Economics has little to say about ideology and even less to say about how it affects choices and economic performance. By ideology I mean the subjective perceptions that people have about what the world is like and what it ought to be; ideology therefore affects people's perceptions about the fairness or justice of the institutions of a political economic system. By institutions, I mean the humanly devised constraints on repeated human interaction, that is, the rules of the game—both formal rules and informal norms of behavior and the way they are enforced.

In the real world we regularly observe commitment or alienation resulting in individuals living up to agreements when they would be better off defecting or, conversely, devoting resources to altering the rules when they could be free-riding. Subjective perceptions would make no difference were individuals perfectly constrained by rules, but in fact both institutions and the costliness of measuring performance permit subjective perceptions of fairness and justice to matter. They affect economic outcomes both directly, by the attitudes of the labor force toward shirking, cheating, stealing, sabotage; or conversely, working hard, living up to the spirit as well as the letter of agreements; and indirectly, via participation in the political process.

While this essay is concerned with ideological attitudes and their consequences in terms of both their direct effect on the quantity and...
quality of output and their indirect effect through the political process, the primary focus is upon the latter. I begin with a skeletal analytical framework of the exchange process and its implications for the subjective perceptions individuals have of the fairness and justice of institutions. Then I examine the Second Economic Revolution, which transformed the productive potential of Western economies, and the consequent implications for ideological perceptions. In the last section I explore some of the implications of this analysis.

Transaction Costs and the Fairness and Justice of Institutions

Ever since Adam Smith, economists have recognized that the gains from trade are the key to the wealth of nations. What has been missing from the analysis of economists until recently is the recognition that this exchange process is not costless. Indeed, a key argument to be advanced in this paper is that the costs of transacting associated with the exchange process are a fundamental source of the success or failure of economies. When economists have looked at transaction costs, they have typically misunderstood the role such costs play, either regarding them as unproductive—as in the classical notion of unproductive labor—or contending that transaction costs exist but are passive and therefore unimportant, that is, neutral with respect to the consequences for economies. Both of these perceptions, as well as the traditional neoclassical perception that the exchange process is costless, have fundamentally misdirected research in economics. There have always been gains from trade, as classical international trade theory has taught, but there have also always been obstacles to achieving the gains from trade. These obstacles are not just transportation costs, which as they declined in history should have led to growing specialization and division of labor; they also are the costs of human organization and the problems of human cooperation and coordination.

These problems of cooperation and coordination can be illustrated by comparing two polar extremes in the exchange process. In one, simple personal exchange, individuals engage in repeated dealings with each other or otherwise have a great deal of knowledge about the other parties in the exchange process. The costs of transacting in such a society are very low because of the dense social network of interaction. Cheating, shirking, opportunism, all characteristics of modern industrial organization, are limited or indeed absent, because they simply do not pay. Norms of behavior are seldom written down and formal contracting typically does not exist. Indeed, there is little
need for formal, specific rules. While measured transaction costs in such societies are low (although there may be substantial costs of societal cooperation in small-scale societies), production costs are very high, because specialization and division of labor are limited by the extent of the market defined by personal exchange.

At the other extreme, a world of specialization and division of labor, interdependency characterizes the entire structure, and therefore the exchange process extends over time and space. Impersonal exchange characterizes the total exchange process, with people having no individual knowledge of the other partner in exchange. In this form of exchange, the costs of transacting therefore may be high, because of all the problems of measuring what one is getting in exchange and of ensuring that the contracts will be carried out by the other party. In consequence, the gains to be achieved by cheating, shirking, opportunism, etc., rise dramatically. In successful Western societies, these costly aspects of transacting are minimized by elaborate institutional structures devised to constrain the participants and so make the exchange worthwhile. As a result, we have formal contracts, bonding of participants, guarantees, trade names, elaborate monitoring systems, and effective enforcement mechanisms. In short, we have well-specified and well-enforced property rights. The resources devoted to transacting are large (although small per transaction), but in consequence the productivity associated with the gains from trade are even greater and are responsible for the high rates of growth that have characterized Western societies. However, it should be pointed out right away that the institutions that have made possible relatively low costs of transacting in turn depend upon even more fundamental political economic institutions, ones that undergird the entire system. It is this complex of institutions that is the subject of the analysis here and that is at issue when we examine the perceptions people have about the fairness and justice of the institutional structure.

The major implication of the institutional structure that makes possible specialization and division of labor and therefore low costs of transacting per unit of exchange is that individuals are able to engage in complex relationships with other individuals about whom they have no personal knowledge. The institutional structure reduces the uncertainties associated with contract fulfillment as a consequence of enforcing reliable forms of exchange. This is possible only as a result of the development of a third party to exchanges, namely government, which specifies property rights and enforces contracts.

Much of the recent literature involved in game theory, in particular the literature that has followed Robert Axelrod's influential book, *The Evolution of Cooperation* (1984), has implied that the develop-
ment of more complex forms of cooperation is an inevitable process of institutional development. Yet, human economic history does not bear out this optimistic perception of the world. Thoughout history, failures and the inability of societies to develop are far more common than are success stories. Even in the modern world successful economies, as measured by per capita income, are still in the minority. The vast majority of economies remain underdeveloped and are characterized by inefficient systems of exchange. The movement from personal exchange to impersonal exchange poses fundamental dilemmas with respect to societal cooperation. The breakdown of personal exchange is the breakdown not just of a dense communication network, but of communities of common ideological perception and of a common set of rules that all believe in. The rise of impersonal rules and contracts means the rise of the state and with it an unequal distribution of coercive power. Such distribution provides the opportunity for individuals with superior coercive power to enforce rules to their own advantage, regardless of their effects on efficiency. Not only has the rise of the state typically induced inefficient property rights; the growth of specialization has also produced another adverse consequence with respect to human cooperation: with growing specialization, common ideologies and norms of behavior break down as people have increasingly different experiences and hence different perceptions of the world around them.

The creation of new rules does not necessarily provide stable forms of behavior, and in fact the process of adjustment of new formal rules (that is, the devising of norms of behavior that will be consistent with and complementary to rules) is long and slow. It took almost 500 years for the Western world to evolve forms of organization and institutions that made possible the world of specialization that we observe.

Let me summarize the dilemma of cooperation with respect to the development of modern complex economies. There are four major variables involved in the costliness of exchange. The first is the cost of measuring the valuable attributes of the goods and services being exchanged or of measuring the performance of agents. What I mean by measurement here is particular kinds of information that undergirds the efficiency of property rights. Property rights consist of a bundle of rights, and to the degree that we cannot measure precisely what is being exchanged, then the costs of transacting and the uncertainties associated with transacting rise dramatically. Therefore, in

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1For a theoretical argument on why states typically induce inefficient property rights, see North (1991) chap. 3, "A Neo-classical Model of the State."
order to have efficient property rights, we must have low cost ways to measure the rights and the performance of agents in hierarchical structures. The immense resources that societies devote to organizations and enforcement would be superfluous in a world where measurement costs were zero. But because such costs are extremely high and at best imperfect, the other variables in the costs of transacting become important.

The second variable in the exchange process is the size of the market, which determines whether personal or impersonal exchange occurs. In personal exchange, kinship ties, friendship, personal loyalty, and repeat dealings all play a part in constraining the behavior of participants and reduce the need for costly specification and enforcement. A handshake suffices for even complex exchange. When these factors are absent, the exchange process becomes more costly. In impersonal exchange, there is nothing to constrain the parties from taking advantage of each other. Accordingly, the cost of contracting arises with the need for more elaborate specifications of the rights exchanged.

The third variable is enforcement. In a world of perfect enforcement, there would be, ideally, a third party impartially evaluating disputes and awarding compensation to the injured party when contracts were violated. In such a world, opportunism, shirking, and cheating would never pay. But such a world does not exist. Because of the costliness of measurement, it is frequently impossible to determine even whether a contract has been violated and if so by whom. Nevertheless, in the modern Western world, the evolution of courts, law systems, and a relatively impersonal body of judicial enforcement has played a major role in permitting the development of a complex system of contracting that can extend over time and space, an essential requirement of a world of specialization.2

These three variables determine the cost of exchange as a consequence of an environment in which, according to the neoclassical behavioral assumption, individuals maximize at every margin (that is, if cheating pays, one cheats; if loafing on the job is possible, one loafs; if one could with impunity burn down a competitor, one would do so). It is hard to imagine that complex organization could be possible at all if this assumption actually described human behavior;

2The critical stumbling block in the evolution of modern economies is the creation of stable political and judicial systems that devise and enforce property rights that encourage complex contracting over time and space (i.e., that permitted the Second Economic Revolution). This paper is concerned only with the subsequent role of government as a result of this economic revolution, not with the conditions that made possible the initial political framework.
the costliness of measuring performance, of fulfilling contracts, and of enforcing agreements would make complex exchange too costly. However, the neoclassical assumption also is that preferences or tastes are constant. But ideological attitudes, the fourth variable, are not constant. The strength of ideology can be measured by the premium people are willing to incur rather than free-ride. This premium varies according to one's views about the fairness or justness of the rules of the game and therefore the degree to which one believes one should live up to contracts or not. Appeals to justice and fairness do matter, otherwise we would be at a loss to explain a good deal of schooling as well as the immense investment made by politicians, employers, labor leaders, and others in trying to convince participants of the fairness or unfairness of contractual arrangements. Our understanding of ideology is still sketchy, but one point appears to be significant to this analysis. Specialization and division of labor, as mentioned above, produce divergent perceptions of reality and hence contrasting and conflicting views of the fairness and justice of institutions. Needless to say, the importance of ideology is a direct function of the degree to which the measurement and enforcement of contracts is costly. If the measurement and enforcement of contract performance can be done at very low cost, then it makes very little difference whether people believe the rules of the game are fair or unfair. But because of the costliness of measurement and enforcement, people's perceptions about the fairness and justice of institutions play a big role and are a major part of the analysis of this essay.

The Second Economic Revolution: Implications for Ideological Perspectives

In the past century, increase in the size of government has been a feature of the growth of all the major high-income Western economies. Accordingly, any explanation that is going to be a useful model must take into account that the growing role of government in the economy has been a characteristic feature of all successful high-income countries. Hence, particularistic explanations that have focused on the uniqueness of any one country, like the United States, have missed the point. There is something about the way in which Western economies have evolved that has encouraged the growth of government. I will begin this discussion by looking at the Second Economic Revolution,3 which has been the underlying source of the growth of

3The First Economic Revolution was the development of agriculture, which began in the Eighth Millennium B.C.
modern economies, then describe the growth of government that has accompanied this revolution, and conclude with questions about the extent to which growth of government can be explained by the traditional neoclassical models of interest group pressures on political systems and the part that ideological perceptions may in fact have played.

The term "economic revolution," used here, is intended to convey three distinct changes in an economic system. These are a fundamental change in the productive potential of a society as a consequence of a basic change in the stock of knowledge and an equally basic change in organization to realize that productive potential. In fact, the Second Economic Revolution made realizable the underlying assumption in neoclassical economics: that new knowledge could be produced at constant cost and that substitutions at all margins could be possible and as a result could create sustained growth without diminishing returns to a fixed factor. The technology that characterized this revolution was one in which there were significant indivisibilities in the production process, with large fixed-capital investment. The technology in fact was first reflected in such early works as J. M. Clark's "Economics of Overhead Costs" in 1923 and Allyn Young's classic article, "Increasing Returns in Economic Progress," in 1928, which discussed the implications of increasing returns. Perhaps the most vivid description of this process has been provided by Alfred Chandler in his book, *The Visible Hand*. Let me briefly quote Chandler's summary (1977, p. 281):

The rise of modern mass production required fundamental changes in the technology and organization of the processes of production. The basic organizational innovations were responses to the need to coordinate and control the high-volume throughput. Increases in productivity and decreases in unit costs (often identified with economies of scale) resulted far more from the increases in the volume and velocity of throughput than from a growth in the size of the factory or plant. Such economies came more from the ability to integrate and coordinate the flow of materials through the plant than from greater specialization and subdivision of the work within the plant.

Chandler (pp. 282–83) goes on to discuss the integration of mass production with mass distribution:

As the new mass production industries became capital-intensive and management-intensive, the resulting increase in fixed costs and the desire to keep their machinery or workers and managerial staff fully employed increased pressures on the owners and managers to control their supplies of raw and semifinished materials and to take over their own marketing and distribution. The changing ratio of
capital to labor and of managers to labor thus helped to create pressures to integrate within a single industrial enterprise the process of mass distribution with those of mass production. By 1900 in many mass production industries the factory, works, or plant had become part of a much larger enterprise. In labor-intensive, low-level technology industries most enterprises still operated little more than a factory or two. But in those industries using more complex, high-volume, capital-intensive technology, enterprises had become multifunctional as well as multiunit. They had moved into marketing of the finished goods and purchasing and often the production of raw and semifinished materials. These enterprises did more than coordinate the flow of goods through the processes of production. They administered the flow from the suppliers of raw materials through all the processes of production and distribution to the retailer or ultimate consumer.4

What Chandler has effectively described was the organizational structure that accompanied this new technology, but his account is only a part of the story. Also significant to the managerial revolution was an attempt to devise sets of rules and compliance procedures that would reduce the transaction costs that attended the new technology.

Realizing gains from a world of specialization required occupational and territorial specialization on an unprecedented scale, and in consequence the number of exchanges in the exchange process grew exponentially. In fact, in order to realize the gains from the productive potential associated with a technology of increasing returns, one had to invest enormous resources in transacting. The U. S. labor force between 1900 and 1970 grew from 29 million to 80 million; but manual workers (that is, production workers) increased only from 10 million to 29 million, while white-collar workers grew from 5 million to 38 million. Between 1870 and 1970, the resources devoted to the transaction sector grew from 25 percent of GNP to more than 45 percent of GNP.5

Let me briefly elaborate some of the problems of measurement and enforcement problems that led to the growth of the transaction sector. Control over quality in the lengthening production chain and a solution to the problem of increasingly costly principal-agent relationships were necessary to realize the gains from specialization. Much of the technology was designed to reduce transaction costs by substituting capital for labor or by reducing the degrees of freedom of the worker in the production process and by automatic ways of

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4This citation of Chandler is discussed in detail in North (1981, pp. 175–76).
5See Wallis and North (1986).
measuring the quality of intermediate goods. Time and motion studies and scientific management had their initiation during the early 20th century. An underlying problem was that of measuring inputs and outputs so that one could ascertain the contribution of individual factors and the output at successive stages of production as well as in final outcomes. For inputs, there was no agreed-upon measure of the contribution of an individual input. Equally, there was room for conflict over the consequent payment to factors of production. For outputs not only were there residual unpriced outputs (that is, wastes and pollutants), there were also complicated costs of specifying the desired properties of the goods or services produced at each stage in the production process.

Another problem associated with the new technology was that one had large fixed-capital investments with a long life and low alternative scrap value. As a result, the exchange process of contracts had to be extended over long periods of time, which entailed uncertainty about prices and costs and the possibilities for opportunistic behavior on the part of one party or another in exchange.6

The revolutionary technology of the 19th century radically altered the production and distribution of goods and services. Accompanying this technology was an enormous increase in specialization and division of labor and, in consequence, radical changes in relative prices, which altered the traditional structure of the polity, of the family, and of economic organization. A variety of interest groups that emerged from this expanding division of labor led to political pluralism. The demand for new institutional forms of organization to undertake functions undertaken by the family in traditional economic organization could not be completely realized by voluntary organizations because of moral hazard, adverse selection, and the demand for public goods. The growth of government is a function of demand arising from the redistributive effort of a growing number of effective interest groups and the inability of voluntary organizations to completely meet the new needs of the family and of economic organization. The supply of government was made possible by new technology, which, coupled with the consequence of growing market specialization, lowered the costs of government’s monitoring of income and wealth and increased the efficiency of government taxation. In the case of the United States, the growth in supply was accompanied by a shift from local to federal expenditures that simply reflected the growing

6See North (1981, pp. 177–79) for elaboration of the consequences of these changes.
size of the market and therefore the necessary locus of government activity.\textsuperscript{7}

Such a summary is a traditional neoclassical account of the growth of government. It is one in which is reflected an interest-group story. That is, the market system is, as a consequence of competition, inherently unstable and tends toward self-destruction. Competition leads to sharp fluctuations in the terms of exchange and, in the case of the labor market, to unemployment, inducing interest groups to attempt to influence or control policies of the state in the interests of reducing competitive pressures. Certainly there is enormous evidence to support this perception of the growth of government, and it is one that is compatible with a great many of the stories that neoclassical economists have told about the growth of government. But is it the whole story?\textsuperscript{8}

When one looks at the consequence of the Second Economic Revolution, not just in the United States, but throughout the Western world, one finds it is associated in the 19th and 20th centuries with a massive reaction against market economies and market forms of resource allocation. Labor movements throughout Western Europe were predominantly socialist and communist. Peasant and farm groups, if not actively hostile to market economies, have at least spearheaded movements to protect themselves for market competition. Third-world countries, as they emerge to become independent, have shown little enthusiasm for market forms of resource allocation. Even in those countries where predominantly market economies have developed, government has grown. Can it all be explained by an interest-group model? An alternative to this explanation is that characteristics peculiar to the exchange relationship in market competition induce massive alienation. Moreover, market competition energizes groups to overcome the free-rider problem and to gain control or at least participate in control of the state.\textsuperscript{8}

Some Unresolved Questions

Will the market economy continue to self-destruct? Will the Schumpeterian view that a capitalist economy by its very success

\textsuperscript{7}See North (1985) for a more detailed treatment of the growth of government.

\textsuperscript{8}It was Karl Polanyi who, in The Great Transformation (1957), first made a forceful case that a market society would tend to self-destruct. Polanyi argued that the market-based society which dominated the Western world in the 19th century was inherently unstable because the commoditization of land, labor, and money (via the international gold standard) destroyed the social fabric of society. See North (1981, pp. 180—83) for an elaboration of this hypothesis and an analysis of the ideological consequences of the Second Economic Revolution.
will lead to socialism become a reality? Schumpeter, I suspect, would have been surprised at the vitality of the market system some 45 years after *Capitalism, Socialism, and Democracy* (1942) was written. In order to have some confidence in our predictive ability with respect to ideological perceptions, we need to have a much more sophisticated knowledge of a number of aspects about economics than we currently possess. We need a more complicated behavioral assumption in economics than we have so far employed. The simple view of expected utility theory of wealth-maximizing players with perfect knowledge about the world around them must be replaced by our modern perception that, in fact, individuals have imperfect information and hold subjective perceptions that are heavily colored by their own imperfect information and that influence their perceptions of the fairness and justness of the political economic system.

Let me expand upon this point by quoting a recent comment by Herbert Simon (1986, pp. 5210—11) on the behavioral foundations of economics, which he delivered at a recent conference of economists, psychologists, and other social scientists exploring the behavioral foundations of economic theory:

If we accept values as given and consistent, if we postulate an objective description of the world as it really is, and if we assume that the decisionmaker’s computational powers are unlimited, then two important consequences follow. First, we do not need to distinguish between the real world and the decisionmaker’s perception of it. He or she can predict the choice that will be made by a rational decisionmaker entirely from our knowledge of the real world and without a knowledge of the decisionmaker’s perceptions or modes of calculation (we do, of course, have to know his or her utility function).

If on the other hand we accept the proposition that both the knowledge and the computational power of the decisionmaker are severely limited, then we must distinguish between the real world and the actor’s perception of it and reasoning about it. That is to say, we must construct a theory (and test it empirically) of the processes that generate the actors’ subjective representation of the decision problem he or she frames.

The rational person in neo-classical economics always reaches the decision that is objectively or subjectively best in terms of the given utility function. The rational person of cognitive psychology goes about making his or her decisions in a way that is procedurally reasonable in the light of the available knowledge and means of computation.

This behavioral assumption is important because to the degree that the market system has been a success story, and it surely has been in Western economies, the “rational” expectation would suggest that
people would increasingly have confidence in the relative efficacy of the market as compared to alternatives in solving their problems. That is, the feedback process between performance and subjective perceptions should reinforce support for market solutions, particularly in light of the widespread knowledge about the relatively dismal performance of socialist economies.

However there is more to this issue. Overall successful performance of an economy conceals a mixture of gainers and losers—or at least relative losers. Competition may be a positive sum game, but that is of little comfort to those who are submerged in the "creative destruction" of a dynamic competitive system. Despite the elegant welfare propositions that economists advance, gainers seldom compensate the losers in the real world, and it is not surprising that the losers may come to the conclusion that the system is unfair. It is important to understand that "efficiency," the buzz word of economists, is in the world of the sociobiologist associated with survival, but also survival at the expense of the less fit. But in the political economy world of human beings there is abundant reason not to expect such evolutionary outcomes. What distinguishes humans from animals is that the political decision processes are a feedback loop in the chain by which to alter (but not eliminate) the essential characteristics of the competitive-evolutionary process. There is no normative implication to the above statement. I am not assuming that biological fitness is good or even that economic efficiency is good; only that, to the degree you believe the sociobiologists' story (and that is what it is), you should recognize that it does get altered by the political economic institutional structure. The way it gets altered is a function of the subjective perceptions of the players and the way those perceptions are translated via the political process into economic outcomes.

Essential to this translation is that the political economic institutions facilitate this process by lowering the cost of expressing and effecting ideological convictions. Ideological behavior is different from wealth-maximizing behavior in that it may entail a wealth or income sacrifice in return for carrying through one's convictions. But institutions frequently permit voters, legislators, and judges, all of whom determine policies, to express their ideological convictions at little or no cost to themselves. Ideology does appear to obey the law of demand. That is, the higher the price one pays for one's convictions, the less will ideological conviction be important. But since individual votes do not count, one can express one's strongly held

See Nelson and Silberberg (1987) for empirical support of this proposition.

26
conviction simply at the cost of going to the polls; legislators are only imperfectly constrained by voters, and judges are deliberately protected from interest group pressures by lifetime tenure. Ideological conviction would be significant even if all the players paid the price of their conviction, but in fact the political judicial system guarantees that ideas and ideologies are far more important in determining outcomes.

What is at issue are a number of (mostly) unresolved questions about the sociology of knowledge and the political process. Chief among these are the following two categories:

1. What determines individual perceptions about the justice or fairness of political/economic systems and how are they related to the overall performance of an economy and to variously positioned individuals in the economy?

2. How do these perceptions get translated into political policies? Who votes, why do they vote, and how do votes relate to outcomes? Do legislators mirror voter preferences or their own preferences (and is there a difference)? What is the relationship between political policies and economic outcomes, and how do these outcomes affect economic performance and in turn (to come full circle) individual perceptions about the fairness and justice of the system?

To the extent we can answer these questions, the relationship between the exchange process and individuals’ perceptions of the fairness and justice of institutions will be better understood.

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