ANCIENT AND MEDIEVAL ECONOMIC THOUGHT AND INSTITUTIONS

For most of history, economics did not have a separate identity apart from social thought in general. Even as late as the eighteenth century, Adam Smith viewed economics as a subset of jurisprudence. This makes the search for first principles of economic reasoning more difficult, not because the intellectual cupboard of antiquity was bare, but because the subject boundaries between the social sciences were blurred. Economics attained its distinctive identity when it came to be identified with a self-regulating market process, and the discovery of the market as a self-regulating process was an eighteenth-century phenomenon. However, the seeds of economic analysis were sown long before, in ancient Greece, the cradle of Western civilization.

A. Contributions of the Ancient Greeks

Our patterns of thought, the framework within which our ideas emerge and circulate, the forms of language in which we express ideas, and the rules that govern them, are all products of antiquity. Thus, as Theodor Gomperz wrote, "Even those who have no acquaintance with the doctrines and writings of the great masters of antiquity, and who have not even heard the names of Plato and Aristotle, are, nevertheless, under the spell of their authority" (Greek Thinkers, p. 528). The very word "economics" takes its name from Xenophon's instructional treatise on efficient management and leadership, the Oeconomicus.

What the ancient Greeks contributed to economics was a rational approach to social science in general. Their economy may be described as "premarket," not in the sense that trade was absent, but rather in the sense that products were neither uniform, nor traded on organized exchanges, nor analyzed for their own sake. Political and economic life from 500 BC to 300 BC was dominated by warfare. Greek thinkers were interested primarily in economic and organizational efficiency, and their view of the world was anthropocentric, not mechanistic. In other words, man was the center of all things. The ancient Greeks placed great stock in the self-regulating capacities of individuals who sought to maximize human happiness by making rational decisions, but they did not discover the self-regulating marketplace, which is the essence of modern economics.
Ancient Greek culture admitted two contrasting ideas of individualism. On the one hand, an authoritarian ruler was empowered to make administrative decisions on behalf of the interests of society. This led to the development of rational calculation based on the abstract definition of an individual as the basic social unit. On the other hand, each family was patriarchal and success-driven, which led to the development of individual male citizens as a fundamental decision maker. These two contrasting forms of individualism, “macro” and “micro” as it were, contributed to the formal emphasis in Greek society on private household management (oikonomics) and to the development of a hedonic calculus of rational self-interest.

Because the Greeks concentrated on elements of human control, they developed the art of administration rather than the science of economics. Their economy, after all, was basic and simple. It consisted of primary agriculture and limited palace trade. The production of goods was supervised on large, landed estates and in the halls of military chieftains. As the focal point of religious and military activities, the state had few nonmilitary expenditures. Nevertheless, in the course of elaborating the nature of administration, the ancient Greeks developed analytic structures which have significance for economic theory. In particular, the following components of modern economics originated in Greek thought: efficiency, resource allocation, the notion of subjective value, the hedonic calculus, and the concept of diminishing marginal utility. The major writers of this period who contributed to economic analysis were Xenophon, Plato, Protagoras, and Aristotle.

**Xenophon on Organization, Value, and the Division of Labor**

Philip Wicksteed, a noted British economist of the nineteenth century, wrote that economics “may be taken to include the study of the general principles of administration of resources, whether of an individual, a household, a business, or a State; including the examination of the ways in which waste arises in all such administration” (Common Sense, p. 17). On the strength of this phrase alone, Xenophon (c. 427-355 BC) might be judged one of the earliest economists. His writings are a paean to the science of administration. A decorated soldier and a student of Socrates, Xenophon couched his ideas in terms of the individual decision maker, whether he was a military commander, public administrator, or head of a household. He contemplated efficient, as opposed to inefficient, courses of action. His *Oeconomicus* explores the proper organization and administration of private and public affairs, whereas his *Ways and Means* prescribes the course of economic revitalization of Athens in the middle of the fourth century BC. For this Greek philosopher who regarded the material environment as fixed, the chief element of good administration was human capacity, honed into good leadership.

A good manager strives to increase the size of the economic surplus of whatever unit he supervises, whether it is family, city, or state. For Xenophon, this is accomplished through organization, skill, and one of the most basic of economic principles, the division of labor. The division of labor became the linchpin of economic growth in the writings of Adam Smith, as we shall see in chapter 5, but its important economic implications were recognized in antiquity. Xenophon attributed an increase in both the quantity and the quality of goods to this organizing principle. And he extended his discussion into an analysis of the relationship between population concentration and the development of specialized skills and products. This insight forms the base of Adam Smith’s famous dictum that specialization and division of labor are limited by the extent of the market.
From a modern perspective the deficiency in Xenophon's leader—that exceptional individual who organizes human activity—is that he confronts the forces of nature seemingly unaware of the forces of a competitive economy. Although the leader is motivated by self-interest, Xenophon denounces acquisitive behavior as "unnatural." For Xenophon the "natural" economic process consists of intelligent man using perception and reason to extract from nature what is necessary to avoid discomfort and fulfill human wants. This active and rational pursuit of pleasure and avoidance of pain was formally recognized in the doctrine of hedonism, which was part of the larger Greek consciousness. Many centuries later, the same idea resurfaced in the subjectivist theory of value that marked the beginning of neoclassical economics (see chapters 12–17).

Even though his thinking is not set in an explicit market context, it is easy to see how Xenophon's concept of subjective value presages modern economic thought. In one of his works, Hiero, Xenophon remarks that "the greater the number of superfluous dishes set before a man, the sooner a feeling of repletion comes over him; and so, as regards the duration of his pleasure, too, the man who has many courses put before him is worse off than the moderate liver" (Scripta Minora, p. 9). The clear implication here is that extra satisfaction derived from consumption falls as the quantity consumed increases, an idea that eventually entered formal economic analysis as the principle of diminishing marginal utility. Xenophon also grappled with the distinction between a purely individual subjective concept of value and a more objective general concept of wealth, or property. His conclusion was that wealth is a relative concept. Thus, in his discussion of estate management he observed that "the same things are wealth and not wealth, according as one understands or does not understand how to use them. A flute for example, is wealth to one who is competent to play it, but to an incompetent person it is no better than useless stones... unless he sells it..." in which case, "it becomes wealth" (Oeconomicus, 1.10–13). Thus, in the end, "wealth is that from which a man can derive profit," but if it causes him harm, it is not wealth. "Even land is not wealth if it makes us starve instead of supporting us" (Oeconomicus, 1.8).

The idea that value comes from the pleasure produced by a good, and not the good itself, lies at the center of utility theory in contemporary economics. Xenophon developed the idea of subjective utility further in the dialogue between Aristippus and Socrates, where Aristippus asks, "Do you mean that the same things are both beautiful and ugly?" And Socrates replies, "Of course—and both good and bad. For what is good for hunger is often bad for fever, and what is good for fever is bad for hunger; what is beautiful for running is often ugly for wrestling, and what is beautiful for wrestling ugly for running. For all things are good and beautiful in relation to those purposes for which they are well adapted, bad and ugly in relation to those for which they are ill adapted" (Xenophon, Memorabilia, III.8.6–7). This resort to subjective evaluation in the measurement of good versus bad was an important premise of Greek thought from the time of the early Sophists through Aristotle.

**Plato and the Administrative Tradition**

Whereas Xenophon focused on the practical nature of leadership and policy, Plato (c. 427–347 BC) analyzed the entire political and economic structure of the state. Both writers shared the view that human activity is the primary variable of political economy and statecraft, but Plato searched for the optimum polity/economy by investigating and refining the moral imperative of justice. For Plato the optimum state
Part One ▼ Preclassical Economics

is a rigid, static, ideal construct from which any deviation whatsoever is considered to be regressive.

Extending the concept explored by Xenophon in a slightly different context, Plato argued that cities owe their origin to specialization and division of labor. He wrote:

A city—or a state—is a response to human needs. No human being is self-sufficient, and all of us have many wants. . . . Since each person has many wants, many partners and purveyors will be required to furnish them. One person will turn to another to supply a particular want and for a different need he will seek out still another. Owing to this interchange of services, a multitude of persons will gather and dwell together in what we have come to call the city or the state. . . . And so one man trades with another, each assuming he benefits therefrom. (*Republic*, II.369b–c)

A city can be viewed from many different angles. From a strict economic perspective, a city represents a relatively large market for the exchange of goods and services. Thus, the above passage from Plato starts us on the road to a theory of exchange. Specialization creates mutual interdependence, and mutual interdependence establishes reciprocal exchange. Although Plato did not go so far as to establish an actual theory of exchange, he did confront the nature of economic distribution—which is inevitable in any inquiry about justice.

Plato's first principle in his discourse on justice is that specialization and division of labor establish efficiency and productivity. How then, are the fruits of efficiency and productivity to be distributed? Plato answered that goods and services are distributed through a marketplace, with money as a token of exchange. But in typically Greek fashion, he did not consider the marketplace capable of self-regulation. The marketplace, like the state, requires administrative control. The elements of control that Plato sponsored were fiat money, which must be managed to eliminate profit and usury, and certain "rules" of justice (i.e., custom and tradition), which would have the effect of establishing distributive shares according to strict mathematical principles.

In keeping with the ancient Greek administrative tradition, Plato based his ideal state on wise and efficient leadership. Xenophon had recognized that profit seekers make good managers as long as their excesses are curbed by appropriate administrative controls. Plato advanced this thinking further by devising the necessary controls. Convinced that all forms of profit (including interest—the profit on money) were threats to the status quo, he went to great lengths to insulate his leaders from all corruption. He proposed that communism be imposed on the rulers so that they not be tempted by possessions, nor diverted from the task of wise governance. He sought to make philosophers out of soldiers, in order to shape a ruling class of "guardians," who would combine the strength and discipline of the warrior with the wisdom and understanding of the scholar. Aware of the benefits of specialization and division of labor, Plato championed a kind of "class specialization" whereby an elite group of capable and high-minded rulers would be trained to direct the political economy.

**Plato on Democracy and "Public Choice"**

The achievement of Plato's ideal polity depends on elitism rather than on any participative social process. Plato could only envision the ideal state as being imposed by authority. To safeguard stratified social interests, the governing elite were to be conditioned by censorship and communism of the family and property. In the final analysis, justice was the product of superior intellectual authority, tempered by administrative
constraints. This view stands in stark contrast to those of Adam Smith and the classical economists we will meet in part II, who believed that a central value of liberty could only be achieved through individual participation and freedom of action constrained by competitive forces.

Despite his advocacy of this ideal, however, Plato may have sensed the implausibility of long-term equilibrium in a utopian society. Thus, he analyzed how states “declined” from the ideal, offering implicit and explicit criticisms of the state forms of his own time. The following chart summarizes the regressive decline from the just society envisioned by Plato.

<table>
<thead>
<tr>
<th>STATE FORM</th>
<th>CENTRAL VALUE</th>
<th>RULED BY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aristocracy</td>
<td>Justice</td>
<td>Elite</td>
</tr>
<tr>
<td>Timocracy</td>
<td>Honor</td>
<td>Military Elite</td>
</tr>
<tr>
<td>Oligarchy (early)</td>
<td>Wealth</td>
<td>Rich</td>
</tr>
<tr>
<td>Oligarchy (late)</td>
<td>Money-Making (Conspicuous Consumption)</td>
<td>New Rich</td>
</tr>
<tr>
<td>Democracy</td>
<td>Equality</td>
<td>Random Poor</td>
</tr>
<tr>
<td>Tyranny</td>
<td>Fear</td>
<td>Dictator</td>
</tr>
</tbody>
</table>

Plato maintained that states decline due to an excess of their central value—lust, greed, and wanton acquisitiveness were major culprits in his mind. From a contemporary perspective it is noteworthy that while Plato listed tyranny as the worst of all states, democracy was a close second. Across the ages, Plato speaks to us derisively about a treasured form of Western government and its potential dangers. But remember that Plato’s ideas were limited to his own experience. The ancient world witnessed many varieties of democracy, but none that mirrored the parliamentary or congressional forms of representative democracy that we know today.

In his analysis of comparative forms of government Plato addressed two important issues concerning democracy: (1) why was it such an attractive state? and (2) why was it basically unstable, leading in the extreme to dictatorship? Its appeal, Plato maintained, comes on the one hand from the individual liberty that permits each citizen to speak and act as she likes, and on the other from the diversity of individual characters that it permits. Democracy comprises a “bazaar of constitutions and characters” which allows individuals to choose their form of government cafeteria-style. But despite these political and economic charms, democracy as it was known to Plato was unstable. He maintained that it was “anarchistic” because it treats men as equal, “whether they are equal or not.” He believed that the excessive desire for liberty and equality that democracy promotes eventually leads to its destruction. Offices are obtained by lot (or worse, by “sale”). Furthermore, democracy tends to “abuse as servile and contemptible those who obey the authorities; and reserves its approval, in private life as well as public, for rulers who behave like subjects and subjects who behave like rulers. In such a society the principle of liberty is bound to go to extremes” (Republic, p. 383).
A democratic society is ripe for tyranny when a leader discovers that not everyone can be satisfied all of the time. Because the majority rules in a democracy, leaders rely on polls of public opinion, and so base their judgments on sentiment, prejudice, and self-interest, rather than justice. Elected rulers gain political advantage by taking from the rich and giving to the poor. Thus, democracy encourages redistributive battles that intensify when a tyrant (“the wolf”) is raised up to “protect” the poor from their enemies. Once the tyrant has “disposed of his foreign enemies by treaty or destruction, and has no more to fear from them, he will in the first place continue to stir up war in order that the people may continue to need a leader” (Republic, p. 388). High taxation in times of war keeps the masses busy earning their daily bread—and away from ideas of freedom or rebellion—so that “a tyrant must always be provoking war.”

It follows that in Plato’s political landscape the descent to tyranny from democracy is a natural evolution. Thus, it is no surprise that Plato placed his bet on authority rather than democracy to establish the ideal state. Ironically, however, the experience of Western civilization in the millennia since antiquity shows that where absolute authority exists it is more likely to impose despotism than harmony. As a result, democracy is upheld today as a Western ideal. To be sure, modern democracies have tried to erect bulwarks against their devolution into tyranny, such as federalism and the separation of executive, judicial, and legislative powers. Nevertheless, representative democracies in the world today continue to grapple with many of the problems Plato warned against—which makes his important lessons worth remembering.

**Protagoras and the Hedonic Calculus**

Whereas Plato was an absolutist, Protagoras (c. 480–411 BC) was a relativist. He held that there was no objective truth, only subjective opinion. This subjectivism is exemplified in the famous maxim attributed to him, “Man is the measure of all things.” In other words, although truth cannot be discovered, utility can. According to Protagoras it is up to the citizens of a state to decide what constitutes social welfare and how to achieve it. As against the absolute authority of Plato, Protagoras extolled the democratic process. He believed in common sense rather than science and in the practical social experience of mankind as opposed to the doctrines of moral and political theorists. Not surprisingly, Plato was one of his main critics.

Protagoras’s subjectivism is based on the interaction between human perception and physical phenomena. Formulated at a time when vision was believed to be produced by light emanating from the eye (rather than entering it), it suggests an active rather than a passive view of individualism. Protagoras is reputed to have said that “each of us is the measure of the things which are and the things which are not. Nevertheless there’s an immense difference between one man and another in just this respect: the things which are and appear to one man are different from those which are and appear to another” (Plato, Theaetetus, 166d). Thus, unlike Plato, Protagoras considered means to be more important than ends. Social stability was to be assured by individual participation in the choice of ends. (By analogy in economics, market stability is established by the active participation of market participants.) Like the rest of the ancient Greek philosophers, Protagoras was interested in the effects of leadership and administration, but he insisted that the proper role of the administrator/leader was to offer advice, not to rule absolutely. Administration, in other words, would make its contribution through the informed choice of means to achieve given ends.
S. T. Lowry makes certain claims on behalf of Protagoras in his authoritative study of Greek economic thought (Archaeology, p. 159). Lowry claims that Protagoras's man-measure doctrine is the parent idea of both the labor theory of value and the idea of subjective individualism. He also asserts that Protagoras anticipated two of the most basic elements of modern economic theory: (1) the way the market maximizes utility through its function of allocating resources, and (2) the use of hedonic measurement in the evaluation of choice. These claims are difficult to substantiate fully in view of the fact that Protagorean thought survives only in secondary sources. Nevertheless, the Sophists, of whom Protagoras was one of the earliest and greatest, definitely planted the seeds of certain ideas that were to flower in the nineteenth century.

Aristotle and Two-Party Exchange

Aristotle (c. 384–322 BC) was interested in the analytic potential of comparing utility measurements. In his *Topics* and *Rhetoric* he presented a systematic examination of the elements of choice appropriate to public decision making. Most important for modern economic theory, Aristotle discussed value in terms of incremental comparisons. However, his systematic comparisons of value based on subjective marginal utility developed in a way completely unrelated to contemporary price theory. It is most likely that Aristotle's analysis of exchange was an attempt to determine the criteria for fairness on which the Athenian legal system was founded. In any event, equity considerations dominated economic considerations in Aristotle's analysis of exchange.

It is important to note that Aristotle set out to analyze isolated exchange as opposed to market exchange. The difference is especially pertinent to understanding both the procedure and conclusions of the Aristotelian model. Economists define isolated exchange as two parties exchanging goods in conjunction with their own subjective preferences, without reference to any alternative market opportunities. Market exchange, on the other hand, takes place when individual traders arrive at their decisions from their awareness of continuous, pervasive trading among large numbers of participants in an organized and informed market. In market exchange, the publicly known price is the end result of an impartial working out of the interests of many buyers and sellers. In isolated exchange, by contrast, there is no going market price. Absent the interplay of large numbers of market participants, the fairness of each transaction can only be determined by a disinterested third party, such as judge or arbitrator. Moreover, the judgment must be rendered on a case-by-case basis. Isolated exchange was a commonplace of Aristotle's experience, and it remains fairly common today in preindustrial economies, where primitive or idiosyncratic production techniques lead to nonuniform goods.

The Nature of the Polity. Although he was Plato's prize pupil, Aristotle rejected his master's conception of the ideal state. Instead he favored a mixed economy that allowed greater play for economic incentives. Unlike Plato, Aristotle defended private property for all classes, not merely the nonrulers, on the grounds that it promotes economic efficiency, engenders social peace, and encourages the development of moral character.

The Athenian polity in Aristotle's day functioned in large measure as a distributive economy. Wealth and privilege were distributed by custom, tradition, and government directives. Among the things distributed were: honors of all sorts, free public meals, public entertainment, rations of grain, profits from the silver mines at Laurium, and payments to many citizens for jury duty and for attendance at public assemblies.
In contemporary parlance, these “entitlements” were the prerogative of every Greek citizen. Aristotle viewed these entitlements as protection against an unfettered democracy. The central issue of his concern, therefore, was the matter of distributive justice.

**The Nature of Trade.** Aristotle’s analysis of two-party exchange must be evaluated against his precepts of distributive justice. He viewed exchange as a bilateral process in which both parties would be better off as a result of the exchange. Exchange is induced when two parties to a potential trade each have a surplus that they are willing to give up in return for one another’s goods. Thus, exchange is built upon the notion of reciprocity. From this point, the analysis proceeds on a judicial rather than a commercial footing. This fact is paramount in the following passage in which Aristotle analyzes exchange by barter:

Now proportionate return is secured by cross-conjunction. Let A be a builder, B a shoemaker, C a house, D a shoe. The builder, then, must get from the shoemaker the latter’s work, and must himself give him in return his own. If, then, first there is proportionate equality of goods, and then reciprocal action takes place, the result we mention will be effected. If not, the bargain is not equal, and does not hold; for there is nothing to prevent the work of the one being better than that of the other; they must therefore be equated. . . . This is why all things that are exchanged must be somehow comparable. It is for this end that money has been introduced, and it becomes in a sense an intermediate; for it measures all things, and therefore, the excess and the defect—how many shoes are equal to a house or to a given amount of food. The number of shoes exchanged for a house must therefore correspond to the ratio of builder to shoemaker. For if this be not so, there will be no exchange and no intercourse. And this proportion will not be effected unless the goods are somehow equal. All goods must therefore be measured by some one thing, as we said before. Now this unit is in truth demand, which holds all things together . . . , but money has become by convention a sort of representative of demand; and this is why it has the name “money”—because it exists not by nature but by law and it is in our power to change it and make it useless. There will, then, be reciprocity when the terms have been equated so that as farmer is to shoemaker, the amount of the shoemaker’s work is to that of the farmer’s work for which it exchanges. *(Nichomachean Ethics, 1133`5–30)*

As we shall soon see, this passage plus other elaborations by Aristotle became the subject of intense and repeated examination by the Scholastic writers of the Middle Ages, during which time Western thought inched ever so slowly toward an understanding of supply and demand as market phenomena. Because of its obscure meaning and its nonmarket focus, Aristotle’s analysis of two-party exchange does not move us very close to an analysis of market price. It is not clear what type of proportion Aristotle alludes to in the above passage, nor what reciprocity (or even equality) means in this context.

Later writers tried to give Aristotle’s analysis geometric form. Thus, in his fourteenth-century commentary on Aristotle’s works Nicole Oresme presented the diagram reproduced here as figure 2-1. Unfortunately, this geometric “model” does not clarify the fundamental economic issues. Despite its apparent resemblance to modern supply and demand curves, the cross-diagonals of figure 2-1 are not functional relationships in a mathematical sense. Furthermore, there is no recognition of price, although there is the suggestion of a kind of equilibrium that equates subjective utilities. Moreover, the figure reveals nothing about the distribution of benefit between the two traders or of the justice of the exchange within the limits of voluntary choice.

---

1 In fact, the diagram is reminiscent of one used by W. S. Jevons, one of the founders of marginal-utility analysis, in 1871 (see chap. 14). Jevons acknowledged Aristotle’s influence on his own thought.
Persistent confusions about the Aristotelian exchange model should not be allowed to obscure the fact that it became an important foundation for the prolonged discussions of value that subsequently emerged in the Middle Ages (discussed below). If nothing else, Aristotle’s exchange model established important preconditions for trade, and these premises became part and parcel of early economic analysis. For example, Aristotle clearly established the following propositions:

1. Trade arises only when surpluses exist.
2. There must be differing subjective estimates among traders of the worth of each surplus.
3. Traders must establish a rapport that recognizes the potential mutual advantage from exchange.
4. If a dispute arises in isolated exchange regarding the specific allocation of benefits, the proper shares will have to be determined by an administrative authority, taking into account the rules of common justice and the welfare of the state.

Aristotle also made an impact on the theory of value in other ways. For example, he approached the subject in terms of incremental comparisons. Thus, he observed that “a thing is more desirable if, when added to a lesser good, it makes the whole a greater good. Likewise, you should judge by means of subtraction: for the thing upon whose subtraction the remainder is a lesser good may be taken to be a greater good, whichever it be whose subtraction makes the remainder a lesser good” (Topics, 118b 15). He also took account of scarcity and use value, alluding to the famous water-diamonds paradox elaborated by Adam Smith (see chapter 5). Aristotle noted that “what is rare is a greater good than what is plentiful. Thus, gold is a better thing than iron, though less useful: it is harder to get, and therefore better worth getting” (Topics, 1364 20–25). Adding that “what is often useful surpasses what is seldom useful,” Aristotle quoted Pindar to the effect that “the best of things is water.” His ordinal ranking of human wants in the Politics also presaged the theory of the great Austrian economist, Carl Menger (see chapter 13).

**Aristotle on Money and Interest**

Aristotle’s theory of money rationalized both the origin of money and its functions. The passage quoted above from the Ethics concerning the nature of reciprocal trade demonstrates his perception of money as a standard of value and a medium of exchange. Aristotle also recognized money as a store of value by observing that “if we do not need a thing now we shall have it if ever we do need it—money is as it were our surety; for it must be possible for us to get what we want by bringing the money” (Nichomachean Ethics, 1133b 10). Some scholars even argue that the modern idea of money as a contractual standard of deferred payment is implicit in Aristotle’s analysis of usury.
Of course Aristotle wrote before the creation of paper money and banking, but he nevertheless spelled out the properties required of money in the fourth century, BC, when gold was the common currency. While gold has been replaced as the primary money of today, the properties designated by Aristotle are nevertheless just as meaningful now as they were then. The five properties specified by Aristotle are:

1. **Durability.** Gold makes good money because it won't evaporate, mildew, rust, crumble, break or rot. Gold is chemically inert, which makes for a lasting medium of exchange.

2. **Divisibility.** Whether bullion, dust, or coin, one ounce of gold is exactly 1/100 of one hundred ounces. Hence is divisible without depreciation of its value. By contrast, when a diamond is split, its value may be destroyed.

3. **Convenience.** Gold allows the owner to carry his money with him. Real estate stays where it is and equivalent value of many other metals may be too heavy to carry.

4. **Uniformity.** Only one grade exists for 24-carat gold, so there is no danger of owning 24-carat gold varying in quality. Pure gold is the same in every time and place because it is a natural element, unlike gemstones, artwork, land, corn, or other commodities.

5. **Intrinsic value.** Gold finds many uses other than money. Of all the metals, it is the most malleable, most ductile, and the least reactive. Next to silver (another popular form of money in ancient times), it is the most conductive of heat and electricity.

Aristotle's concern with justice and the administrative nature of the economy led him to a discussion of money as an object of acquisitive behavior, and particularly to an examination of interest as an "unnatural" return. Modern economic thought regards acquisitive behavior as a healthy manifestation of self-interest, which can be demonstrated to have beneficial effects through the restraints placed upon it by competition. To the Greek mind, however, which did not grasp the self-regulating character of the marketplace, unrestrained acquisitive behavior was a threat to social and economic stability. Aristotle believed that coined money permitted the development of "unnecessary" exchange, which was to be discouraged in the "good" state. In the context of ancient Greece, unnecessary exchange is exchange without a natural limit. Unlike the necessary exchange of households, which was restrained by the limited wants of the family and by diminishing marginal utility, unnecessary exchange (i.e., retail trade) occurs merely for the purpose of accumulating wealth for its own sake. In other words, although Aristotle recognized the use of exchange to satisfy (natural) individual and collective wants, he did not approve of the use of exchange as a mere device for accumulating wealth. Since such accumulation was without natural limit, its relentless pursuit runs the risk of impoverishing the many in order to profit the few.

To Aristotle, the natural use of money was to spend it. He regarded hoarding, or accumulation for its own sake, as unnatural, and therefore, condemned it. Insofar as there can be no lending without previous accumulation, lending, too, was suspect. It is this kind of thinking that underlies Aristotle's condemnation of interest as "unnatural." Aristotle condemned interest, which he always equated with usury, on the ground that there was no reason why a mere medium of exchange should increase solely by passing from hand to hand—it was not "natural" that money should reproduce itself in this way. Unfortunately, he never grappled with the question of why

---

2 While these five characteristics, taken together, make gold uniquely suited as a medium of exchange and a store of value, it is important to note that arguments that gold's value is "mystical" are silly—it is simply one of the 92 natural elements.
interest is paid in the first place. In other words, Aristotle did not develop a theory of interest, even though he had a primitive theory of money to which he linked interest.

Looking backward through the millennia, it is clear that what the Greeks contributed to Western thought was a rational approach to social science. Their ideas established a continuum that stretched from the microeconomic values of the basic production/consumption unit of the household to the macroeconomic values of happiness and self-sufficiency of the collective citizenry. What they did not grasp is the concept of the marketplace as a self-regulating mechanism. Thus, their framework of analysis was anthropocentric and administrative. (For more on the Greek legacy to economic thought, see the box, Method Squabbles I: What Can Economists [or Anyone] Know?)

**Method Squabbles I: What Can Economists (or Anyone) Know?**

In economics, as in any field of knowledge, one of the most fundamental questions that anyone can ask is whether and under what circumstances we can know anything. Alternative views about knowledge and change have shaped the way economists have analyzed the world.

This issue bedeviled the early Greek philosophers, who originated the mother of all method controversies. The critical issue is the basis of knowledge itself. Method controversies about the nature of change began to gather steam in the earliest days of Greek philosophy. One group of pre-Socratics, led by the philosopher Heraclitus, based their arguments about change on a perpetual and ever-fluctuating view of the world. We might call this the dynamic method of analyzing change. The opposing view was that of another Greek philosopher, Zeno the Eleatic. He adopted a static view which held that all change is mere surface appearance generated by unreal and unreliable sense experience. In this static view the world is unchanging and predictable.

Although daily events appeared to contradict Zeno's conception, philosophers such as Plato and Aristotle adopted the static view, and it became the dominant philosophical preconception for more than two thousand years. Zeno and his followers searched for the "permanent attributes" of nature that lay behind the surface world of sense experience. This world permitted change, but that change was "predictable" as in, say, regular cycles of business activity. This kind of world (in which A causes B; B causes C; therefore A causes C) was ultimately dubbed "static," and was said to be "deterministic." Perhaps more than anyone else, the French astronomer and mathematician, Pierre Laplace, captured the essence of determinism with his famous remark that if he knew the state of every particle in the universe at any given moment, he would be able to predict the future course of events throughout eternity. This static view of the world dominated Western thought and became an integral part of some sciences, including economics.

The opposing view—one of perpetual change—resurfaced in the nineteenth century in the work of Charles Darwin, whose *Origin of the Species* (1859) emphasized the dynamism of biological evolution. As a result, biology and other life sciences have come to be dominated by a more dynamic view of "how the world works," thereby providing a counterpoint to the more orthodox and accepted static view of other sciences.

Economics, as will become evident throughout this book, has not escaped this fundamental philosophical controversy about knowledge and what we can know. Formal or empirical economic models or theories, especially those within the main tradition of "neoclassical" economics that prevails today, are highly deterministic. In the standard economic "model" conditions surrounding some "event" are specified and the model then predicts the outcome. For example, if the demand for computer chips rises, given theorized or empirically specified supply conditions, the price and quantity of computer chips will rise. This kind of predictive theorizing is simply an extension of determinism and a belief in "natural laws" subscribed to by a wide variety of eighteenth century
"enlightenment" philosophers. As we will see in chapter 5, Adam Smith—the founder of economics—was one of these philosophers. His emphasis on the "invisible hand" as an immutable universal law of nature is a latter-day reflection of Zeno's view. The static view had and continues to have an enormous impact on the method by which economists study their field. But Heraclitan dynamics has had an important influence, too. Shortly after the emergence of Darwinian principles, the American economist Thorstein Veblen criticized orthodox economics as "old-fashioned" because it did not utilize dynamic and evolutionary methods (championed by Darwinian biology). At this time, the great economist Joseph Schumpeter was also introducing a new evolutionary theory of economic development that relied heavily on dynamic theories of change. Veblen and Schumpeter did not convince their contemporaries to replace the static method with the dynamic one, but the study of economics periodically undergoes new "revolutions" aiming to analyze institutional change from a dynamic perspective.

Which view of change will ultimately dominate: Zeno's static view or the dynamics of Heraclitus? One hindrance to dynamic discussions or theories of change is that if all factors relating to the economy or particular events are in constant flux, the future is not predictable. And economists, perhaps along with all scientists, want to be able to predict, at least within limits. Both of these views, as will be shown throughout this book, have support in the discipline of economics. The opposing views of two Greek philosophers will continue to fuel debates over method in economics. Look for them as you read through this book.

* Some of this discussion follows Alfred Chalk, "Schumpeter's Views on Philosophy and Economics."

### Roman and Early Christian Contributions

Economic historians may debate the extent of economic activity in ancient Greece, but the record indicates that it was extensive enough to generate serious reflective thought. By the time that Rome superseded Greece as the center of Western thought, important commercial interests had developed and spread throughout the empire. And by the end of the Roman Republic there were enough economic problems—problems of trade, finance, war, colonization, and slavery, to name a few—to employ a legion of economists and government advisers. Therefore it is surprising that little genuine analytical work in economics emerged during this period.

One possible answer to this puzzle is that the social structure of ancient Rome was not congenial to purely intellectual interests. From the bottom up, the Roman society consisted of slaves, peasants, artisans, and traders, capped by a civil and military aristocracy. Although the aristocracy nurtured a considerable interest in Greek philosophy and art, it did so more as avocation than vocation, with the predictable result that little serious analytical advance in economics occurred.

The one great achievement of Roman society was the law. From a social standpoint, it was the crowning glory of one of the greatest empires in the history of the world. Roman law was divided into a civil law that applied only to relations between citizens (jus civile) and a kind of common law—though not in the English sense—that ruled commercial and other relations between noncitizens or between citizens and noncitizens (jus gentium). This last body of law became a repository of economic principles that later provided a starting point for economic analysis, especially in the Middle Ages. The Roman law of property and contract, for example, subsequently became the mainstay of legal systems in the Western world. The concept of natural law, which can be traced back to Aristotle, found its way into Roman law, where it was used as a touchstone for
determining the validity of human law. Finally, the modern doctrine of the corporation can be traced back to Roman law.\(^3\) In general, Roman law provided a frame upon which the economics of a later day was slowly but surely mounted. The focal point of subsequent discussions of market price, for example, is found in the Justinian Code:

\[
\text{The prices of things function not according to the whim or utility of individuals, but according to the common estimate. A man who has a son whom he would ransom for a very large sum is not richer by that amount. Nor does he who possesses another man's son possess the sum for which he could sell him to his father; nor is that amount to be expected when he sells him. In the present circumstances he is evaluated as a man and not as somebody's son. ... Time and place, however, bring about some variations in price. [Olive] oil will not be evaluated the same in Rome as in Spain, nor, since here as well prices are not constituted by momentary influences, nor by occasional scarcity, will it be evaluated the same in times of prolonged sterility as in times of abundant harvest. (Corpus Juris Civilis, in Dempsey, p. 473)}
\]

It is worth noting that from the time of the fall of Rome to the end of the eighteenth century, most of the writers on economics were by profession either businessmen or lawyers. If they were lawyers, moreover, they were either clergymen trained in canon law or jurists trained in civil law.

The rise of Christianity overlapped the decline of the Roman Empire and offered a different kind of civilizing influence. Rome's efforts at civilizing its annexations pretty much began and ended with the establishment of law and order. The only message it offered to those outside its jurisdictional limits was military surrender. Perhaps for this reason it was an inherently unstable social and political order. Christianity offered a different message, one that proved to be an inspiration and a rallying point for millions of people, but one not especially fruitful for the advance of economic analysis until a later period in its development.

Early Christian thought treated the kingdom of God as being near at hand, and so it emphasized "other worldly" treasures. Production and material welfare would be superfluous in the kingdom of God. Indeed, earthly treasures were regarded as an impediment to the attainment of this heavenly kingdom. As the passage of time made thecomings of this kingdom seem more distant, wealth came to be looked upon as a gift of God, furnished to promote human welfare. Christian thought therefore came to center on the "right" use of material gifts, an idea that persisted in medieval economic thought. Thus, St. Basil (c. 330–379) wrote:

\[
\text{The good man ... neither turns his heart to wealth when he has it, nor seeks after it if he has it not. He treats what is given him not for his selfish enjoyment, but for wise administration. (Works of St. Basil, in Gray, p. 52)}
\]

This kind of prescription is more of a normative admonition than a step in the direction of analysis. The same could be said of the early writings of the Saints: John Chrysostom (c. 347–407), Jerome (c. 347–419), Ambrose (c. 339–397), and, to a lesser extent, Augustine (c. 354–430). Augustine went further than the others in that he pointed the way to a subjective theory of value, where wants are individually determined. In \textit{The City of God}, for example, he wrote:

\[^3\] An excellent historical treatment of the modern corporation, though brief, is contained in Robert Hessen's \textit{In Defense of the Corporation}. Curiously, Hessen does not trace the concept back as far as Roman law, stopping instead at the Middle Ages.
Part One ▼ Preclassical Economics

There is ... a different value set upon each thing proportionate to its use ... very frequently a horse is held more dear than a slave, or a jewel more precious than a maid servant. Since every man has the power of forming his own mind as he wishes, there is very little agreement between the choice of a man who through necessity stands in real need of an object and of one who hankers after a thing merely for pleasure. (in Dempsey, p. 475)

By and large, however, the early Christian writers treated economic topics with indifference, if not hostility. They were primarily interested in the morality of individual behavior. The how and why of economic mechanisms seemed to be of no interest to the church's leaders or its writers.

Chinese Economics in the First Millennium

China is one of the world’s oldest civilizations, but because of its geographic, cultural and linguistic isolation, its intellectual history remains inaccessible to many Westerners. Chang (“History of Chinese Economic Thought”) maintains that Chinese economic thinking originated mainly during the Eastern Chou Dynasty (771–249 BC), a period that partially overlaps with the age of Greek antiquity. In China, the era was marked by steady decline in the authority of the monarchy and the aristocracy on the one hand and the emergence of the kingdom’s fiefs as independent states on the other. Economically the productivity of land increased; monetization and specialization grew; merchants, cities, and marketplaces emerged; and the contrast between rich and poor became sharper. Three groups of writers, the Confucianists, the Legalists, and the Moists, dealt with economic issues during this golden age of Chinese philosophy.

Confucius and His Followers

Like his contemporaries in ancient Greece, Confucius (551–479 BC), was preoccupied with moral issues. He promulgated an ethical system of order that regulates all natural and social phenomena, including the movement of heavenly bodies, the variation of seasons, the rise and fall of governments, and all interpersonal relations. Aside from the sweeping nature of this system, there are certain parallels with Greek antiquity. In the Confucian society, interpersonal obligations are reciprocal. The ascendency of rulers is based on virtue and ability, not on heredity. The state is established on a set of ethical norms and rules that are codified by legendary sages and is governed by men through moral influence rather than law, coercion, or divine spirits. In Confucius’ hierarchical society, each person has a unique role, and social harmony results only if every person understands and carries out his role. The ideal Confucian society is propelled by people’s desire to serve the common good, rather than by their drive for personal gain. These ideas, as simple and direct as they are, set the scope of Chinese economic thinking for centuries to follow. Chief among Confucius’s precepts were:

1. Taxes should derive from people's productive abilities and should be limited to one-tenth of the produce of the land.
2. Government spending, which includes palace expenditures, should be adjusted to government revenues, not the other way around.
3. Living standards should conform to each person’s social status, without extremes of lavishness or parsimony.
4. The foremost obligation of the ruler is the well-being of the people.
5. Government should maintain a general posture of noninterference, yet provide assistance to production and sustain equitable distribution of income when necessary.

Ambiguities in this program (for example, item 5) became increasingly troublesome after Confucius’ death and led to squabbles among his followers about the essence of human nature and about the proper role of government in the economy. One of Confucius’ disciples, Mencius (c. 372–287 BC) believed that individuals are inherently good and that government should promote the public welfare by a policy of noninterference; another, Hsun-tzu (c. 300–237 BC) held that people are dominated by evil impulses, and he advocated a more authoritarian government.

The Legalists

Han-fei-tzu (280–233 BC), one of Hsun-tzu’s disciples, believed—following his teacher—that people are motivated primarily by self-interest. Han-fei-tzu believed that social order and economic progress would only result from the strict, centralized control of rewards and punishments. Aware that a Confucian society would function well only if individuals were guided by moral principles and kings were wise rulers, Han-fei-tzu argued that in reality societies are headed only by average rulers and that avoidance is the rule rather than the exception. Another legalist, the innovative administrator, Kuan Chung (c. 730–645 BC) rejected Confucian methods of decentralization, moral suasion, and personal virtue in favor of centralized state power and legal mechanisms of control. His followers, working vigorously to stamp out the remnants of the old aristocracy from Chinese society, wrote on such topics as monetary and fiscal policies, government monopoly, price stabilization, population, agriculture, and commerce.

The Moists

A third school of economic thinkers was led by Mo Ti (c. 479–438 BC), who studied under disciples of Confucius but later rejected their teachings. Disillusioned by Confucianists who indulged in personal gain rather than adhere to the principles they taught, Mo Ti saw the Confucianists’ failure to deal with existing chaos and misery as flaws in their thinking. Like Confucianists, Moists sought to promote economic harmony and welfare under existing monarchical regimes, but they differed on matters of implementation. Mo Ti believed in a kind of universal brotherly love as an antidote to mankind’s natural inclination to selfishness and injustice. He was opposed to class distinctions, luxury, and ostentation. He favored social mobility, peace, order, national wealth, and a large population. His concept of division of labor, focusing on the advantages of specialization, was quite advanced for his time. Mo Ti was also strongly confident of government effectiveness if directed by a disciplined hierarchy and centralized sovereign. He organized his disciples according to strict military and authoritarian principles, which encouraged a religious zeal and authoritarian spirit unmatched in ancient China.

This kind of diversity of thought did more to highlight contentious issues than to produce a unified field of economic analysis. Like their Greek counterparts in the ancient Western world, Chinese philosophers cast economic inquiry in the frame of morality and ethics. Their analyses were influenced by the institutional makeup of the societies in which they lived. In such societies, the marketplace was never conceived as a mechanism that was capable of regulating itself by allowing the free play of individual self-interest. Quite naturally, therefore, economics was regarded as a branch of
moral philosophy—a tendency that continued in the East as well as the West well into the eighteenth century.

**Medieval Arab-Islamic Economics**

Whereas the contribution of ancient Greek philosophers to economic analysis is sometimes debated, the influence of Arab-Islamic thought has been persistently neglected. Historians acknowledge, however, that the death of the last Roman emperor in 476 ushered in a long period of secular decline in the West and a concomitant rise in the fortunes of the East. For five centuries, from AD 700 to 1200, Islam led the world in power, organization, and extent of government; in social refinements and standards of living; and in literature, scholarship, science, medicine, and philosophy. Moreover, it was Muslim science that preserved and developed Greek mathematics, physics, chemistry, astronomy, and medicine during this half millennium, while the West was sinking into what historians commonly call the Dark Ages. By 730 the Muslim empire reached from Spain and southern France to the borders of China and India; it was an empire of spectacular strength and grace. In this expanded capacity, the Arab world provided a bridge across which Greek and Hindu wisdom and culture traveled to the West. Perhaps the most significant, single innovation that the medieval Arab scholars contributed to the West was their system of writing numbers. Arabic numerals displaced the clumsy Roman numerals of the previous empire. In addition, one of the more eccentric Arab mathematicians, Alhazen, founded the modern theory of optics around the year 1000. But for our purposes, the most important contribution of Arab culture was its reintroduction of Aristotle to the West.

A substantial body of economic knowledge is attributable to no less than thirty Arabic scholars of the medieval period, who, like the clerics of medieval Christendom discussed in the next section, focused on the possibility of reconciling reason with faith. They viewed economics not as an end in itself but as a means to an end. The end was salvation; hence economic activities were seen as part of the earthly struggle to earn heaven. It can be said that Muslim society believed in *homo Islamicus*, not *homo oeconomicus*. Thus, Muslim philosophy did not ask whether certain economic formulations are true or false, but how Muslim writers have treated economic ideas in relation to ethical and political principles. In Islam there is no tradition of positive law derived from human reason. The law is derived from Shari'a, an expression of divine will, from which jurists and theologians develop ethical, social, and economic principles. This makes comparison between Muslim economics and Western economics problematic. Nevertheless, a brief review of Muslim medieval economic thought serves to underscore a strain of continuity between the philosophic inquiry of the ancient Greeks and that of medieval European scholars. Space constraints do not permit a comprehensive survey of the entire medieval Arabic intellectual tradition here. Instead, we shall concentrate on the main link in a chain of Islamic thought that stretched from the eleventh to the fourteenth centuries.

Abu Hamid al-Ghazali (1058–1111) is a mirror of this tradition. He developed what might be called a social welfare function based on consideration of utilities (*masalih*) and disutilities (*mafasid*). Although salvation is the ultimate goal of human action, the pursuit of economic activities is a necessary part of achieving that goal, because without it human beings would perish (*Ihya*, 2:32, in Ghazanfar and Islahi, p. 384). Economic efficiency is therefore merely an aspect of fulfilling one's religious
imperatives (*Ihya*, 2:249, 3:236; *Mizan*, 377—in Ghazanfar and Islahi, p. 384). Following Aristotle, Ghazali stressed a “middle path,” or “golden mean,” and the “correctness” of intentions in all actions. When intentions are consistent with divine will, he asserted, then economic activities become a kind of worship—part of one’s calling (*Ihya*, 2:83—in Ghazanfar and Islahi, p. 384). He recognized three sources of wealth: individual earnings; profit from exchange, and acquisition by bequest or discovery. Because he made science, philosophy, and reason subservient to religion and theology, the European Scholastics (see next section) accepted many of his views and made them part of their medieval philosophy. Ghazali made specific contributions to four major areas of economic thought: (1) voluntary exchange and markets; (2) the nature of production; (3) money and interest; and (4) public finance.

For Ghazali, markets—the mechanism within which voluntary exchange takes place—evolve as part of the natural order of things. Trade adds value to goods by making them available at a convenient time and place. People are acquisitive by nature, and they will seek to maximize their individual situations. Although he did not regard wealth accumulation as the noblest of activities, he recognized it as essential to the proper functioning of a progressive economy. The mutuality of exchange necessitates specialization and division of labor with respect to resources and regions, which leads, among other things, to the creation of profit-motivated middlemen. Although Ghazali did not grasp the modern technique of demand and supply analysis, his discussion of prices and profits fits easily into the modern framework. He had an intuitive understanding of the concept of price elasticity, and a primitive notion of equilibrium price. Like all medieval writers, Ghazali based his discussion of markets on an ethical-moral code of conduct that roundly condemned secrecy, deception, manipulation, and profiteering.

Ghazali classified production activities in terms of their social importance, emphasizing fundamental Islamic principles of duty and responsibility. Apart from its moral roots, his hierarchy of production is reminiscent of Adam Smith’s ranking many centuries later. For Ghazali, output resolves itself into primary production (agriculture), secondary production (manufacturing), and tertiary production (services). He regarded the first category as the most important—even to the extent of requiring the state, if necessary, to be a mediating force. But he made it clear that proper social harmony requires the active pursuit and promotion of all three levels of production. Within any given level of production, Ghazali was conscious of the linkages that exist in the production chain. Thus, he speaks of how the farmer produces grain, the miller turns it into flour, and the baker converts the flour into bread. These linkages require specialization of division of labor as well as cooperation and coordination. In driving home his point, Ghazali described how needles are made by passing through multiple transformative stages—thus anticipating the famous pin factory example espoused by Adam Smith more than half a millennium later (see chapter 5).

Ghazali recognized that money evolved in order to overcome the deficiencies of barter: in particular, the lack of mutual coincidence of wants between traders. He seemed to be aware of the distinction between use value and exchange value but he

---

4 S. M. Ghazanfar and A. A. Islahi ("Economic Thought of an Arab Scholastic," p. 386) suggest that Ghazali laid the foundation for what later became known as the “spirit of capitalism.” See, for example, Max Weber, *Protestant Ethic.*

5 Throughout his economic writings, Ghazali talks of a “prevailing price, as determined by market practices.” This concept was referred to as “just price” by some of his Arab contemporaries, and was later adopted by European medieval philosophers. Still later it culminated in the notion of “equilibrium price,” as discussed in the next section.
took the curious position that gold and silver money have no intrinsic value. In other words, he argued that gold and silver have no value other than exchange value. Although this is not a defensible argument today, it may have served to buttress Ghazali’s arguments against hoarding for its own sake. Like Aristotle, Ghazali argued that usury is wrong because charging interest on the borrowing and lending of money deflects money from its key function, which is to facilitate exchange. We shall see in the next section that this fiction was perpetuated by the European Scholastics as well.

Ghazali was not shy about giving advice on the proper role and function of the state, which he considered a necessary institution to ensure the proper functioning of the economy and the fulfillment of divinely ordained social obligations. His position in this respect echoes down through the ages of Islam: “The state and religion are inseparable pillars of an orderly society. Religion is the foundation, and the ruler, representing the state, is its promulgator and protector; if either pillar is weak, society will crumble” (Ihya, 1:17; Mizan, 297; Counsel, 59—in Ghazanfar and Islahi, p. 395). Although the inseparability of religion and state was later rejected in some Western traditions, other aspects of Ghazali’s system were embraced: for example, his belief that the state must establish peace, justice, security, and stability in order to promote economic prosperity. His discussion of public finance, though insightful in some respects, was constrained by the religious, ethical, and cultural precepts of Islam. He seemed aware of the benefits-received and ability-to-pay principles of taxation (as a matter of equity he advocated the latter). He approved of government borrowing only if it is possible to secure repayment from future revenues. And he considered public goods to be a legitimate use of public funds, citing specifically the need to provide for a country’s defense, education of its people, health care, law enforcement, and the construction of roads and bridges.

Ghazali had a number of students, who in turn influenced other students, so that a continuous line of economic inquiry (always as a subsidiary branch of morals) was established in the eleventh, twelfth and thirteenth centuries. This intellectual tradition culminated in the fourteenth century with the work of Ibn Khaldun (1332–1404). It was Khaldun who first formulated the labor theory of value that preoccupied the classical economists of the eighteenth and nineteenth centuries. Writing against the backdrop of the dramatic rise of the Ottoman Empire, which served to spread medieval Muslim thought ever wider, Khaldun anticipated Adam Smith on a number of important facets of what was to become political economy. But he was preceded in this endeavor by the medieval scholars of Christian Europe.

**Medieval European Economic Thought**

After the Spanish city of Toledo was recaptured from the Moors in 1085, European scholars flocked to that site in order to translate the ancient classics. The ancient texts were turned from Greek (which Europe had forgotten) through Arabic and Hebrew into Latin. In this last mode their philosophical gems were mined for the next four hundred years by the scholars of the medieval church—that group of priests and philosophers who are known as the Scholastics. Like their Muslim counterparts, this group of writers wrote within the context of a dominant religious creed, which in this case was Christianity.

---

6 Besides the labor theory of value, among the key pillars of classical economics anticipated by Khaldun are: capital accumulation and its relationship to economic progress; the dynamics of demand, supply, prices and profits; the disentanglement of money and wealth; economic freedom and the (limited) role of government.
Economics in a Feudal Society

The dominant form of economic organization in the Middle Ages was feudalism. This was a system of production and distribution in which the ownership of land was neither absolute nor divorced of duties, as it had been in ancient Rome and was to become again in modern times. Instead, the king was the repository of all legal property rights. He assigned land in large parcels to his favored chiefs and noblemen, who could, in turn, assign the land to various subtenants. "Ownership" at the production level meant the mere right to use (usufruct), although this right tended to become hereditary. Usufruct remained, however, subject to the performance of certain military, personal, and economic duties.

Feudal property also became the seat of political power in this era. Medieval Europe lacked the social, economic, and political integration necessary to the establishment of a strong central authority. Each feudal lord was consequently vested with numerous governmental functions, which he exercised in his particular territory. Economic production under feudalism took place on the manor, or agricultural estate. Output was produced on a small scale, using relatively primitive agricultural techniques. Labor services were provided by serfs who were attached to the land rather than to the person who "owned" it. The goal of the manor was self-sufficiency; trading activities between regions and/or countries were severely limited. In sum, the economic and social framework of the manor was analogous in many respects to that of the polis, or Greek city-state. The principle of organization in both was status, not contract.

Two major factors that set the Middle Ages apart from Greek antiquity were its doctrinal unity, provided by the Roman Catholic Church, and the pervasiveness of the market mechanism. Medieval society somewhat grudgingly nurtured a nascent form of capitalism, as economic markets (both in products and in factors of production) became more and more entrenched in the fabric of daily life. It was against this backdrop that Scholastic economics developed.

Scholastic Economic Analysis

The social hierarchy of medieval civilization was almost Platonic in its structure. One belonged to either the peasantry (who worked), the military (who fought), or the clergy (who prayed). The last group alone emphasized the importance of knowledge, and so it was, almost by default, that the clergy became the repository and the guardians of that knowledge, exercising a virtual monopoly of learning. Consequently, medieval economics was the product of the clergy, particularly a group of learned writers that we now refer to as Scholastics.7 It was they who joined together the several strands of thought that constitute medieval economics: ideas gleaned from Aristotle and the Bible, from Roman law and church law, and from Chinese and Muslim influences.

Scholastic economics is not held in high regard today. It is commonly perceived as a tissue of misplaced fallacies about market price, interest, and property. Although most Scholastic ideas have been expelled from the corpus of economic knowledge, they have some significance in the painfully drawn-out evolution of modern value theory. This last phenomenon deserves a close examination.8

The Scholastic Method. The method of Scholasticism was as follows. The writer posed a question, then followed it with a lengthy and detailed exposition of the view

---

7 As used in this context, the term simply means "professors" or "teachers.
8 The following section follows very closely the excellent study of Odd Langholm, Price and Value.
that was to be either refuted or reinterpreted. Attention was always paid to the weight of authority. Eventually, an answer was given, contrary views scrutinized, and documentation brought forth. The whole process was deductive in nature, depending not so much on the rules of logic or of human experience as on faith and the weight of authority. While this method may seem decidedly unscientific to us, it was the accepted procedure of the medieval period. There were many masters of this method, but five in particular stand out in the tradition of Aristotelian value theory. The five are Albertus Magnus (c. 1206–1280), Thomas Aquinas (c. 1225–1274), Henry of Friemar (c. 1245–1340), Jean Buridan (c. 1295–1358), and Gerald Odis (c. 1290–1349).

As keepers of the moral code of medieval society, the main interest of the clergy was justice, not exchange. One form of justice is exchange justice (or commutative justice), which is exactly the issue broached by Aristotle in Book V, Chap. 5, of the Nichomachean Ethics. It was there that Aristotle developed his reciprocity model (see above), and it was from this point that Scholastic economics took its departure. The text of Aristotle's exchange analysis may have been garbled from the outset, but it seems certain that subsequent translations into Arabic, Hebrew, and Latin did little to remove any ambiguities. Perhaps it is not surprising, therefore, that the Scholastics spent four centuries trying to disentangle and clarify its meaning. In the process Scholastic analysis infused Aristotle's primitive notion of value with the idea of equilibrium.

It also set the train of economic reasoning down two divergent tracks that were not to come together again for over half a millennium: (1) cost-determined value, and (2) demand-determined value.

**Labor and Expenses: The Analysis of Albertus Magnus.** Albertus Magnus, Dominican provincial, Bishop of Regensburg, and Doctor of the church, was the first great Latin Aristotelian. His place in the history of economics is assured by two things: his tutelage of Thomas Aquinas, who subsequently had an enormous impact on Western thought, and his commentaries on the Nichomachean Ethics, where he recast the ancient Greek ideas in the mold of medieval society, providing the point of departure for all subsequent thought on exchange and value. What Albert did was to plant in Western thought the persistent notion that value in exchange must comply with cost of production. In so doing, he set in motion a long train of thought that did not reach its fruition until the nineteenth century, notably in the work of Karl Marx (see chapter 11).

Earlier commentators on Aristotle's exchange model did not go much past the question of the measurement of value. The most common references given to the measurement of value were money (nummisma) and wants (indigentia). But Albert, arguing that there is a natural order and an economic order in which things are valued differently, maintained that in the economic order goods are measured in relation to labor (opus). More generally, he referred to "labor and expenses," mentioning both elements of cost in the same breath. Mere recognition of the role of cost in the measurement of value is not as important as Albert's use of the insight, however. He related costs of production to the "cross-conjunction" in Aristotle's model (see figure 2-1), noting that if the market price does not cover costs of production, production will eventually cease. This was an important analytical leap for two reasons: it suggested that price could be treated as an equilibrium value, and it set up an economic variable (i.e., costs) as the regulator of value. Certainly Albert was a long way from presenting an integrated and systematic explanation for the determination of market price, but his was nevertheless an important advance for the thirteenth century. The fact that he brought labor into the
Aristotelian framework was a lasting contribution. In subsequent chapters of this book we shall see how much mileage later economic writers got from the same notion.

**Human Wants, Thomas Aquinas, and “Just Price.”** Albert's brilliant pupil, Thomas Aquinas, did not really have any conflict with his teacher, but he tried to improve on Albert's labor theory, and he saw the way to do this by stressing human wants. Thomas reached back to St. Augustine for this point, noting that men will not always rank things according to the natural order. Augustine had toyed with subjectivism by noting that men will often value a jewel more than a servant girl (see above). But Thomas turned St. Augustine's teaching on its head. Whereas Augustine discussed the natural order and brought in economic exchange for contrast, Thomas did just the opposite, bringing economics to the fore. In one sense, though, Augustine was more astute. He did not really distinguish between wants and pleasure—an approach that could have accelerated the early development of demand theory if Aquinas had taken it up. Instead, Aquinas chose to inject moral instruction into his economics, a practice that tends to discount pleasure. Consequently, Aquinas's demand theory never got beyond the simple notion of the human usefulness of goods as compared with their place in the natural order of creation.

Aquinas's formal contribution to Aristotelian value theory was a two-pronged one in which one element conditioned the other. First, he reaffirmed the double measure of goods (value in use versus value in exchange) that Aristotle had established; second, he introduced wants into the price formula. This last contribution is especially important because it marked the earliest root of an analytical demand theory of value. Aquinas argued that price varies with wants. Thus, **indigentia** became a regulator of value. This contribution, however, was strictly formal. Aquinas did not explain his terms; he simply made the connection between wants and price. But that connection stood as an invitation to subsequent Aristotelians to work out a more complete theory of value, which they eventually did. In the Scholastic analysis that followed Aquinas, the concept of **indigentia** was gradually enlarged to include utility, effective demand, and even unmitigated desire.

It should be noted that Aquinas's mentor, Albert, did not overlook wants in his discussion of value, nor did Aquinas neglect costs. Rather it is the case that each in turn helped to develop more fully one particular side of the argument. Taken together, the discussion is fairly balanced, although there was still a long way to go toward an integrated, analytical understanding of the market mechanism.

Indeed, an opinion shared by many modern historians of economics is that Aquinas viewed market forces as antagonistic to justice. It is difficult to reconcile the medieval notion of “just price” with the modern notion of “market price,” since the former is generally defended on normative grounds whereas the latter is held to be an objective result of impersonal forces. Certainly Aquinas's language was open-ended on many points, furthering the popular notion that his analysis was wrongheaded. For example, bowing to Aristotle, Aquinas wrote:

> if the price exceeds the quantity of the value of the article, or the article exceeds the price, the equality of justice will be destroyed. And therefore, to sell a thing dearer or to buy it cheaper than it is worth is, in itself, unjust and illicit. ... The just price of things, however, is not determined to a precise point but consists of a certain estimate. ... The price of an article is changed according to difference in location, time, or risk to which one is exposed in carrying it from one place to another or in causing it to be carried. Neither purchase nor sale according to this principle is unjust. (in Dempsey, p. 481)
A more tolerant interpretation of the just-price doctrine has been advanced by David Friedman ("In Defense"), who argues that the concept was a substitute for the unregulated, competitive, market price at a time in history when markets had not yet reached the stage of development that would guarantee socially efficient results. Modern competitive markets produce socially "efficient" prices only when large numbers of buyers and sellers, each possessing reliable information, interact. These conditions were not widespread in the Middle Ages. Medieval trade involved few buyers and sellers, in some cases approaching the technical condition of bilateral monopoly (one seller, one buyer). In these conditions, the relationship between "market" price and average costs of production was tenuous, at best, and it was relatively easy for one party to "exploit" another. Thus, Friedman argues, the idea of "just price" was, in essence, a kind of arbitrated price, involving the establishment of equity-based guidelines designed to preserve distributive justice in exchange matters and to resolve the kind of conflict endemic to limited-participation markets that could not "protect" consumers by the law of large numbers (i.e., vigorous competition).

From an analytical standpoint, "just price" is a vague and imprecise idea, unsuited to an operational theory that befits a science. But like nature, economics does not make sudden, gigantic leaps forward—as Alfred Marshall was later to remind us (see chapter 15). During the Middle Ages, if anything, economics seems to have crawled, rather than leaped forward, but it nevertheless headed in the right direction.

Aggregation and Scarcity: The Influence of Henry of Friemar. Aquinas had developed the concept of indigentia in a way that related primarily to the individual. But the modern notion of demand is an aggregate one in the sense that it comprises the wants of all those buyers who participate in the market. The next step in the Scholastic tradition was to conceive of indigentia as an aggregate measure, a step taken by the Augustinian friar, Henry of Friemar.

The Scholastics' concept of indigentia is different from the technical, contemporary notion of market demand. It is not quantity demanded as a function of price; its meaning is much less precise, including elements of supply as well as of demand. The meaning most commonly attached to the concept in Scholastic literature is "amount desired in relation to what is available" (i.e., demand in the face of scarcity). As we now recognize, genuine analytical progress in value theory required the separation of the two notions "demand" and "supply." Failure to separate demand and supply as elements in the value formula was the fundamental defect in the Aristotelian market model. Unfortunately, the defect was never quite remedied by the Scholastics, despite its long, inquisitive tradition. In fact, the remedy was not forthcoming until the full flowering of marginalism in the nineteenth century.

Progress, however slow, was nevertheless made by the Scholastics. Just as Aquinas had directed Albertus's analysis toward demand factors instead of costs, so Henry tipped Aquinas's formula in favor of aggregate (i.e., market) demand. Henry advanced the somewhat mixed notion that value is determined by "the common need of something scarce," a concept which acknowledged that as long as there is abundance in the face of strong demand, indigentia will not raise price. Odd Langholm has aptly pointed out that a theory of exchange value can start at any one of three stages of deduction. It can start with the conditions of the market, that is, with the abundance or scarcity of goods. Alternatively, it can start with the properties of goods that make the market conditions relevant. Or it can start with the wants of the people that make
these properties in goods relevant, proceeding to market conditions from there. The medieval theory, which was rooted in Aristotelian soil and survived into modern economics, started at the third level. Although the Scholastics were not alone in discussing economic matters in relation to human wants, they deserve credit “for taking this concept through aggregation and scarcity into a workable argument in the price formula” (Langholm, *Price and Value*, p. 115).

**Effective Demand: The Contribution of Jean Buridan.** The next major step in the evolution of value theory was taken by the rector of the University of Paris, Jean Buridan. Buridan was a master logician and thoroughgoing Aristotelian whose contributions to social science and philosophy are contained in some three dozen commentaries on Aristotle’s works. Buridan maneuvered the Scholastic notion of *indigentia* much closer to the modern concept of *effective demand*. He described poverty as a state in which someone does not have that which he desires, so that *indigentia* could be applied to “luxuries” as well as “necessities” (the narrower sense given to it by Aquinas). In addition, Buridan made *indigentia* into desire backed by ability to pay. This modification, as insignificant as it may seem, provided a way out of a nettlesome problem in medieval value theory. Both Aquinas and his fellow prelate John Duns Scotus were spokesmen for a “double rule” in medieval price theory. A seller who parted with a commodity at unusually high sacrifice to himself could, with the blessing of the church fathers, compensate for his loss by charging a higher than normal price. But in the event that the sacrifice was ordinary, he could not charge a higher price merely to increase his profit. In the latter case, Aquinas argued that by profiting exorbitantly, the seller in effect sold something that was not his own (the same rationale applied to Scholastic condemnations of usury). Duns Scotus maintained that something is not precious in itself merely because of the buyer’s strong preference. The gist of each argument is that it is wrong to take advantage of a buyer’s intense wants.

There are several problems with this double rule. An obvious one is its basic analytical asymmetry. It is all right for a seller to do one thing if his want is high but not to do the same thing if the buyer’s want is high. The other problem is how to define “unusually high want.” Borrowing from both Aquinas and Henry of Friemar, Buridan advanced a line of thought that distinguished between individual “wants” and aggregate “wants.” He tied value to aggregate wants, by which he meant effective demand, and argued that the conjunction of numbers of consumers and their purchasing power works to establish a just and normal state of affairs in the marketplace. A buyer, therefore, however desirous, must comply with the valuation of the market. This is the self-same line of thought that led centuries later to the laissez-faire morality of Nicholas Barbon and Thomas Hobbes, the latter declaring that “the market is the best judge of value.”

What is interesting about Buridan’s achievement is that it came within an Aristotelian framework that permitted the metamorphosis of a narrow medieval concept, *indigentia*—which originally took the vague connotation of *need*—into the indiscriminate generalization, “every desire which moves us to set store by things.” It is to this notion that European price theory—as opposed to British classical value theory—owes its later success. Buridan spawned a tradition of economic inquiry that permeated not only his native France but eventually also Italy and, most especially, Austria. This tradition, with tentacles reaching all the way back to Aristotle, culminated in the
nineteenth-century formulation of utility, and finally in the fusion of this last concept to the notion of the margin. This success was in no small part explained by an “emphasis on utility as a psychological experience, playing down considerations of the properties in goods which cause men to desire them, a preoccupation which is sure to take theorists away from the main point” (Langholm, *Price and Value*, p. 144).

**Toward a Synthesis: Odonis and Crel.** All through the Middle Ages, discussions of value theory constantly pitted a generalized concept of supply (based on labor costs) against a demand theory, so that the two were continually rubbing against each other. In these circumstances one would have expected a synthesis to be forthcoming, yet the Scholastic tradition stopped short of what we today call the “neoclassical synthesis.” One man more than any other brought value theory close to this now familiar synthesis. He was a resourceful German sectarian theologian named John Crel (1590—c. 1633), whose powerful insight came from joining Buridan and another Scholastic, Gerald Odonis. Odonis was a French monk of the Franciscan order, which developed its own tradition in exchange theory. He had inherited a market model that exceeded that of Aquinas and bore the influence of Henry of Friemar. The Franciscan tradition focused on *raritas*, by which it meant scarcity in the face of wants (the reverse of Henry’s *indigentia*, which was wants in the face of scarcity).

Odonis rejected a simple labor-quantity theory of value and focused on the scarcity and quality of human, productive skills. This led him to a theory of wage differentials that recognized the relative efficiencies of different skills and the relative cost of acquiring those skills. It was an important step on the path to ultimate recognition of the synthetic nature of labor and demand theories of value. Odonis’s theory could explain, for example, why an architect earned more than a stonemason, and it led to the inference that scarce labor commands a higher product price through product scarcity. A complete synthesis requires an additional step: the recognition that every kind of labor is always to some extent scarce, and so brings forth a scarce product. For it is in this way that labor serves as a regulator of value. The inference was a long time in coming; it was not made by Buridan because it required joining his own insight to that of Odonis, who had not yet written when Buridan was producing his commentaries. Inasmuch as he was born in the following century, a resourceful thinker like Crel was able to put the two together.

History tells us that the problem of value was not solved completely until economists came to understand that the cost theory and the demand theory were merely components of a single principle. That single principle rested on two legs. The first leg is that labor is a regulator of value only if it is spent on something useful. The second leg is that all labor is always (to some extent) scarce. Wants and costs are, to use Alfred Marshall’s felicitous analogy, but two blades of the same scissors. Yet it took a very long time to get that far in economic analysis. Ironically, in the seventeenth and eighteenth centuries a very able line of Italian and French economists had the two theories marching separately, with scarcity and utility carrying the burden of explanation. The British classical tradition somehow got off on the monotonous track of costs and failed to bring about a union, even though the idea that labor regulates product value through scarcity is very much in evidence in Senior’s work (see chapter 7). In nineteenth-century France there was a sudden flash of genius, but this was not fully reflected in economic theory until after a hiatus of nearly three decades (see chapters 12–17).
Chapter Two ▼ Ancient and Medieval Economic Thought and Institutions 33

The most interesting thing to surface from recent research into Scholastic economics is the remarkable continuity of the Aristotelian tradition through the years. The Scholastic economists were fully within this tradition, a fact that unfortunately serves to detract from their original contributions. But one by one, they laid the bricks and mortar on which the edifice of value theory was later erected. The chief architects of this edifice and the nature of their contributions are summarized in figure 2-2.

Law of costs
Reciprocity
Aristotle (384–322 B.C.)

Law of demand

Labor & expenses
Human wants
Albertus Magnus (1206–1280)
Thomas Aquinas (1225–1274)

Aggregation & scarcity
Henry of Friemar (1245–1340)

Effective demand
Jean Buridan (c.1295–1358)

Synthesis
Gerald Odonis (1290–1349)
John Crell (1590–c. 1633)

Adam Smith, et al.

Figure 2-2  Aristotle, Aquinas, Albertus, Henry of Friemar, Buridan, Odonis, and Crell all helped lay the foundation for the development of value theory.

The Doctrine of Usury

Insofar as interest is generally regarded as the price of money, a theory of interest may be considered merely a subset of the general theory of value. But in the Middle Ages, few topics evoked as much controversy as the conditions under which interest was to be allowed. The church, moreover, had an official position on the subject.

Although the idea that interest, or "profit," from loans is wrong can be traced back to the Old Testament (Exodus 22:25), the Roman Catholic Church did not make the injunction against usury, defined as a transaction "where more is asked than is given," part of its official doctrine until the fourth century AD when the Council of Nicea banned the practice among clerics. During the reign of Charlemagne, the prohibition was extended to all Christians. Subsequent practice made the ban an absolute prohibition, and for many centuries usury laws enjoyed widespread and official support. During the Middle Ages, usury and the doctrine of "just price" were the main economic topics that occupied the Scholastics.
In Latin, *usura*, from which the word "usury" derives, means payment for the use of money in a transaction that results in gain (i.e., net profit) for the lender; whereas *interesse*, from which the word "interest" derives, means "loss" and was recognized by ecclesiastic and civil law as a reimbursement for loss or expense. Interest was commonly regarded as compensation for delayed repayment or for loss of profits to the lender who could not employ his capital in some alternative use during the term of the loan. Risk was not generally considered as a justification for interest, because loans were usually secured by property worth many times the money advanced. Thus, the usury prohibition was not intended to curb the high profits of risk enterprise. For instance, the *societas* (partnership) was a recognized form of commercial organization dating back to Roman times. Its profit objective was officially sanctioned, and gains from trade were treated as earnings for effort and risk. The *census* was a kind of early financial instrument that combined elements of a mortgage and an annuity. Under the terms of this contract, the borrower incurred "an obligation to pay an annual return from fruitful property," usually a landed estate. By its nature, a *census* was not considered usurious.

In addition, bank deposits had become a form of investment by the thirteenth century. Merchant bankers paid interest on deposits. As early as the twelfth century, bills of exchange combined foreign exchange with credit, although interest was often concealed in a high exchange rate. In other words, during the Middle Ages, the church doctrine on usury, existing alongside legitimate forms of interest taking, helped promote a double standard that became increasingly arbitrary over time, thereby creating opportunities for exploitation by those who made the rules.9

Over the years, medieval economic doctrine frequently came into conflict with medieval economic practice. Up to the thirteenth century, the sweeping condemnation of usury by the church was accompanied by civil prohibitions which varied widely from country to country. Yet despite its widespread prohibition, usury was never entirely eradicated in any large part of Europe or for any important period of time. Professional pawnbrokers, though sometimes underground, probably always existed in medieval Europe. In fact, where they operated openly, they were licensed by the state, which received license fees.10

Because the church’s arguments in defense of usury make little sense in the context of modern economics, the whole topic is usually considered an analytical dead end. The chief flaws of the Scholastic analysis were its neglect of the productivity of money as an economic resource and its failure to recognize the time value of money. Some historians blame the church’s doctrine for retarding the development of capitalism by suppressing the growth of credit markets. But up until recently, little research has been directed at explaining the anomalies between church doctrine and church policy on this subject.

9 According to Raymond de Roover (“Scholastics, Usury and Foreign Exchange," p. 266), pawnbrokers and small moneylenders were the main victims of the church's campaigns against usury, "but the big bankers with international connections were left undisturbed. Far from being censured, they were called ‘the peculiarly beloved sons of the Church’ and prided themselves on being the Pope’s exchangers.”

10 Before the Renaissance, the legal limits on personal loans from pawnshops ranged from a low of 10 percent in Italy to 300 percent in Provence. In the fourteenth century, the Lombards often charged 50 percent, although the most common legal pawnshop limit in effect was 43 percent. Monarchs, such as Emperor Frederick II (1211–1250), often paid interest of 30 to 40 percent to creditors, especially when collateral was not liquid. Commercial loans commonly fetched interest rates between 10 and 25 percent depending on the adequacy of commercial credits (see Sidney Homer, History of Interest Rates, pp. 89–103).
In an attempt to break this pattern, Robert Ekelund, Robert Hébert, and Robert Tollison (see Notes for Further Reading) approached the subject by analyzing the medieval church's behavior on the basis of its "monopoly" position among religious institutions. They conclude that it was in the church's interest to selectively use the usury doctrine in order to keep its own cost of funds low, to prevent the entry of competing "firms," and to otherwise preserve its monopoly status. In the final analysis, therefore, the ultimate disappearance of the usury doctrine may have been a result of increased doctrinal competition in the wake of the Protestant Reformation rather than the effect of a systematic belief in the weakness of its underlying premises.

Theory Meets History:
Economic Impact of the Medieval Church

By all historical accounts, the medieval period marked an important transition from the ancient world to the modern one. However, even a careful recitation of "who said what" provides an incomplete picture of this vital passage. All historical accounts of the "transition to modern liberalism," allow a pivotal role in the ultimate development of liberal capitalism to the medieval Roman Catholic Church—the longest running institution of the West. Whether the overall influence of the church favored or retarded the emergence of capitalism has proved difficult to resolve. Opinions abound on both sides of the issue. In this final section, therefore, we review some of the issues that marked the transition from one age to the next.

Church Organization

After the twelfth century, Roman Catholicism faced only insignificant fringe competition from Jews and Moors, so it came to dominate large parts of Western Europe. Canon law (the legal system of the church) was beginning to supplant and eventually dominate civil law in the loosely organized states and other political entities of the West. Ecclesiastical officials enacted laws respecting all aspects of the "supply" decision of various church products, such as assurances of eternal salvation, political support of reigning monarchs, and various social services (e.g., hospitals, alms for the poor, etc.). The church's web of influence was gradually extended to the establishment of marriage regulations, trade practices, and all manner of social and economic behavior. Kings, princes, and aristocrats owed much of their power to the approbation of the Roman Catholic authorities who, with an extensive coterie of clerical agents, helped rulers wage wars, maintain armies, and negotiate trade deals. The medieval church, moreover, was immensely wealthy and was a huge landholder during the medieval period. It collected revenues not only from voluntary contributions, but also from the sale of relics and indulgences, taxes, and land rents.

The organization of the medieval church was parallel to that which Oliver Williamson (Markets and Hierarchies, p. 137) calls an M-form corporation. This kind of firm is characterized by a central office that controls overall financial allocations and conducts strategic long-term planning (the Vatican) but allows divisions, usually regional, to have a high degree of autonomy in managing day-to-day operations (dioceses, or bishoprics). The pope assumed duties analogous to that of a CEO, and the Vatican had its own bank (the papal camera) and board of directors (the College of Cardinals). Its retail operations were extensive and widespread. The primary role of the Vatican central office was to provide doctrine and dogma relating to the essential principles of
membership (e.g., interpretations of Holy Writ) and to collect rents from its many divisions and franchises. Downstream from the Vatican were the geographically dispersed purveyors of local Roman Catholicism. These included the regional mendicant and contemplative religious orders; monasteries, most of which focused on producing (agricultural) wealth rather than selling retail services; and parish priests and other local clergy. While rents were collected at all levels, primary revenues came from these retail agencies of the downstream church. Like all good corporations, the medieval church set up enforcement policies and assigned enforcement authorities to prevent opportunistic behavior by its many agents.

**Maintenance of the Church Monopoly and Doctrinal Manipulations**

In order to protect its monopoly status, the medieval church tried to prevent the entry of rival religions. Heretics were roundly condemned and shunned by church leaders and church members. Interdict, whereby the “sinner” was forbidden contact with other Christians, was one form of punishment. A more severe form of punishment was excommunication, which imposed total separation of the wrongdoer from the body Catholic and a sentence of eternal damnation if repentance was not made. Many heretics were put to death as victims of Crusades or the dreaded Inquisition. Taken together the medieval church established an elaborate penal system for transgressors of all kinds.

In an attempt to protect its market dominance, the medieval church also resorted to doctrinal manipulations in order to increase the demand for its services or to make consumer demand more inelastic. One manner of protection from rival firms is product differentiation. Throughout the Middle Ages the church manipulated the conditions attached to its chief product, assurances of eternal salvation. Marriage markets, mostly a matter of secular and civil concern prior to the church monopoly, were invaded by the church and subject to many regulations that allowed the church a measure of control over dynastic families—one of the chief threats to its autonomy. Church officials practiced forms of price discrimination in meting out penance, establishing marriage policy, and selling indulgences. Another doctrine that was almost manipulated out of recognition was that respecting usury and “just price.” When the church was a debtor, it seems, usury prohibitions were enforced, but not when it was a creditor. Similar manipulations extended to church rules respecting monastery tithes and taxes, the granting of indulgences, jubilee attendance, and benefices granted to bishops and cardinals. Eventually the church pushed its monopoly practices too far, encouraging doctrinal reforms that eventually coalesced in what we call the Protestant Reformation (see chapter 4).

A theory of rational behavior permits an understanding of the church as an economic entity—one that benefited from increasing secularization of European society but also recognized that science, technology, and humanism would ultimately weaken the kind and form of product the church was selling. If “belief in Christ and Christian principles” were the main issue, it would be difficult to explain how church officials could wage war against other nations (the Crusades), or against other Christians (religious wars against Protestants), much less other Catholics (conflicts with the eastern orthodox Christian church). Moreover, the emergence of fierce censorship of all kinds in the sixteenth and earlier centuries is also difficult to rationalize (e.g., the persecution of Galileo, a devout Catholic) except in an economic context, that is, the context of monopoly, market dominance, and profitability of the church. Economists objec-
tively viewing these policies and doctrines see them as examples of monopoly behavior and all that the model entails. Economic analyses of historical transformations approach the subject of institutional behavior on one of two grounds: public interest or private interest. If religious organizations, in this case the medieval church, acted solely in the public interest, they would behave as a "good government"—one that provides the faithful with information, spiritual goods, and social goods at competitive prices (i.e., marginal cost). An economic examination of the behavior of the medieval church provides little if any support for this view.

Protestantism was another transformative force of the medieval era. It emerged—significantly in northern Europe and England—mainly in response to opportunistic practices of the established church. The net result was a lessening of the hold of the Roman Catholic version of Christianity in Europe. Some great scholars of the past found a force in the new creed that stimulated and encouraged the rise of capitalism (e.g., Max Weber, see Notes for Further Reading). The proponents of this view maintained that the Catholic Church's attack on excessive "money making" (an ancient idea as we have seen in the present chapter), on science, and on free thought, among other practices, retarded the development of liberal capitalism as espoused by Adam Smith and the classical writers. Theirs is a far from universal view. Other writers have made a cogent argument that the Catholic Church, despite its dogma and market dominance, encouraged economic development rather than retarded it. In short, the historical reasons for the emergence of liberalism are complex and varied and, at this distance in time, may never be fully understood. We shall revisit this issue in the next chapter, which examines yet another ideational and historical argument for the decline of authoritarian economies and the emergence of economic liberalism.

**Conclusion**

Although the period from Greek antiquity to the end of the Middle Ages constitutes roughly two thousand years, the fundamental economic structure of Western civilization changed little during that time. Both Greek antiquity and European feudalism were characterized by small, insular, self-sufficient economies with little capital and low levels of production. At the level of basic production, serfdom was akin to slavery, except for the legal difference that serfs did not relinquish property rights over their own bodies. In effect, serfs were tied to the land, regardless of owner, whereas slaves belonged to a particular owner, regardless of whether or not the owner possessed land.

Throughout the first two millennia, isolated exchange in the East and the West predominated over what we now call market exchange. Consequently, the learned treatises of the day, whether derived from China, Arabia, or Europe, focused primarily on the question of fairness, not on the origin of prices. This focus was sustained in an intellectual tradition that stretched from Aristotle to the European Scholastics. The continuity of this tradition was preserved by Islamic nations, which served as a conduit for the reintroduction of ancient Greek ideas to the European continent.

In the seventeenth century, John Crell capped a Western tradition in value analysis that began with the early Scholastics four hundred years earlier. But it was a tradition within a tradition, so to speak. The Scholastic tradition in Europe was, nevertheless, more cohesive and tight-knit, because the church in the Middle Ages enjoyed an intellectual monopoly on learning. Its scholars all spoke the same lan-
guage, Latin. They were each trained by an educational system that was the same in every country. Each figure in that tradition professed the same fundamental beliefs and acknowledged the same authority of God and church. Albert, Henry, and Crell were German; Aquinas was Italian; Buridan and Odonis were French. This heterogeneity was hardly noticed, however. As Schumpeter has said of the Scholastics: “Their country was Christendom, their state the Church” (History, p. 75). As Crell was writing, the Scholastic tradition was in the process of being displaced by an early modern form of inquiry. But the new economists of the eighteenth century all had classical educations, so that theirs was by no means a de novo approach to economic analysis.

From an institutional perspective, the Middle Ages were dominated by a single entity—the Roman Catholic Church—which had an enormous influence on secular states and society. Its practices were those of a monopoly in that it thwarted the entry of new religions by threat and by violence (e.g., excommunications, interdict, Crusades); by product differentiation (e.g., the invention of limbo, purgatory, and confession), and by taking control of fundamental social customs (e.g., law and marriage). Only when this monopoly began to break down in the sixteenth century did rival religions make serious inroads into the states of Western Europe. The interplay of religion, religious belief, political structures, and the self-interest of individuals and groups in late medieval and early modern societies combined to shift the economic axis of Western Europe. There is a kind of duality at work in major historical transformations that can be difficult to disentangle: ideas shape events and “have consequences,” but events also mold ideas and help establish theories. The ideas that emerged from a “mercantile” economic organization and the consequences of economic self-interest that took place in the sixteenth and seventeenth centuries paved the way for another important transition from mercantilism to economic liberalism, as we shall see in the following two chapters.

References