Part I

Institutions

I

An introduction to institutions and institutional change

Institutions are the rules of the game in a society or, more formally, are the humanly devised constraints that shape human interaction. In consequence they structure incentives in human exchange, whether political, social, or economic. Institutional change shapes the way societies evolve through time and hence is the key to understanding historical change.

That institutions affect the performance of economies is hardly controversial. That the differential performance of economies over time is fundamentally influenced by the way institutions evolve is also not controversial. Yet neither current economic theory nor cliometric history shows many signs of appreciating the role of institutions in economic performance because there as yet has been no analytical framework to integrate institutional analysis into economics and economic history. The objective of this book is to provide such an underlying framework. The implications of the analysis suggest a reexamination of much social science theorizing in general and economics in particular, and provide a new understanding of historical change.

In this study I examine the nature of institutions and the consequences of institutions for economic (or societal) performance (Part I). I then outline a theory of institutional change not only to provide a framework for economic (and other) history, but also to explain how the past influences the present and future, the way incremental institutional change affects the choice set at a moment of time, and the nature of path dependence (Part II). The primary objective of the study is to achieve an understanding of the differential performance of economies through time (Part III).

I

Institutions reduce uncertainty by providing a structure to everyday life. They are a guide to human interaction, so that when we wish to greet friends on the street, drive an automobile, buy oranges, borrow money, form a business, bury our dead, or whatever, we know (or can learn easily) how to perform these tasks. We would readily observe that institutions differ if we were to try to make the same transactions in a different country – Bangladesh for example. In the jargon of the economist, institutions define and limit the set of choices of individuals.

Institutions include any form of constraint that human beings devise to shape human interaction. Are institutions formal or informal? They can be either, and I am interested both in formal constraints – such as rules that human beings devise – and in informal constraints – such as conventions and codes of behavior. Institutions may be created, as was the United States Constitution; or they may simply evolve over time, as does the common law. I am interested in both created and evolving institutions, although for purposes of analysis we may want to examine them separately. Many other attributes of institutions also will be explored.

Institutional constraints include both what individuals are prohibited from doing and, sometimes, under what conditions some individuals are permitted to undertake certain activities. As defined here, they therefore are the framework within which human interaction takes place. They are perfectly analogous to the rules of the game in a competitive team sport. That is, they consist of formal written rules as well as typically unwritten codes of conduct that underlie and supplement formal rules, such as not deliberately injuring a key player on the opposing team. And as this analogy would imply, the rules and informal codes are sometimes violated and punishment is enacted. Therefore, an essential part of the functioning of institutions is the costliness of ascertaining violations and the severity of punishment.

Continuing the sports analogy, taken together, the formal and informal rules and the type and effectiveness of enforcement shape the whole character of the game. Some teams are successful as a consequence of (and have therefore the reputation for) constantly violating rules and thereby intimidating the opposing team. Whether that strategy pays off obviously depends on the effectiveness of monitoring and the severity of punishment. Sometimes codes of conduct – good sportsmanship – constrain players, even though they could get away with successful violations.

A crucial distinction in this study is made between institutions and organizations. Like institutions, organizations provide a structure to human interaction. Indeed when we examine the costs that arise as a consequence of the institutional framework we see they are a result not only of that framework, but also of the organizations that have developed in consequence of that framework. Conceptually, what must be clearly differentiated are the rules from the players. The purpose of the rules is to define the way the game is played. But the objective of the team within that set of rules is to win the game – by a combination of skills, strategy, and coordination; by fair means and sometimes by foul means. Modeling the strategies and the skills of the team as it develops is a separate process from modeling the creation, evolution, and consequences of the rules.

Organizations include political bodies (political parties, the Senate, a city council, a regulatory agency), economic bodies (firms, trade unions, family farms, cooperatives), social bodies (churches, clubs, athletic associations), and educational bodies (schools, universities, vocational training centers). They are groups of individuals bound by some common purpose to achieve objectives. Modeling organizations is analyzing governance structures, skills, and how learning by doing will determine the organization's success over time. Both what organizations come into existence and how they evolve are fundamentally influenced by the institutional framework. In turn they influence how the institutional framework evolves. But as noted above, the emphasis in this study is on the institutions that are the underlying rules of the game and the focus on organizations (and their entrepreneurs) is primarily on their role as agents of institutional change; therefore the emphasis is on the interaction between institutions and organizations. Organizations are created with purposive intent in consequence of the opportunity set resulting from the existing set of constraints (institutional ones as well as the traditional ones of economic theory) and in the course of attempts to accomplish their objectives are a major agent of institutional change.

Separating the analysis of the underlying rules from the strategy of the players is a necessary prerequisite to building a theory of institutions. Defining institutions as the constraints that human beings impose on themselves makes the definition complementary to the choice theoretic approach of neoclassical economic theory. Building a theory of institutions on the foundation of individual choices is a step toward reconciling differences between economics and the other social sciences. The choice theoretic approach is essential because a logically consistent, potentially testable set of hypotheses must be built on a theory of human behavior. The strength of microeconomic theory is that it is constructed on the basis of assumptions about individual human behavior (even though I shall argue for a change in those assumptions in Chapter 3). Institutions are a creation of human beings. They evolve and are altered by human beings; hence our theory must begin with the individual. At the same time, the constraints that institutions impose on individual choices are pervasive. Integrating individual choices with the constraints institutions impose on choice sets is a major step toward unifying social science research.

Institutions affect the performance of the economy by their effect on the costs of exchange and production. Together with the technology employed, they determine the transaction and transformation (production) costs that make up total costs. The initial objective of this study (Part I) is to explain the existence and nature of institutions to specify the way they enter into the cost functions in an economy.

II

The major role of institutions in a society is to reduce uncertainty by establishing a stable (but not necessarily efficient) structure to human interaction. But the stability of institutions in no way gainsays the fact that they are changing. From conventions, codes of conduct, and norms of behavior to statute law, and common law, and contracts between individuals, institutions are evolving and, therefore, are continually altering the choices available to us. The changes at the margin may be so slow and glacial in character that we have to stand back as historians to perceive them, although we live in a world where the rapidity of institutional change is very apparent.

Institutional change is a complicated process because the changes at the margin can be a consequence of changes in rules, in informal constraints, and in kinds and effectiveness of enforcement. Moreover, institutions typically change incrementally rather than in discontinuous fashion. How and why they change incrementally and why even discontinuous changes (such as revolution and conquest) are never completely discontinuous are a result of the imbeddedness of informal constraints in societies. Although formal rules may change overnight as the result of political or judicial decisions, informal constraints embodied in customs, traditions, and codes of conduct are much more impervious to deliberate policies. These cultural constraints not only connect the past with the present and future, but provide us with a key to explaining the path of historical change.

The central puzzle of human history is to account for the widely divergent paths of historical change. How have societies diverged? What accounts for their widely disparate performance characteristics? After all, we all descended from primitive hunting and gathering bands. This divergence is even more perplexing in terms of standard neoclassical and international trade theory, which implies that over time economies, as they traded goods, services, and productive factors, would gradually converge. Although we do observe some convergence among leading industrial nations that trade with each other, an overwhelming feature of the last ten millennia is that we have evolved into radically different religious, ethnic, cultural, political, and economic societies, and the gap between rich and poor nations, between developed and undeveloped nations, is as wide today as it ever was and perhaps a great deal wider than ever before. What explains the divergence? And perhaps equally important, what conditions either lead to further divergences or produce convergence?

There is more to this puzzle. What accounts for societies experiencing long-run stagnation or an absolute decline in economic well-being? The evolutionary hypothesis advanced by Alchian in 1950 would suggest that ubiquitous competition would weed out inferior institutions and reward by survival those that better solve human problems.

Let me briefly retrace my steps in dealing with this central issue. In North and Thomas (1973) we made institutions the determinant of economic performance and relative price changes the source of institutional change. But we had an essentially efficient explanation; changes in relative prices create incentives to construct more efficient institutions. The persistence of inefficient institutions, illustrated by the case of Spain, was a result of fiscal needs of rulers that led to shortened time horizons and therefore a disparity between private incentives and social welfare. Such an anomaly did not fit into the theoretical framework.

In *Structure and Change in Economic History* (North, 1981) I abandoned the efficiency view of institutions. Rulers devised property rights in their own interests and transaction costs resulted in typically inefficient property rights prevailing. As a result it was possible to account for the widespread existence of property rights throughout history and in the present that did not produce economic growth. In that study I raised the question posed by Alchian's evolutionary argument, but had no answer. It was possible to explain the existence of inefficient institutions, but why wouldn't competitive pressures lead to their elimination? Wouldn't the political entrepreneurs in stagnant economies quickly emulate the policies of more successful ones? How can we explain the radically differential performance of economies over long periods of time?

This study answers these questions. The answer hinges on the difference between institutions and organizations and the interaction between them that shapes the direction of institutional change. Institutions, together with the standard constraints of economic theory, determine the opportunities in a society. Organizations are created to take advantage of those opportunities, and, as the organizations evolve, they alter the institutions. The resultant path of institutional change is shaped by (1) the lock-in that comes from the symbiotic relationship between institutions and the organizations that have evolved as a consequence of the incentive structure provided by those institutions and (2) the feedback process by which human beings perceive and react to changes in the opportunity set.

The increasing returns characteristics of an institutional matrix that produces lock-in come from the dependence of the resultant organizations on that institutional framework and the consequent network externalities that arise. Both the formal and the informal institutional constraints result in particular exchange organizations that have come into existence because of the incentives embodied in the framework and therefore depend on it for the profitability of the activities that they undertake.

Incremental change comes from the perceptions of the entrepreneurs in political and economic organizations that they could do better by altering the existing institutional framework at some margin. But the perceptions crucially depend on both the information that the entrepreneurs receive and the way they process that information. If political and economic markets were efficient (i.e., there were zero transaction costs) then the choices made would always be efficient. That is the actors would always possess true models or if they initially possessed incorrect models the information feedback would correct them. But that version of the rational actor model has simply led us astray. The actors frequently must act on incomplete information and process the information that they do receive through mental constructs that can result in persistently inefficient paths. Transaction costs in political and economic markets make for inefficient property rights, but the imperfect subjective models of the players as they attempt to understand the complexities of the problems they confront can lead to the persistence of such property rights.

We can expand on this characterization of institutional change by contrasting a successful path with one of persistent failure. The first is a familiar story in U.S. economic history – the growth of the economy in the nineteenth century. The basic institutional framework that had evolved by the beginning of that century (the Constitution and the Northwest Ordinance, as well as norms of behavior rewarding hard work) broadly induced the development of economic and political organizations (Congress, local political bodies, family farms, merchant houses, and shipping firms), whose maximizing activities resulted in increased productivity and economic growth both directly and indirectly by an induced demand for educational investment. The educational investment resulted not only in the free public educational system, but in agricultural experiment stations to improve agricultural productivity; the Morrill Act created the land grant public universities.

As economic organizations evolved to take advantage of these opportunities, they not only became more efficient (see Chandler, 1977), but also gradually altered the institutional framework. Not only was the political and judicial framework altered (the Fourteenth Amendment, *Munn* v. *Illinois*) and the structure of property rights modified (the Sherman Act) by the end of the nineteenth century, but so too were many norms of behavior and other informal constraints (reflected in changing attitudes – and norms of behavior – toward slavery, the role of women, and temperance, for example). Both the political and the economic transaction costs and the subjective perceptions of the actors resulted in choices that were certainly not always optimal or unidirectional toward increased productivity or improved economic welfare (however defined). The profitable opportunities were sometimes from tariff creation, the exploitation of slaves, or the formation of a trust. Sometimes, indeed frequently, policies had unintended consequences. In consequence institutions were – and are – always a mixed bag of those that induce productivity increase and those that reduce productivity. Institutional change, likewise, almost always creates opportunities for both types of activity. But on balance nineteenth-century U.S. economic history is a story of economic growth because the underlying institutional framework persistently reinforced incentives for organizations to engage in productive activity however admixed with some adverse consequences.

Now if I describe an institutional framework with a reverse set of incentives to those described in the above paragraph, I will approximate the conditions in many Third World countries today as well as those that have characterized much of the world's economic history. The opportunities for political and economic entrepreneurs are still a mixed bag, but they overwhelmingly favor activities that promote redistributive rather than productive activity, that create monopolies rather than competitive conditions, and that restrict opportunities rather than expand them. They seldom induce investment in education that increases productivity. The organizations that develop in this institutional framework will become more efficient – but more efficient at making the society even more unproductive and the basic institutional structure even less conducive to productive activity. Such a path can persist because the transaction costs of the political and economic markets of those economies together with the subjective models of the actors do not lead them to move incrementally toward more efficient outcomes.

This study sheds light on these contrasting stories by providing a theoretical foundation to the study of institutional change. The next chapter explores the theoretical foundations of the underlying role of institutions – the problem of human cooperation. Then come two key chapters that provide the basic building blocks of a theory of institutions. In Chapter 3 I explore, critically, the behavioral assumptions we employ and suggest modifications in those behavioral assumptions, and in Chapter 4 I provide a theoretical foundation to the costliness of exchange and its surprisingly important but unappreciated implications.

In the next three chapters I successively describe three dimensions of institutions: formal rules and informal constraints, and the effectiveness of their enforcement. Then I am in the position in Chapter 8 to tie together the threads and illustrate the relationship between institutions and transaction and transformation (production) costs.

Part II provides a framework to analyze institutional change. Chapter 9 explores organizations and the way they interact with institutions. Chapter 10 deals with the stability characteristics of institutions, which are essential to understanding the nature of institutional change. The change we observe is seldom discontinuous (although I shall explore revolutionary change) but instead is incremental, and the nature of the incremental institutional change together with the imperfect way by which the actors interpret their environment and make choices accounts for path dependency and makes history relevant (Chapter 11).

Part III relates institutions and the way they change to economic performance. In Chapter 12 I consider the theoretical implications of institutional analysis for the performance of economies both at a moment of time and over time. Chapters 13 and 14 apply the analytical framework to economic history. Chapter 13 explores the characteristics of institutional change of successively more complex economies in history and contrasts the stable forms of historical exchange with the dynamic institutional change of Western Europe that led to modern economic growth. The final chapter suggests the implications of systematically integrating institutional analysis into economic history and presents some extended historical applications.

2

Cooperation: the theoretical problem

There is a persistent tension in the social sciences between the theories we construct and the evidence we compile about human interaction in the world around us. It is most striking in economics, where the contrast between the logical implications of neoclassical theory and the performance of economies (however defined and measured) is startling. Certainly neoclassical theory has been a major contribution to knowledge and works well in the analysis of markets in developed countries. At the other end of the scale, however, it does not provide much insight into such organizations as the medieval manor, the Champagne fairs, or the suq (the bazaar market that characterizes much of the Middle East and North Africa). Not only does it not characterize these organizations' exchange process very well, it does not explain the persistence for millennia of what appear to be inefficient forms of exchange.

The disparity in the performance of economies and the persistence of disparate economies through time have not been satisfactorily explained by development economists, despite forty years of immense effort. The simple fact is that the theory employed is not up to the task. The theory is based on the fundamental assumption of scarcity and hence competition; its harmonious implications come from its assumptions about a frictionless exchange process in which property rights are perfectly and costlessly specified and information is likewise costless to acquire. Although the scarcity and hence competition assumption has been robust and has provided the key underpinnings of neoclassical theory, the other assumptions have not survived nearly so well.

For the past thirty years, other economists and other social scientists have been attempting to modify and refine the issues to see just what has been missing from the explanation. Put simply, what has been missing is an understanding of the nature of human coordination and cooperation. Now, that certainly should not surprise a disciple of Adam Smith. Smith was concerned not only with those forms of cooperation that produced