of Labor, immigration, Socialist Party purism, and political repression on the fate of labor politics. They find in favor of a mixed theory of causation . . . Once they find that the political system and culture tilted against socialist success, that immigration from diverse sources spoiled class consciousness, and that economic and political inclusion weakened the workers’ will to oppose Americanism, then the strategic decisions of individual politicians within the socialist movement . . . seem insignificant . . .”

“. . . attention to international comparison pays off most handsomely in eliminating lesser causes. They establish that the early enfranchisement of adult white males did not seduce them away from socialism in other nations, and so cannot be cited as a cause of their disinclination to vote Socialist in the US; that the Socialist Party of America hewed to a more radical line than its contemporary counterparts in other countries, and therefore cannot reasonably be impugned for being less Marxist than American workers would have liked; that political repression of socialism in the US was less thorough than in other nations, and so cannot reasonably be cited for the movement’s downfall (indeed, Lipset and Marks imply that the US government might have been insufficiently repressive for socialism to succeed . . .). . . . however miserably the other half lived in turn-of-the-century America, they lived, in the main, better than they had in the old country, and had good enough reason to hope for even better to come. Immigration to the US was greater in both volume and diversity than to other receiving countries. With an “extraordinarily heterogeneous” (p. 127) working class, the US was unlikely to see class consciousness. And the political opportunities that immigrants did create by forming voting blocs proved of greater use to Democrats or Republicans . . . than the dogmatically class-oriented Socialists.”

Medema and Samuel, *Historians of Economics and Economic Thought* 2001

Frantz, Roger. “[Review of Medema, Steven, and Warren Samuel. *Historians of Economics and Economic Thought*: *The Construction of Disciplinary Memory*. New York: Routledge, 2001. 360 pp.]” *EH*.*net*. 5 June 2015. Web.

The book covers “the work and philosophies of eighteen historians of economics [including] Neil De Marchi, Roy Weintraub, Philip Mirowski, Donald Moggridge, William Barber, Bob Coats, Mark Blaug, Samuel Hollander, Werner Stark, F.A. Hayek, Joan Robinson, and Maurice Dobb. The authors . . . are twenty-two other historians of economics . . .”

“The orthodox view is that knowing about past economists does not help one understand ideas and theories . . . because everything of value from the past has been incorporated into current theory. . . . Certain descriptions of the historians being discussed appear frequently, revealing . . . the sub-discipline in general. These descriptions include: breadth of reading; intellectual curiosity and passion; an interdisciplinary approach to economics, via a study of the law, institutions, culture, and history; a desire for deep understanding (that does not come solely from econometric results); appreciating the larger aspects of economics; a writer of books; and valuing knowledge for its own sake.”

“A second major theme[:]historians of economics are different from other economists. Most economists turn their attention to the history of economics during a later part of their careers. . . . I started teaching the history of economics relatively late in my career . . . I read parts of Smith’s Theory of Moral Sentiments and it was clear to me that . . . Smith was speaking about intuition and the difference in brain functioning of the left and right hemispheres of the neocortex. . . . It was then that I began teaching the history of economics.”

“A third major theme is how and why we should study the history of economic ideas. [Charles Clark 317:] Smith, Mill, Marshall, Keynes [discovered] insights into the economic and social realities of their respective epochs.””

“Roger Frantz is a Professor of Economics at San Diego State University. His latest publication is “Herbert Simon: Artificial Intelligence as a Framework for Understanding Intuition,” Journal of Economic Psychology, (in press). He is completing a manuscript with a working title, Intuition in the History of Economic Thought, to be published by Kluwer in 2004.”

Milanovic, The Haves and the Have-Nots 2011

Maloney, Thomas N. “[Review of Milanovic, Branko. *The Haves and the Have-Nots*: *A Brief and Idiosyncratic History of Global Inequality*. New York: Basic, 2011. 258 pp.]” *EH*.*net*. 6 June 2015. Web.

“. . . Milanovic (an economist at the University of Maryland and the World Bank) combines three primary essays on income inequality . . . [Each] is followed by several short “vignettes” which are used mainly to illustrate concepts introduced in the longer essays.”

This structure is perhaps not best suited to a straight read-through but rather invites some “grazing” by the reader, so that someone attracted to a five-page piece entitled “Who Was the Richest Person Ever?” might become curious enough to take on the more meaty material.”

“The first essay, “Unequal People: Inequality among Individuals within a Nation,” introduces various methods for measuring inequality across persons or households within a nation and documents long-run changes in these measures. It also briefly examines the effect of growth on inequality as well as the effect of inequality on growth. In addition, it provides a provocative discussion of the relationship between inequality and well-being and about what degree of inequality (if any) is harmful enough to justify some intervention by government. Here, Milanovic draws on the work of Atkinson, Edgeworth, Sen, Pareto, and Rawls.”

“The second essay, “Unequal Nations: Inequality among Countries in the World,” shifts the focus to differences between average incomes, or between overall income distributions, across political entities.” [Here Milanovic discusses in detail] “purchasing power parity.” He then documents broad increases in inequality between nations and considers why this increasing divergence has occurred in the face of greater global economic integration, which might be expected to produce some convergence in incomes.”

“The final essay, “Unequal World: Inequality among Citizens in the World,” treats the population of the globe as one income distribution and examines changes in that distribution over time. The historical window of observation here is much more limited [since data for some countries] have been available only since the 1980s. Milanovic argues that inequality by this “global individual distribution” measure probably has not changed much over the past 30 years because broad increases in between-country and within-country inequality have been offset by income growth in India and China . . .”

“. . . there are some common themes that run through several of the [vignettes] and the longer essays.”

“One recurring theme considers how we define inequality, why we care about it, and how those definitions and priorities change over time. While Ricardo and Marx discussed income distribution mainly in terms of aggregate shares flowing to different classes (landowners, capitalists, and workers), the advent of marginalism, along with the development of individual- and household-level social statistics, shifted attention to these smaller units and away from sectoral or class aggregates. Inequality between nations was not of much interest prior to the industrial revolution, when average incomes were fairly near subsistence in most countries and so variation in averages across countries was rather limited. Industrialization and unprecedented rates of growth in some countries widened these gaps considerably and prompted questions about the sources of these aggregate differences. The study of a global individual-level distribution is dependent both on the development of individual-level statistics in a sufficient number of countries and also on the process of globalization itself, which exposes people to conditions in a greater variety of places and provokes curiosity about the scale and sources of individual-level income differences across the globe.”

“A second recurring theme is the growing importance of geographic dimensions of inequality, both within and between countries, and the potential consequences of this phenomenon. In Vignette 1.8, Milanovic describes how substantial differences in mean incomes across regions in the USSR and in Yugoslavia generated political tensions which made it harder to hold those countries together. He draws lessons from this history in speculating about the potential future of China in Vignette 1.9 and of the European Union in Vignette 3.3. He also focuses (in Vignette 2.4) on growing geographic differences in mean incomes as a source of large and challenging migration flows, especially in places where nations with very different mean incomes are physically proximate, as in the cases of the U.S. and Mexico, Albania and Greece, Indonesia and Malaysia, and Morocco and Spain.”

“In his preface, Milanovic says that he is concerned that public discussion of inequality is often stifled by invoking the notion that it is the “natural” outcome of “the market” and so cannot be usefully questioned or altered. Given that concern, it is somewhat surprising that there is little detailed examination of the causes of inequality in this brief book. The focus instead is on documentation of the broad patterns, along with a very engaging discussion of what various thinkers have said about the moral and ethical dimensions of inequality. Milanovic does provide a lengthy list of suggested readings which should allow those interested to examine the causes of inequality in greater detail on their own.”

“Thomas N. Maloney is Professor and Chair in the Department of Economics and Director of the . . . Center for Nonviolent Human Rights Advocacy at the University of Utah. He is the co-author of: Maloney, Thomas N., and Nathaniel Cline. “Inequality in Economic History.” In Whaples, R., and R. Parker, eds. The Routledge Handbook of Modern Economic History.

Mitchell, *The Speculation Economy*: *How Finance Triumphed over Industry* 2008

Ferderer, J. Peter. “[Review of Mitchell, Lawrence E. *The Speculation Economy*: *How Finance Triumphed over Industry*. San Francisco: Berrett-Koehler, 2008. 395 pp.]” *EH*.*net*. 7 June 2015. Web.

“Mitchell examines the evolution of security market regulation in the United States during the Progressive Era (1890-1913). Although federal involvement did not reach its modern form until the New Deal [regulatory legislation failed to pass until the Securities Act of 1933], much of the groundwork was laid during this period. . . . *disclosure* was the primary regulatory device . . .”

“Since the birth of the nation, the creation and regulation of corporations had been the domain of the states. . . . [Causes for wanting federal regulation] included the merger wave from 1897 to 1903 which created giant corporations, dramatic increases in wealth, the democratization of security market participation, and the Panic of 1907. World War I increased the pressure because it required intrusive federal intervention in the financial system which served as a powerful precedent for future regulation[;] and the Liberty Bond drives brought even more Americans into contact with security markets.”

“. . . young economists, including Richard T. Ely, John Bates Clark and others, . . . argued that giant corporations could be beneficial to society (owing to scale economies) and that it was the state’s role to prevent their excesses. . . . [Mitchell credits] Woodrow Wilson, Ely’s former Johns Hopkins student, . . . with playing a major role in shaping modern securities market regulation.”

“Initial efforts at securities regulation at the federal level were motivated by antitrust concerns. In an attempt to attract corporations, states began to liberalize their chartering laws in the 1890s. New Jersey was the first . . . Although New Jersey eventually reversed course under the leadership of Governor Woodrow Wilson, a race to the bottom led a number of other states (notably Delaware and West Virginia) to embrace corporate liberality. Allegedly, the incorporation laws of these states were highly problematic because they led to overcapitalization or ‘stock watering.’ Industrialists were accused of using new shares as currency to buy competitors and monopolize product markets. Corporate managers were accused of watering stocks to gain control over enterprises which they then mismanaged for their own benefit. The antitrust problem had become a corporate governance problem.”

“Mitchell claims that a new form of speculation emerged at the turn of the century as corporations altered their capital structures (and investors their portfolios) away from bonds . . . to common shares . . . While ‘traditional speculation’ (short selling, buying on margin, etc.) had always been part of the system and periodically played a role in financial panics, it did have [*sic*, sc. “not”] a permanent effect on the structure of the American economy. In contrast, the new speculation exerted a ‘stranglehold’ over industry. . . . ‘managers of the giant new combinations had to satisfy the demands of a hungry market increasingly populated by common shareholders who expected their dividends . . . the dominance of finance over industry had begun’ (p. 196).”

“. . . Mitchell concludes that the regulatory course taken in the United States has allowed finance to shape corporate decision-making in a way that is detrimental to society. . . . He argues that, in recent years, changes in corporate governance and theoretical developments in financial economics have paved the way for the ‘financial domination over industry’ to become ‘the full-blown triumph of the stock market over industry’ (p. 274).”

But “it is far from clear that the stock market is to blame for our current problems. A more benign explanation for the rise of ‘new speculation’ (or what might be better labeled ‘risk-taking’) is that it represents a normal response to fundamental economic change. For example, the merger wave at the turn of the twentieth century should have stabilized profits around a higher mean growth rate. If this was the case, the risk of common shares should have diminished. Moreover, the rapid rise in wealth over this period should have reduced risk [premiums,] given the diminishing marginal utility of money. . . . the shift from bonds to common shares . . . [are] an important source of rising living standards over the long-run.”

“J. Peter Ferderer is Professor of Economics at Macalester College, where he teaches courses in macroeconomics, economic history and behavioral economics, and currently serves as the President of the Minnesota Economic Association.”

Moe, *Governance*, *Growth and Global Leadership*: *The Role of the State* 2007

Leeson, Peter T. “[Review of Moe, Espen. *Governance*, *Growth and Global Leadership*: *The Role of the State in Technological Progress*, *1750-2000*. Burlington VT: Ashgate, 2007. 308 pp.]” *EH*.*net*. 8 June 2015. Web.

“. . . political scientist Espen Moe of the Norwegian University of Science and Technology . . . argues that three key factors explain [prosperity]: human capital, government’s ability to resist catering to vested interests, and “political consensus and social cohesion.” Through these factors Moe aims to marry “Schumpeterian growth theory”—the idea of a simultaneously creative and destructive growth process—with Mancur Olson’s theory of special interest groups to create a general framework that sheds light on the history of technological change. The marriage is a fruitful, if familiar, one. . . . The core framework here is not “new;” but . . . theoretical innovation is not Moe’s goal. The application of this framework to the history of technological progress is both novel and . . . the author’s primary purpose, which is an empirical one.”

“. . . Moe considers nine case studies of technological progress or stagnation between 1750 and 2000. His case studies are presented in [five] chapters. Each of these is devoted to a different industry . . .” Ch 2: England and France’s “cotton textile industry during the First Industrial Revolution.” Ch 3: England and France’s iron industry, 1800-50. Ch 4: Germany and England’s chemical industry, 1850-1914. Ch 5: US auto industry, 1919-39. Ch 6: American and Japanese “information and communications technology industry” (ICT), 1945-2000.

“. . . older, well-established producers have incentives to block [invention] . . . If old industrial leaders are able to capture the state, government will raise barriers to change . . . Governments that can resist the pressure to cater to such interests facilitate the process of creative destruction and with it economic growth.”

“Political consensus and social cohesion [create] the conditions of broad-based support among political leaders and the populace for economic policy that allows new producers to compete openly with old ones, or by adding to the pressure that vested interests apply to government to preserve existing arrangements.”

The “case studies persuasively point to the important (primarily negative) role of government in . . . resisting pressure from . . . the status quo. Likewise, they effectively highlight how “political consensus and social cohesion” reduced or applied this pressure, enabling or preventing technological advance. Overall, the evidence Moe musters does a nice job of illustrating the utility of his proposed Schumpeter-Olson marriage . . .”

“. . . it would have been useful if his analysis focused more on how government can and has used “human capital building” to cater to vested interests and block Schumpeterian growth. . . . state-sponsored research and development, education, and so on, . . . may be used by political actors to cater to vested interests . . . A technology that could not support itself without state-subsidized R&D, for example, but because of this R&D “makes it” and eventually comes into wide use is not necessarily a “win” from the standpoint of economic development. For one thing, we never enjoy the alternative, potentially superior technological innovations that would have come along if R&D resources had been allocated according to market forces instead of political criteria.”

“Leeson is the BB&T Professor for the Study of Capitalism at George Mason University.”

Mokyr, *The Gifts of Athena*: *Historical Origins of the Knowledge Economy* 2002

Khan, B. Zorina. “[Review of Mokyr, Joel. *The Gifts of Athena*: *Historical Origins of the Knowledge Economy*. Princeton: Princeton UP, 2002. 359 pp.]” *EH*.*net*. 9 June 2015. Web.

Professor of economics at Northwestern. Mokyr’s *The Lever of Riches* (Oxford: OUP, 1990) “is a standard reference for . . . the economic history of technology.” *Gifts of Athena* is Mokyr’s thinking “on the role of knowledge in generating economic growth.”

Useful knowledge “related to natural phenomena that can be manipulated to enhance economic welfare . . . comprises two categories: *propositional* knowledge about natural regularities; and *prescriptive* knowledge or techniques.”

“Propositional knowledge (denoted by the symbol Omega) refers to generalized principles such as natural laws and empirical observations obtained through measurement and classification. The concept is not limited to science per se, but also extends to mechanics, geography, engineering, and socially constructed beliefs that might be incorrect . . . Collective knowledge ranks more highly than what any individual knows, and raises the key question of how individual knowledge is diffused and aggregated into the public domain. Improvements in Omega knowledge are due to discoveries of facts that had always existed but were previously unknown, and provide the epistemic base for the set of prescriptive knowledge. Prescriptive knowledge (denoted by the symbol Lambda) consists of techniques, prescriptions, and instructions, which reside in human memory, artifacts or storage devices. Indeed, the patent law makes just such a distinction, and awards patents for net additions to the store of prescriptive knowledge (inventions) but not for discoveries of the sort that would fall within the primary Omega set.”

Propositional knowledge is “limits the set of feasible techniques . . . Yet many scholars believe “that if incentives and demand are right, somehow technology will follow automatically” (p. 16). [The Omega] set also influence the costs of acquiring or using techniques. . . . [But vice versa,] prescriptive knowledge serves to increase the set of propositional knowledge.”

“The rest of the book [shows that] the advances in welfare that we enjoy today are the legacy of a revolution in knowledge that occurred some three hundred years ago in Western Europe. The credits for its intellectual origins are shared, but in terms of its economic exploitation Britain led the way . . .”

Ch 1, “Technology and the Problem of Human Knowledge”; 2, “The Industrial Enlightenment: The Taproot of Economic Progress”; 3, “The Industrial Revolution and Beyond”; 4, “Technology and the Factory System”; 5, “Knowledge, Health, and the Household”; 6, “The Political Economy of Knowledge: Innovation and Resistance in Economic History”; 7, “Institutions, Knowledge, and Economic Growth.”

Ch 1: “Growth episodes did occur before the first Industrial Revolution [1750-1850], but were subject to negative feedback mechanisms that ensured the spurts were short-lived. For instance, rent-seeking guilds raised monopoly barriers and other coalitions suppressed the diffusion of vital technological knowledge. However, the most important obstacle to self-sustaining growth was the narrow base of propositional knowledge in such areas as agriculture, transportation, power, and medicine.”

Ch 2: The Industrial Revolution “was due to what Mokyr calls an “Industrial Enlightenment.” Expansions in the base of propositional knowledge, and a positive feedback mechanism between the two types of knowledge, proved to be critical. Those who focus simply on pure scientific discoveries miss much of the point, since valuable knowledge was also drawn from a combination of *tatonnement* [“groping,” “trial and error”] and conscious insight. In the eighteenth century, exogenous discoveries about nature, changes in artisanal knowledge, and greater access to information combined with new inventions to create productivity advances.”

Ch 3: the Industrial Revolution “was accompanied by a revolution in information technology . . . Scholars communicated with investigators in other countries; experts, consultants and other specialized professionals cooperated and transmitted knowledge by varied means including networks, job mobility and industrial espionage. The cost of access fell partly due to innovations in postal services, improved transportation, greater availability of cheap reading matter, and standardization of information such as in the use of mathematics as a means of communication. Access to knowledge also became more systematic, as in the spread of alphabetization, compilations of technical material in encyclopedias, and the Linnaean method of classifying and identifying botanical specimens. By the time of the second Industrial Revolution [1850-1914: steel, petroleum, autos,] factors that favored improved access included an institutional environment that engendered positive interactions and the spread of free market principles.”

Ch 4: “Knowledge and technology also caused changes in the organization and location of production from the household to the factory. The competence levels required of manufacturing increased and necessitated the application of more knowledge than the ordinary household could efficiently generate, for “the division of labor is limited by the size of the knowledge set necessary” (p. 140). Other explanations of the factory system such as the role of economies of scale, transactions costs, and increases in the intensity of work, are complementary . . . [And] factory owners had a vested interest in adding to the skills and knowledge of their workforce, if only to socialize their workers into appropriate behavior. Thus, the factory system itself functioned as a conduit through which knowledge was created, recorded, and transmitted.”

Ch 5 “deals with the household’s use of technologies, and its “recipes” or additions to prescriptive knowledge. . . . empirical studies regarding sanitation and hygiene had a significant impact on household practices and beliefs. Mokyr highlights the “war on dirt,” the germ theory of disease and the “war on insects,” and advances in nutritional science. . . . “brainwashing by soap commercials” (p. 212) may have led to a suboptimal and excessive level of devotion to cleaning and housework [and] may have delayed the entrance of some married women to the labor force.”

Ch 6 is on “the political economy of knowledge, and centers on two propositions: first, the progress of useful knowledge is far more influenced by political economic forces than we realize; and second, technological inertia does not indicate that individuals are irrational, but may be the outcome of rational choice. Entrenched elites may manipulate cultural standards and religious principles to avoid innovations that threaten their position. The existence of democratic free market processes is no safeguard, and indeed under some circumstances may serve to enshrine inefficient technologies to a greater degree than other less desirable political systems.”

Ch 7 (an example of “New Institutional Economics”) concludes that “useful knowledge mattered.” Expansions in the set of useful knowledge can be induced to some extent by social agenda, appropriate institutions and relative prices. Nevertheless, fundamentally its growth is a function of the *dea ex machina*, for there is “a great deal of autonomy to it, which cannot be explained in terms of demand or factor endowments” (p. 293).”

The subtitle (“Historical Origins of the Knowledge Economy”): *Gifts*’s description “of the European experience is superb, . . . but I have strong doubts about the relevance of the European experience to understanding either the information economy or global technology and culture today. Britain restricted useful knowledge to an elite . . ., and its institutions functioned in such a way as to prohibitively increase the costs of access to the working class. . . . [Mokyr] speculates that such large gains in useful knowledge were experienced in the 1990s that they possibly amounted to another industrial revolution. He highlights the fact that marginal access costs have been “reduced practically to zero” (p. 77). However, contemporary applications are admittedly not a major focus of the book.”

“Zorina Khan is Associate Professor of Economics at Bowdoin College, Faculty Research Fellow at the NBER, and a member of the editorial board of the *Journal of Economic History*. She has published on the history of patents and copyrights, as well as economic history and the law.”

Mokyr, *The Oxford Encyclopedia of Economic History* 2003

Whaples, Robert. “[Review of Mokyr, Joel. *The Oxford Encyclopedia of Economic History*. Oxford: OUP, 2003. 2730 pp.]” *EH*.*net*. 10 June 2015. Web.

c. 900 articles.

Comparable to “the EH.NET Encyclopedia of Economic and Business History (see http://eh.net/encyclopedia/).” The work “has been advertised as “the definitive reference on world economic history throughout time.” It assuredly is. The advertising flyer touts it as “comprehensive . . . international . . . interdisciplinary . . . authoritative . . . accessible.” On a 100-point scale, I’d rate it at 99, 90, 98, 98, and 95 in these five categories.” Accessible: “only a handful of entries use mathematical language . . .” “If only it were available online . . .” “. . . the entry on “Financial Panics and Crashes,” [in] coverage of the Great Depression in the U.S. gives an antediluvian John Kenneth Galbraith take on the “Great Crash,” devoid of a sense of subsequent research.”

Morris, *The Measure of Civilization*: *How Social Development Decides the Fate of Nations* 2013

Jones, Eric. “[Review of Morris, Ian. *The Measure of Civilization*: *How Social Development Decides the Fate of Nations*. Princeton: Princeton UP, 2013. 381 pp.]” *EH*.*net*. 11 June 2015. Web.

“Ian Morris is one of the most energetic researchers around, one of the most ambitious and one of the most talented. . . . an archaeologist of the classical world, Morris does not feel bound by the parochialism of economics, which in any case has gone out of style in economic history. He shows that real questions arise from total history, because all more restricted enquiries must nest within global trends.”

“Not content with narrative observations on world history, he tries in this book to ground them by measuring four traits: energy capture (the output of food, fuel and raw materials), organization, the capacity to make war, and information technology. Of the four, energy capture bulks largest in the combined result, which he calls a Social Development Index. Data, or proxies for data, are identified and graphed at regular intervals over the entire 16,000 years since the Ice Age. . . . It is total history, based on a colossal effort at consistent measurement.”

“His range of reference is exceptional, and his candor and methodological awareness remarkable . . . [Admirable are] the skill, breadth of knowledge and open-mindedness with which the task is approached . . .” As for the Human Development Index, “it is thoroughly obscure how meaningful transformation ratios can be established between biological indicators of well-being and social indicators such as, say, literacy.” “. . . he openly admits a profusion of lacunae and ambiguities. . . . although he provides scores for each trait at every period and in every region, they are spattered with hesitations, caveats and guesses. . . . Morris [knows] that deficiencies in the data may nullify his conclusions . . . He decides that if the trend of his index is more than 20 percent awry, it is insufficiently robust. Notwithstanding whether this is fair, it blurs an exercise that Morris begins with extreme claims for precision.” “The conclusion is that, once inanimate power became general, the course of world history stood revealed as unidirectional. . . . [But] sporadic finds from archaeological digs used to track early conditions are hard to integrate, while twentieth century experience breaks away from the longer trends.”

“It remains an open question how far solidifying any individual’s reading of historical sources in this way improves on a careful narrative presentation of the same material.” “Eric Jones is Emeritus Professor, La Trobe University . . .” Recent books: Locating the Industrial Revolution: Inducement and Response. World Scientific, 2010. With Charles Foster. The Fabric of Society and How It Creates Wealth. Arley Hall, 2013.”

Muller, Jerry Z. *The* *Mind and the Market* 2002

Caldwell, Bruce. “[Review of Muller, Jerry Z. *The* *Mind and the Market*: *Capitalism in Western Thought*. New York: Knopf, 2002. New York: Anchor, 2003. 487 pp.]” *EH*.*net*. 12 June 2015. Web.

Muller “shows in his brilliant book *The Mind and the Market* [that there are] a large number of ways to talk about the market system. Muller reviews what a number of modern (modern meaning from about 1700 through the twentieth century) Western thinkers have said about markets and capitalism. He includes figures that economists might expect: Adam Smith, Karl Marx, Joseph Schumpeter, John Maynard Keynes, Friedrich Hayek. But he also includes . . . Voltaire, Hegel, Justus M?ser, Edmund Burke, Max Weber, Georg Simmel, Werner Sombart, Georg Luk?s, Hans Freyer, and Herbert Marcuse.”

“Instead the effects of markets on moral and cultural values, on such non-market institutions as the family, the nation, the church, and other associative groups, on senses of community and individuality, are the focus.”

“. . . many of the most trenchant critics of markets were conservatives . . .”

“Muller seamlessly adds . . . illuminating background information drawn especially from economic, but also from political, social and cultural history. Next, he has an excellent eye for the telling detail or anecdote. Muller’s engaging style extends even to his encyclopedic footnotes . . . Though the book is enjoyable to read, . . . Because it is packed with information it is not a quick read . . .””

“Bruce Caldwell is an historian of economic thought at the University of North Carolina – Greensboro. He is the General Editor of *The Collected Works of F*.*A*. *Hayek* and the author of *Hayek*’*s Challenge*, published in 2004 by the University of Chicago Press.”

Nasar, *Grand Pursuit*: *The Story of Economic Genius* 2011

Prasch, Robert E. “[Review of Nasar, Sylvia. *Grand Pursuit*: *The Story of Economic Genius*. New York: Simon & Schuster, 2011. 559 pp.]” *EH*.*net*. 13 June 2015. Web.

Nasar is a professor of business journalism at Columbia University. “While Nasar’s political commitments are very different, . . . her book has the potential to [replace] Robert Heilbroner’s The Worldly Philosophers.” But “historians of economic thought will find much to criticize.”

“. . . it is far from comprehensive. Why certain figures or subjects are included and others neglected is [apparently] how well they fit the larger project, which is to present an unabashedly Whig history of economics.”

Some economists are “mentioned only briefly (and too-often inaccurately) . . . [1] the German Historicists are summarized and then dismissed . . . [2] Nasar makes a passing reference to ‘so-called institutionalists’ without suggesting why she wishes to downplay their role . . . [3] John Commons makes no appearance whatsoever despite the prominence of the Wisconsin School in policy discussions throughout the Progressive Era. . . . [4] the several prominent figures of the English Historical School fail to appear at all.”

“. . . the weakest link is her treatment of Karl Marx. She clearly dislikes him . . .”

“The treatment of the post-World War II scene is also idiosyncratic.” She covers Paul Samuelson, Joan Robinson, and Amartya Sen. But “discussion of the past fifty years of economic analysis must include more than a brief reference to the work of John Hicks, Kenneth Arrow, the Chicago School, the rise and decline of Monetarism, and the Rational Expectations ‘revolution’ of the 1970s and 1980s. Finally, [there is no] discussion of how Game Theory evolved from a fringe subject to its now-central place in contemporary microeconomics, Organizational Theory, and Industrial Organization.”

Robert Prasch is co-editor of Thorstein Veblen and the Revival of Free Market Capitalism. 2007.

Nayyar, *Catch Up*: *Developing Countries in the World Economy* 2013

Ward-Peradoza, Marianne. “[Review of Nayyar, Deepak. *Catch Up*: *Developing Countries in the World Economy*. Oxford: OUP, 2013.]” *EH*.*net*. 14 June 2015. Web.

Deepak Nayyar is professor emeritus at Jawaharlal Nehru University. Chs 2-3 examine 1000-1950; chs 4-9 examine 1950-2010. “Catch Up thus goes beyond the traditional post-1950 assessment of . . . developing country economic performance.” (“Developing world” is Africa, Asia except Japan, and Latin America.) “Nayyar supports his arguments throughout using GDP, population, trade, and manufacturing data along with inequality and poverty measures . . .”

Ch 2: “While developing countries dominated world manufacturing production in 1750, this situation would soon change. Between 1820 and 1950 the share of world GDP for developing countries (called “The Rest”), fell from 63.1% in 1820 to 27.1% in 1950. This dramatic decline occurred largely due to declines in GDP, particularly manufacturing output, in India and China. Over the same period, the “West” increased its share of world GDP from 36.9% in 1820 to 72.9% in 1950.”

Ch 3: factors causing divergence “include the development of initial conditions in Europe during 1500-1700, the start of the industrial revolution in Britain and its expansion to Europe, and the global economy of the late nineteenth century.”

Ch 4 (1950-2010) “documents the end of divergence between developing and developing countries, and the beginnings of the process of catch-up. Between 1950 and 1980, developing countries continued to fall behind industrial countries, though at a slower pace than in the nineteenth century. The period 1950-2008 was characterized by a closing of the gap in levels of GDP and GDP per capita relative to industrial countries and higher growth rates in developing countries. As with the divergence for the period before 1950, this process of catch up is driven by GDP gains in Asia, as Latin America maintained its position relative to industrial countries and Africa continued to fall behind.”

Ch 5 focuses on “international trade, international investment and international migration. . . . In the post-1950 period, Asia has seen dramatic gains in the share of world trade, while Africa experienced declines, and Latin America after declines in the 1990s, remains at approximately 1970 levels. The data on foreign investment is for a much shorter period, starting in 1990. Activity was again more heavily concentrated in Asia with the significance of international investment at the end of the twentieth century similar to levels at the end of the nineteenth century.”

Ch 6 structural change. “Asia emerged as the only developing region showing the classic pattern of structural change with a reduction of GDP and employment shares in agriculture, along with increases in manufacturing and services. Asia was also the only region that saw a substantial increase in its share of world manufacturing valued added. For developing countries as a group, there is a transition in the composition of merchandise exports over time from primary products, to low-technology manufactures, to medium-technology manufactures to high-technology manufactures. This stands in contrast to the late nineteenth century when developing countries exported primary products and imported manufactured goods.”

Ch 7 is on “the performance of fourteen individual countries identified as leaders. The author considers four countries in Latin America, eight countries in Asia and two countries in Africa. These examples, encompassing a wide range of endowments, transition paths and development models, highlight the diversity of approaches that can produce successful outcomes. The broad lessons that emerge are the importance of physical infrastructure and access to education (called initial conditions by the author), enabling institutions to support the process of industrialization, and supportive governments.

Ch 8 is on “the evolution of poverty and inequality across countries and people. While inequality across countries has declined since 1950, inequality within countries, including developing countries has increased. Similarly, poverty rates have declined somewhat since 1980 but the number of people classified as poor (living below PPP $1.25 and PPP $2 per day) remains substantial. [Despite its catch up, Asia has] over seventy percent of the world’s poor.”

Ch 9: the future. “The author sees the beginning of the twenty-first century as heralding a shift in the world balance of power similar to the rise of Britain in the nineteenth century, and the rise of the United States in the twentieth century.”

For “the evolution of the world economy . . . the role of developing countries in this process provides a new perspective . . .”

“Marianne Ward-Peradoza is Associate Professor of Economics at Loyola University Maryland. Her research is focused at the intersection of economic history, economic development and international macroeconomics. She is working on international comparisons of incomes and productivity for a variety of industrial countries in the late nineteenth and early twentieth centuries . . .”

Neal and Williamson, *The Cambridge History of Capitalism* 2014

Mitch, David. “[Review of Neal, Larry, and Jeffrey G. Williamson, eds. *The Cambridge History of Capitalism*. 2 vols. Cambridge: CUP, 2014. 616pp, 567 pp.]” *EH*.*net*. 15 June 2015. Web.

To and from 1848 (“because of the publication that year of . . . Mill’s *Principles of Political Economy* and *The Communist Manifesto*”). “. . . two stalwarts of the cliometrics movement and their minions . . .” Includes Babylonia, the silk road, native Americans, Africa, etc. Few “economist’s diagrams and notation . . .”

“In his introduction to Volume I, Larry Neal (p. 2) identifies four common elements to capitalism: 1) private property rights, 2) contracts enforceable by third parties, 3) markets with responsive prices, and 4) supportive governments. He formulates the question that the essays in this volume seek to address as “Why did capitalism and modern economic growth take so long to get started in the first place?” The common answer he identifies is the difficulty of coordinating the appropriate mix of elements . . . emphasizing the role of institutions.”

“The volumes are largely materialistic in their focus. The intellectual and cultural dimensions of capitalism are not very developed. This is not an unreasonable decision. One can view the volumes as presenting a history of what actually happened in the economy as opposed to debates about competing ideologies.”

Nelson, *Economics as Religion*: *From Samuelson to Chicago and Beyond* 2001

Tollison, Robert D. “[Review of Nelson, Robert H. *Economics as Religion*: *From Samuelson to Chicago and Beyond*. University Park PA: Pennsylvania State UP, 2001. 378 pp.]” *EH*.*net*. 16 June 2015. Web.

“Nelson’s basic thesis is that economics is more like a religion than a science. In fact, he argues that economics in the twentieth century has virtually supplanted organized religion with a creed of material progress.”

Nelson compares “Samuelson and company [to] Roman Catholics who adhere to natural law doctrine, such as the efficacy of market institutions with a strong overlay of government regulation. Chicago economists are more like Calvinists in that they are radical revolutionaries in the pursuit of a more libertarian approach to economic life in general.”

“His thesis is new and novel; he has written a strong brief for it . . . Stylistically, he wins me over. [But I resist] the extremity of the argument. There is no doubt that modern economics is full of value judgments, both implicit and explicit, and that one must use care in separating positive from normative arguments. Where the argument is normative, one must be as explicit as possible about what the value judgments are and whether individuals are in general agreement with respect to these judgments. In most cases, the normative aspects of economic analysis are benign and easily accepted—for example, more wealth or utility is better than less, material progress is a good thing, market institutions stimulate economic growth . . . So while Nelson is right that there is a “religious” sub-text to economics, I do not think it is such a big deal. Most of these value judgments are just common sense writ large.”

“At times Nelson seems to deny the prospect of a value-free analysis. . . . [But] the economic paradigm of choice within constraints is being pushed steadily forward to new frontiers of explanation (including religion). There are no hidden values here; there is no sub-text. There is a simple desire to explain the world as it is in a more understandable way. The relevant question to these scholars is not how but why? Most of the work that Nelson discusses in the modern Chicago approach and in the New Institutional Economics is this type of analysis. And while understanding the world per se may actually lead to social change, I do not think this correlation is thought about or stressed very much by these analysts. Their focus is on understanding, not changing, the world. Still, on net, I give Nelson high marks for making an interesting and useful argument. It is always good to take stock of what we are about as professional economists.”

“One final note is that Nelson may be right about the demise of economics in universities. [But perhaps] the great economic debate is over. Capitalism won, so that the demand for the “religious” services of economists is on the wane.”

“Robert D. Tollison is a co-author of a book on the medieval church and on mercantilism. He is a past President of the Southern Economic Association and the Public Choice Society.”

Noll, *God and Mammon*: *Protestants*, *Money*, *and the Market*, *1790-1860* 2001

Frey, Donald E. “[Review of Noll, Mark A., ed. *God and Mammon*: *Protestants*, *Money*, *and the Market*, *1790-1860*. New York: OUP, 2001. 313 pp.]” *EH*.*net*. 17 June 2015. Web.

13 chapters. 4 “are devoted to early Methodism . . .. . .”

“. . . two chapters are devoted to refuting Charles Sellers’ thesis (*The Market Revolution*: *Jacksonian America*, *1815-1846*) that a strain of American frontier religion aligned itself in a culture-war against expanding capitalism.”

Noll summarizes the dominant Protestant view of economics, a view that earlier Puritans would have recognized: it drew “a fine line between accepting the legitimacy of wealth (also the means to gain wealth) and denouncing the abusive use of wealth for selfish ends” (p. 272). The Protestants took commerce for granted but “were more concerned to surround economic life with injunctions about using wealth wisely, benevolently, and for the good of others” (p. 272). [Protestantism] “featured obligations that existed independent of self-interested motives: “Protestants were simply urged, without consideration of reward, to give for the general spread of Christianity” (emphasis added, p. 274). Finally, “Antebellum Protestants were also traditional in ascribing to God most of the responsibility for the presence or absence of wealth” (p. 274). “Even in an age of expanding markets, God still ruled . . .” (p. 274). Colonial preachers could have sounded these themes.”

“. . . the book finds little deviation of the new evangelical thought from the historic Protestant traditions regarding economic life. . . . Such continuity raises the question why the book chooses to concentrate on the evangelical era at all, for it was apparently not unique, at least in terms of doctrine. The answer may be that the book is at least in part a rejoinder to Sellers, who argued that the era was unique.”

“Richard Cardwine’s chapter explains that evangelical Methodism was compatible with capitalism despite its earliest membership being from the poor: “The movement was indeed a radical, egalitarian counterculture . . . [But it was] not against industrious effort and self-improvement” (p. 80). With the decline of colonial established churches, Methodists learned to compete for converts . . .”

“Donald E. Frey is author of “Francis Wayland’s 1830s Textbooks: Evangelical Ethics and Political Economy,” *Journal of the History of Economic Thought* (Summer 2002).”

Nye, *Consuming Power*: *A Social History of American Energies* 1998

Melosi, Martin V. “[Review of Nye, David E. *Consuming Power*: *A Social History of American Energies*. Cambridge MA: MIT, 1998. 331 pp.]” *EH*.*net*. 18 June 2015. Web.

“Nye intends to give attention to “ordinary activities”—creating businesses, home-making, living in communities, seeking pleasures, purchasing goods—and how they “changed as people constructed new energy systems, from Colonial times to the present.” [p. 1]”

“Nye accepts Thomas Hughes’s notion of “technological momentum” for large systems which suggests that while these systems have some flexibility in their initial phases, they become less so over time. Some economists call this “path dependance” which emphasizes the notion that choices made early—in the application of a technology in this case—become more difficult to alter over time. Nye also gives primary attention to large energy systems—water power, steam power, electricity, the internal combustion engine, atomic power, and computerization . . .”

Nye “is concerned with reinterpreting the familiar, building an historical periodization around themes of energy consumption, and placing great emphasis on choices made “about how people shape technologies” (p. 255). . . . Nye is a talented synthesizer and an important commentator on American society and culture. That he recognizes the intimacy between how American culture evolved and its use of energy is an important theme too often ignored in more traditional renditions of American history as a political or economic saga. Consuming Power is well-balanced in its chronology, in its treatment of major economic and social changes, and in its efforts to capture the essence of the American consumer culture.”

O’Toole, *Money and Morals in America*: *A History* 1998

Frey, Donald. “[Review of O’Toole, Patricia. *Money and Morals in America*: *A History*. New York: Clarkson Potter, 1998. 408 pp.]” *EH*.*net*. 19 June 2015. Web.

“This volume portrays the tension in American culture between self-interest and the belief that “to be human is to live in a community.” . . . The utility-maximizing model of economics could have represented one of the poles in the O’Toole thesis, if she had chosen to explicate it. Community (acting as market) sets the constraints (e.g., relative prices) on the individual’s maximization problem, but is otherwise irrelevant. Even altruism is interpreted as being instrumental, occurring only because it increases the individual’s utility. O’Toole plays off an implicit version of this understanding of humans, which economist George Stigler admitted was a type of morality, against an understanding that individuals do, and ought to, recognize obligation to the common good. Her point is that both these poles exist [in America] in an uneasy tension.”

Ofek, *Second Nature*: *Economic Origins of Human Evolution* 2001

Faria, João Ricardo F. “[Review of Ofek, Haim. *Second Nature*: *Economic Origins of Human Evolution*. Cambridge: CUP, 2001. 254 pp.]” *EH*.*net*. 19 June 2015. Web.

“. . . highly readable.” Aspects of “human evolution that possess an important economic dimension [include] the domestication of fire, the creation of stone tools, human migration from Asia to America in the midst of an ice age, the transition from the feed-as-you-go strategy through hunting-gathering and finally to agriculture, and the paradox of husbandry.”

“. . . the main thesis of the book [is] that human propensity to exchange played a central role in human evolution.”

“The remainder of the book is divided in two parts: bioeconomics and paleoeconomics. Both parts are divided in six chapters.”

Oliver and Aldcroft, *Economic Disasters of the Twentieth Century* 2007

Rockoff, Hugh. “[Review of Oliver, Michael J., and Derek H. Aldcroft, eds. *Economic Disasters of the Twentieth Century*. Cheltenham: Edward Elgar, 2007. 361 pp.]” *EH*.*net*. 20 June 2015. Web.

“Financial Crises, the African Growth Disaster, the First World War, the Great Depression [W.R. Garside], the Second World War [Niall Ferguson], OPEC Price Increases, Inflation, Stock Market Crashes [Geoffrey E. Wood], and the Demise of the Command Economies of the Soviet Union . . .”

“The book would make a good text . . . at the advanced undergraduate or graduate level. Students love disasters. . . . [Only the OPEC essay] employs algebra and graphical analysis. Many of the essays, however, . . . are densely packed with economic reasoning.”

“Forrest Capie’s essay on inflation shows that periods of hyperinflation or very high inflation are almost always the product of “civil war or revolution or at a minimum serious social unrest” (p. 172). Weak governments faced with threats to their existence resort to the printing press. The implication is that we are unlikely to see very high inflation in advanced industrialized nations. Capie ends his essay by enumerating the many ways that nations have found to limit the potential for inflation: independent central banks, dollarization, currency boards, monetary unions and so on.”

Olson and Kähkönen, *A Not-So-Dismal Science* 2000

Adams, John. “[Review of Olson, Mancur Satu, and Satu Kähkönen. *A Not-So-Dismal Science*: *A Broader View of Economies and Societies*. Oxford: OUP, 2000. 274 pp.]” *EH*.*net*. 21 June 2015. Web.

The IRIS Center (Center For Institutional Reform in the Informal Sector) began “in 1990 after representatives of USAID [United States Agency for International Development, hence “US AID”] approached Mancur Olson about creating a research and policy institute that would actively apply his creative ideas about collective action, political economy, and economic growth to problems of Third World development. . . . issues of economic reform were beginning to emerge as more East European and Central Asian economies confronted the task of making the transition from state-directed to market-based guidance. . . . [IRIS Center is] devoted to rigorous, academically based economic policy advice . . .”

“The volume opens with his [Olson’s] “Big Bills Left on the Sidewalk: Why Some Nations Are Rich and Other Poor.” This is vintage Olson stuff. . . . [He calls] attention to the striking variations in levels of productivity and income marked out by national boundaries. When an immigrant from, say, Bangladesh lands in the U.K., his earnings rise by a factor of fifty or more. Because the immigrant did not miraculously acquire either more human capital, or assume radically different cultural or religious values, during an 11-hour airplane flight, then the determining factors must lie in the institutional and policy differences between the two countries. . . . Olson considers as possible explanations for the persistence of national poverty the usual neoclassical variables: technology, capital, the quantity and quality of labor, and land and natural resources. He rejects each in turn: knowledge is widely available at low costs; human capital differences are insufficient; land/labor ratios and diminishing returns do not appear explanatory. What’s left? Policies and institutions, of course.”

“. . . capture of key decision-makers by private interests, aka corruption.”

Osterhammel and Petersson, *Globalization*: *A Short History* 2005

O’Rourke, Kevin H. “[Review of Osterhammel, Jürgen O., and Niels P. Petersson. *Globalization*: *A Short History*. Princeton: Princeton UP, 2005. 182 pp.]” *EH*.*net*. 22 June 2015. Web.

“. . . the more tangible dimensions of economic globalization [are] trade, labor migration and capital flows . . .” “aim is to provide a brief introduction to the history of globalization, stretching back into the Middle Ages . . . they emphasize the important roles played by the Muslim, Mongol and Iberian empires in creating links between different regions of the world . . . The main flaw of the book [is] that its narrative ends some time in the mid-1970s.”

Pack, *Aristotle*, *Adam Smith and Karl Marx* 2010

Mongiovi, Gary. “[Review of Pack, Spencer J. *Aristotle*, *Adam Smith and Karl Marx*: *On Some Fundamental Issues in 21st Century Political Economy*. Cheltenham: Edward Elgar, 2010. 260 pp.]” *EH*.*net*. 23 June 2015. Web.

“Pack, starting from the premise that intellectual history is an indispensable part of the economist’s toolkit, has given us a thoughtful book that could serve as a solid anchor for classroom discussions of the broad ‘sociological’ dimensions of capitalism.”

Pack “argues that the conceptual and discursive frameworks developed by Aristotle, Smith and Marx are not ‘paradigms in conflict’ but ‘intimately related’ systems . . . Parts I, II and III discuss in turn how Aristotle, Smith and Marx handled six basic themes: exchange value, money, capital, human character, government and change. . . . Each of the first three sections might stand alone as a primer . . . But there are obvious limits to what ancient philosophy can contribute to our understanding of how a market-based industrial society functions.”

“Part IV considers how their insights on these themes shed light on a number of modern economic problems. . . . Section IV on ‘Lessons for the 21st Century’ . . . is a hodgepodge of Pack’s (generally thoughtful) reflections on the economic challenges confronting the world today.”

Pack “calls attention to parallels between Smith and Marx that are too often overlooked, and that, more importantly, remain pertinent to the political economics of our own time.”

on self-interest:

“Aristotle considered chrematistics—the use of money to beget more money—to be ‘unnatural’ and corruptive. The pursuit of material gain cultivates an obsessive concern with the acquisition of wealth, and consequently undermines the values necessary to achieve a properly balanced life; that is to say, it subordinates reason (which favors moderation) to the passions (which cause us always to covet more than have, even when we have more than we need). Aristotle’s assessment is a sobering corrective to the conventional view of the capitalist mind as a supremely rational and dispassionate engine.”

Smith “saw commerce and finance as natural and beneficent. Yet he too recognized that commercial society can foster unseemly character traits. In pursuit of self-interest, capitalists and rentiers may be tempted to engage in predatory or deceptive behavior. Repetitive factory work dulls the intellects of the laboring classes.”

“. . . Marx saw the obsessive quest for material wealth (surplus value) as an activity that corrupts human character . . . [But] Marx adds that the capitalist really has no choice: . . . the capitalist who ceases to accumulate will be overrun and eventually destroyed by his brethren.”

on religion:

Smith said that “The precariousness of their economic condition makes workers acutely conscious of the dangers of licentiousness . . . Workers may therefore be drawn to religions that demand strict adherence to severely austere codes of behavior . . . Smith was no fan of such ‘disagreeably rigorous and unsocial’ sects, which he regarded as dysfunctional by-products of the market system. . . . For Smith the causal link between religion and capitalism runs in the opposite direction from that posited in 1905 by Max Weber in The Protestant Ethic and the Spirit of Capitalism. As Pack notes, Marx recognized that Protestantism helped to entrench capitalism; but I suspect that Smith’s causal link would have been more congenial to Marx than Weber’s. For . . . a key tenet of historical materialism is that the major ideological elements of any society, including its religious beliefs, are predominantly shaped by the prevailing mode of production.”

“Aristotle’s observations about price formation and income distribution have little bearing on the analytical issues that have preoccupied economists from the eighteenth century onward.”

“Aristotle understood history as a circular process defined by the recurring cycle of the seasons, not as a forward-moving trajectory of irreversible change. . . . These fundamentally incompatible conceptions of history circumscribe what Aristotle and moderns have to say to one another across the centuries.”

“Aristotle’s empiricist approach to knowledge offers a potential point of contact with Smith and Marx, both of whom grounded their analytical systems in such observable data as the technical conditions of production, the consumption requirements of the workers, and so forth. But Pack says nothing at all about the epistemic outlooks of the three system-builders . . .”

Palan, Murphy, and Chavagneux, *Tax Havens*: *How Globalization Really Works* 2010

Grandy, Christopher. “[Review of Palan, Ronen, Richard Murphy, and Christian Chavagneux. *Tax Havens*: *How Globalization Really Works*. Ithaca: Cornell UP, 2010. 270 pp.]” *EH*.*net*. 24 June 2015. Web.

Tax havens are “sovereign locations that seek to attract financial activity by offering low, or nil, levels of taxation and/or regulation.” A definition “in the conclusion (p. 236) . . . emphasizes the intention of jurisdictions to create legislation that facilitates the economic transactions of nonresidents to avoid/evade taxation and/or regulation in their own countries, typically via a veil of secrecy.”

“. . . historical background and the evolution of tax havens is light.? The authors provide a brief survey of tax haven-like phenomena around the world and from the late-nineteenth century.”

The authors “assemble a range of tax haven-related information . . . [to show that] developed countries . . . could use [taxes] to ameliorate widening income/wealth disparities, [and] developing countries . . . could invest the resources in building their economies.”

“The authors are clear about their point of view. Those who use and supply tax haven services exploit the mismatch between the global scope of economic activity and the patchwork of political/legal authority. In essence, tax havens are parasites on the global economy and the system of states (p. 13). Consequently, global elites are able to avoid their responsibilities (i.e. tax contributions) to the societies that ‘sustain them’ (p. 181).”

“The book offers no data on the distribution of income and wealth, to say nothing of an empirical link between tax havens and those distributions.”

Parker, *Reflections on the Great Depression* 2002

Smiley, Gene. “[Review of Parker, Randall E. *Reflections on the Great Depression*. Northampton MA: Edward Elgar, 2002. 230 pp.]” *EH*.*net*. 25 June 2015. Web.

The Depression “changed the conception of and the role of government in economies and it gave rise to modern macroeconomics.”

Parker interviewed 11 economists who “were in graduate school or received their doctoral degrees during the 1930s”: Moses Abramovitz, Morris Adelman, Milton Friedman, Albert Hart, Charles Kindleberger, Wassily Leontif, Paul Samuelson, Anna Schwartz, Herbert Stein, James Tobin, and Victor Zarnowitz.

“Noting the lack of consensus on the causes, depth, and length of the Great Depression Parker chose to begin the volume with a chapter overviewing the decade. After briefly surveying the sequence of events, he examines some contemporary and modern explanations such as “The Monetary Hypothesis,” “The Nonmonetary/Financial Hypothesis,” and “The Gold Standard Hypothesis.” He concludes this chapter with a brief discussion of the recovery and the New Deal and the emergence of Keynes and his hypotheses.”

“The interviews provide no startling revelations or profound insights. Neither do they suggest that economists as different as Paul Samuelson and Milton Friedman have altered their long-held views on how one can explain the Great Depression.”

Friedman “notes that if he were to rewrite “The Great Contraction” chapter from *A Monetary History* he would place considerably more emphasis on France’s role in bringing on the international depression. Anna Schwartz commented that she now would place less confidence in deposit insurance than she and Friedman did when writing the chapter on “The Great Contraction.””

“Most concluded that World War II brought us out of the depression decade. However, Friedman suggested that it was the Fed’s printing of money to finance government armament expenditures that did so—not simply the government spending. Anna Schwartz mentioned the growth of the money supply up to the depression of 1937-1938 and never mentioned World War II. None of the economists interviewed thought that a repeat of the Great Depression was much of a possibility, though most did not rule out the possibility completely.”

“Gene Smiley is a professor of economics at Marquette University. His most recent book is *Rethinking the Great Depression*: *A New View of Its Causes and Consequences* (2002).”

Parker, *The Economics of the Great Depression* 2007

Wheelock, David C. “[Review of Parker, Randall E. *The Economics of the Great Depression*: *A Twenty-First Century Look Back at the Economics of the Interwar Era*. Cheltenham: Edward Elgar, 2007. 257pp.]

This is “Parker’s second collection of interviews with leading economists about the Great Depression.” (In the first, *Reflections*, “the interview with Anna Schwartz . . . dug deeply into recent research on the causes of the Great Depression.”) These interviewees “were born after World War II and all have written important papers or books about the economics of the Great Depression.” They are Ben Bernanke, James Butkiewicz, Barry Eichengreen, Michael Bordo, Allan Meltzer, Lee Ohanian, and Peter Temin. “Each interview explores the particular subject’s expertise . . .”

“Although the protagonists of the Monetarist-Keynesian debate of thirty years ago now largely agree that monetary and financial shocks were important, a new view has emerged based on so-called real business cycle theory that attributes the Great Depression to adverse productivity shocks. Among those interviewed, Lee Ohanian argues the strongest for the real business cycle view . . .”

“Nearly all of the subjects agree, however, that an important lesson of the Great Depression is that price stability should be a paramount objective of monetary policy.”

“One of the best parts of the book is Parker’s overview of the events and literature on the economics of the Great Depression, which is a revised and updated version of the overview written for his first book. . . . [It] is one of the best surveys of the literature on the causes of the Great Depression that I have seen . . .”

Parthasarathi, *Why Europe Grew Rich and Asia Did Not* . . . *1600-1850* 2011

Mokyr, Joel. “[Review of Parthasarathi, Prasannan. *Why Europe Grew Rich and Asia Did Not*: *Global Economic Divergence*, *1600-1850*. Cambridge: CUP, 2011. 365 pp.]” *EH*.*net*. 26 June 2015. Web.

“The year 2011 was a banner year for ambitious books that explain what is becoming known as the ‘Great Divergence’ of the West and the Rest. In addition to the book under review here, two other books by major scholars have appeared: Jean-Laurent Rosenthal and Bin Wong’sBefore and Beyond Divergence and Ian Morris’s Why the West Rules for Now.”

“Parthasarathi’s book . . . is not about ‘Asia’ and ‘Europe’ but really about India and Britain. . . . Part of the book’s weakness is the author’s very limited and minimalist concept of the Industrial Revolution, which he sees as purely a revolution in cotton and coal.”

Parthasarathi says that “India was ruled by the British, and they not only did nothing to encourage the development of manufacturing there; they did all they could to obstruct it.”

Gregory Clark in *A Farewell to Alms* “argues that labor quality was remarkably low in poor countries, because of high absenteeism, poor discipline and similar matters. Whether Clark is right or not, Parthasarathi pays no heed to his work. Perhaps he can show us that low labor productivity can somehow be chalked up to the Raj as well, but until he does, his case is simply unpersuasive. By blaming the Raj squarely for everything that went wrong with India’s nineteenth century development, Parthasarathi offers us a warmed-up old nationalist chestnut . . .”

Persson, *An Economic History of Europe* . . . *600 to the Present* 2010

Wandschneider, Kirsten. “[Review of Persson, Karl Gunnar. *An Economic History of Europe*: *Knowledge*, *Institutions and Growth*, *600 to the Present*. New York: CUP, 2010. 253 pp.]” *EH*.*net*. 27 June 2015. Web.

This textbook is “an accessible, concise and yet precise, up-to-date text that can be used as the basis for a one-semester undergraduate course in European economic history. . . . [It] loosely follows a historical progression, but each chapter [has a topic], for example, population growth, institutions, knowledge and technology transfer, money credit and banking, or trade and tariffs.” “The last three chapters [are on] the welfare state, inequality, and globalization . . .”

“The bibliography is up to date and the author does an excellent job introducing students . . . to the latest debates in economic research . . .” “The glossary of economics terms . . . is extremely helpful.” “[Persson’s website] to supplement the book is very useful . . .”

“At a minimum, I would suggest that students have taken a two-semester sequence in introduction to micro- and macroeconomics before taking an economic history course that heavily relies on this textbook.”

Rawski, *Economics and the Historian* 1996

Kiesling, Lynne. “[Review of Rawski, Thomas G., ed. *Economics and the Historian*. Berkeley: U of California P, 1996. 297 pp.]” *EH*.*net*. 28 June 2015. Web.

The “eight economic historians writing these essays attempt to negate the stereotype of economic analysis as false quantification and so much mathematical esoterica.” This is “a clear presentation of the general methodological foundations of “historical economics.””

“In his introductory chapter Thomas Rawski . . . briefly [discusses] the ideas underlying basic economic models . . .”

“Jon Cohen then provides an interesting discussion of the role of institutions in economic analysis, a currently fruitful area of research . . . Cohen defines institutions as “efficient ways of organizing human activity where markets alone will not suffice” (p. 60), such as . . . the family, the farm, and the firm . . .”

“Exploring labor economics and labor history, Susan Carter and Stephen Cullenberg creatively construct a dialogue . . .”

“The fourth chapter, written by Donald McCloskey, focuses on the basic model of neoclassical economics and its emphasis on choice [because] economists emphasize resource scarcity . . . [McCloskey 123:] “Neoclassical economics, in other words, completes sociology and anthropology, because it studies a motivation unattractive to those fields: choice under constraint.””

“Richard Sutch’s chapter provides a concise survey of macroeconomics, peppered with historical examples that highlight some benefits of aggregate economic analysis. . . . Sutch clears up another problem area for non-economists–what exactly are inflation and unemployment . . .”

“Next Hugh Rockoff tackles the thorny topic of money, banking and inflation.”

“The final chapter, by Peter Lindert, highlights the role of international economics in understanding the evolution of trade relationships . . . In the final section of his chapter Lindert provides a discussion of the determination of exchange rates that I found extremely valuable . . .”

Reder, *Economics*: *The Culture of a Controversial Science* 1999

Emmett, Ross B. “[Review of Reder, Melvin W. *Economics*: *The Culture of a Controversial Science*. Chicago: U of Chicago P, 1999. 384 pp.]” *EH*.*net*. 29 June 2015. Web.

*Part 1*: Culture and Science. 1. Overview. 2. Economics and other Sciences. *Part 2*: Paradigms and Anomalies. 3. The Dominant Paradigm: RAP. 4. The Keynesian Paradigm: KP. 5. Of Debt and Taxes: DP Versus RAP. 6. Some other Paradigms. 7. The Criteria of Validity in Economics. 8. “Successes” of Positive Economics: Two Examples. *Part 3*: Welfare Economics and Ideology. 9. Welfare Economics. 10. RAP and the Ideology of Laissez-Faire. *Part 4*: Economics and Society. 11. What is Economics Good For? 12. What Is Good Economics? 13. Prizes, Establishments, and Heroes. 14. The Boundaries of Economics.”

“. . . the majority of the book (chapters 3 to 10) is an account of the scientific paradigms of economics (yes, Kuhn plays a prominent role in the book) for non-economists. And there is the obligatory chapter on the relation of the dominant scientific paradigm (Rational Allocation Paradigm—RAP for short—or what is commonly called neoclassical economics) to the ideology of laissez faire.”

Robbins, *A History of Economic Thought*: *The LSE Lectures* 2000

Bateman, Bradley W. “[Review of Robbins, Lionel. *A History of Economic Thought*: *The LSE Lectures*. Ed. Steven G. Medema and Warren J. Samuels. Princeton: Princeton UP, 2000. 375 pp.]” *EH*.*net*. 30 June 2015. Web.

“What makes the book so successful? After all, it is not obvious that a full year course of thirty-three lectures in intellectual history given by an 80 year old, retired economics professor at the London School of Economics would make a publishing success. . . . The simple answer is Robbins’s passion. Robbins obviously loved the history of economic thought, but [he] loved the discipline of economics itself . . .”

According to Robbins, “The whole story, from its beginnings in Plato and Aristotle, to its conclusion in Marshall, Fisher, and Wicksell, points toward the eventual construction of modern neoclassical economics: marginal analysis and monetary economics are the ultimate desiderata of economic analysis. . . . alternative schools of thought get short shrift . . .”

Roncaglia, *The Wealth of Ideas*: *A History of Economic Thought* 2005

Rima, Ingrid H. “[Review of Roncaglia, Alessandro. *The Wealth of Ideas*: *A History of Economic Thought*. New York: CUP, 2005. 582pp. (La ricchezza delle idee. Laterza, 2001.)]” *EH*.*net*. 20 June 2015. Web.

“Roncaglia himself, while clearly writing to reflect the legacy of Schumpeter and Sraffa, provides a very knowledgeable and readable account of the history of economic thought.” [“. . . economists working in the Marxian-Sraffian tradition represent a small minority of modern economists . . .” George Stigler, quoted in “The New Palgrave Dictionary of Economics.” *Wikipedia*. 27 June 2015. 27 June 2015.]

1 The history of economic thought and its role. 2 The prehistory of political economy. 3 William Petty and the origins of political economy. 4 From body politic to economic tables. 5 Adam Smith. 6 Economic science at the time of the French Revolution. 7 David Ricardo. 8 The ‘Ricardians’ and the decline of Ricardianism. 9 Karl Marx. 10 The marginalist revolution: the subjective theory of value. 11 The Austrian school and its neighbourhood. 12 General economic equilibrium. 13 Alfred Marshall. 14 John Maynard Keynes. 15 Joseph Schumpeter. 16 Piero Sraffa. 17 The age of fragmentation. 18 Where are we going? Some (very tentative) considerations.

Sandmo, *Economics Evolving*: *A History of Economic Thought* 2011

Bethune, John J. “[Review of Sandmo, Agnar. *Economics Evolving*: *A History of Economic Thought*. Princeton: Princeton UP, 2011. 489 pp.]” *EH*.*net*. 22 June 2015. Web.

“*Economics Evolving* is an enjoyable and detailed presentation . . .” 19 chapters. Ch 1 is introduction; 2 is pre-Smith; 3 is Adam Smith; 4-5 are Ricardo, Malthus, and John Stuart Mill; 6 is Marx. “Ensuing chapters cover the range of economists and schools of thought that would be expected, with special attention given to contributors that developed more formal and stylized models. This sets the text apart from similar works in that thought creators such as von Thunen, Cournot, Gossen, and Dupuit are covered extensively as forerunners to the marginalist revolution. Also, Walras is given a separate chapter from Jevons and Menger. As we approach the modern era, some names not found in a typical text are discovered, such as von Stackelberg and Zeuthen.”

Sedlacek, *Economics of Good and Evil*: *The Quest for Economic Meaning from Gilgamesh to Wall Street* 2011

Nelson, Robert H. “[Review of Sedlacek, Tomas. *Economics of Good and Evil*: *The Quest for Economic Meaning from Gilgamesh to Wall Street*. New York: OUP, 2011. 335 pp.]” *EH*.*net*. 12 June 2015. Web.

Originally published in Czech in 2009. “Sedlacek was economic advisor to the first Czech President, Vaclav Havel (who contributes a Foreword) . . .” Havel: “what is economics? What is its [deepest] meaning? Where does this new religion [of economics], as it is sometimes called, come from?” Sedlacek’s “method is to analyze the historic interactions of religion, economics and culture . . . Sedlacek explains that even the teachings of modern “scientific” economics have a significant underlying religious and cultural message. He draws in this regard on the writings of Deirdre McCloskey who has contended for thirty years now that the formal economics of today is actually often metaphysics in disguise. The scientific claims of mainstream economics are best understood as an imperial claim for religious authority, a new way of reasserting longstanding economic values, myths, and ethical creeds of the West in a deceptively ‘modernist’ and therefore supposedly newly authoritative cloak.” Sedlacek covers Sumerians, the OT, Greeks, Jesus, Augustine, Aquinas, Rene Descartes, Adam Smith, John Stuart Mill, Karl Marx, etc. “. . . modern devotion to “neverending growth” is a contemporary manifestation of the old idea of religious progress but now in different clothing—first in religious (heaven) and later in secular forms (heaven on earth). . . . economic progress, while overall a great benefit . . ., may have reached its useful limits, and any suitable economic religion of the future should better teach us to be more “satisfied with what it [mankind] has, the progress it has already made.” Admittedly, this would require a whole new methodological foundation for the field of economics. . . . “efficiency” would no longer have its current transcendent purpose—”efficient” and “inefficient” having become the secular economic substitutes for good and evil. It is also not possible to say that Sedlacek is either “correct” or “incorrect.” In a work of such broad historical scope, one seeking to rewrite the history of economic thought, a more authoritative judgment must await the test of time.” “Robert H. Nelson is a professor of environmental policy at the School of Public Policy of the University of Maryland. He is the author most recently of *The New Holy Wars*: *Economic Religion versus Environmental Religion in Contemporary America* (Penn State, 2010). He also addresses the religious side of economics in *Economics as Religion*: *From Samuelson to Chicago and Beyond* (Penn State, 2001) and *Reaching for Heaven on Earth*: *The Theological Meaning of Economics* (Rowman & Littlefield, 1991).”

Snowdon, *Conversations on Growth*, *Stability*, *and Trade* 2002

Hanes, Christopher. “[Review of Snowdon, Brian. *Conversations on Growth*, *Stability*, *and Trade*: *An Historical Perspective*. Cheltenham: Edward Elgar, 2002. 483 pp.]” *EH*.*net*. 13 June 2015. Web.

“The first part of this book is a survey of theories of long-run economic growth, business cycles, monetary policy and international trade and capital flows, based on the author’s lectures at the Newcastle Business School, Northumbria University (England). The second part is transcripts of the author’s interviews with Ben Bernanke, Jagdish Bhagwati, Alan Blinder, Nick Crafts, J. Bradford DeLong, Barry Eichengreen, Kevin Hoover, Charles Jones, Christina Romer and Joseph Stiglitz. Together, the survey and interviews give a clear view of current work in macroeconomics and its intellectual background, guided by a knowledgeable man who appears to have remarkably few axes to grind. . . . Oddly missing is any discussion, beyond a bare mention, of “New Keynesian” theory . . . The reader gets the idea that the important variable is institutions. . . . The first part of the book is meant to set up the issues that will be discussed in the interviews, but it also constitutes an extraordinarily good textbook . . .”

Solomou, *Economic Cycles*: *Long Cycles and Business Cycles since 1870* 1998

Capie, Forrest. “[Review of Solomou, Solomos. *Economic Cycles*: *Long Cycles and Business Cycles since 1870*. Manchester: Manchester UP, 1998. 132 pp.]” *EH*.*net*. 13 June 2015. Web.

“Solomou’s plea is that for any study of business cycles a long historical period needs to be held in view . . . the cycle does not disappear. . . . [The book] is designed to survey the literature on the subject in a critical way and summarize the principal strands. It is in two main parts. The first and somewhat longer part is on business cycles since 1870, and the second is on long economic fluctuations. . . . There are two principal ways of looking at business cycles. One is to see them as the consequence of internally generated dynamics, and the other is to see external shocks as the source. And there is the possibility of international transmission through a fixed exchange- rate system. Solomou considers these approaches, examines the main types of shocks, describes cyclical behavior across the period, and provides an explanation based on an analysis. In the process he brings out the considerable differences in cyclical behavior in the three periods: 1870-1914, 1919-39, and 1945 onwards. The second part of the book deals with two kinds of cycles: Kuznets (20 years), and Kondratiev (50 years). . . . this book can be recommended unreservedly to undergraduates and others.”

Sowell, *On Classical Economics* 2006

Berdell, John. “[Review of Sowell, Thomas. *On Classical Economics*. New Haven: Yale UP, 2006. 304 pp.]” *EH*.*net*. 14 June 2015. Web.

This work is “admirably suited for readers new to classical economics . . . Sowell’s attention is almost entirely devoted to the primary texts with only occasional nods to the secondary literature . . . That they [classical economists] were “conservative” is placed in doubt by pointing to their anti-aristocratic attitudes and their high wage policies. Their hostility to the state is rightly associated with an aversion to war . . . [They were] seeking to dismantle a politicized disharmony of interests that greatly favored wealth and power.”

Stabile, *Forerunners of Modern Financial Economics* . . . *1900-1950* 2005

Poitras, Geoffrey. “[Review of Stabile, Donald R. *Forerunners of Modern Financial Economics*: *A Random Walk in the History of Economic Thought*, *1900-1950*. Cheltenham: Edward Elgar, 2005. 173 pp.]” *EH*.*net*. 15 June 2015. Web.

“As exemplified by Rubinstein (2003, p. 1041), purists of modern financial economics maintain that “the moment of birth of modern financial economics” is the publication of Markowitz (1952). Stabile (p. 9) uses this assessment to define the goal of his book: “to document the efforts of a small number of economists who had discovered what Markowitz made conventional: stock market price changes can be treated as a random variable to be analyzed with statistical tools. . . . In addition to Fisher and Keynes, the list of forerunners examined includes: Frank Knight, Benjamin Graham, John Burr Williams, Alfred Cowles, Edgar Lawrence Smith, Frederick Macaulay, Wesley Mitchell, and Herbert Davenport. The latter two names are motivated by the inclusion of a most unlikely forerunner: Thorstein Veblen.”

“. . . sociologists of intellectual history, such as Preda [2003], employ a distinction between vernacular and academic theories of finance. . . . the conflict between the academic and the vernacular approaches [is] identified in Haugen [1999] and Poitras [2005] . . .” (Preda, A. “Informative Prices, Rational Investors: The Emergence of the Random Walk Hypothesis and the Nineteenth Century ‘Science of Financial Investments.’” *History of Political Economy* [2003] 351-86.) (Haugen, R. *The New Finance*: *The Case against Efficient Markets*. 2nd ed. Upper Saddle River: Prentice-Hall, 1999.) (Poitras, Geoffrey. *Security Analysis and Investment Strategy*. Oxford: Blackwell, 2005.)

Vaggi and Groenewegen, *A Concise History of Economic Thought* 2003

Andrews, David. “[Review of Vaggi, Gianni, and Peter Groenewegen. *A Concise History of Economic Thought*: *From Mercantilism to Monetarism*. New York: Palgrave Macmillan, 2003. 339 pp.]” *EH*.*net*. 16 June 2015. Web.

This textbook “consists of 43 discrete accounts of individual economic authors included in 34 chapters divided between “Classical Political Economy” and “Modern Developments.””

“. . . the book points out many connections among thinkers and tells a coherent story of the development of the history of economics. It begins with the mercantilists, who contributed by establishing the wealth of nations as an object of investigation and by provoking critics who became proto-classicals. Physiocrats and others discovered or constructed the central concepts of classical political economy, including division of labor, capital, surplus and reproduction. Adam Smith put the pieces together into a general theory, which was refined by David Ricardo and found its final expression in Karl Marx.”

“. . . the Marginal Revolution involved a sharp discontinuity between Classical and Modern economics. . . . modern economics treats micro and macro separately. The micro story begins with the appearance of the marginal principle in exchange in the 1870s, with Jevons, Menger and Walras, continues with the development of the marginal productivity theory of distribution, and concludes with the controversies and complications in the 1920s and 1930s concerning costs and competition. The macro side of the story begins with pre-Keynesian monetary theory, continues with Keynes and Keynesian developments and concludes with Milton Friedman and monetarism.”

“The main criterion for the inclusion of an economic writer appears to be whether or not the writer plays a role in the authors’ overarching story of the (discontinuous) development of the history of economic thought. So, for example, the Institutionalists do not fit neatly into the story and are therefore excluded. Thorstein Veblen is mentioned only in passing and John R. Commons not at all. Similarly, there is no discussion of Friedrich Hayek, Ludwig von Mises, or Austrians after Böhm-Bawerk.”

This is “a very useful resource for teaching, [but it] will have to be supplemented with lectures and readings that provide the broader contexts. The additional readings at the end of each chapter are useful in this regard.”

On Depressions

Beaudreau, *How the Republicans Caused the Stock Market Crash of 1929* 2005

Ramirez, Carlos D. “[Review of Beaudreau, Bernard C. *How the Republicans Caused the Stock Market Crash of 1929*: *GPT*’*s*, *Failed Transitions*, *and Commercial Policy*. Lincoln NE: iUniverse, 2005. 200 pp.]” *EH*.*net*. 17 June 2015. Web.

Professor of Economics at Université Laval, Quebec City. The cause of the crash was the Smoot-Hawley Act. “He claims that the tariff aggravated the problem of “underincome” (which he defines as the failure of aggregate income and expenditures to rise commensurately with productive capacity), thereby amplifying the extent of the Depression. The logic of his argument is as follows: The technological progress of the 1910s and 1920s, manifested by the increasing adoption of electricity-based, mass production processes (coined in the book as “extremely-high-throughput, continuous-flow mass production techniques,” or EHTCFPT), resulted in a phenomenal increase in industrial productive capacity throughout the 1920s. But this increase in capacity was not accompanied by an increase in wages . . . By protecting domestic markets, the tariff would increase sales, employment, and earnings. In fact, Beaudreau argues that initially the stock market reacted positively to the tariff as investors were anticipating future higher sales. He even points out that the stock market crashed in October of 1929 as a result of bad news regarding the implementation of the tariff—by October of 1929 it was presumably apparent that the tariff bill would not be enacted as a coalition of “Insurgent Republicans” and Democrats called for lower tariffs on manufactures. By December of that year, he continues, the tariff was no longer being perceived as being “good news” as investors this time were anticipating retaliatory tariffs from trading partners. Thus, when the tariff finally made it into law in 1930, the stock market reaction was largely negative. According to the logic of the argument, then, before December of 1929, the tariff bill was perceived to be “good news” by investors. After December, however, it was perceived to be “bad.” Besides, he argues, the tariff aggravated the problem of “underincome” because it further stimulated firms to adopt EHTCFPT, as they wanted to increase their production capacity in anticipation of future higher demand.”

“it is very unlikely that readers will find Beaudreau’s argument to be persuasive. To begin with, the theory of “underincome” appears not to be all that different from a textbook description of a Keynesian-style slump in aggregate demand. . . . Equally unconvincing is the suggestion that Republicans were responsible for the stock market crash of 1929 (as the title implies) because by October of that year, investors thought that the tariff bill was “as good as dead.” To make such a connection, at the very least, Beaudreau should have [compared] the behavior of stocks that were most exposed to the tariff bill . . . to the behavior of stocks immune to the implementation of the tariff.” “A very similar argument is presented in his earlier book . . .” *Mass Production*, *the Stock Market Crash*, *and the Great Depression*: *The Macroeconomics of Electrification*. Westport: Greenwood, 1996.

Besomi, *Crises and Cycles in Economic Dictionaries and Encyclopaedias* 2012

Trautwein, Hans-Michael. “[Review of Besomi, Daniele, ed. *Crises and Cycles in Economic Dictionaries and Encyclopaedias*. New York: Routledge, 2012. 676 pp.]” *EH*.*net*. 18 June 2015. Web.

17 authors. “Besomi, an independent researcher from Switzerland, is a well-renowned expert in the history of thought on economic crises and business cycles.”

“The book has three parts. In Part I Besomi introduces dictionaries and encyclopaediae as literary genres (chapter 1), outlines the history of economic reference works (chapter 2), discusses the semantics and chronology of different names for crises and cycles, such as “glut,” “bubble,” “panic” and “depression,” in their usage in the reference works (chapter 3), and finally provides a meta-taxonomy of the surveys and classifications of business cycle theories in the dictionary entries (chapter 4). Reflecting on a large range of issues of theoretical and practical lexicography, these four chapters set the scene . . .”

“Part II contains 19 chapters that summarize and assess relevant entries in “the classic dictionaries”, where “classic” refers to the period that begins with the “early French dictionaries” in the 1830s and ends with the first edition of the *International Encyclopedia of the Social Sciences* in 1968.”

“Part III is entitled “The Recent Dictionaries” and contains five chapters that deal with specific lines of business cycle research . . . The entry on “real business cycles” does not include its more recent New Keynesian (or neo-Wicksellian) extensions into the “New Neoclassical Synthesis,” which claims to have integrated business cycle theory with growth theory, and Keynesian issues into (partly) New Classical frameworks of analysis. Moreover, there is next to nothing on financial crises, credit cycles and monetary business cycles, or business cycle measurement, trend/cycle decomposition, etc. “ themes quite prominent in more recent dictionaries . . .”

Bordo, Goldin, and White, *The Defining Moment*: *The Great Depression* 1997

Cain, Louis P. “[Review of Bordo, Michael D., Claudia Goldin, and Eugene N. White, eds. *The Defining Moment*: *The Great Depression and the American Economy in the Twentieth Century*. Chicago: U of Chicago P, 1997.]” *EH*.*net*. 20 June 2015. Web.

12 authors. Paper 1: Charles Calomiris and David Wheelock “ask whether the substantial changes in the monetary environment of the 1930s had lasting effects. . . . they find little change in the thinking of the Federal Reserve System. One effect of the New Deal banking laws was to shift power from the Fed toward the Treasury, a shift they feel imparted an inflationary bias, especially when conjoined with the more activist approach to policy that was undertaken concurrently. The most important legacy of the depression was the departure from gold . . . The Bretton Woods dollar system allowed the Fed to “stumble” into the inflation of the 1960s, and the continued absence of something like the gold standard “provides an enduring legacy of uncertainty” (63) as to monetary policy in the long run.”

Paper 2 (Brad De Long): the US “did not have a fiscal policy in the contemporary sense of the term before the Great Depression. It borrowed heavily during periods of war and tried to redeem the debt as quickly as possible . . . deficits in peacetime were rare until the 1930s, when they proved unavoidable despite the fiscal conservatism of both Hoover and FDR. Yet, even before Keynes, there was an understanding that “deficits in time of recession helped alleviate the downturn” (83). After the second World War, a fiscal policy consensus emerged that De Long characterizes as: “set tax rates and expenditure plans so that the high-employment budget would be in surplus, but do not take any steps to neutralize automatic stabilizers set in motion by recession” (84). . . . What has persisted is the willingness to adopt a fiscal policy stance that imposes a cost—perhaps higher than necessary (higher inflation, lower saving and productivity)—to insure that there is no return to Depression-era conditions.”

Paper 3 (Eugene White): “Deposit insurance . . . was a result of the Depression and is generally considered to be one of its great successes. . . . restrictions placed on the banking business diverted part of what they once did to other parts of the financial sector. . . . White attempts to estimate bank failures under the assumption that deposit insurance was not adopted. He finds that a stronger, larger banking system would have resulted in lower failure rates and higher recovery rates. Thus, it is possible the FDIC increased bank losses. A more important outcome is that the FDIC changed the distribution of losses. The cost of those losses is now “distributed to all depositors and hidden in the premia levied on banks” (119). Thus, even if losses increased, they were unseen by individual depositors, with the result that a marginal institution remains extremely popular.”

Paper 4 (Hugh Rockoff): “on the expansion of the government sector [from the] large number of new federal programs. As Rockoff notes, “it is easy to see that there was an ideological shift . . . it is harder to see what produced it” (125). [In the 1920s there were] champions for almost all of the New Deal programs. Curiously, one of the programs economists did not endorse, one measure that FDR did not champion, was deposit insurance. When the Depression came and the economic doctors were called, microeconomists had what they considered successful prescriptions. Some part of that must have been conditioned by the role of the government in World War I. But another part is something that Rockoff does not discuss, and it surely is one of the factors producing an ideological change within the profession.”

Paper 5 (Robinson and Chamberlin): “Even before the Great Depression, the competitive paradigm was under attack. The merger movement at the turn of the century called into question the assumptions of constant returns to scale and easy entry and exit. The emergence of a consumer society called into question the assumption of homogeneous products. . . . FDR came into the White House with a mandate to do something, and the economic doctors had a long list of things to try, things that had been used successfully elsewhere.

Paper 6: “the New Deal had a profound effect on the nature of American federalism through its use of a little used fiscal instrument—intergovernmental grants. Before the Depression, different levels of government operated with a much greater degree of independence than they would thereafter. Intergovernmental grants created the necessity for cooperation that has characterized the fiscal federalism ever since . . . the new structure was conducive to the growth of government.” Federal, state, and local governments all grew.

Paper 7: Gary Libecap (182): “the New Deal increased the amount and breadth of agricultural regulation in the economy and . . . shifted it from providing public goods and transfers to controlling supplies and directing government purchases to raise prices.” “Acreage restrictions and government purchases were the most apparent . . .”

Paper 8: “there are three differences between the system of unemployment compensation in the U.S. and elsewhere: experience rating, a federal-state structure, and limitations on benefit duration. . . . We got the system we did because “The federal-state structure and the manner in which the states were induced to adopt their own UI legislation assured passage of the act and guaranteed its constitutionality” (261).”

Paper 9: “Richard Freeman argues that to be [a defining moment] an event must “lock in certain outcomes that persist . . . when, given a blank slate, society could have developed something very different” (287). . . . The legal framework for private sector labor relations has persisted, and . . . unionization [was] attendant to the adoption of that framework . . . [Yet] The density of private sector unions today is similar to what it was just after the turn of this century; the voice of those unions in national political discourse is barely audible.”

Paper 10: on Social Security. “As the population has aged, the balance between the old-age assistance component, the basic response to the depression, and the old-age and survivors insurance component has transformed what was an insurance program benefiting few to a transfer program benefiting many.”

Paper 11: on international trade policy. “. . . during the 1930s, the locus of control of trade policy passed from the legislative to the executive branch of government largely as a result of “the depression as an international phenomenon” (326). . . . By the end of the 1930s, the average tariff rate had decreased from over 50% to less than 40%. In another ten years it would be below 15%. While part of this change is attributable to trade policy, part should be attributable to fiscal policy (a return to the days of the Underwood tariff) as the federal income tax came to play a much larger role, especially in the 1940s. Similarly, the Reciprocal Trade Agreements Act was passed during the depression, but it was not “institutionalized” until after World War II. When, during the war, Republicans moved to seek congressional approval and to protect domestic firms competing with imports, it was clear that the policy changes of the 1930s would persist. Then, after the war, “the new economic and political position of the United States in the world . . . made a return to Smoot-Hawley virtually unthinkable” (350).”

Paper 12: Maurice Obstfeld and Alan Taylor investigate “more than a century of data on capital mobility, then propose a framework in which both the downtrend initiated by the Great Depression and the uptrend of recent years can be understood [354]: “the chosen macroeconomic policy regime can include at most two elements of the ‘inconsistent trinity’ of (i) full freedom of cross-border capital movements, (ii) a fixed exchange rate, and (iii) an independent monetary policy oriented toward domestic objectives.” To the authors, the Great Depression was caused by subordinating the third element to the second. Under the classic gold standard, monetary policy was concerned with exchange rate stability, not domestic employment, and capital mobility was facilitated. The abandonment of gold led to a system “based on capital account restrictions and pegged but adjustable exchange rates, one whose very success ultimately led to increasingly unmanageable speculative flows and floating dollar exchange rates . . .” (397).”

Paper 13: Michael Bordo and Barry Eichengreen consider “what the Great Depression meant for the international monetary system “. . . the factors that ultimately led to the collapse of the Bretton Woods arrangements . . . include “the failure of the flow supply of gold to match the buoyant growth of the world economy and hence of government’s demand for international reserves” (447). This, in turn, led to questions about U.S. official foreign liabilities and the gold convertibility of the dollar. Bordo and Eichengreen believe that, in these circumstances, a floating system would have resulted leaving us with more or less what we have today.”

The editors point to four common themes supporting the “defining moment” hypothesis (6). . . . [First,] there was a loss of faith in the tenets of the competitive model. . . . the general bewilderment of the 1930s created a search for someone who was willing to try anything.” I.e., the government. “Second, many innovations introduced by the New Deal were forms of social insurance.” While much of the First New Deal took the form of World War I programs modified for peacetime use, many of the Second New Deal programs were aimed at ameliorating specific types of suffering, particularly those where successful experiments had been tried elsewhere. Some undoubtedly would have been adopted eventually; the depression meant they started earlier . . .” “Third, “the character of federalism moved from ‘coordinate’ to ‘cooperative’ with extensive intergovernmental grants, giving greater influence to centralized government.” This change in form, it is argued, was necessary to get them through Congress and the Supreme Court, but that is not necessarily a result of the Great Depression; the states rights’ bias was present much earlier.” “Last, the conduct of economic policy . . . changed to give more weight to employment targets and less to a stable price level and exchange rate.” These 4 changes created “a bias in favor of inflation, but, in a simple Phillips curve world, what developed was a bias against a return to the conditions of the 1930s.”

Louis P. Cain is in the Departments of Economics Loyola University of Chicago and Northwestern University. Cain and the late Jonathan Hughes are the authors of *American Economic History* published by Addison Wesley.

Shlaes, *The Forgotten Man*: *A New History of the Great Depression* 2007

Namorato, Michael V. “[Review of Shlaes, Amity. *The Forgotten Man*: *A New History of the Great Depression*. New York: HarperCollins, 2007. 464 pp.]” *EH*.*net*. 25 June 2015. Web.

The “forgotten man” is “the one who paid the bills for the New Deal programs, who was out of work throughout the economic catastrophe, and who put faith in what those in power said. Or at least that is what the reader is led to believe . . .”

Shlaes “gives a very detailed account of the Depression and how the government dealt with it. . . . In the end, Shlaes concludes that the 1920s was really a good time, a prosperous one. In her view, the stock market crash was inevitable and the subsequent depression was a breakdown of capitalism. Both Hoover and Roosevelt misjudged the crash and the depression, both mistrusted the stock market, and both overestimated what the government could accomplish. Shlaes argues that Roosevelt was more inspired by “socialist and fascist” models, but that he lacked faith in the marketplace. The depression lasted so long . . . because government intervention in the economy made it so. The struggle between private and public was continuous throughout the 1930s. And the main reason why Roosevelt kept winning his elections was the possibility of war which loomed continuously on the horizon. In the end, the forgotten man was remembered by Wendell Willkie who understood and believed in the individual and liberalism as it should have been. If there is a hero for Shlaes, it is indeed Willkie.”

“There is no doubt that the author is anti-Roosevelt and anti-New Deal. . . . The author gets lost in “details,” especially with the individuals that she is supposedly examining. . . . Another problem is the author’s insistence on identifying the motivation of people. Offering little or no evidence, she consistently tells the reader what and why something was being done by a particular person. . . . Shlaes has a tendency to pick out what she wants from the evidence she has examined. . . . Finally, the author seems to have her own definition of what is liberal in the twentieth century. It would have helped immeasurably if she had shared her thinking with the reader from the very start.”

“In the end, Amity Shlaes’ book is a formidable work. Whether scholars of this period agree with her or not, this study should and needs to be confronted. . . . Shlaes should be commended for her effort, whether or not one thinks that she has succeeded or failed in her work.”

“Michael V. Namorato is a Professor of History at the University of Mississippi. His publications include *Rexford Tugwell*: *A Biography* (Praeger, 1988) and (as editor) *The Diary of Rexford G*. *Tugwell*: *The New Deal*, *1932-1935* (Greenwood, 1992).”

Smil, *Transforming the Twentieth Century*: *Technical Innovations* 2005

Mokyr, Joel. “[Review of Smil, Vaclav. *Transforming the Twentieth Century*: *Technical Innovations and Their Consequences*. Oxford: OUP, 2005. 350 pp.]” *EH*.*net*. 26 June 2015. Web.

“Vaclav Smil is Professor of Geography and Environmental Science at the University of Manitoba. Joel Mokyr is Professor of Economics and History at Northwestern University. “The amount of pure learning and erudition that Smil brings to these 700 pages [*Creating* plus *Transforming*] has to be experienced to be believed. In telling the story of modern technology since 1870 in a coherent way these 700 pages totally eclipse the competition.” (Closest are: Williams, Trevor I., ed, *A History of Technology*, *Volume VI*: *The Twentieth Century*, *part I and II*. Oxford: Clarendon, 1978. McNeil, Ian, ed, *An Encyclopedia of the History of Technology*. London: Routledge, 1990. n. 2) “Other masters in this genre . . . are A.P. Usher, David Landes, Donald Cardwell, Nathan Rosenberg, and Arnold Pacey.”

Each volume “consists of four chapters on specific areas of technology, preceded by an introductory chapter, and followed by two concluding chapters.”

Smil sees “humanity struggling with the harshness of the environment and the niggardliness of nature, the deviousness of germs and the sheer violence of natural disasters.”

Smil’s big picture “is more about the immediate effects of technology than about what it did to the economy. Smil is not much interested in the standard things that economic historians do . . . his interest in the economic models that explain economic growth is rather limited. Intellectual property rights and economic incentives hardly figure in his story at all.”

“There is no real explanation of what happened. Smil’s view of technology is that it is all rather inevitable; when the ideas are there and have been tested, “subsequent advances appear to have the inexorability of water flowing downhill” (I, p. 280). . . . but in fact history is full of examples in which technology did indeed freeze in its tracks for long periods . . . there was nothing inexorable about the technological blast-off in the West that is described in Volume I.[3]

Smil “seems to be subconsciously given to what is known as “hindsight bias”—the notion that what happened had to happen. . . . start with what we have now and see where it came from.”

The two volumes here start in the late 1860s and take us all the way to the present. The first volume is dedicated to illustrate one central proposition: that the period between 1867 and 1914 [the second Industrial Revolution, 2 generations] invented most of the technology that twentieth century growth was built upon. . . . [From 1867-1914] more changed in human control over . . . natural regularities than ever before or after . . .”

Inside technological change “was a complex world of ambitious and curious creators, and greedy businessmen hoping to profit from their innovations. In the end, the consumer was the one that benefited by far the most, but, as Smil stresses, at a price.”

“These two volumes are not quite tantamount to a full history of technology in the second Industrial Revolution and the twentieth century.” “There are some major advances that are left out, such as pharmaceuticals, genetic engineering, textiles, and civil engineering . . .”

“Smil is interested in energy and materials, and devotes a great deal to these favorite topics.”

“. . . what sets our modern age apart is it consumption of fossil-fuel burning energy . . . The average American household today, he reflects, commands about 500 kW, as much energy as a Roman landlord with 6,000 strong slaves (II, p. 260) . . .”

“Underneath this improved use of energy and new materials, of course, was something deeper: better knowledge of natural processes and regularities, pure science, better mathematics, improved engineering, and networks of scientists and people of knowledge . . .”

He notes “that all the technological disasters that the twentieth century was supposed to have inflicted are dwarfed by smoking and excessive eating, and cites a study that notes that most supposedly negative consequences of technology are the result of lifestyle choice [II.294].”

Smil “understands the environmental impact that the age of energy has had on the planet that unleashed it, and worries, like the rest of us, about nightmarish scenarios . . . There are only two serious risks that the “Great Synergy” has brought about that he thinks are worth talking about, the proven risk of armed conflicts between technologically-advanced societies, and global warming.” Smil knows “that the technophobes’ notions of the serenity of pre-industrial pastoral life is a risible cartoon, and that the view that industrialization deepened, rather than relieved, human misery, is “indefensible” (I, p. 299). But he is too smart and too learned to be a triumphalist.”

Sornette, *Why Stock Markets Crash* 2002

Santoni, Gary. “[Review of Sornette, Didier. *Why Stock Markets Crash*: *Critical Events in Complex Financial Systems*. Princeton: Princeton UP, 2002. 421 pp.]” *EH*.*net*. 29 June 2015. Web.

“Sornette is a professor of geophysics at the University of California, Los Angeles who specializes in the scientific prediction of catastrophes. . . . Irving Fisher (The Rate of Interest. Macmillan, 1907. 213): “Our present acts must be controlled by the future, not as it actually is, but as it appears to us through the veil of chance.” . . . Expected future cash flows (dividends, capital gains, etc.) are the important fundamentals of prices—they are the economic reality. Present earnings, Sornette’s reality, are only relevant in so far as they contain information about the future. The behavior of people, unlike molecules of oxygen, is driven by expectations.”

“The most enlightening discussion in Sornette’s book is his treatment of the efficient markets hypothesis in Chapters 2 and 3. This hypothesis implies that stock prices . . . are unpredictable. [Hence] crashes cannot be predicted. While the evidence that has accumulated over the years is largely consistent with this idea, an interesting exception to this general result is noted in Chapter 3. Examining daily data on the Dow Jones Industrial Average over the last century, Sornette finds 14 episodes—a total of 64 trading days out of a sample of about 25,000—that violate the implications of the hypothesis. These unusual observations are all associated with large declines in stock prices ranging from -12.4% to -30.7% (p. 61). The conclusion to be drawn from this is that stock prices behave unusually (in the sense that successive changes in them may be related and, hence, predictable) during episodes of large price declines. There are several points that are important here. These unusual episodes only occur during periods of large price declines. Second, there are relatively few of them—64 of 25,000 trading days. Third, the average length of these 14 episodes is only 4.5 days so the period over which prediction may be possible is of short duration. Finally, these periods are only detectable after prices have begun to decline. For the vast bulk of the evidence Sornette analyzes (particularly, when prices are generally rising), changes in stock prices behave randomly and, thus, are unpredictable.”

In “the remainder of his book [Sornette] focuses instead on various bubble models of stock prices all of which imply that prices behave unusually before a crash, i.e., while prices are generally rising. . . . Sornette attempts to fit a trend to stock prices for periods prior to crashes even though the data analyzed in Chapter 3 suggest that no such trend exists. As might be expected, the results are disappointing . . .”

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