

meantime ameliorable through charity, the chief conventional modern instrument of conscience. Conventional theories are centered on the discipline of economics—or at least its “mainstream,” its synthesis of bits of Keynesianism and growth theory (and more recently neoliberalism) onto a basically classical and neoclassical framework. These themes are covered in Chapter 3. Modernization theory, derived mainly from sociology, began as a mild criticism of neoclassical economics, but quickly became its accomplice; this evolution is the subject of Chapter 4. Mainstream economics and modernization theories together see development as a uniform, unilinear, “stage-type” process that was led by the historical example of the rise of the West. In this view, the rest of the world is merely trying to “catch up.”

These chapters are long and difficult. But one has to understand the basics of economics to appreciate development as a strategy of power. And one has to be familiar with the critiques of economics to understand why development is so deficient. Let us put the matter more controversially: development doesn't work in its present form because it is disciplined by conventional economics.

CHAPTER 2

Classical and Neoclassical Economics

Development means producing a better life. Development is fundamentally economic. Hence, the discipline of economics has to be integrally involved in the study of development. All theories of development have significant economic aspects, along with other dimensions. So, we need to know the basics of economics to fully understand development. Economics has been a highly specialized field of knowledge since at least the mid-19th century (with the beginning of neoclassical economics). Economics is the most powerful social science, in the sense that economists are constantly consulted by powerful people, while many economists are themselves in positions of power. More than any other kind of social knowledge, economics claims the status of “science” in terms of its logical rigor and mathematical sophistication. Economists, somewhat more than other academicians, are considered to be professional experts. Their pronouncements are accorded additional respect because they are thought to speak scientific truth about issues of vital concern to the economy and future prospects for growth, employment, and development, and as Foucault has observed (1980a), a claim to truth is a claim for power. Economics is also the most isolated social science. Economic theories of growth (and to a lesser extent theories of development) have their own histories, trajectories, philosophical basis, types of practice, and sometimes arcane vocabularies, often with little or no reference to related fields. Specialization and intellectual isolation result in a highly formalized discipline, with rigorous rules of academic and practical conduct—for example, very specific forms of expression using a carefully defined set of terms.

We argue, however, that this highly specialized knowledge rests on a highly precarious philosophical basis, one derived from a particular (class) reaction to the rise of modern market systems. Often the underlying theory is based on empirically unjustified assumptions—economic actors are simply assumed to act in ways that seem “intuitively plausible.” Yet, this biased, partial, and committed analysis is then universalized as a scientifically true discourse valid for all people at all times in every situation (the “god trick”). Universalization thereby endows economics with a lot of power—far too much, in our view. Scientization links economics with the natural sciences that are assumed to be almost self-evidently true. As poststructuralists correctly assert, the world cannot be changed until conventional economics has been deconstructed. This is the main theme of this chapter and the next one, namely, that universalization and scientization (and the power that results from their combination) need to be subjected to criticism, deconstruction, and alternative modes of understanding.

We are going to lay out the history of conventional economic thought about growth and development in some detail because anyone wishing to understand those two subjects must also be familiar with the evolution of economics as an academic discipline. Economics not only represents reality in theoretical terms, but also it has been so powerful that its theories have re-made the reality they represent by framing the imagination of history's most significant economic actors. We adhere to the convention of dividing mainstream economic theory into historical periods but prefer to slightly alter the usual designations (e.g., Dasgupta 1985) to look at development issues during four phases of economic thought: classical and neoclassical economics in this chapter and Keynesianism and neoliberal theories in the next one. Let us say from the beginning that these are intended to be critical chapters—both substantively (relative to the subject matter) and strategically (relative to the reader's proper understanding).

Enlightenment Origins of Political Economy

Seldom are ideas thought up from scratch—in the sense that theorists suddenly come up with entirely new concepts. Ideas are put together using earlier ideas as the framework on which advances are then made. So, economic ideas were first developed within the philosophical tradition of Western scientific rationalism. But ideas are also reflections on real material processes. Modern economics was developed as a symbolic representation of real events in early capitalism. Yet, neither derivation—ideas developing within an intellectual tradition or

ideas as reflections on reality—is scientifically neutral. Thinkers do not divorce themselves from their political beliefs when they think theories into existence, even though they might pretend so. Rather, politics and other beliefs are spurs to the deep thinking involved in high-level theorization. Modern economics was constructed negatively, against the rulers of the previous (precapitalist) feudal order, the landed aristocracy, and against the mercantilist state that acted on behalf of this earlier ruling order. Economics was developed positively by theorists thinking on behalf of a new progressive capitalist class—economics was a theoretical part of their revolutionary effort. As this new class came into dominance, made a lot of money, and became wealthy, economics became conventional. We believe that it should have continued to change—in order to serve the people by recommitting itself to the poor rather than the rich.

Modern economics seemingly belied the concepts of the old medieval order. These concepts included a feudal-era inclination to believe that communal economic justice reflected God's will. Augustinian Christianity (i.e., Catholic doctrines such as “original sin,” formulated by Saint Augustine during the time of the late Roman Empire) had defined work as a punishment, meted out to everyone because originally Adam had disobeyed God by lusting for Eve. During the late Middle Ages, as European modernity was first dawning, a new notion began to emerge that upended this idea of work being the payment humans had to make for Adam's sin. Work began to be thought of not as sacrifice but as a virtue—as the source of wealth. The most radical version of this protracted changeover came with the 16th-century Protestant belief in glorifying God actively rather than just meditatively—please God . . . by working hard! So, Protestants of a Puritanical, and especially Calvinist, persuasion pursued their “calling” (the occupation to which God had summoned male individuals, taking their talents into account) with rigorous discipline, despising idleness or shoddy craftsmanship as a dishonor to God. Additionally, under early modern Protestantism, human acquisitiveness and selfishness changed from being sinful forms of behavior to being a service to the community (Innes 1995: chs. 1 and 3; see also the section on Max Weber in Chapter 4 of this book).

These new beliefs and attitudes were developed by the artisans, craftsmen, small guild (working) masters, and journeymen of early modern capitalism, especially those working in the most important manufacture, the cloth industry of western Europe in general (and England in particular, where the production of woolen cloth employed some 8% of the populace as late as 1823; Gregory 1982: 27). The new Protestant attitudes toward labor, wealth, and productive life were

developed by working craftspeople who couldn't help but realize that their work produced *value*: every throw of the shuttle, every inch of cloth passing through the weaving machine, proved that the weaver's labor time was adding value—more time, more cloth, more value. Thus, eternal repetition was the experience from which the labor theory of value emerged. Classical economists merely translated these beliefs, based on real work experience, into the more abstract realm of theory.

Classical economics also developed in conflict with an earlier set of ideas called mercantilism. Lasting from the 15th century to the early to mid-19th century, mercantilism was a system of ideas, institutions, politics, and economic practices that supported the absolutist (all-powerful) state and the ruling monarchical and aristocratic classes of the early capitalist period. Mercantilist political policy aimed at increasing national power, symbolized by the might of the state. National power, it was realized, rested on economic means rather than the bravery of a country's citizenry or the spirit of its people. Production was understood in the modern way, as the application of labor to natural resources. And this involved a new valuation of small producers—not laborers so much as tenant farmers and artisans—the very people who eventually became the industrial capitalist class. While valued, they were included in powerful institutions only very reluctantly, however. Power was still held by the king and the landlords. The period 1600–1850 can be seen as one long class struggle between the landed nobility and the new bourgeoisie for control of the state, control over ideas, and control over the economy and its products. Classical economics was one element in this class struggle.

Under mercantilism, a country was considered prosperous when it had a favorable balance of trade (i.e., exported more than it imported), resulting in an increased inflow of gold and silver (payments from other countries made to cover trade deficits). To achieve this favorable balance, trade was controlled by the state, and manufacturing was protected, regulated, and encouraged as a source of trading power—and, we might add, exploited as a source of monarchical/state revenues. Mercantilism had already broken with medieval precedent. It was an amoral system, in terms of means and ends, in which the political welfare of the state replaced the spiritual welfare of the people. Mercantilism was, as far as possible, rationalist rather than mystical, believing in the application of science to the solution of practical problems (Newman 1952; Hecksher 1935). Classical economics drew from such mercantilist positions in a critical way—retaining the rationalism but orienting it in a different direction by favoring the interests of the new class of capitalists rather than the monarchy.

The British Enlightenment

Basically the word “Enlightenment” is used to refer to any period when a civilization's thought goes through revolutionary change that is later deemed to have been beneficial—that is, thought begets better conditions. “The Enlightenment” is a Eurocentric term referring to the revolution in philosophy and theory that occurred during the 17th and 18th centuries in western Europe. “Enlightenment” in this European context reflected the growing belief that human reason could be used to combat ignorance, superstition, and tyranny in creating a better world—the main opponents being religion (especially the Catholic Church) and the domination of society by a hereditary aristocracy that used force and conservative traditions to have its way. But, as we have stressed, revolutions in thought are not politically neutral—they serve interests. So, the task of the great political-economic philosophers of 17th- and 18th-century Protestant Britain—Thomas Hobbes (1588–1679), John Locke (1632–1704), David Hume (1711–1776)—was to propound political-economic ideas that might serve the new modern capitalist class in its struggle with feudalism and the landed nobility. More specifically, their political-economic philosophy supported the cause of the class of small producers, the tenant farmers, mechanics, and artisans whose hard work formed the basis of mercantilist state power but who supported the Protestant cause. For example, the Roundheads in the English Civil War showed their disdain for the Catholic monarchy and the “divine right of kings” by beheading Charles I in 1649.

Briefly, Thomas Hobbes reconceptualized society as a calculus of power relations, with power, in effect, traded like a commodity, and the value of the individual measured by the deference accorded him or her by others. People were bound together through moral obligations, he admitted. Yet, rather than invoking imagined deities as the basis of morality, as with the medieval Christian theologians, Hobbes thought that rational self-interestedness was as moral an obligation as could realistically be found. Rational self-interestedness (selfishness that was thought-out) was thus legitimated philosophically as the morality of the new capitalist system.

John Locke, the most important philosopher of early capitalist modernity, began by accepting the medieval Christian view that God originally gave the earth and its products to all people in common. Yet, Locke contended, human individuals had the right to preserve their own lives and, therefore, had rights to the subsistence (food, drink) derived from the earth. Such products had to be appropriated from the earth through labor by individuals with natural rights over

their own persons. By mixing labor, encased in natural, individual rights, with earth, the individual made large swaths of the natural environment into private property—providing, Locke added, in deference to earlier ways of moral thinking, that enough was left for others. Thus, property rights extended to the commodities people produced from natural materials but also extended to the land people improved through the labor used in clearing, cultivating, and so on. Later in life, Locke added that the invention of money, together with a tacit agreement to place value on it, removed the previous limitations on the extent of property ownership. And, as labor was unquestionably the individual's property, it could be sold for a wage, with the buyer of labor (the employer) entitled to appropriate the product of the sellers of labor (the workers). The first argument on small private property earned through work was particularly important in the founding of the United States and the allocation of "free land" to farmers willing to improve it. The second set of arguments (rights to the products of employed others) not only justified unequal property relations but also legitimated unlimited individual property appropriation (Macpherson 1962: 221) and, we might add, legitimated (exploitative) employer-employee wage relations in the capitalist society forming at the time. It would be difficult to overstress the importance of Locke to early modern capitalist thought.

Finally, the Scottish philosopher David Hume saw human beings as compelled by a consuming passion—avidity (greed) for goods and possessions, a drive that he found directly destructive of society. Yet, people also reasoned that socialization was to their advantage; that is, "Passion is much better satisfied by its restraint, than by its liberty, and by preserving society, we make much greater advances in the acquiring of possessions than by running into the solitary and forlorn condition which must follow upon violence and universal license" (Hume 1987 ed.: 492). In other words, the greater interest of the self-interested individual lay in the preservation of society. Thus, self-interestedness and social responsibility could be reconciled—although selfishness was the more basic part. This reconciliation was actively achieved by the new "middle class" (i.e., the small entrepreneurs, between lords and laborers—hence, the "middle" class) who formed the best and firmest social basis for public liberty. Hume supported free trade against mercantilist restrictions and yet found a need still for government intervention to preserve national economic advantage (Skinner 1992: 223).

In short, the philosophers and political economists of the Enlightenment of 17th- and 18th-century Britain theorized on behalf of the new class of small proprietors, who worked hard all day and schemed

late into the night to make good-quality products in order that they might prosper and accumulate possessions—modestly at first. The early modern theorists decried against traditional beliefs, like divine rights (granted by God), or ascriptive social positions (inherited at birth) held by the traditional aristocracy. Increasingly, during the 18th century, as the Industrial Revolution transformed society, they argued against the entrenched power of the nobility and the absolutist mercantilist state. Their main task in this fight was to rationalize a new set of ideas about selfish individualism and private property accumulation that came to be held at a deep level of belief by modern people. They came up with a system of principles based on the freedom of the individual and the right to private property, a system that was at first revolutionary but became normalized in the sense of being unquestionable within polite, conventional discourse about economic and political development.

These theorists' main quandary lay in reconciling individual selfishness with the common good. Increasingly, reconciliation between competitive individualism and communal morality was reached not on the moral basis of religion (by appealing to God) nor on the armed force of the state (by forcing people to obey) but rather by seeing that the freedoms of the self-seeking, enlightened individuals were disciplined (ordered and restrained) by modern social institutions—principally through exchanges among the players in the marketplace. This complex of beliefs forms the basis of modern liberalism—that is, the belief in individual natural rights, equality of opportunity, civil liberties, and so on. We use the principled liberal concepts derived from this belief system—freedom, progress, democracy—to think optimistically, talk about the good society, and conceptualize political-economic alternatives even today. Especially in the United States and United Kingdom, we are the descendants, the human products, of the British Enlightenment. These concepts have captured our imaginations and our lexicon. They endowed us with our most appealing and inspirational ideas. But, remember that the Enlightenment philosophers were thinking on behalf of early capitalist white men, and *their* rights and liberties, not the rights of the workers, nor the peasants, and definitely not women, nor black or brown people. (Locke was a shareholder in the Royal African Company, whose most profitable "commodity" was slaves.) Putting this critically, our optimism is constrained by these theorists' class-committed vision of liberal modernity. If we add that Hume's Scottish confidant was Adam Smith, father of classical economics, we can see a direct line of descent from the political philosophy of the early modern era, through liberal classical economics, to present-day neoliberalism.

The Classical Economists

“Classical economics” refers to a period of mainly British economic thought stretching from the publication of Adam Smith’s book *The Wealth of Nations* in the year of rebellion, 1776, to John Stuart Mill’s *Principles of Political Economy* in the equally rebellious 1848, a year marked by liberal revolutions throughout western Europe. Classical economics was part of a larger intellectual system of political economy contained within the even broader liberal philosophy of the British and European Enlightenments that we just discussed. Classical economics gave rise to the modern theories of growth and development.

What kinds of real-life events did the classical economists reflect in their theory—as economic growth theory? At the time, in the late 18th and early 19th centuries, the economic landscape of Britain was changing with the agricultural and industrial revolutions. Under the agricultural revolution, technical change was occurring in terms of innovations in crop rotation and production techniques. Social changes were also taking place, mostly in terms of the “enclosure” of the feudal common lands by the noble landowners. Rather than farming the land themselves (preferring to hunt foxes and build castles), the lords of the land divided their estates among tenant farmers who paid them rent. This new class of tenant farmers employed farm laborers to produce food and raw materials sold in markets to earn money so they could pay rents to the landowners. Here was the capitalist class system and modern production in formation.

The Industrial Revolution was even more complex. England had been an industrial country dominated by woolen cloth manufacture since the 13th century—the wool from its many sheep was spun and woven by hundreds of thousands of craftsmen employed in textile manufacturing. However, the cloth manufacture was controlled by master clothiers putting work out to hundreds of small producers in specialized districts like Devonshire, East Anglia, the West Country, and the West Riding of Yorkshire. Technological innovations, as with improved spinning machines driven by water power, and a shift toward wearing cotton rather than wool, transformed the dispersed textile manufacture into a concentrated factory-type industry in the 18th and early 19th centuries. The factory owners, emerging from the ranks of craftsmen, small masters, and clothiers, were the first industrial bourgeoisie. They were rational men convinced of the benefits of technology and by the efficiencies of modern forms of bureaucratic organization. They were commercially oriented and competitive profit makers, decision makers who were capable still of running a power loom. They were producing not only cloth but also a new economy in Western modernity.

The classical economists thought on behalf of these new men. Their thought ran against the previous ruling class, the noble landowners, whose right to property rested on the force of conquest, as when the Normans conquered Britain and divided it up, and the force of outdated religious ideas, like divine (rather than earned) rights to property (hence the “radical” Lockean notion of labor creating property rights rather than property coming from conquest). Classical economists opposed earlier conceptions of economics, for example, the conception of the French Physiocrats, who believed that God originally put value into land, from which agricultural labor merely liberated it. The classicals were radical—in that they were willing to dismiss God from the value-creating equation (yet not from their ethical value system in general).

Adam Smith: Beginnings

In economics, the great break from the past was made by a Scottish moral philosopher with a fortuitous name for the founder of a new project, Adam Smith (1723–1790). As is the case with most transformational statements, Smith simply said what he believed to be true, namely, that all humans share certain characteristics—whether innate or resulting from the faculties of reason and speech—that Smith went on to describe as a “propensity in human nature . . . to truck, barter and exchange one thing for another” (Smith 1937 ed.: 13). By this he meant that human beings possessed an inherent urge to trade. As traders, humans were also inherently “self-interested” (in the sense of rational selfishness discussed earlier, including “interested in rationally knowing oneself”), with this interest focused on (naturally) making money. So it was futile to expect cooperation and assistance from people acting out of their own self-interest—that is, one should not expect people to be naturally good or kind. Instead the individual should act upon the other’s “self-love”—appeal to the other’s own advantage—to get the other person to do what he or she needed or required: “Give me that which I want, and you shall have this which you want.” Smith (1937 ed.: 14) added: “It is not from the benevolence of the butcher, brewer or baker that we expect our dinner, but from regard to their own interest.” So, a modern economy worked best through the interaction of inherently self-interested individuals. As an Enlightenment philosopher, Smith wanted to harness the incessant rage of human selfishness as an economic motive, a ceaseless drive to produce wealth and create growth. But as a good Protestant he also thought that “self-love” should be self-regulated by the disciplined, rational modern individual

buyers—because cheaper products would be supplied by others. Over the long run, markets and free competition within them would force prices toward their natural, or “socially just,” levels. The web of self-regulating markets was an “invisible hand” organizing the economy efficiently and yet also transforming private self-interest into public virtue. Hence, an automatic mechanism, competition in the market, led to productivity and growth without state interference. Self-interested competitive behavior directed resources to where they could best and most profitably be used. And all classes, Smith believed, shared in the benefits of progress. “Natural liberty implied free competition, free movement of workers, free shifts of capital, and freedom from government intervention” (Lekachman 1959: 89). For Smith, markets were virtuous institutions of social efficiency and the key drivers of invention, innovation, and risk taking. This set of ideas was Smith’s magnificent contribution to the Enlightenment. We live by Smith’s ideas today—benefiting from their veracity, yet suffering (as we will argue later) from their mistakes in assumptions and logic.

Godwin and Malthus

Evoking even more enlightened optimism than Smith, William Godwin, in his *Enquiry Concerning the Principles of Political Justice* published in 1793, posited that humans were capable of perpetual improvement. Human reason, Godwin (1946 ed.) proclaimed, could triumph over human instincts and thereby indefinitely extend life, perhaps even enabling people to ultimately become immortal. Radicals at the time were pointing out that productivity gains resulting from improvements in agriculture and machinery were making it possible for a hundred men working closely together to produce output sufficient to meet the wants and needs of thousands (Godwin 1946 ed.). Who could possibly countenance poverty and overwork in the face of such productive power? Godwin inquired (Rhodes 2012).

Of course, this kind of optimism about unlimited growth and unparalleled human progress could not long be sustained. As economist Robert Heilbroner (1986) has noted, the optimism of the late Enlightenment was soon countered by the pessimism of the early 19th century, with arguments focused on population and “progress,” which socially symbolized more basic human instincts and reason. The Reverend Thomas Robert Malthus (1766–1834) responded negatively (and at first anonymously) to Godwin’s *Enquiry* and similarly dangerous economic theory emerging from the French Revolution. Malthus’s *Essay on Population* argued conversely that human progress would always be

limited by uncontrollable “human passion” (by which he meant sex), making populations over time inevitably increase more rapidly than food supplies. In his view, population tended to grow geometrically (1, 2, 4, 8, 16) while food production increased only arithmetically (1, 2, 3, 4, 5), the ultimate result being that “premature death must in some shape or other visit the earth” (Malthus 1933 ed.: 139). Malthus thought that laws granting aid to the unemployed (poor laws and the like) only made matters worse by encouraging the poor to have children (an argument echoed even today). In Malthus’s pessimistic view, far from ascending perpetually toward a better future, humanity was “trapped by passion” into an incessant cycle of overpopulation and premature death.

Utilitarianism

During the early 19th century, political economy changed in style, if not in essential substance. Earlier moral notions about human nature were elaborated in a more quantifiable and predictable way by the British Enlightenment philosopher and political economist Jeremy Bentham (1748–1832). Bentham thought that the social problems of late 18th- and early 19th-century England were attributable to an antiquated system typified by control of the economy by a hereditary landed gentry opposed to modern capitalist institutions. Bentham was especially critical of the British legal system, believing that English law itself had no objective basis and that its underlying morality rested on many irreconcilable foundations (the Bible, tradition, conscience, etc.). In seeking to correct this shortcoming, Bentham sought to find some criteria for validating ethical behavior that could serve as the basis for a modern democratic system of law and government.

In his *An Introduction to the Principles of Morals and Legislation* (1996 ed.), first published in 1780, Bentham declared simply that nature had placed humans under the governance of two sovereign “masters”: pleasure, which made all people happy; and pain, which everyone hated. Therefore, he believed that morality (and the laws derived from it) could be grounded in a fundamental objective truth about human nature and behavior: the maximization of pleasure and the minimization of pain. Bentham’s “principle of utility” judged every human action by its effect on either augmenting or diminishing the happiness of the individual. Amounts of utility could, in effect, be measured by degrees of happiness. The objective of government should be to enable the greatest possible happiness of the community governed. The happiness of the individual was increased in proportion as the person’s sufferings

were made lighter and fewer and enjoyments greater and more numerous. The care of enjoyments ought to be left almost entirely to the individual, in his view.

The principal function of government was to guard against pain. Governments did this by creating rights that are conferred on individuals: rights of personal security, rights of protection for honor, rights of property, rights to receive aid in case of need. Human liberty meant freedom from external restraint or compulsion. Liberty was the absence of restraint, and to the extent that individuals were not hindered by others, they had liberty and were free. (This argument contradicted the French revolutionary position that liberty was "natural" in the sense of existing prior to social life.) Law that restricts liberty was evil. Yet, law was also necessary for social order, and good laws essential to good government. To the extent that law advanced and protected people's economic and personal goods, it reflected the interests of the individual. Similarly, Bentham thought that the government's social policies should be evaluated in terms of their effects on the well-being of the people they affected. Punishing criminals was an effective way of deterring crime because it increased the likelihood that future pain would outweigh the apparent gain of committing the crime. Thus, punishment must fit the crime by changing the perception of the value of committing it.

Bentham's utilitarianism became the philosophical basis of the "reform movement" in 19th century Britain. His philosophy was further developed by the "philosophical radicals," a group of intellectuals active in London from the 1810s through the 1830s. Utilitarianism was the basis for reform acts entered into English law, such as the Factory Act of 1833, the Poor Law Amendment Act of 1834, the Prison Act of 1835, the Municipal Corporations Act of 1835, the Lunacy Act of 1845, and the Public Health Act of 1845, as well as for the formation of the Committee on Education in 1839 (Long 1977).

Ricardian Calculations

One member of the "philosophical radicals" was David Ricardo (1772-1823). A British millionaire, trader in securities during the day, Ricardo devoted his spare time to intellectual pursuits, eventually writing a rigorous theoretical treatise on political economics, *Principles of Political Economy and Taxation* (1911 ed.), first published in 1817. In this work, Ricardo accepted Smith's labor theory of commodity value with some modifications (e.g., commodity's value was also determined by scarcity) and Benthamite elaborations (labor was the universal measure of

value because it always involved exertion and was painful, whereas consuming labor's products was always pleasurable). But Ricardo placed greater critical emphasis on how value is distributed, especially the part that goes to rents (the portion of commodity value paid to landlords for use of the original powers of the soil). Like Smith, Ricardo saw the economic world tending to expand, with capitalists accumulating capital that earlier would have been used for profits, building factories, and employing more workers while increasing wages. From the French economist Jean-Baptiste Say (1767-1832) Ricardo derived the idea that "supply creates its own demand" as producers employed and paid workers who, by spending, generated consumption and formed demand. However, Ricardo added a critical dimension to the theory of economic growth. With an expanding population and an increased demand for food, the margins of agricultural production would expand, bringing into cultivation land of lesser fertility, increasing the cost of grain (wheat, the food staple in Britain), yet increasing returns to landlords owning the better lands, earning them differential rents (above the minimum earned on the marginal lands). In turn, the capitalist would be faced with the higher wage costs necessary for buying more expensive grain to sustain workers, while the landlords got more revenues even though, Ricardo concluded (critically again), they themselves contributed little to the wealth-creating process (because they owned land and yet did not work it themselves).

In common with Smith, Ricardo was against the landowning class. Mercantilism had long protected British landlords by limiting grain imports and encouraging exports. In the early 19th century British landlords were protected from foreign agricultural competition by a system of Corn Laws (enacted in 1815) that represented the last remnants of the mercantilist system. These laws imposed a sliding scale of duties (tariffs, i.e., state taxes) on imported grains, with the amount of the tariff determined by the foreign price. Tariffs kept grain (and bread) prices high, ensuring that landowners benefited from the Industrial Revolution, with its increased demand for food and raw materials. The philosophical radicals opposed these Corn Laws. They argued that, by freeing trade from all state restrictions, "free trade" would result in lower grain costs that would benefit industrial capitalists through lower wages (i.e., less money could be paid to workers to buy bread and other food staples).

Ricardo's main contribution to classical economics, which helped spur Parliament's eventual repeal of the Corn Laws in 1846, was a theory of free trade based on the principle of *comparative advantage*. For this comparison, Ricardo used trade between England and Portugal as a model case. Following the example of Smith in Chapter 6 of *The*

Wealth of Nations, Ricardo took the position that trade and the progressive extension of the market increased the rate of profit in a country and led to a more efficient international division of labor. This process was effectuated through "each country producing those commodities for which by its situation, its climate, and its other natural or artificial advantages it is adapted, and by their exchanging them for the commodities of other countries" (Ricardo 1911: 80). International specialization and free trade among countries produced universal benefits. In a statement expanding on Smith's insights, Ricardo (1911: 81) declared:

Under a system of perfectly free commerce, each country naturally devotes its capital and labour to such employments as are most beneficial to each. This pursuit of individual advantage is admirably connected with the universal good of the whole. By stimulating industry, by rewarding ingenuity, and by using most efficaciously the peculiar powers bestowed by nature, it distributes labour most effectively and most economically: while, by increasing the general mass of productions, it diffuses general benefit, and binds together, by one common tie of interest and intercourse, the universal society of nations throughout the civilised world. It is this principle which determines that wine shall be made in France and Portugal, that corn shall be grown in America and Poland, and that hardware and other goods shall be manufactured in England.

Ricardo's case example was Portugal. Were Portugal to have no commercial connections with other countries, it would have to divert capital from the wine it produced to manufactured goods that it imported from England, while the quality of the cloth, hardware, and other products would probably diminish. The quantity of wine that Portugal gave in exchange for the cloth of England was determined not by the respective quantities of labor used to produce these commodities, as it would be were both to be produced in each respective country. Instead:

England may be so circumscribed that to produce the cloth may require the labour of 100 men for one year; and if she attempted to make the wine, it might require the labour of 120 men for the same time. England would therefore find it her interest to import wine, and to purchase it by the exportation of cloth. To produce the wine in Portugal might require only the labour of 80 men for one year, and to produce the cloth in the same country might require the labour of 90 men for the same time. It would therefore be advantageous for her to export wine in exchange for cloth. This exchange might even take place notwithstanding that the commodity imported could be produced there with less labour than in England. Though she could make the cloth with the labour of 90 men, she would import it from

a country where it required the labour of 100 men to produce it, because it would be advantageous to her rather to employ her capital in the production of wine, for which she would obtain more cloth from England, than she could produce by diverting a portion of her capital from the cultivation of vines to the manufacture of cloth. (Ricardo 1911: 82–83)

(See Table 2.1 for a numerical version of this argument.)

Ricardo added that it might seem that all production (of wine and cloth) might best take place in Portugal by moving capital and labor

**TABLE 2.1. Theory of Comparative Advantage:
Ricardo's Numerical Example**

Without specialization

England

Cloth: 100 mh produces 100 yards.

Wine: 120 mh produces 100 barrels.

[Labor productivities: cloth: 1 mh = 1 yard; wine: 1 mh = 0.83 barrel]

Portugal

Cloth: 90 mh produces 100 yards.

Wine: 80 mh produces 100 barrels.

[Labor productivities: cloth: 1 mh = 1.1 yards; wine: 1 mh = 1.25 barrels]

Total production in England and Portugal combined
200 yards of cloth and 200 barrels of wine

With specialization

England (specializing in cloth, for which it has the least comparative disadvantage)

Cloth: 220 mh produces 220 yards.

Portugal (specializing in wine, for which it has the greatest comparative advantage)

Wine: 170 mh produces 212.5 barrels.

Total production in England and Portugal combined
220 yards of cloth and 212.5 barrels of wine

Specialization increases total output of cloth by 10% and wine by 6.25%.

Note. Based on Ricardo (1911: 82–83), with 100 yards of cloth and 100 barrels of wine substituted for each country's annual production. mh, man hours.

there, but experience showed that "men of property" (British capitalists) were unwilling to move their capital to other countries. The theory assumed that all partners in trade benefited from an increase in total production in accordance with their comparative advantage. Producing in accordance with comparative advantage and trading freely across borders generated economic growth. This insight was Ricardo's contribution to Enlightenment and to its most important branch, classical economics. Ricardo's liberal principle of free trade is reproduced in contemporary economics textbooks and is a basic geographic component of contemporary economic growth theory. Paul Samuelson, a Nobel prize winner and author of the most popular contemporary economics textbook, concluded that the principle of comparative advantage makes real incomes higher in all places, while ill-designed tariffs or quotas reduce efficiency and incomes. He calls this principle the "unshakable basis for international trade" (Samuelson 1980: 630). Challenged by the mathematician Stanislaw Ulam to name "one proposition in all of the social sciences which is both true and nontrivial," Samuelson paused and, after much thought, responded, "comparative advantage." "That it is logically true need not be argued before a mathematician; that it is not trivial is attested by the thousands of important and intelligent men who have never been able to grasp the doctrine for themselves or to believe it after it was explained to them" (Samuelson 1969).

Mill's Ethical Economics

Late classical economics combined the arithmetic precision of Ricardo with a more socially critical and ethical liberalism that responded to the vicissitudes of the Industrial Revolution. John Stuart Mill (1806–1873) agreed with Bentham's greatest happiness principle as the basic statement of utilitarian value: "Actions are right in proportion as they tend to promote happiness, wrong as they tend to produce the reverse of happiness. By happiness is meant pleasure, and the absence of pain; by unhappiness, pain, and the privation of pleasure" (Mill 1863: 2). But he did not agree that differences among pleasures could always be quantified. Some kinds of pleasure experienced by human beings differ qualitatively. With this latter insight, Mill wanted to promote the moral worth of "higher" (intellectual, sensual) pleasures among sentient beings—even when their momentary intensity might be less than alternative lower (bodily) pleasures. Because people cannot calculate accurately the relation between pleasure and pain in every instance, he

supposed that humans properly allowed their actions to be guided by moral rules most of the time. In addition to acknowledging Bentham's socially imposed external sanctions of punishment and blame, Mill believed that human beings were also motivated by internal sanctions like self-esteem, guilt, and conscience—that is, the unselfish wish for the good of all could move people to act morally.)

Mill's *On Liberty* (1859) defended the view that governmental encroachment upon the freedom of individuals was almost never warranted. A genuinely civil society, Mill maintained, must always guarantee the civil liberty of its citizens—their protection against interference by abusive authority—even when the government relies on the democratic participation of the people (Mill 1859: 1). The only purpose for which power can be rightfully exercised over any member of a civilized community against his or her will is to prevent harm to others. Society is responsible for protecting its citizens from one another but should not interfere with the rest of what they do. This perspective meant, in particular, that the government was never justified in trying to control, limit, or restrain (1) private thoughts and feelings, along with their public expression; (2) individual tastes and pursuits as reflected through efforts to live happily; and (3) the association of like-minded individuals with one another. No society was truly free unless its individual citizens were permitted to take care of themselves. Human action should arise freely from the character of individual human beings, not from the despotic influence of public opinion, customs, or social expectations. Each person must choose his or her own path in life even if it differs significantly from what other people would recommend. Thus, for Mill individual citizens were responsible for themselves, their thoughts and feelings, tastes and pursuits, while society was properly concerned only with social interests. In particular, the state was justified in limiting or controlling the conduct of individuals only when doing so was the only way to prevent them from doing harm to others by violating their rights. As economic life involved the social interest, however, it might be subject to regulation even though free trade was often more effective. Mill was distinctly in favor of liberty: in his view, governmental action was legitimate only when it was demonstrably necessary for the protection of other citizens from direct harm caused by any human conduct. In every other case, the liberty of the individual should remain inviolate.

In *Principles of Political Economy*, published in 1848, Mill (1909 ed.) argued that the principles of competition were the bases of economic laws that could be outlined with precision and given universal validity by an abstract science of economics. Mill argued that the economic law of diminishing returns—in which additions to the labor working

agricultural land were not met by equal additions to product, restricting productivity and growth—could in part be transcended in manufacturing, where productivity could be increased almost without limit. Hence, economic growth was naturally led by industry rather than agriculture. The pessimism that was typified by the writings of Malthus—to the effect that economic growth would be restricted by populations increasing faster than production—could be avoided by workers voluntarily restricting their numbers, in Mill's view. With Say and Ricardo, Mill believed that there was no chance of general overproduction (and thus no long-term depressions) as growth proceeded, although specific commodities might experience short-term fluctuations. So, capitalism and economic growth were viewed as proceeding together in relative harmony.

However, Mill's most significant contribution to classical political economy, and to growth theory, lay in his ideas about values. Mill differentiated science from values—that is, he said, while the “scientific laws” of economics applied to production as though they were natural truths, the distribution of wealth was a different matter entirely, being more a question of values, laws, and customs. Based on their value systems, societies could decide to redistribute wealth through state intervention, said Mill. So, there could be an ethical economic growth—similar to development in the sense that we defined in Chapter 1. Further still, Mill found notions of competition and the “struggle for existence” as ideals for economic life to be merely disagreeable symptoms of an early, crude phase of industrial progress. When more refined minds took over the reins of power, such coarse stimuli to economic action would be replaced by superior economic principles spread through education. Mill saw the existing relations between workers and capitalists as characterized by mutual suspicion, but he thought that such antagonism could be relieved by profit sharing and eventually avoided through worker-capitalist partnerships and even workers' ownership of factories. Mill thought that *laissez faire* (the practice of governments not intervening in the economy) should be the general rule, but he found room for many exceptions, as with poor relief (welfare) or factory legislation (state regulations on child labor, hours and conditions of work, etc.). Mill was a radical liberal who believed that capitalism would eventually give way to cooperativism. His contribution to the Enlightenment took the ethical form of a compassionate developmentalism. More extreme socialist versions of these ideas were worked out by Karl Marx and Frederick Engels (whom we discuss in Chapter 5), who were in many ways, the last (yet highly critical) members of the classical school of political economy.

List's Skepticism

Most accounts of classical economics end with Mill. There was, however, another important alternative economic perspective in the classical tradition, presented by Friedrich List (1789–1846). List was a journalist who lived in the United States and France after being repeatedly imprisoned for writing about liberal ideas in his native Germany. List agreed with the principle of free trade proposed by all the classical economists, but he was significantly influenced by the ideas of Alexander Hamilton, the first U.S. Secretary of the Treasury, who advocated protecting “infant industries” (against British competition) and achieving self-sufficiency. Following this line of thought, List argued that free trade of the Ricardian type presupposed a condition of eternal peace and a single set of laws for humanity that had yet to come into existence. Under the actually existing conditions, in which Britain dominated the world's manufacturing in the early 19th century, free trade would bring about not a “universal republic” of equal countries but “universal subjection of the less advanced nations to the supremacy of the predominant manufacturing, commercial and naval power” (List 1909 ed.: 103). A universal republic of national powers recognizing one another's rights, and a situation in which free trade could confer the same advantages on all participants, could only come about once a large number of nationalities had reached the same level of development. In the meantime, List proposed a “national economics” in which the state promoted the welfare of all its citizens with tariffs protecting the national economy, especially infant industries (i.e., new economic activities just starting up), until such industries could compete on equal terms with the dominant industrial powers, like Britain.

In Mill and List we read the beginnings of a critique of classical economics. Let us now elaborate this critique ourselves.

Critique of Classical Economics

We have presented here a clear, straightforward summary of the main ideas of classical political economics. These ideas fit together as a sophisticated, believable explanation for the economic growth of modern industrial societies. The overall theory they present is logical and coherent, understandable and persuasive. It basically combines Smithian notions of self-interested, rational, and competitive behavior by capitalists with a technical apparatus of specialization based on comparative advantage, interlocking markets, expanding trade, and

innovations specifically in industrial production. This theory of economic growth has long gained sway and persisted pretty much intact up to the present. Even so, classical economics rests on assumptions that are made up rather than proven. Smith, Ricardo, Bentham, and the others simply assume that all people are innately self-interested competitive traders—that is, “selling things and making money is human nature.” But if this is “human nature,” then why, under the social systems prevailing for 99% of human history—gathering and hunting, tribal and agricultural systems, the state societies of China, Egypt, Rome—were competition and selling things so conspicuously absent? The classical economists legitimated selfish, competitive profit making as “natural.” This makes “unnatural” *other* motives for economic practice, such as cooperativeness, the desire to work for the common good, the desire to organize production to meet the needs of everyone. Human beings are not selfish brats; they are, as Mill at least recognized, capable of living and acting in accordance with finer ideals.

Then too the classical economists simply assumed that profits and rent are legitimate shares of national income—profits being earned by capitalists’ competitive risk taking, rent being payment for the use of land and resources (the classical position was skeptical about this latter share), and wages being the reward for working. But why are profits and rents seemingly so much higher than wages? Or, putting it differently, why is an hour of risk taking theoretically worth up to thousands of times more than an hour of hard physical labor? Why do owners and managers make so much more than workers? These assumptions—which lie at the heart of classical and contemporary economics—are hardly class-neutral but rather are *class-committed* assumptions.

The classical economists were definitely inclined to defend the interests of the British industrial bourgeoisie, particularly in its fight against the (noble) landlord class but also (not mentioned nearly as often) in its fight against the workers. The classical economists saw the industrial bourgeoisie as agents of progress and bearers of rationality. They believed that these modern men should control the economy for the good of all. They were committed to the market as organizational mechanism and against the mercantilist state, especially in that it represented the monarchy and the nobles—although not when the state served their own interests (as with imperialism). All this is clear. The classical economists did not hide their class commitments. They were proud to support their bourgeois friends. And who could blame them? Given a choice between kings, lords, dukes, and other assorted aristocrats, on the one side, and the early self-made working bourgeoisie, on the other, as the ruling economic class, the new self-made men were

obviously preferable—though the questionable part came with Locke’s shift from admiring self-made working men to admiring men who put others to work for them and then took their output.

The question for economics is: Why translate a theory that was obviously in favor of the capitalist class as it rose to power into an economic theory that is supposedly good for all people at all times? Why transfer antagonism to the mercantilist state into later opposition to the welfare state? The chief problem is that economic theory eternalizes and universalizes these early class commitments under the rubric of “scientific neutrality.”

Ricardo Was Wrong

We raise these issues again later, in even more detail, when criticizing neoclassical economics. For the moment, let us take the critique of classical economics in another direction by examining the logic and the empirical validity of its theory. Is classical economics logical in the sense that components of the argument fit together as a coherent whole? Is classical economics empirically based, in that it is founded on generalizations that represent reality with some degree of accuracy? Or are its logic and empirical support hopelessly biased by class and national commitments? In answering these questions, let us go to the heart of the classical theoretical regime, to a theory that has lasted virtually intact until the present, and to a theory that forms the basis of conventional thinking about economic growth. Ricardo’s theory of comparative advantage is such a foundational theory.

To understand all this, we have to reconstruct the history of the Anglo-Portuguese cloth-wine trade (recall that Ricardo used cloth trading between England and Portugal as his key case study). Woolens had been Britain’s most important industrial product since the 12th century. Originally this specialization may have had a natural base—the sheep dotting the English landscape. Yet, the reasons for specialization soon became far more political than natural. Beginning with the Tudors, the British mercantilist state controlled and regulated, supported and protected, virtually all aspects of the production of wool and the manufacture of woolen cloth, especially their export (Chang 2002). By Ricardo’s time, cloth manufacture in England had become socially and politically well ingrained in the feudal and mercantilist states for over five centuries. A petition in 1800 to Parliament called the woolen industry “our earliest, most extensive and most valuable manufacture” (Lipson 1965: 3). And for most of the 18th century, some

10% of English cloth exports went to Portugal, with the woolen industry, a crucial component of the early English Industrial Revolution, expanding largely in response to the growing export market (Fisher 1971: 127). In brief, Portugal was among the most important markets for British woollens, the woolen textile industry was at the foundation of the early Industrial Revolution, and that commercial revolution was the key economic component of Enlightened development. *That* was why Smith, Ricardo, and the classical economists were so interested in connecting their theory to the cloth trade.

Ricardo presented two main arguments in his simple model of comparative advantage. First, he said that specialization based on national comparative advantage that, in turn, is based on “natural or artificial” factors increases the total production of all countries involved in an international trading system freed from tariff restrictions. Within its highly restricted, unrealistic assumptions, the notion that national specialization increases global production is uncontested. Specialization increases total output, as generations of economists and legions of policymakers have subsequently repeated. However, Ricardo’s second argument—that an increase in total production is good for both sides in a trading relation—is not supported by his numerical model. It is simply *not* the case that Ricardo *demonstrated* that free trade between Portugal and England could improve real incomes in both countries. Rather, Ricardo showed only that *total* production was increased through specialization while simply *claiming* that this benefited both sides—numerical logic failed to follow optimistic extension. In point of fact, it is logically possible for an increase in total (global) production to be accompanied by a *decrease* in the income flowing to one of the partners in the trading system. Indeed, the argument that we will presently develop is that an increase in total production that entirely benefited England while ruining Portugal is *what had happened* over a long historical period immediately preceding Ricardo’s formulation of the theory of comparative advantage.

The main question about the first argument turns on the “natural” (i.e., environmental) and “artificial” (i.e., socially and historically constructed) bases for comparative advantage—that is, how can specialization be somehow naturally based when institutions, states, and historical and cultural forces always intervene? And if this is the case, trade must always be as much socially and politically determined as naturally based. To give a brief illustration, drawing on the history of the cloth manufacture that Ricardo used in his case example: the British cloth industry was state-supported, protected, and regulated from the Tudor monarchs (1585–1603) onward. When the British woolen textile industry made a crucial shift from making broadcloth to

producing light worsteds during the 17th century, Dutch and Flemish artisans had to be brought in to teach West Country weavers the requisite new skills (Bowden 1971). So much for natural determination—this was a politically constructed industry. Similarly, the importance of the wine industry in Portugal resulted from the domination of Portuguese society by an agrarian nobility allied with the monarchical Braganza family. Indeed, so powerful was this social and political constructivism that, had Ricardo made a statement about “comparative advantage” that actually represented real economic history, it would have read: “England specialized in cloth, which its powerful mercantilist state supported, while Portugal specialized in wine, which its weaker agrarian state had to accept.” So, a position in a trading system, such as Britain’s specialization in cloth production, results from state intervention and various other forms of institutional construction rather than from anything resembling “natural” advantage (a point List also made). Recognizing this conclusion shifts the emphasis in economic theory. Economies are socially (and politically) constructed—not natural—entities, and an economy that is socially constructed can be instructed to do better for poor people. Had this fundamental truth been recognized by the classical theorists, economics would have evolved as an entirely different, and far better, socially concerned discipline—more along the ethical lines of Mill than Smith’s misguided trust in the morality of the marketplace.

Second, and more interestingly: according to Ricardo, an increase in total production by all countries combined into an international trading system resulting from specialization that “diffuses general benefit” and binds together by common ties of interest all civilized countries that make up the universal society of nations. The main problem is that this argument is not supported by the numerical example used by Ricardo. Who really actually realizes the benefits from increased total production depends on the terms of trade (i.e., the exchange ratios between cloth and wine in the model case) as well as many other equally powerful social and political factors. All the increase in total production coming from international specialization and trade could go to one country, particularly under conditions of unequal power relations (as List suggested). Indeed, that was exactly *what had already happened* in the England–Portugal, cloth–wine exchange. This relatively “free” trade (in the narrow sense of tariffs decreased by interstate agreement) had already resulted not in mutual advantage (nor the enjoyment of benefits by all) but almost exclusively (and over a very long time period) in the concentrated advantage of Britain to the disadvantage of Portugal. Here the crucial condition for a more significant cloth trade than might be expected was the discovery of

gold in the Minas Gerais region of the Portuguese colony of Brazil in 1692, and diamonds in the same area in 1728. The annual value of gold and diamonds entering Portugal was £350,000 in 1700, £600,000 in 1710, and £2,200,000 in 1760 (Fisher 1971: 31). The gold was used to finance a rapid increase of imports from England into Portugal that was not counterbalanced by Portuguese exports to England. As a result of the cloth-wine exchange, Britain had a surplus in trade with Portugal every year between 1700 and 1760 that, after 1721–1725, never fell below £500,000 a year and in the late 1750s was over £1,000,000 a year. The English surpluses were settled by Portugal mainly with Brazilian bullion. This lasted until the late eighteenth century when the gold gave out and Portuguese imports decreased. However, between 1700 and 1760 the bullion shipped to England had amounted to approximately £25,000,000 in Portuguese gold (coins, bar, and dust) and also diamonds. Portugal was the main source of gold entering Britain between 1700 and 1760. The bullion was mainly in the form of gold *moedas*, with a subsidiary form of silver *crusados* that could be deposited in banks or be freely circulated—indeed, in the cloth-producing region of western England the money used daily was mainly of Portuguese origin. In the 1740s and '50s, Portuguese *moedas* were regarded as “the current coin of Britain.” Additionally, bullion was exported from Britain to Holland and used to settle British trade balances with northern Europe. Portuguese bullion gold provided the gold basis for the Bank of England's expanding note issue and underwrote the advances made by London's private banks (Fisher 1971: 103). Hence, the cloth-wine exchange had resulted over a long period of time in a consistent balance of payments deficit for Portugal and surplus for Britain. Portugal had to settle the deficit by reexporting the gold and diamonds it extracted, with not a little force, from its colony Brazil, impoverishing Portugal and enriching Britain (Fisher 1971; Sideri 1970). As Sideri (1970) pointed out, the disadvantages to Portugal arising from these trading relations with Britain included:

1. Increased dependence of Portugal on England.
2. A strengthening of the landed interests and the church in Portugal that in turn retarded industrial development.
3. Deficits in Portugal's balance of payments, causing gold from Brazil to flow out mainly to England, where it contributed to industrialization. By comparison, later attempts to industrialize Portugal were defeated by balance of payments problems.
4. Eventually, England replaced Portugal as Brazil's main trading partner (and for a prescient extension, see Sideri 1998).

Compelling argument. But what is the mechanism? Why does the surplus production accumulate in Britain instead of Portugal?
Classical and Neoclassical Economics

What little manufacturing Portugal managed to develop was crushed by British competition, and the country collapsed into political strife between the monarchists and aristocracy on the one side, and a weak urban liberal middle class, on the other, that raged until the mid-19th century—indeed, its indirect consequences persisted even into the Salazar dictatorship of the 20th century.

The conclusion is inescapable: Ricardo claimed universal advantage from a trade relation that he *already knew* favored one country at the expense of another. But, further, this utter bias in Ricardo's mind has been replicated virtually intact by generations of economists ever since, who claim that free trade based on comparative advantage is good for all concerned, in the long run, without investigating whether it was good for Portugal in the long-run model case that undergirds their Ricardian belief system. Britain exported cloth to Portugal . . . and took it to the cleaners! And ever since, one or a few countries have reaped most of the benefits from “free trade”—Britain during the 18th and 19th centuries, the United States after World War II, and Japan and the newly industrialized countries (NICs) during the 1960s and 1970s, and China today. In the end, “free trade imperialism” might prove to be a far more descriptively accurate label (Peet 2009).

This was, and remains, a theory replete with lapses in logic (especially in terms of who benefits from the trade) and one that is empirically unverified—empirically wrong in fact, in that the theory results in the exact opposite of the reality it pretends to describe. Given the centrality of the theory of comparative advantage in modern economics, we have to consider the possibility that the economics of growth has been fundamentally mistaken ever since its classical beginnings. We have to consider that economics has, from the beginning, been utterly biased in class and national terms. The implications for the direction taken by economic growth are catastrophic for most of the world's people. What classical economics legitimated and, given its role in policymaking (recall Samuelson on the unshakable basis for important men's decisions), helped to construct was an unequal world that has kept billions of people in poverty by concentrating wealth in a few places and in the hands of a relatively few people.

Neoclassical Economics

During the last half of the 19th century economics changed from being “political economy”—the part of Enlightenment moral philosophy critically involved with social issues—to being “economic science”—part of the scientific revolution of the 19th century. The revolution in

economics during the 1870s and 1880s was consciously modeled on the revolution in physics during the mid-19th century (Mirowski 1984). Economics became a specialized scientific discipline increasingly removed from social concerns and more and more reliant on calculus, algebra, and plane geometry. The central theme of economics changed from the growth of national wealth to the role of margins in the efficient allocation of resources. The marginalist movement in economics began in earnest when three theorists—W. S. Jevons (1835–1882), Carl Menger (1840–1921), and Léon Walras (1837–1910)—independently and almost simultaneously developed the idea of “marginal utility.” For Jevons, central British theorist of the new economics, market prices were derived from a series of fundamental motive forces, such as “the mechanics of utility and self-interest.” Economic agents were perfectly rational, perfectly foresighted, and in possession of perfect information. However, this rational ability and perfect foresightedness varied according to certain circumstances, such as “the intellectual standing of the race, or the character of the individual” (Jevons 1879: 34). The class or race with the most foresight would work hardest for future goals. Breaking with classical economists, Jevons thought that labor, once spent had no influence on the future value of any commodity. Instead, “value depends entirely on utility.” Jevons (1911 ed.) emphasized not the total utility (usefulness or Benthamite “pleasure”) induced by consuming all of a commodity but the final (marginal) degree of utility induced by a very small increment in consuming something—the last bit of chocolate you eat after several pieces, for instance. The idea is that the utility of each bit of consumption eventually goes down; the 20th piece of chocolate is not as pleasurable as the first or second. He saw commodities as best distributed over several alternative uses so that the final (marginal) degree of utility was equal in each case—hence, the utility of consuming all commodities could be maximized by a rational consumer by balancing the consumption of one with that of another (Kauder 1965). Jevons’s “Notice of a General Mathematical Theory of Political Economy,” read in Cambridge before the 1862 meeting of the British Association for the Advancement of Science, is regarded as the beginning of the mathematical method in economics. It made the case that economics as a science concerned with quantities (utilities) is necessarily mathematical.

With the possible exception of Walras’s contribution, this early version of neoclassical economics did not extend the marginal principle to the “factors of production” (resources, labor, capital, etc.) used in the manufacture of the exchanged commodities. A second generation of marginalist neoclassical economists created the concept of marginal productivity to cover the substitution of one productive resource (labor) for another (capital) in a theory of rational production. The

basic idea is that production is efficient if a given quantity of outputs cannot be produced with less or fewer inputs. And inputs are substitutable, one for the other—capital (machines) may be substituted for labor (human workers), for instance. This expanded neoclassical economics extended the marginal principle to cover all aspects of production and consumption and, for some, all aspects of life in general.

In England, Alfred Marshall (1842–1924) saw the producer as allocating saved investment funds (capital) among the factors of production, substituting one for another—an extra machine for two or more workers, for example—such that the marginal product of each factor was proportional to its price—that is, it was just worth buying. Basically Marshall was working out a model of efficient production based on minimization of the costs of production. From this formulation Marshall elaborated the conditions of supply and demand, using a simple “static model” based on the “representative firm” (with all other factors being equal, or hypothetically held constant) and three typical time periods, the marketplace (where supplies were fixed and demand determined price), the short run (where the forces of supply had a larger role), and the long run (where again supply was the more important). In long-run partial equilibrium, the earnings of each factor of production would equal its marginal real cost—that is, no more substitutions (machines for labor) were worth making, and production was optimal, occurring at the lowest total cost.

Marshall thought that there were increasing returns to the scale of production (i.e., more production brings lower per-unit costs). He thought that firms reaped external economies of scale: the concentration of several firms in a single location offered a pooled market for workers with industry-specific skills, ensuring both a lower probability of unemployment and a lower probability of labor shortages; localized industries could support the production of specialized inputs; and informational spillovers could improve the efficiency of clustered firms as compared to isolated producers. Marshall also thought that capitalism could raise the standard of living for ordinary people. Like John Stuart Mill, he was an ethical economist, wanting to know whether it was possible for all people to start in the world with a fair chance of leading a cultured life, free from the pains of poverty and the stagnating influences of excessive mechanical toil. He thought that this question could not be fully answered by economic science because the answer depended partly on the moral and political capabilities of human nature, and on these matters the economist had no privileged information. Yet, the answer to this question depended to a great extent upon facts and inferences that *were* within the purview of economics, and that realization endowed to economic studies their

chief and most exalted purpose. The conventional economic view summarized by Marshall was of the economy as a well-balanced system always tending toward equilibrium. All the forces acting on the economy generated signals or reactions that tended, over time, to push the economy toward an optimal state. A shortage of any good or service brought a rise in its price that in turn called forth additional resources to produce it, creating a greater supply and a reduction in its price. Economic change occurred through smooth and continuous adjustments (Marshall 1920).

The Austrian school of economics, distinguished by its theory of marginal utility, was founded by Carl Menger, who believed the individual is the ultimate unit of analysis because only at the individual level can meaning be assigned to actions. Thus, to analyze the root of economic value, one must focus on the valuing individual. Menger (1981) thought that goods are valuable chiefly because they serve particular uses, whose importance differs—value ultimately being determined on the basis of acting subjects' needs and preferences. He thought that this approach gave the lie to the classical (and Marxist) labor theory of value. Goods acquire their value, he thought, not because of the amount of labor used in producing them but because of their ability to satisfy particular individuals' wants or needs. In turn, the value of labor derived from the value of the goods it produced. Menger used this "subjective theory of value" to arrive at a powerful conclusion in economics, namely, that both sides gain from exchange. Almost by definition, people exchange something they value less for something they value more. Following Menger's lead, his students Friedrich von Wieser (1851–1926) and Eugen von Böhm-Bawerk (1851–1914) contributed works that were abstract and antihistorical in method. von Wieser's notion of "opportunity costs" abandoned the classical search for the original values of factors of production and conceptualized value as a circular process through which factors were employed in such a way that their alternative uses produced equivalent earnings. von Böhm-Bawerk concentrated on the complex character of modern production—that is, the large number of stages intermediate between original factors of production and final consumption that created a demand for capital and justified the charging of interest on capital in any kind of economy, whether socialist or capitalist. Essentially these theorists were working out a theory of efficient supply.

In Lausanne, Switzerland, Léon Walras (1954) developed marginal utility from the notion of *rareté* (scarcity), with the degree of utility ultimately determining the amount of value, for each product. For each product, he said, there is a "demand function" that expresses the quantities of the product that consumers demand, depending on its

price, and the prices of related goods, and the consumers' income and taste. For each product there is also a "supply function" that expresses the quantities producers will supply, depending on their costs of production, the prices of productive services, and the level of technical knowledge. In the market, for each product there is a point of "equilibrium" at which a single price will satisfy both consumers and producers—these are the conditions under which equilibrium is possible for a single product. But equilibrium in one market depends on what happens in other markets (a "market" being a complex array of transactions involving a single good). This is true of every market. And because there are literally millions of markets in a modern economy, "general equilibrium" involves the simultaneous determination of partial equilibria in all markets. If all other markets in an economy are in equilibrium, then the specific market must also be in equilibrium, and if all markets for goods are in equilibrium, the market for labor must also be in equilibrium (Walras 1954). The economist Joseph Schumpeter said that Walras was the "greatest of all economists. His system of economic equilibrium, uniting, as it does, the quality of 'revolutionary' creativeness with the quality of classic synthesis, is the only work by an economist that will stand comparison with the achievements of theoretical physics" (Schumpeter 1994). Subsequently, also in Lausanne, Vilfredo Pareto (1848–1923) set out the mathematical conditions under which Walras's general equilibrium might achieve an optimal economy ("Pareto optimality"), where supply met demand in productive harmony organized through markets.

Altogether, this second generation of marginalists formed the core of the neoclassical school of economics, espousing a science shorn of sociological and historical material, abstract in conception, supposedly non-normative (i.e., neutral, not taking sides, not particularly making prescriptions on how the economy should change except to say it should be more efficient), universal in application, and technical and mathematical in its methodology. Dynamics and questions of economic growth and development took a backseat to statics and partial and general equilibrium. Neoclassical economics leads to the conclusion that markets are generally competitive, do not tend toward monopolies and that, left unimpeded, market processes usually result in optimal levels of production and allocation. This school of thought also implies that there are relatively limited instances when government should intervene to promote economic ends, other than encouraging market competition, providing adequate schooling, and encouraging savings and investment.

Finally, the U.S. economist J. B. Clark (1847–1938) justified the distribution of incomes under capitalism as in accord with the "laws of

marginal productivity,” suggesting that capitalists and workers received what they were worth, even though one might be worth hundreds of times more than the other. “To each agent a distinguishable share in production, and to each a corresponding reward—such is the natural law of distribution,” he averred, and on this question, he added, “The right of society to exist in its present form . . . is at stake” (Clark 1899: 5–6). We find, with Clark, the picture of the enlightened maximizing individual acting within generally competitive conditions in an overall state of static harmony (Hutchison 1953: 260–261). But with Clark we also find neoclassical economics abandoning its veneer of class neutrality—U.S. economics, in the tradition of Clark, was foresquare for the entrepreneurial class.

In sum, neoclassical economic theory asserted that, under conditions of perfect competition, price-making markets yield a long-term set of prices that balance, or equilibrate, the supply and demand for all commodities in production and consumption. Given certain conditions, such as the preferences of consumers, productive techniques, and the mobility of productive factors, market forces of supply and demand allocate resources efficiently in the sense of minimizing costs and maximizing consumer utilities in the long run. Finally, all the participants in production receive incomes commensurate with their efforts. Capitalism in this view was therefore the best of all possible economic worlds—efficient, need-satisfying, and full of social justice (everyone getting what he or she deserves). And while this was not the neoclassical theorists’ chief concern, economic growth resulted from the efficiencies produced by rational producers and consumers interacting in self-regulating markets.

Critique of Neoclassical Economics

Neoclassical economics is based on a theory of the economic actor derived from Bentham that is often termed *Homo economicus*. It assumes that, when behaving economically, people are “rational” in the limited sense that they act as atomistic individuals seeking to maximize utility as consumers, or profit as entrepreneurs, with commodities produced at the least possible cost under conditions of perfect knowledge. These simplifying assumptions transform human subjects—analyzable using psychology, sociology, anthropology, and the like—into mechanical objects, understandable through mathematics. This ideational shift enabled economics to emulate physics, the leading science of physical objects. Neoclassical economics appeals to the scientific mind, presenting itself as an objective science of society and its methodology as

mathematically elegant. Its proponents’ aim is to represent an economy in the abstract terms of a single equation—not quite Einstein’s $E = mc^2$, but similar.

$$\sum_{i=1}^n P_i \cdot D = \sum_{i=1}^n P_i \cdot S = 0$$

Yet, scientific elegance comes at a price. To produce their elegant theoretical model, neoclassical economists had to simplify complex subjectivities into objective modes of behavior and strip away the environments of economic action, so that the economic world became a sterile plain populated by highly programmed “people.” Even within conventional economics and related areas of social science, this requirement has produced criticism—particularly in relation to the assumed perfect rationality of the economic actors.

Herbert Simon (Simon and Newell 1972), for example, noted that people are only partly rational or that their rationality is limited by their ability to formulate and solve complex problems and process information (cited in Williamson 1981: 553). Daniel Kahneman (2003), similarly, discussed the key role of intuitions—thoughts and preferences that come to mind quickly and without much reflection—in economic decision making. In his view, intuitive judgments occupy a position between the automatic operations of perception and the deliberate operations of reasoning. Identifying intuition as “System 1” and deliberation as “System 2,” he argued that the explicit judgments people make are endorsed at least passively by System 2 but that such monitoring is normally quite lax, allowing many intuitive judgments to be expressed, including some that are erroneous. The noted economist Joseph Stiglitz (2009) originally made his reputation by arguing that asymmetric information is a key feature of the world. In most situations, the two parties to an exchange have vastly different information about the goods or service transacted (sellers typically knowing more about what they are selling than buyers know), so that adverse selection may occur. That is, low-quality products tend to drive out high-quality products unless other reciprocating actions are taken—signaling and screening, for example—so that the economic transactions that occur are different from those that would emerge in a world of perfect information (Arnott, Greenwald, Kanbur, and Nalebuff 2003).

Arguments like these, which earned Nobel prizes in economics for both Kahneman and Stiglitz, verge on vastly undermining the concept of *Homo economicus*, the rational, perfectly informed automaton occupying the central position in the whole marginal-utility system of the neoclassical economists. Even so, these criticisms are limited, seeking

merely to amend a neoclassical economics that these two economists assume to be essentially valid. Stiglitz (2002), for instance, has written a major textbook that lies well within the conventional mainstream of neoclassical economies.

Far more basic criticisms than either Stiglitz and Kahneman mention, however, may be legitimately raised about this dominant discourse. Let us briefly explore these criticisms.

A discipline that erects an elaborate logic on insecure foundations is prone to fundamental error; such error is self-sustaining in the sense that the mathematical logic rather than the empirical accuracy of the theoretical structure becomes all-important. And, so, we have to ask, first: From what source did the central neoclassical notion of rational choice at the margin among perfectly known alternatives come? It was not based on empirical observation of the actual behaviors of the main economic agents—not the consumers, nor the entrepreneurs, and certainly not the workers who hardly trouble the conventional economic imagination at all except as “factors.” On the consumption side, while poor consumers may choose carefully among competing products when spending scarce money, nothing like “choice at the margin” occurs—it is more a case of simply buying the same necessities that keep families alive with an occasional splurge on something that is intensely desired but not necessary. Indeed, reducing the consumption of poor people to marginal utility misses the daily drama of a life in poverty. With richer consumers, conspicuous consumption—a matter of taste, status, and aspiration—is the norm, not anything like marginal utility. At the center of the contemporary global capitalist system, consumption comes as waves of desire for particular products—an iPad yesterday, a cell phone that does everything for you tomorrow—are more often than not a function of advertising, cultural trends, crazes, whims, peer pressure, or pop psychology. Marginal utility tells us next to nothing about the bursts of demand that have driven the growth surges in contemporary economies. On the other side, the supply side, the notion of marginal productivity was not derived from asking entrepreneurs how they made decisions. The concept of choice at the margin is not based on an inspection of economic reality or even a simplification of that reality. Instead, it is what the neoclassical economists “imputed” to behavior in order that it might fulfill their conception of economic rationality. More bluntly, optimizing behavior at the margin was how people “had to act” if equilibrium theory was to work. The contemporary form of this, known as “rational choice theory,” assumes that individuals have precise information about exactly what will occur under any choice made, that they have the cognitive ability to weigh every

choice against every other choice, and that they are aware of all possible choices. The closest that economics comes to reality is when “buyers” meet “sellers” in “laboratory experiments” in “alternative market mechanisms” (Smith 1994). To the neoclassicals, the mathematics of equilibrium theory was more important than the accuracy of representation. And indeed that proved to be the case. It was more important, for, with abstraction and mathematical sophistication, economics became the science of society. This made economics the most powerful discipline of the social sciences. Economics is to social science what physics is to natural science. But what if it is entirely wrong?

A second critical question, derived from the first, suggests itself, namely: How did neoclassical economics reflect the social and economic conditions of its time? Rather than growing under the impetus of free trade and open markets, most “advanced” countries, at the time neoclassical economics was being conceived, used tariff protections and subsidies to develop their industries. Britain and the United States, the two countries that were supposed to have reached the very pinnacle of the world economy through their free markets and free trade policies, aggressively employed protections and subsidies. For the first half of the 19th century Britain used *dirigiste* (i.e., directed by the state) trade and industrial policies involving measures similar to what countries like Japan and Korea used later in order to develop their industries. Between the Civil War and World War II, the United States was the most heavily protected economy in the world (as Alexander Hamilton had presciently advocated). In choosing to protect their industries, Americans went against the advice of Adam Smith, David Ricardo, and Jean-Baptiste Say, who saw the country's future in agriculture. However, Americans knew that Britain had succeeded through protection and subsidies and that their nation needed to do the same. And most of the rest of the advanced capitalist countries used tariffs, subsidies, and other means to promote their industries during the earliest stages—Germany, Japan, and Korea are well known in this respect, but also Sweden strategically used tariffs, subsidies, cartels, and state support for research and development to develop its textile, steel, and engineering industries (Chang 2002). In other words, marginalist neoclassical economics, like its classical predecessor, not only misrepresented but also in fact reversed reality in that it pretended that rational individualism acting through markets was the source of economic growth, whereas in reality state policy produced the observed growth.

Let us say a brief word more about the second question. General equilibrium theory, the pinnacle achievement of mathematized neoclassical economics:

And also...
the economy it engaged
criticized...

describes a state of the economy in which all agents maximize utility subject to constraints, firms maximize profit, all markets (including labor markets) clear, and the atomistic interaction of self-interested individuals in markets leads to a Pareto optimal (efficient) allocation of resources. (Kara 2000: 100)

As some critics have pointed out, the characteristics associated with recurrent recessions or even depressions, such as massive unemployment or “negative growth,” have rendered the general equilibrium theory’s description of the economy as questionable or even bogus. As Kara (2000: 100) puts it:

The conditions under which it is established do not stand even a remote chance of being relevant to the conditions of contemporary capitalist economies. . . . The general equilibrium picture of the economy, where labor markets clear without involuntary unemployment, stands in sharp contradiction to the massive unemployment that, in part, characterized the historic Great Depression. (quoting Temin 1994: 62)

Yet, one might also ask: What was the relationship between general equilibrium theory and socioeconomic reality at the time equilibrium theory was being thought up? The period 1873–1896 is often referred to as the Great Depression (or sometimes the Long Depression) because of its low growth rates and intermittently high unemployment rates (Coppock 1964). In the case of the British economy between 1870 and 1905, the average annual growth rate is +1.81%, but the annual rates varied from +7.07% (1880) to –1.97% (1892), with years of “negative growth” followed immediately by years of positive economic growth, but the period as a whole characterized by economic stagnation (*www.measuringworth.com*). So, at the time of neoclassical economists’ formulation of general equilibrium theory, the economies of the countries in which the theorists lived were characterized by profound “disequilibrium.” Markets could not keep the “factors of production”—the workers—consistently or fully employed. In other words, like its classical predecessor, neoclassical economics not only misrepresented reality but also totally reversed it! Again, had economics dealt realistically with the main quandary of its time, long-term depressions, it would be a far better discipline today.

The most pernicious aspect of all this was J. B. Clark’s leap from marginalist calculation into normative prescription: “factors” (people) were worth whatever the market accorded them in remuneration, he averred. Thus, industrial CEOs were worth hundreds of times what

workers were, and financiers were worth tens or hundreds of times what CEOs were. Through Clark’s questionable normative prescription, neoclassical economics thereby perpetuated the class prejudices of classical economics—only this time it justified economic inequalities through reference to “natural law.” This was truly science for the rich. Hence, whenever neoclassical economists complain that the state distorts the efficiency of markets, what they are really saying is that the state disturbs the “natural justice” of competitive markets that grant huge rewards to those already rich.

Therefore, neoclassical economics stands indicted on two main counts: (1) it is based on unexamined assumptions about human nature and economic behavior and therefore, while mathematically elegant, is a theoretical fantasy, subject to gross error; and (2) it is a fantasy out of touch with reality, reversing reality, a theory dreamed up on behalf of the elite. The French economist Thomas Piketty (2014: 32) expresses the matter this way:

To put it bluntly, the discipline of economics has yet to get over its childish passion for mathematics and for purely theoretical and often highly ideological speculation at the expense of historical research and collaboration with the other social sciences. Economists are all too often preoccupied with petty mathematical problems of interest only to themselves. This obsession with mathematics is an easy way of acquiring the appearance of scientificity without having to answer the far more complex questions posed by the world we live in.

With modern economists’ minds so full of unrealistic, biased theories like these, even sophisticated marginalist practitioners tended toward the bizarre when they left the abstract world of equilibrium to contemplate turbulent reality. So, Jevons of marginalist fame, observing that business cycles and sunspot cycles both had average durations of 10.45 years, postulated that sunspots caused weather variations, which influenced crop yields, which in turn negatively impacted business cycles, thereby causing depressions! In British and U.S. neoclassical economics, most theorists followed Say in reasoning that general overproduction, or massive long-term unemployment, was impossible because “supply creates its own demand.” The main flaw in Say’s law, pointed out by Marshall, was that a portion of incomes was saved and thus potentially withdrawn from the upward cycle of growth. However, this was easily explained away, for savings were normally reinvested (by individuals or corporations), thereby contributing to growth. In

the marginalist tradition neither growth nor depressions were relevant economic issues. The economy took care of itself. Markets worked.

Then came 1929, when material reality thumped economic fantasy in the eye. The bodies of "rational speculators" fell like rain from the roofs and windows of the New York skyscrapers. Neoclassical economics had nothing to say—nothing that made sense, at least. Neoclassical economics failed in the Great Depression of the 1930s. Unfortunately, it was not buried in the debris.

CHAPTER 3

From Keynesian Economics to Neoliberalism

Neoclassical economic harmony came in for its share of criticism very early on from such economists as Thorstein Veblen (1857–1929), for example, a Norwegian American from Wisconsin who taught at various universities, usually as an assistant professor (i.e., his message was unpopular!). Veblen differentiated between the rational, technical aspect of modern mechanized production and the business and entrepreneurial aspect. The first, technical serviceability, produced useful products that satisfied needs; the second, business enterprise, favored chintzy products that would break or displease consumers quickly, leading to frequent replacement and greater profits for business. Veblen argued that the short-term pursuit of maximum gains often caused unemployment, higher prices and costs, and delayed innovation. He thought that borrowing on the basis of anticipated earnings created business cycles of expansion and contraction that enabled large firms to take over smaller ones. Rather than focusing on class conflicts creating the dynamic of capitalist history (as did Marx), Veblen emphasized conflicts among three cultural tendencies: the machine process, business enterprise, and warlike or predatory beliefs. Business enterprise, he thought, would eventually fail, and the future system would either involve domination by engineers or a reversion to archaic absolutism under military domination (Germany and Japan were cited as examples). Veblen reversed the arguments of neoclassicism.