CHAPTER ONE

An Outline of the Process of Economic Change

UNDERSTANDING economic change including everything from the rise of the Western world to the demise of the Soviet Union requires that we cast a net much broader than purely economic change because it is a result of changes (1) in the quantity and quality of human beings; (2) in the stock of human knowledge particularly as applied to the human command over nature; and (3) in the institutional framework that defines the deliberate incentive structure of a society. A complete theory of economic change would therefore integrate theories of demographic, stock of knowledge, and institutional change. We are far from having good theories of any one of these three, much less of the three together, but we are making progress. The central focus of this study, and the key to improving economic performance, is the deliberate effort of human beings to control their environment. Therefore, priority is given here to institutional change, with the consequent incentive implications for demographic and stock of knowledge changes; but there is no implication that such an approach deals adequately with the latter two.

The structure we impose on our lives to reduce uncertainty is an accumulation of prescriptions and proscriptions together with the artifacts that have evolved as a part of this accumulation. The result is a complex mix of formal and informal constraints. These constraints are imbedded in language, physical artifacts, and beliefs that together define the patterns of human interaction. If our focus is narrowly on economics, then our concern is with scarcity and, hence, competition for resources. The structure of constraints we impose to order that competition shapes the way the game is played. Because various kinds of markets (political as well as economic) have different margins at which competition can be played out, the consequence of the structure we impose will be to determine whether the competitive structure induces increasing economic efficiency or stagnation. Thus well-developed property rights that encourage productivity will increase market efficiency. The evolving structure of political and economic markets is the key to explaining performance.

While the uncertainty that pervades our existence may be reduced by the structure we impose, it is not eliminated. The constraints that we impose have, themselves, uncertain outcomes reflecting both our imperfect understanding of our environment and the equally imperfect nature of both the formal rules and the informal mechanisms we use to enforce those constraints.

This book is a study about the ceaseless efforts of humans to gain greater control over their lives and in the course of that effort continually confronting new and novel problems to solve. It is a study of the perceptions that induce institutional innovation intended to reduce uncertainty or convert uncertainty into risk. It is also a study of a continually changing human landscape. This landscape poses new challenges, as a consequence of which policies emanating from "non-rational" explanations frequently play a part in the structures we create.

I

A bare-bones description of the process of economic change is straightforward. The "reality" of a political-economic system is never known to anyone, but humans do construct elaborate beliefs about the nature of that "reality"—beliefs that are both a positive model of the way the system works and a normative model of how it should work. The belief system may be broadly held within the society, reflecting a consensus of beliefs; or widely disparate beliefs may be held, reflecting fundamental divisions in perception about the society. The dominant beliefs—those of political and economic entrepreneurs in a position to make policies—over time result in the accretion of an elaborate structure of institutions that determine economic and political performance. The resultant institutional matrix imposes severe constraints on the choice set of entrepreneurs when they seek to innovate or modify institutions in order to improve their economic or political positions. The path dependence that results typically makes change incremental although the occasional radical and abrupt institutional change suggests that something akin to the punctuated equilibrium change in evolutionary biology can occur in economic change as well. But change is continually occurring (although the rate will depend on the degree of competition among organizations and their entrepreneurs) as entrepreneurs enact policies to improve their competitive position. The result is alteration of the institutional matrix, therefore revisions of perceptions of reality, and therefore new efforts by entrepreneurs to improve their position in a never-ending process of change. The key to understanding the process of change is the intentionality of the players enacting institutional change and their comprehension of the issues. Throughout history and in the present world economic growth has been episodic because either the players' intentions have not been societal well-being or the players' comprehension of the issues has been so imperfect that the consequences have deviated radically from intention.

The nature of this overall process can be illustrated by a brief account of the rise and fall of the Soviet Union (which will be the subject of a more comprehensive analysis later). Marx and Engels provided the belief system that was Lenin's revolutionary inspiration, explaining both the way the world was and the way it should be. The circumstances of the war-torn Russia of 1917 provided the unusual opportunity for abrupt institutional change. While Marx provided no blueprint for the transformation to or construction of a socialist society, his fundamental ideological building blocks, particularly with respect to the concept of property, remained guiding principles (and constraints) of Soviet leaders. Dire necessity forced a retreat from the principles and led to the creation of the New Economic Policy (NEP) in 1921; the first five-year plan in 1928 returned to ideological orthodoxy. In the early years substantial discussion of alternative strategies and hence institutions helped shape socialism. The gradual accretion of the complex institutional matrix that resulted led to perceived successes—such as in heavy industry—and failures—such as in agriculture—and attempts to correct the failures within the belief system of Marxist orthodoxy. As the economy grew, underwent the devastating torment of the Nazi invasion, and then underwent the lengthy reconstruction process, the institutional matrix was continually being modified by external stimuli—war—or internal perceptions of needed institutional alterations guided by a belief system that evolved within the ideological limits of Marxism. The result throughout the 1950s, 1960s, and early 1970s was rapid growth of physical output, military technology, and scientific knowledge; and the advent of superpower status.

Almost half the world became socialist or communist in this era and these ideologies were widely perceived to be the wave of the future. But then growth began to slow, the problems of agriculture became ever more acute, and efforts at institutional reform to rectify the problems were ineffectual. Following the advent of Gorbachev in 1985, the policies of the next six years led to absolute decline and in 1991 to the demise of the Soviet Union—perhaps the most striking case of internally induced rapid demise in all of human history.

This story of the Soviet Union is a story of perceived reality → beliefs → institutions → policies → altered perceived reality and on and on. The keys to the story are the way beliefs are altered by feedback from changed perceived reality as a consequence of the policies enacted, the adaptive efficiency of the institutional matrix—how responsive it is to alteration when outcomes deviate from intentions—and the limitations of changes in the formal rules as correctives to perceived failures.

It is one thing to be able to provide a summary description of the process of economic change; it is something else to provide sufficient content to this description to give us an understanding of this process. How well do we understand reality? How do beliefs get formed? Whose beliefs matter and how do individual beliefs aggregate into belief systems? How do they change? What is the relationship between beliefs and institutions? How do institutions change? How do institutions affect performance? What accounts for the widely varied patterns of performance of economies and polities? And perhaps most fundamental of all, what is the essential nature of the process itself? These are just a few of the questions that are the subject of this book. The remainder of this chapter elaborates on the separate parts of the puzzle.

II

What is the deep underlying force driving the human endeavor—the source of the human intentionality that comes from consciousness? It is the ubiquitous effort of humans to render their environment intelligible—to reduce the uncertainties of that environment. But the very efforts of humans to render their environment intelligible result in continual alterations in that environment and therefore new challenges to understanding that environment. The study of the process of economic change must begin therefore by exploring the ubiquitous efforts of human beings to deal with and confront uncertainty in a non-ergodic world.

Just what is it that we are trying to model in our theories, beliefs, ideologies? The pragmatic concern is with the degree to which our beliefs accord with "reality." To the extent that they do, there is some prospect that the policies that we enact will produce the intended result. But because throughout human history we have gotten it wrong (misunderstood reality) much more often than we have gotten it right (understood reality) it is important that we be very conscious about the nature of reality. Of even more importance is awareness of just how reality is changing. Beliefs and the way they evolve are at the heart of the theoretical issues of this book. For the most part, economists, with a few important exceptions such as Friedrich Hayek, have ignored the role of ideas in making choices. The rationality assumption has served economists (and other social scientists) well for a limited range of issues in micro theory but is a shortcoming in dealing with the issues central to this study.[1] Indeed the uncritical acceptance of the rationality assumption is devastating for most of the major issues confronting social scientists and is a major stumbling block in the path of future progress. The rationality assumption is not wrong, but such an acceptance forecloses a deeper understanding of the decision-making process in confronting the uncertainties of the complex world we have created.

The way we perceive the world and construct our explanations about that world requires that we delve into how the mind and brain work—the subject matter of cognitive science. This field is still in its infancy but already enough progress has been made to suggest important implications for exploring social phenomena. Issues include how humans respond to uncertainty and particularly the uncertainty arising from the changing human landscape, the nature of human learning, the relationship between human learning and belief systems, and the implica-

[1] See Denzau and North (1994) for a discussion of the conditions under which the rationality assumption is useful and those under which it is not.

tions of consciousness and human intentionality for the structure that humans impose on their environment.

Humans attempt to use their perceptions about the world to structure their environment in order to reduce uncertainty in human interaction. But whose perceptions matter and how they get translated into transforming the human environment are consequences of the institutional structure, which is a combination of formal rules, informal constraints, and their enforcement characteristics. This structure of human interaction determines who are the entrepreneurs whose choices matter and how such choices get implemented by the decision rules of that structure. Institutional constraints cumulate through time, and the culture of a society is the cumulative structure of rules and norms (and beliefs) that we inherit from the past that shape our present and influence our future. Institutions change, usually incrementally, as political and economic entrepreneurs perceive new opportunities or react to new threats affecting their well-being. Institutional change can result from change in the formal rules, the informal norms, or the enforcement of either of these. The political-economic structure of the society and the way it evolves is the key to whose choices matter and how they conspire to shape policies.

We can begin to put the pieces together to explore (very incompletely) the process of economic change. Is the process similar to models derived from evolutionary biology? What difference does the intentionality of the players make and what is the nature of the human intentionality that is the immediate source of institutional change? Does the uncertainty that humans face come from the inherent instability of the human landscape or from the perceptions and belief systems that we have about the human environment? What are the underlying sources of path dependence and just how does path dependence affect performance? And finally what makes for adaptive efficiency—the ability of some societies to flexibly adjust in the face of shocks and evolve institutions that effectively deal with an altered "reality"?

In part II of this book I apply the analytical framework developed in part I to attempt to provide a deeper understanding of the process of change, both historical and contemporary. I broadly outline the changes in the human landscape over the millennia since humans evolved from other primates, and particularly focus on the past two millennia. The emphasis here is on the sharp divide between institutions constructed to deal with the uncertainties that are a consequence of the physical environment and those constructed to deal with the human environment. The difficulties involved in altering the institutional framework from one geared to confronting the physical environment to one capable of dealing with the modern human environment is at the heart of many of the fundamental issues of economic development.

In the Western world, and in particular in the United States, we tend to take order for granted. We should not. Disorder—revolution, lack of personal security, chaos—has characterized a great deal of the human condition, as witness the turbulent history of Latin America. Order implies a reduction of the uncertainties that inevitably characterize the human condition as a result of institutions that provide greater predictability in human interaction. Disorder increases uncertainty as rights and privileges of individuals and organizations are “up for grabs” as a consequence of unstable relationships in both political and economic markets. Understanding the underlying conditions of order and disorder is essential for coming to grips with the process of economic change.

How successful are we at controlling our destiny? In the tradition of Herbert Simon, who directed our attention to these issues, what difference does it make that humans fall far short of substantively rational behavior, which would entail full knowledge of all possible contingencies, exhaustive exploration of the decision tree, and a correct mapping between actions, events, and outcomes? The short answer is that it makes a lot of difference. Economic history is a depressing tale of miscalculation leading to famine, starvation, defeat in warfare, death, economic stagnation and decline, and indeed the disappearance of entire civilizations. And even the most casual inspection of today’s news suggests that this tale is not purely a historical phenomenon. Yet we do get it right sometimes, as the spectacular economic growth of the past few centuries attests. But ongoing success is hardly a foregone conclusion.

The beliefs and consequent institutions that produced the rise of the Western world illustrate the blend of shrewd judgments and good fortune that have gone into getting it (more or less) right. A more important objective is to tell a dynamic story—exploring the process of successful change through time.The rise and fall of the Soviet Union is a sobering exploration of the human endeavor to deliberately craft society and I explore the subject in more depth in order to elaborate two aspects of economic change: (1) the inherent difficulties involved in deliberately attempting to alter the societal framework with the very imperfect knowledge of the players, and (2) the process of disintegration of a society wrestling to overcome the rigidities and erroneous beliefs that confront societies attempting to make fundamental changes.

The accretion of experience derived from efforts to improve performance of third world and transition economies as well as what we have learned from the success stories has provided us with a crude laboratory and sobering understanding of how little we know about the process. But we are learning; and I shall describe what we have learned and what we have yet to learn in order to improve our understanding of the process.

A clear implication of understanding the nature of the process of change is the limitation the process imposes on human foresight. In this book I shall explore just how much we can know about the future and how much must remain the province of astrologers, soothsayers, and statesmen. The argument of this study suggests a sobering appraisal of the future of humans in the face of the ubiquitous uncertainty of a non-ergodic world.