Winston Churchill is supposed to have said that “the Americans can be relied upon to do the right thing, after exhausting the alternatives.” I hold a similar tempered optimism about the economics profession, with which have been associated by occupation for more than 20 years. Historically, economic theory originated in the happy union of Athens and Jerusalem known as “the natural law,” and has always returned to the sanity of its roots—after exhausting the alternatives. As I read its history, economic theory has nearly completed its last great detour away from sanity, and is rapidly running out of alternatives to a renewal of “natural-law economics.” If such a renewal occurs, it won’t be because economists have decided to sit down and learn from philosophers (or, God forbid, theologians)—nothing could be farther from their minds—but for the same reason as the last seismic shift in economics, which began in the 1870s: a growing number of economists are finding the current state of economic theory a professional embarrassment. Of course, I may be underestimating the average economist’s threshold of embarrassment. But let me explain the nature of that

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embarrassment, why only a renewed “natural law economics” will relieve it, and why non-economists should care.

A Brief History of Economics. The most emblematic moment for economic theory since the Second World War occurred one day in 1972, when the University of Chicago’s economics department, at George J. Stigler’s initiative, abolished the requirement that Ph.D. candidates study the history of economic theory.¹ The departments at other major universities soon followed. This represented a remarkable change for Stigler, and triggered another for the teaching of economics. From his 1938 doctoral thesis² (a study of late-19th-century theories of production) to the mid-1950s, Stigler built his reputation on studies in the history of economics, the gist of which was that economic theory advances by becoming simpler, by explaining more, and above all, by posing “refutable implications.”³ But the publication of Joseph Schumpeter’s massive History of Economic Analysis in 1954—the thesis of which I will describe in a moment—seems to have triggered a curious change in Stigler’s view of economic theory, from being the study of a certain objective human reality, to being an essentially sociological process. In 1955, Stigler announced that great economists are not those who turn out to be right, but “those who influence the

profession as a whole; and since “new ideas are even harder to sell than new products,” to become influential economists must necessarily use the “techniques of the huckster”: “repetition, inflated claims, and disproportionate emphases.” In Stigler’s writings before this date, Adam Smith received little positive notice. For example, Basic Readings in Price Theory, co-edited by Stigler, cited no fewer than four economists named Smith—but made not a single reference to Adam Smith. Yet by his 1964 presidential address to the American Economic Association, Stigler was constantly referring to Smith as “our venerable master”—demonstrating what he called in the same speech “that most irresistible of all the weapons of scholarship, infinite repetition.” Stigler was also actively discouraging students from studying the history of economic analysis, which by now was being revolutionized by its absorption of Schumpeter’s thesis. Stigler’s contribution to the inaugural issue of the journal History of Political Economy was an essay posing the question, “Does Economics Have a Useful Past?”—which he answered, explicitly opposing Schumpeter, in the negative.

Stigler’s motion three years later to scrap the history of theory requirement was therefore some years in the making. But the motion’s almost universal adoption has had two significant consequences for the teaching of economic theory in the United States. First, a whole generation of economists has been

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5 Ibid., 5.
7 George J. Stigler, “Does Economics Have a Useful Past?” History of Political Economy 1 (Fall 1969), reprinted in The Economist as Preacher and Other Essays, 107-118.
educated in ignorance of the history of their own discipline. Second, their professors, out of touch with that field, were free to propagate and foist wildly inaccurate “Whig histories of economics” on their students. A “Whig history,” of course, views the past as a grand ascent to the pinnacle of the present—namely, ourselves. A “Whig history of economics” begins by identifying some modern school, like the Chicago School or the Cambridge (a.k.a. Keynesian) School or the Austrian School, as the unsurpassable culmination of economic theory, and interprets the past in its terms. When it turns out that somebody else said the same thing a few centuries earlier (perhaps better) these are claimed as “forerunners”: as “proto-Chicagoans,” “proto-Keynesians” or “proto-Austrians,” according to taste.

In a sense, Stigler the Elder triumphed over both Schumpeter and the Stigler the Younger, but with a result that has brought its own punishment: the economic theory which he helped to steer now finds itself in a plight from which it can be rescued only by returning to its historical roots—from which it is now institutionally cut off.

Rather than interpreting the past in terms of modern economic theory, it is far more fruitful to proceed by a kind of triangulation: to begin by grasping the historical facts about economic theory, the better to understand its present state, and then compare both with the reality that the discipline is supposed to explain. Thanks in no small measure to Chicago-School “Smythology,” Adam Smith is popularly considered the ‘founder’ of economics. This is an insignia, as Schumpeter observed, “which none of his contemporaries would have thought of
bestowing on him." As Schumpeter pointed out in his *History of Economic Analysis*, "The fact is that the *Wealth of Nations* does not contain a single analytic idea, principle or method that was entirely new in 1776." As we will see, the indispensable elements of economic theory date from as much as 2,100 years earlier, and had been developing as an integrated system for more than 500 years before Smith. It was the "scholastic doctors" of the Middle Ages, Schumpeter concluded, "who come nearer than does any other group to having been the 'founders' of scientific economics." From elements first united by Thomas Aquinas (which, as we will see, he gathered entirely from Aristotle and Augustine), the scholastics fashioned all the analytical tools Smith found at hand when he wrote the *Wealth of Nations*—including some he rejected. Schumpeter traced the descent to Smith of most of these scholastic economic tools, developed but not greatly modified, through what he called the "Protestant or laic scholastics" of the 16th and 17th centuries, and the natural-law philosophers of the 18th century.

The last half-century of historical research has largely confirmed Schumpeter’s thesis, but qualified it in at least two significant ways. First, following “one of the shrewd proposals made by Schumpeter”—who had skipped almost directly from Aquinas to some late Spanish scholastics—historian

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9 Schumpeter (1954), 184.
10 Schumpeter (1954), 97.
Odd Langholm undertook the huge project of tracing the chain of custody of basic tools of economic analysis through the somewhat narrow but unbroken tradition of Latin Aristotle commentaries from the 13th to the 17th centuries. Langholm’s research showed that all the key elements had developed much sooner than the late scholastics (by the mid-14th rather than the 16th century), and that their development thrived on a clash of different schools rather than resulting from placid development within a single recognizably Thomist tradition.\textsuperscript{14} The fact that this development occurred well before the Reformation helps explain an otherwise mystifying fact, on which Schumpeter and Langholm agreed: there is no substantive difference on economic theory between Catholics and Protestants after the Reformation.\textsuperscript{15} For example, the economic analysis of the 16th-century Protestant Reformer Philip Melanchthon continues the tradition from Aquinas through Nicolas Oresme and Henry of Friemar, and Melanchthon’s Protestant followers carry it unchanged into the following century.\textsuperscript{16} Historian Henry William Spiegel further traced scholastic economic ideas to pre-Revolutionary Protestant America, for example, finding Puritan clergyman John Cotton’s (1584-1652) “rules of business behavior similar to those laid down by the medieval


\textsuperscript{15} Notwithstanding the famous debate about usury, which was essentially a disagreement about economic assumptions, not faith and morals.

schoolmen.”\textsuperscript{17} The other important finding to emerge since Schumpeter’s book is the central importance of St. Augustine for the “first things” of economic theory, which is rivaled only by Aristotle’s. Schumpeter had attributed Augustine’s economic ideas to Aquinas (adding that Augustine never “went into economic problems”). But the basic formula for scholastic economic theory turns out to be: Aristotle + Augustine = Aquinas.

Let’s consider the scholastic outline of economics, and then how Adam Smith and his successors tried to rearrange it. The basic premise of scholastic economic theory might seem so obvious that it hardly needs stating, yet the failure to grasp this point is the source of most of the embarrassment of modern economists: Economics is the study of a certain aspect of human action, and humans differ qualitatively from other animals. Humans are “rational animals,” as Aristotle put it, “made in the image and likeness of God,” as the Bible puts it. Intellect—the ability to grasp and express what things are—is what defines a “person.” Humans are, as far as we know, the only animals that are persons. Other animals are like us in having sense, imagination, memory, affections, aversions, and often considerable cleverness in calculating means—but not in possessing intellect. Other animals therefore have choice, but not free choice: they can choose their means, but not their ends, because their ends are determined by natural inclination. Persons can choose their ends as well as their means, and the ultimate end or purpose of every action by a person is some person(s).

Descriptive or “positive” economics. The outline of economic theory founded on this basis was both descriptive and prescriptive. As pure description, the scholastics recognized that there are three irreducible aspects inherent in all economic activity, at every level of analysis from a single person to the world economy—the utility, production, and final distribution of wealth. These three correspond, respectively, to the choice of means, the production of those means, and the choice of persons who are the ultimate ends or purposes of economic activity. The three aspects are united under conditions of equilibrium (which the scholastics, following Aristotle, called justice in exchange, or “commutative” justice). Since all four elements—three irreducible aspects and one unifying principle—are necessary, the order in which we consider them is somewhat arbitrary.

1. Utility. That economic value is based on utility was briefly suggested by Aristotle (Ethics V, 5), who called it chreia, or “need.” But the theory of utility, using the word in this sense, was first explicitly described by St. Augustine. When we consider things in themselves, Augustine said, we recognize a kind of “scale of being,” ascending from inanimate objects to living plants to sentient animals to rational humans to God. Each thing’s being, and thus its inherent goodness or value, is utterly unaffected by any human’s attitude toward it: It is what it is. “This is the scale according to the order of nature,” said Augustine, “but there is another gradation which employs utility as the criterion of value.”

18 City of God, Book XI, Chapter 16.
intended by the evaluating person. For example, Augustine noted, the intrinsic value of a live mouse—a sentient being—is obviously higher than that of a plant; yet most of us prefer loaves of bread (which are made from dead plants) rather than live mice in the house. Unlike the scale of being, a scale of preference according to utility is affected by the relative scarcity of the goods.

2. Production. Utility causes us not only to reappraise but also to rearrange the things we find in nature, to produce combinations we value more highly. This requires an account of how the valued means are produced. Aristotle explains in Politics I, 4 that “any piece of property can be regarded as a tool enabling a man to live; and his property is an assemblage of such tools.” Some tools are used to minister directly to human utility, while others minister indirectly, by helping to produce more tools. Finally, Aristotle observes that “tools may be animate as well as inanimate; a ship’s captain uses a lifeless rudder [for steering], but a living man for watch; for the worker in a craft is, from the point of view of the craft, one of its tools.” Thus wealth is of two kinds: what modern economists call “human capital” (the useful qualities of human persons) and “nonhuman capital” (the useful qualities of other things). To produce more of either usually requires a combination of both factors. In Aristotle’s day, both kinds of wealth were produced in the household—and slaves were a significant part of human capital. In modern times, the Christian understanding of the human person caused the abolition of slavery, and the economic functions of the ancient household differentiated into more specialized entities—notably the modern
business firm, which specializes in producing nonhuman goods, and the modern household, which specializes in “producing” and sustaining human persons.

3. Final distribution. The ranking of things, not by their inherent value but their value to us, involves the choice of both ends and means. While utility is the ranking of things as means, our ranking of persons as ends of economic activity is expressed in the distribution of those resources for final use. Augustine was not the first to say—as Emmanuel Kant would say long after him—that persons ought to be treated as ends and not merely as means. What sets Augustine apart as an analyst is his observation that every human does, as a matter of fact, always act with some person(s) as the ultimate end or purpose of action. Earlier philosophers had debated whether human happiness lay in making one’s highest good wealth or fame or virtue or pleasure, but Augustine sliced through all this. A miser is said to love money as his highest good, noted Augustine—yet he still parts with it to buy bread to continue living, showing that his deepest motive is love of self, not money.\(^{19}\) But it is not the case that every human acts solely for him- or herself. That is precisely what each person is free to decide. Every economic choice is therefore a moral choice.

Aristotle had noted that every community—whether a household, a business partnership or a society under a single government—necessarily has a principle for distributing its common goods among its members, which he called its “distributive justice.”\(^{20}\) Augustine extended this analysis to all goods, by observing that every human person, by virtue of his natural interdependence with

\(^{19}\) *On Christian doctrine*, I, 26.

\(^{20}\) *Ethics*, V, 3.
other human persons, also has a principle for distributing the use of his wealth between himself and other persons: his love for the other persons relative to himself. Generally speaking, we share our wealth with the people we love, and exchange it with people we don’t. (As we will see, the range of possible personal and political distributions is limited by the fact of scarcity.) Two persons agree to exchange when the persons who are the ends or purposes of their action do not coincide—for example, I want to provide for my family, not yours, while you want to provide for your family, not mine—but the means they have chosen do: I offer something useful to your family to receive something useful for mine. “The specific characteristic of an economic relation is not its ‘egoism,’ but its ‘non-tuism,’” as Philip Wicksteed pithily put it—tu of course being Latin for ‘Thou,’ as ego is for ‘I.’ “The economic relation does not exclude from my mind everyone but me, it potentially includes everyone but you.”

4. Equilibrium. The three irreducible aspects of economic activity (utility, production, and final distribution) can be present even without exchange. But ordinarily we are not considering a Robinson Crusoe, but members of a community integrated by exchange, money, and specialized production. Aristotle suggested that in such cases the compensation of producers comes from the sale of their product, and the amount depends on their respective contributions to the value of that product (Ethics V, 5). At least, this is how Thomas Aquinas’

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22 Philip H. Wicksteed, The Common Sense of Political Economy, edited with an introduction by Lionel Robbins, Routledge & Kegan Paul, London, 1933 [1910], 174. Though best known among economists for his contribution to the theory of marginal productivity, Wicksteed was a remarkable self-taught economist, former Unitarian minister and Dante scholar who, as a result of his interest in Dante, studied and translated both Aquinas and Aristotle.
teacher, Albert the Great, and all later scholastics read him. Equality of product value and factor income is necessary for economic \textit{equilibrium}, or justice in exchange, and for the very continuation of the economic system. But such equality can come about only in the absence of monopoly and other obstacles to an effectively functioning market, because only then can no one rig market prices to his own advantage. The price determined under such conditions was once called the “just price,” and now the “equilibrium price.” (The notion that the medieval just price was determined by distributive rather than commutative justice, and specifically by social status rather than economic conditions, is a mistake that has been traced to a late 19th-century British historian.\textsuperscript{23}) The immediate relevance of “justice in exchange” in a modern economy has been underscored recently by the economic damage to consumers, investors and workers that resulted from monopoly, insider trading, self-dealing and fraudulent business accounting.

\textbf{Prescriptive or “normative” economics.} The virtue of Augustine’s theory of choice is that it can describe the behavior of both the person who observes, and the person who violates, moral norms. The good and bad person alike require some wealth to live, find utility in real or imagined “goods” (not “bads”), and derive this utility from their love for some person or persons. The difference lies in the order in which these ends and means are ranked. The good man treats at least some person(s) other than himself as ends and only lower things as pure means, while the bad person may rank every person but himself

as mere means. The moral norm governing preferences for ends and means of economic action consists of the Two Great Commandments: “You shall love God with all your heart, soul and mind” and “You shall love your neighbor as yourself.”24 These are not “counsels of perfection,” intended only for believing Christians or Jews, but the rule of reason that naturally binds the conscience of everyone, everywhere, always—which for emphasis received the sanction of Hebrew and Christian revelation. No commandment, “You shall love yourself,” is necessary, explains Augustine, because everyone naturally loves himself. The whole problem is to love ourselves “ordinately”; that is, while observing the proper ranking of persons as ends and instrumental goods as means.

Augustine, and Aquinas following him, placed the fact of scarcity squarely at the center of moral decision-making. At the personal level, since love always means willing some person some good, noted Augustine, what it means to “love your neighbor as yourself” depends critically on whether the good in question is “diminished by being shared with others”—that is, scarce.25 What we can always do for others is avoid harming them, which is why there are no exceptions to the prohibitions against murder, theft, adultery, and so on. But the share of one’s scarce goods that can be distributed to others is practically limited, because no one, however rich, can share equally with everyone and still leave himself enough to live on. (If you doubt this, try a thought experiment: divide your income or wealth by 6.3 billion. That’s your share if you love everyone in the world, including yourself, equally.) This means that, when scarce goods are involved,

“loving your neighbor as yourself” cannot mean loving your neighbor equally with yourself. “Since you cannot do good to all,” wrote Augustine, “you are to pay special regard to those who, by the accidents of time, or place, or circumstance, are brought into closer connection with you”. The Good Samaritan is the classic case of “loving your neighbor as yourself.” He loved the man he found beaten by robbers “as himself” by regarding him as a person like himself; but he did not divide his property equally with him. The economic value of the time and the two coins he gave to care for the man probably amounted to half his wages for the week—not for the year or his whole life. This was a generous but a human—not a superhuman—act, and everyone should be prepared for such a “doable” sacrifice to prevent the death or extreme misery of a fellow human.

The same is true of decisions at the political level. But here the limits imposed by the fact of scarcity also apply: the equality of shares that can actually be practiced in a group the size of a household cannot be extended to a whole nation or the world. A political commonwealth ordinarily does require some “common wealth” to promote the common good. But the fact of scarcity requires that most property be privately owned, because in administering scarce goods, private ownership has the triple advantages of greater productivity, order (specialized knowledge), and social peace. Yet the ownership of wealth does not necessarily coincide with its use: that is the whole point of making decisions about its final distribution. However, scarcity creates an asymmetry between what political scientists are pleased to call “negative rights” (like the right to

remain unharmed in one’s own person and property) and “positive rights” (such as a certain level of income), since enforcement of the latter is always relative to the ability to pay for them.

**The development of economic theory.** One way to understand the development of economic theory since the 13th century is to trace the development of each of the basic elements I have described. The detail and sophistication of each element has advanced considerably, especially since the invention of mathematical calculus in the 17th Century. But the reason we have a mathematical theory of economics today is that Aristotle and Augustine recognized from the beginning that the objective aspect of justice and of loving your neighbor with finite goods can be described in mathematical terms. In fact, the elements I have described in words can also be stated as a set of economic equations, which an economist might call the “utility function,” the “production function,” the “distribution function,” and the “equilibrium conditions.” [Rather than speaking of different *theories*, we must usually speak of different *assumptions*. This is because economic goods are still valued, produced, exchanged, and distributed to their final users, whether or not economists describe it accurately. If they describe it at all, economists must still deal somehow with those realities. In practice, what distinguishes scholastic economics, the “classical” economics inaugurated by Adam Smith, and the various strains of modern “neoclassical” economics, is whether all the variables actually vary, or whether some are left undefined or implicitly replaced with constants.]
Tracing the development of each element through time can be fascinating, but in doing so, even in severely truncated form, it is easy for both economist and non-economist to lose the forest for the trees. Since I wish to call attention to changes in the overall structure of economic theory as perceived by economists—to show how the forest has changed—I will therefore bracket my discussion of the development of each element for those who are interested (the attached table is intended to help the reader follow the narrative), and instead make a standing broad jump across 750 years of development to the present, to see what we find.

What we find is that nearly all modern economists are trained to recognize and use mathematical forms of the first, second and fourth elements of the scholastic framework—utility, production and equilibrium—but not the third, which I have called final distribution.28 This is odd, since Aristotle and Augustine both gave its mathematical formula. And it means one of two things: Either I erred in claiming that the scholastic outline of economic theory was and remains a logically complete and compact description of economic activity, without any superfluous element; or else—as I in fact maintain—there is a large logical “hole” in modern economic theory. How did this “hole” come about? In short, Adam Smith created two holes in the economic theory he inherited, and his successors have so far succeeded in plugging only one.

28 I say “final” distribution, because, confusingly, there is an old tradition among economists of using the term “distribution” to mean what is now generally called “compensation”—how the income of the factors of production is determined.
Classical economics. I will hold until later the interesting question of why Adam Smith did what he did, to consider first what he did to the structure of economic theory. Smith and his “classical” followers advanced the theory of production and explored some important implications of equilibrium. But in the Theory of Moral Sentiments, Smith explicitly rejected the scholastic theories of utility and final distribution.\(^{29}\) In the Wealth of Nations, he argued that if the scholastic theory of value based on utility were replaced with a labor-input theory,\(^{30}\) value and final distribution would be automatically explained. A couple of classical economists (notably Jean-Baptiste Say and Nassau Senior) maintained the scholastic theory of value, but most followed Smith in adopting some form of the labor-input theory. It was Schumpeter’s judgment that this “time- and labor-consuming detour”\(^ {31}\) retarded the progress of economic theory by about 80 years.\(^ {32}\) Schumpeter reasoned that if economists had started from, say, Baron de Turgot’s roughly contemporaneous synthesis of scholastic tools rather than Smith’s, they could have accomplished in 20 years what actually took 100 years after the Wealth of Nations. The inadequacy of Smith’s theory of value certainly accounts for most of the confusion in economics between 1776 and 1870, and was indirectly responsible for Karl Marx.

The labor-input theory was actually proposed by a minor cleric in the 15\(^{th}\) century and rejected at once as a fallacy (though its refutation stimulated a

\(^{29}\) Adam Smith (1976 [1759]), The Theory of Moral Sentiments, Oxford University Press, IV.1; 179-187.

\(^{30}\) Book I, Chapters IV and V.

\(^{31}\) Schumpeter (1954), 97, 308-311.

\(^{32}\) History of Economic Analysis, 249.
deeper understanding of the way in which the factors of production are compensated). The labor-input theory says that goods will have “natural” prices proportional to the amounts of labor it takes to produce them. To use one of Smith’s examples, if it takes one hour to trap a beaver and two hours to bag a deer, two beavers should exchange for one deer. Despite its shortcomings, the approach enabled the classical economists to explore many aspects of production and equilibrium, such as the gains from exchange and specialization. However, the labor-input theory is superficially plausible only if there is no other factor of production—that is, only if workers use no tools (for example, if the hunter chases and strangles the beaver or deer with his bare hands). Even on that extreme assumption, as Wicksteed pointed out in refuting Karl Marx, the reasoning is backwards: “a coat is not worth eight times as much as a hat to the community, because it takes eight times as long to make it,” he wrote; rather, “the community is willing to devote eight times as long to the making of a coat, because when made it will be worth eight times as much to it.”

Without a theory of utility, the classical economists could not explain the exchange value of labor itself, nor the long-run “natural” prices of non-producible goods, nor the actual market prices of any goods. And lacking a theory of final distribution, the classical economists routinely assumed that no one ever shares his or her income with anyone else, either by personal or political choice. Hence the caricature of self-seeking homo oeconomicus, and the heavy reliance on an “invisible hand.”

Neoclassical economics. After economists had been sufficiently embarrassed by some laymen lampooning *homo oeconomicus*—and perhaps even more by others pontificating about him—as well as by the spectacular failure of their predictions about real income, economists started a major housecleaning in economic theory. Beginning in the 1870s, “neoclassical” economists rejected the labor-input theory of value and reinvented a modernized theory of value based on *utility*. The only advance in technique was to reduce what seemed to the scholastics to be two principles, utility and scarcity, into a single principle, “*marginal utility*”: the exchange value of any good is derived, not from the total utility of all units of the good, but from the *difference* made by one unit more or less—which, for scarce goods, always declines after a certain point as the quantity increases.

The neoclassical economists had (and their modern followers still have) important differences about the precise meaning of *utility*, and about the meaning and even the existence of *equilibrium*.

The *utility* theory was independently but almost simultaneously reinvented by William Stanley Jevons (1835-1882) in Manchester, England, Leon Walras (1834-1910) in Lausanne, Switzerland, and Carl Menger (1841-1921) in Vienna, Austria. Most economists on the Continent gravitated toward Augustine’s original notion of “*ordinal*” utility—utility as a ranking or order of preference for goods. But most English-speaking economists, under the influence of Jeremy Bentham’s Utilitarianism, at first interpreted utility as a *thing*, a physiological quantum of pleasure, which Bentham had supposed to be the motive of all human (and animal)
behavior. It took several decades of confusion before the Utilitarian notion of “cardinal” or absolute utility was rejected (at least temporarily) by English-speaking economists as unscientific (because unverifiable), and ordinal utility was generally adopted. That was the main point of Lionel Robbins’ classic 1932 definition, “Economics is the science which studies human behavior as a relationship between ends and scarce means that have alternate uses.” Utility is not a thing, but a relation between a person and a thing. Robbins wrote that this definition was a paraphrase of Wicksteed (note the mention of both ends and means).

There were also differences about the meaning and even the existence of equilibrium. Walras was the first to work out a theory of “general” equilibrium: the process by which equality of exchange values comes about for all participants in connected markets. But the most influential English neoclassical economist, Alfred Marshall, assumed only “partial” equilibrium—holding most things constant, which is easier but often seriously misleading. Menger focused on exchange between isolated individuals—for whom the gains from exchange are not necessarily equal or even comparable—and reasoned from this special case that there can be no such thing as equality of exchange value, justice in exchange, or equilibrium. Most of his “Austrian” followers today reject even the mathematical description of economic events (and, without equilibrium, mathematical description would show the Austrian system logically incomplete). Without mathematical treatment, empirical verification is also virtually impossible; as a result, despite impressive beginnings, Austrian economics has made itself virtually irrelevant.
A parenthesis on production. The element on which there has been the most noticeable progress over time is the theory of production, which no school ever tried to do without. Here we can see most clearly what I mean by saying that economists differ mostly in their assumptions, not their theories. The scholastic “economists” certainly knew the “nature and causes of the wealth of nations”: that’s what the whole structure of economic theory, and particularly the theory of production, is about. But the scholastics routinely assumed that the population and its standard of living do not increase, because until the end of the Middle Ages, mankind had never experienced a noticeable increase of either. Average life expectancy in England in the 14th and early 15th centuries—24 years—was about the same as it had been in Roman Egypt.34 But a decline in mortality caused life expectancy to rise to about 37 years by the start of the 17th century, about 150 years before Adam Smith was writing. The classical economists were chiefly concerned with the most obvious result: population growth, which averaged an unprecedented 0.76% a year in today’s United Kingdom between 1700 and 1820—a rate doubling the population every century.35 (Per capita real income also seems to have increased in the same period, but at a far less noticeable 0.26% average annual rate, which couldn’t be measured accurately at the time.)

Economics earned the title “the dismal science” because the classical economists routinely assumed that the population may increase, but that land, technology, skills and “tools” per worker are all “given.” Under these conditions,

35 Ibid., Table B-13.
real income *per capita* cannot rise: a rise in wages leads to a rise in population, which leads to a fall in wages. This might be called the “Mouse Assumption,” since humans were assumed to “breed like mice in a barn,” while the barn stayed about the same size. The Mouse Assumption, not economic theory, was the basis of Thomas Malthus’ and David Ricardo’s “Iron Law of [Supposedly Unraisable] Wages” and (in slightly different form) of Karl Marx’s theory of the inevitable “immiseration” of workers. Both predictions were utterly routed when annual population growth accelerated to 0.83% between 1820 and 1913, yet annual growth of real per capita income jumped to 1.14%—which meant that the real size of the economy was now doubling every generation.

The neoclassical economists initially reacted against this failure by roughly reversing the classical economists’ assumptions about *production*: They routinely assumed that the population is “given,” while investment in tangible non-human capital (buildings and machines) may respond to its rate of return. This might be called the “Stork Assumption,” since it literally means that adult workers spring from nowhere, as if brought by a large Economic Stork. Under the Stork Assumption, the accumulation of workers’ tools—buildings and machines—is the only possible source of economic growth. Moreover, under the Stork Assumption the total tax burden not only should, but inevitably must, fall entirely upon the incomes of workers—who by assumption cannot avoid it, for example by having fewer children, as property owners could by investing less. The Stork Assumption, not economic theory, underlies the perennial proposals to abolish
taxes on property income, which are advocated chiefly by a cottage industry of economists centered in Washington, D.C.

However, economists using neoclassical assumptions proved unable to account for most of the economic growth in developed countries like Germany, Japan, and the United States, especially after the Second World War. In 1960, Theodore W. Schultz therefore proposed what came to be known as the “total capital” hypothesis. Most of the missing growth, Schultz theorized, was probably the result of a failure to measure what he termed “human capital”—the economically useful qualities embodied in human beings.\(^{36}\) The “total capital” theory remains recognizably Aristotle’s theory of production, in that it recognizes the same forms of wealth—tangible and intangible human capital, tangible and intangible nonhuman capital—but for the first time, all the variables in production actually vary. John W. Kendrick showed that the “total capital theory” is able to account for all of U.S. economic growth since 1929, and that Schultz’s surmise was basically correct: growth of “human capital” accounts for about two-thirds of economic growth in the United States, while growth of nonhuman capital (including “intangible” research and development as well as tangible investment) accounts for the rest.\(^{37}\)

To resume the narrative, utility theory was reintegrated with the theory of production by about 1910. It came as a jolt, however, when “neoclassical”


economists were forced to recognize that *utility*, *production* and *equilibrium* combined are still not a complete description of economic activity. There is at least one possible market *equilibrium* for every possible distribution of income or wealth. And the neoclassical economists still had no descriptive theory of *final distribution*.

To summarize briefly, the scholastic outline of economic theory included four elements: *utility*, *production*, *final distribution*, and *equilibrium*. The “classical” economics initiated by Adam Smith advanced the theory of *production* and retained the theory of *equilibrium*, but rejected the theories of *utility* and *final distribution*. Modern “neoclassical” economics has restored and modernized the *utility* theory of value, further deepened the understanding of *equilibrium* and further advanced the theory of *production*, but has grappled unsuccessfully for over a century with problems created by the absence of a theory of *final distribution*. The history of economics I have given is highly schematic, but should be sufficient to understand the growing embarrassment of economists at the current state of economic theory. This embarrassment has been multiplied rather than diminished by the many other interesting developments in economic theory, ranging from game theory to experimental economics, since none addresses the problem and each spreads it to a new branch (or twig) of theory.

In the past century, economists have tried two basic strategies for dealing with this analytical “hole,” without success. The first has been to try to quarantine the problem by labeling it “normative.” This hasn’t worked because, while questions of *final distribution* certainly involve “normative” or moral judgments,
what I am describing is fundamentally an analytical or “positive” failure: the absence of an accurate, empirically verifiable description of how people actually choose—right or wrongly—to distribute the use of their resources even within a single household. The other basic strategy has been to try to derive final distribution somehow from utility—in effect, to assume that the economic means determine the economic ends, rather than vice versa. Wherever this method has been applied—notably in “welfare economics” and in applications of what Stigler and Gary S. Becker have called the “economic approach to human behavior”—the same two problems have emerged: the theory uses circular logic, and when not empirically false, produces few if any falsifiable hypotheses.

In welfare economics, the problem is expressed in what Paul Samuelson termed the “individualistic social welfare function.” That is, policymakers (advised by economists) are assumed to be able not only to know the utility preferences of all individuals in a society—each of whom is supposed to be purely selfish in matters of distribution—but also to be able to add up these preferences and determine the appropriate distribution of wealth or income for the whole society. But adding preferences is not possible without first assigning a “weight” for each person—which, in matters of final distribution, is essentially the thing to be determined. Thus we run into circular logic. Moreover, there is another important detail: policymakers cannot actually dispose of all wealth or income in society, only the fraction directly controlled by the government. As a result, apart from helping economists to clarify their concepts, welfare economics has had remarkably little of interest to say to policymakers.
In microeconomic theory, the same problem is reflected in Becker’s ambitious attempt to reduce all human behavior, including love and hate, to a matter of utility. Non-economists are understandably put off by being told, as some of Becker’s students colorfully put it, that a mother “extracts utility from the number of her children \((n)\) and the quality, or well-being \((z)\), of each one of them.”

But consider the immense practical problems this approach has created for economists. Becker defines love or “altruism” as gaining utility from someone else’s utility, and hate as having one’s utility diminished by someone else’s utility. He defines the sum of utility from all sources (not just one’s own) as one’s “social income.” Take a simple example: husband and wife. If each were purely selfish, in Becker’s terms, each would derive utility only from his or her own consumption. If each were perfectly “altruistic,” each would derive as much utility from the spouse’s as from his or her own consumption. But if the husband gets utility from the wife’s utility, and the wife from the husband’s utility, then the husband must get utility from the wife’s getting utility from husband’s utility, and the wife must get utility from the husband’s getting utility from the wife’s utility—and so on. As Becker has admitted, this is an “infinite regress,” and can be given a sensible interpretation only if limits are arbitrarily imposed on the permissible degree of “altruism.” But that is only part of the problem. How could one possibly test such a theory? If both husband and wife are purely selfish, in Becker’s theory, the appropriate measure of their “social income” is their actual income, because each gains utility only from consuming his or her share. But if both

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husband and wife are perfectly altruistic, according to Becker, the appropriate measure is twice their actual income, because each gains utility from his or her own and his or her spouse’s share. Similarly, in a family of five, the appropriate measure of “social income” would be between one and five times actual income, depending on the degree of altruism of each person. And in a family with two parents and 12 children—I grew up in such a family—the appropriate measure is anywhere between one and 14 times actual income. For empirical researchers, that way lies madness. The problem with the whole approach, as Augustine was the first to explain, is that love cannot be based on utility, for the simple reason that utility is derived from love.

The logic of my analysis suggests that, before long, we will witness the emergence of a school of what, for want of a better term, might be called “natural-law” or “neo-scholastic” economists. These economists will have four characteristics: they will retain the modernized theories of (ordinal) utility, of (general) equilibrium, and the advances in the theory of production, but above all, will institute an updated version of the scholastic theory of final distribution. Such economists, if they choose, can look forward to full employment for at least a generation from the rewriting of micro- and macroeconomic theory that this will entail, and from challenging defenders of the current neoclassical approach to empirical tests against the new paradigm, on a whole range of issues from the allocation of time to the theory of crime to the analysis of personal and political income distribution.
However, in making this prediction, I must caution against expecting this development to be very rapid, for the same reason with which I began: the general ignorance of economists about the history of their own discipline, which has been institutionalized now for a generation. The one sure way to reverse this ignorance would be to re-impose the general requirement that economists learn the history of their own discipline. No matter how poorly the subject were taught, professors of economics and their students would be forced to deal with the historical facts, the merest acquaintance with which would require them to abandon (or at least to become far more ingenious in devising) Whig histories of economics. But even if the requirement were universally re-adopted today, we would still have to live with the reality of a whole (and in the United States, particularly large) generation of economists whose investment in education was largely misallocated.

Both the glimmerings of hope, and an indication of how far in the future the substance of this hope remains, can be gauged from Jennifer Roback Morse’s interesting recent book, *Love and Economics*, in which Dr. Morse reflects on the collision between her training as a libertarian economist and the empirical reality of her experience as a wife and mother. On the one hand, she relates her discovery, in which many will see their own life-experiences reflected, that the key to personal fulfillment is not to be found in maximizing one’s own utility, nor yet in love considered as an emotion, but rather in the classic scholastic definition: “To love is to will and to do the good of another.” On the

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other hand, Mrs. Morse’s main conclusion is a “normative” one: that this is how we ought to behave. She writes that both the current state of economic theory and libertarian political philosophy are “pretty much the right path. The question is whether these ideas apply as well to our personal lives.”

Once one reaches this point—I speak from experience—it is necessary either to go forward or to go back, and both are existentially, and often also professionally, painful. (If you go forward, don’t expect to be published again in the Wall Street Journal or Forbes Magazine). But to remain in the present state is to subscribe to a version of the “Two Truths” theory, like Siger of Brabant, who argued that it is possible to affirm as a Christian what one simultaneously denies as a philosopher. To pose clearly what we are asked being to affirm or deny, let me close by considering some of the strategies we observe frequently used in an effort to avoid such a decision—all of which involve associating oneself with a Whig history of economics that is factually false.

The first failed strategy is to believe that one must somehow come to terms with, or “baptize,” Adam Smith. This is totally unnecessary for the sake of economic theory. As we have seen, it was Schumpeter’s opinion that economic theory would be none the worse, and possibly in better shape today, if all trace of Adam Smith disappeared. However, economic theory would have been still-born if every trace of either Aristotle or Augustine disappeared. The question therefore is whether one wishes to adopt Smith’s world-view, not his economics.

\[\text{Ibid., 4.}\]
There are two keys to understanding Adam Smith, as both philosopher and economist. The first is that it was Smith’s ambition to do for moral philosophy what he believed Isaac Newton had done for natural science: to reduce all its phenomena to a single familiar principle like gravity. The second is that, having rejected Christianity long before writing the *Wealth of Nations*, Smith viewed himself as a Stoic philosopher, and Stoics are pantheists. It is pointless to “baptize” Smith, because he was baptized, and rejected it. The Stoics viewed “the whole of Nature,” as Smith put it in an unpublished manuscript, “to be animated by a Universal Deity, to be itself a Divinity, an Animal. . . whose body was the solid and sensible parts of Nature, and whose soul was that aetherial Fire, which penetrated and actuated the whole.”\(^41\) Smith never put it so baldly in his published writings—to do so would have destroyed both his reputation and his career—but this is the basic idea behind his famous “invisible hand.”

The first motive led Smith to oversimplify the economic theory he had inherited, by collapsing the three irreducible aspects of economic activity (*utility*, *production*, *final distribution*) into one. The second motive determined which elements Smith tried to leave out. As a Stoic philosopher, Smith contended that the valuation and final distribution of wealth are not the result of the purposeful choices of humans, but are rather the inscrutable result of (the Stoic version of) “Providence,” which systematically engages the vast majority of humans in a “deception”\(^42\) about the true value of things. This divine deception, according to

\(^{41}\) Adam Smith [1795], “Essays on Philosophical Subjects,” in *The Early Writings of Adam Smith*, edited by J. Ralph Lindgren, Augustus M. Kelley, New York, 1967, 120.

\(^{42}\) Adam Smith, Theory of Moral Sentiments IV.1.9-10.
Smith, is what “roused and keeps in continual motion the industry of mankind,” by leading most people into vice, and only a rare few Stoic sages (like Smith) into virtue. The rich are goaded by “vain and insatiable desires” into “selfishness and rapacity,” while the “mob of mankind” is corrupted by envy of the rich. But the result, according to Smith, is that “They are led by an invisible hand to make nearly the same distribution of the necessaries of life, which would have been made, had the earth been divided into equal portions among its inhabitants”—a highly dubious empirical claim, in either the 18th or 21st century.

Along with the Stoic view of Providence necessarily goes a certain view of human nature, which is also expressed in Smith’s economic theory. In a sense, Smith succeeded in his ambition of putting economic theory on the same footing as natural science. Near the beginning of the Wealth of Nations, Smith says that it doesn’t matter for purposes of economic analysis whether the “propensity. . . to truck, barter and exchange” is due to some basic instinct or is the necessary consequence of reason and speech.43 It didn’t matter to Smith because, by denying to humans both the choice of persons as ends of economic activity (final distribution) and of things as means (utility), Smith’s economic theory reduced humans to the level of inanimate objects, which do not act but are only acted upon. The metaphor of the “invisible hand” is particularly apt, because in Smith’s Stoic philosophy humans are essentially God’s puppets, whose action depends entirely on hidden manipulation. And there has always been a link between pantheism—that is, belief in a God who is real enough to be immanent, but not

43 Book I, Chapter II.
real enough to be transcendent—and condoning an ethic of selfishness. As Chesterton put it, that Jones shall worship the god within ultimately turns out to mean that Jones shall worship Jones.

Economics is the same everywhere, but there is an important implication for our understanding of the American Founding. One of the master-strokes of Chicago-School “Smythology” was the rhetorical linkage, which originated with Milton Friedman, of the “invisible hand” of the Wealth of Nations with the “Creator” mentioned in the Declaration of Independence, based on the coincidence that both documents were published in the same year. Countless American politicians, editorialists, speech-writers, columnists, and ordinary citizens, especially conservatives, have woven this notion into the fabric of their own world-views. The trouble is that you must choose either Smith’s “invisible hand” or a Creator who endows humans with certain unalienable rights, but you can’t have both—because Smith’s Deity is decidedly not a Creator and Smith’s humans are decidedly not creatures. Smith’s characteristic description of God is not (as it would have been for most of his readers) the “Creator” but instead “the great Superintendant” or “the great Conductor of the Universe”\[44\] -- a conductor who, as it were, is still very much part of the orchestra. I have been unable to find a single case in which Smith refers unambiguously to creation ex nihilo (and don’t expect to).

If we reject Smith’s “invisible hand,” as we must, our choice, however, is not between order in markets and no order in markets—such order is an

\[44\] TMS VI.ii.3.4.
empirical fact, not a theory—but between a better and a worse explanation of that order. As a by-product of responding to the Stoics’ failure to reconcile the free will of God and man, Augustine devised an earlier and far superior theory of the order in markets, which he called the “image or trace of equity... stamped on the business transactions of men by the Supreme Equity.” Not as catchy as “invisible hand,” perhaps, but as Augustine explained elsewhere, he preferred not to use anthropomorphic metaphors about God because his audience—his recently de-paganized flock—was so literal-minded. In contrast to Smith, who would claim that economic order results equally from divinely instigated virtue (a kind of order) and divinely caused vice (a dis-order), and is always maximized, Augustine said that the order in markets (and the rest of society) is due to the natural inclination to good that always remains in people despite—not because of—their vices. This order is real and ineradicable, but also imperfect and variable; it can always be improved by increasing the degree of virtue: selfishness is never more "efficient" than virtue. In this way, Augustine escaped the logical contradiction that snared Smith’s invisible hand.

Many who sense the problems with Smith’s Stoic philosophy have turned to various neo-classical versions of Whig economic history, which however are also based on an impartial understanding of what it is they are embracing. It is not uncommon, for example, to hear Catholic non-economists say that with the "personalism" described in Catholic papal encyclicals can be identified with "Austrian" economic theory, because Pope John Paul II’s phenomenology

45 Questions for Simplicianus, I.II.16.
sometimes refers to the human person as the “subject,” and Austrian economists are pleased to call the theory of ordinal utility a “subjective” theory of value. Or, because Gary Becker analyzes the household and the family, others see in Becker’s “economic approach to human behavior” a kind of pro-family “personalism.”

Now, compared with classical economic theory, neoclassical economic theory in all its branches, by recognizing the choice of means (utility), succeeded in raising humans at least to the level of animals. But there it has left them. This is most obvious in the case of economists, like Gary Becker, who cite Jeremy Bentham in identifying utility with pleasure or the avoidance of pain, which might be termed the “Great Ape Assumption,” since it is identical with philosopher Peter Singer’s premise that humans are merely a collateral branch of the Great Apes (though perhaps slightly more clever). Singer’s basic premise is simply to redefine intelligence or reason as one’s degree of sentience or cleverness.

However, as Singer points out, Utilitarianism comes in two flavors nowadays: “classical” Utilitarianism, which retains the original Benthamite equation of utility with sensation, and “preference” Utilitarianism, which has taken on board the objections to the crude version, and which interprets utility approximately as “getting one’s own way.” Singer himself switches between the two, depending on the issue. What is common to both is the restriction of human choice to the choice of means, ignoring the fact that persons also choose their ends or purposes, and that those purposes are ultimately persons.
From this point of view, “Austrian” economics is nothing more nor less than “preference Utilitarianism.” Ludwig von Mises was quite insistent that Austrian economic theory follows “methodological individualism” (to which, in his impoverished philosophical view, the only possible alternative is “methodological collectivism”). Austrian economics cannot, by any stretch of the imagination, be considered “methodological personalism,” for two reasons. First, persons choose their economic ends as well as their means, and Austrian theory has no theory of final distribution, which describes the choice of persons as ends of economic action. Second, Austrian theory is almost alone in rejecting outright the notion of equilibrium or justice in exchange, which is necessary for persons to live in society.

The encyclical Centesimus Annus is rightly held in high esteem by “natural lawyers both inside and outside the Catholic Church. One of the best things about it is that it contains so little economic theory, but what there is is well-informed. But I am told that it has “absolutely no traction” in Latin America and other parts of the developing world. The reason, I suggest, is that, whatever other errors may account for this resistance, what reasonable people hear from those who tout the encyclical is that they must first become Stoics or Utilitarians, or join the Chicago School, in order to accept its teaching. If so, resistance uncovers a sound instinct.

Both the original scholastic economics and the modernized “neo-scholastic” or “natural law” economics that I see emerging provide a “methodological personalism” that has a precise content, rather than a vague
gloss on theories that do not match the description. By embracing all the necessary elements of human economic activity—the choice of means, the production of means, the choice of persons as ends, and justice in exchange—they offer, in contrast to an “economic approach to human behavior” that does not differ from an economic approach to the behavior of other animals, a specifically “human approach to economic behavior.”
# A Comparison of Economic Schools

<table>
<thead>
<tr>
<th>Economic theory:</th>
<th>Choice of means</th>
<th>Production of means</th>
<th>Choice of ends</th>
<th>Justice in exchange</th>
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<tr>
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<tr>
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<td>Yes (none)</td>
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<td>Yes</td>
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<tr>
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<tr>
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<td>Yes (partial)</td>
</tr>
<tr>
<td>(1871-):</td>
<td></td>
<td>(tangible nonhuman)</td>
<td></td>
<td>Yes (general)</td>
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