

# ECONOMIC DEVELOPMENT AND GROWTH: A SURVEY

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The most basic challenge for economics is to understand the nature and causes of economic progress. But what exactly is to be explained? What are the facts? One very striking fact is historical—the rapid acceleration in the rate of economic progress since the early 1800s. Another is geographical—the huge differences in levels of economic progress in different parts of the world today. The questions virtually ask themselves. Why did economic progress accelerate? Why is it not universal? On the whole, these two questions have been addressed by two different specialized fields within economics. Economic history has addressed the question of change over time, and development economics has addressed the question of contemporary differences across countries.

The theory that until recently guided work in both fields—the Ricardian theory—measures economic progress in terms of the quantity of output produced by the economy. It sees the economy as a kind of machine that transforms inputs (labor, natural resources, capital) into output: the amount of inputs and the technology of the machine determine the quantity of output. If output increases more rapidly, it is either because of larger amounts of inputs or because of better technology. If output is low in some countries, it is because inputs or technology are lacking. Since Solow (1957) showed that increases in physical inputs explain only a small part of observed

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changes or differences in output, Ricardian theory has focused primarily on the nonphysical in explaining growth—on technological change and on increases in human capital in the form of skills and knowledge (Lucas 2002, Galor 2005).

## The Deficiencies of the Ricardian Theory

The Ricardian theory of growth has been found wanting both by economic historians and by development economists. The problem for economic historians is that the Ricardian theory offers no explanation for *why* the accumulation of human capital and technological progress accelerated in the West in the early 1820s. There have been attempts at purely Ricardian explanations: Pomeranz (2000) has suggested that it was the discovery of new resources in the Americas and in England's coalfields that did the trick; Clark (2007a), that human evolution in England came to favor human capital accumulation and technological progress. However, both of these explanations have been challenged on the facts, and neither has achieved wide acceptance (Broadberry 2007, Broadberry and Gupta 2006).

The problem for development economics, a more practical field, is that the Ricardian theory has proven itself to be a treacherous guide to policy. For decades after World War II, development economists advocated a series of dirigiste policies for the less developed countries (LDCs) aimed at making up perceived deficiencies in resources and technology: physical capital, technology, and human capital all had their day. The results, to put it mildly, were disappointing: Lal (2000) and Easterly (2001, 2006) have documented the sorry record.

The failings of the Ricardian theory have caused economists to look further afield for explanations of growth and development. In particular, many have come to challenge a fundamental assumption of the Ricardian theory—that an economy's potential, defined by its resources and technology, is fully realized. To development economists in particular this assumption has seemed increasingly far-fetched: surely, the problem of the LDC economies is not a lack of potential but an inability *to achieve* that potential (see de Soto 2000, Parente and Prescott 2000, and Guest 2004). The obstacle to their development is not a lack of resources or technology, but a failure to exploit the resources and technology available. In development economics and in economic history, attention has therefore shifted to

how and to what degree economies succeed in realizing their potential. Grantham (1999) has labeled this approach—more in the spirit of Adam Smith than of David Ricardo—Smithian.

## A Role for Institutions

With this shift of perspective and understanding has come a change in focus from the process of production to the economic environment in which that process takes place. Rather than looking only at resources and technology, economists have started to take an interest in *institutions*—in the social and political structures that facilitate, or impede, productive economic activity. In particular, economic development and political development are increasingly seen as being closely related. This revival of interest in institutions was pioneered by economic historians—particularly North and Thomas (1970) and Jones (1988). But many others have made important contributions—economists such as Buchanan and Tullock (1965) and Olson (1982), and historians such as McNeill (1982) and Macfarlane (2002). Development economists, too, have begun to take an intense interest in economic and political institutions (see Shirley 2005).

In the study of institutions and their role in economic progress there are two fundamental questions: How do different institutional arrangements affect economic development and growth? And how and why do “good” institutions arise? In addressing these questions, economists have largely relied on the two principal methods of modern economics—econometrics (statistical analysis) and mathematical theory.

## The Macro-Econometric Approach to Institutions

Development economics has largely taken the econometric route. Work in this area has analyzed country-level data on GDP and various measures of legal, financial, and political institutions in an attempt to uncover which institutions are associated with more rapid economic growth. Some important contributors to this literature include Levine, Shleifer, Glaeser, and Acemoglu and their various collaborators (for two surveys of this literature see Levine 1997 and Shleifer et al. 2003). This work has been suggestive and has offered some valuable insights, but it does suffer from some serious limitations. As with all statistical work, a fundamental problem is establish-

ing causality. While it is easy to show that certain institutions are associated with economic growth, it is not at all easy to show that growth is a result of good institutions rather than vice versa (Glaeser, et al. (2004)). In addition, the quality of the data limits what can be learned: there is only so much information in aggregate data at the level of entire countries. Moreover, institutions do not lend themselves to quantification, so that the numerical measures used are always problematic.

There is, however, a deeper problem with this literature: it does not, and indeed cannot, shed any light on *how* different institutions affect economic growth (as opposed to whether they do) or, conversely, on how growth might affect the evolution of institutions. The work is essentially atheoretical: it is not based on any theory of how institutions and economies function or of how they interact with one another. Indeed, such a theoretical understanding would be pointless, since data at this level of aggregation cannot get at the underlying processes: these are micro issues and they cannot be addressed with macro data.

## The Micro-Theoretical Approach to Institutions

While development economics has taken a macro and econometric approach to institutions, economic history has largely taken a micro and theoretical one. In this it is part of a wider movement, known as the new institutional economics (NIE) that has grown out of the rediscovery of institutions (see Ménard and Shirley 2005). The modifier “new” distinguishes this movement from the school of institutional economics that predated the mathematical and statistical revolutions in economics (see Samuels 1987). While the old institutional economics largely abjured and even rejected formal theoretical analysis, the new institutional economics embraces it. Practitioners of NIE, therefore, attempt to explain the existence and function of economic and political institutions in terms of rational behavior, sometimes with the aid of mathematical models. Two recent and very fruitful applications of this approach to economic history are of particular interest.

A recent book by Greif (2006) brings together much of his seminal work on medieval institutions. Greif calls his approach the “ana-

lytical narrative.<sup>21</sup> It involves a detailed study of a particular historical institution—informal order among Maghribi traders in medieval Egypt, for example, or the political arrangements of the Genoese republic—together with a game-theoretical analysis of the case in question. Greif's work provides valuable insight into the microeconomics of the institutions he examines and, by extension, of institutions in general. The method of the analytical narrative does not, however, permit him to address directly our two fundamental questions—how institutions affect economic outcomes and how good institutions arise.<sup>2</sup>

Another recent book, by North, Wallis, and Weingast (2009) (NWW), does address these questions. It is broader in its scope and more ambitious in its aims—offering no less than an institutional explanation of the entire evolution of human history. Its analysis is “macro” rather than micro, and it does not employ explicit mathematical modeling. The authors argue that economic and political organization are not only interdependent but, more than this, they are two parts of an organic organizational whole that addresses a single fundamental problem—how to coordinate the activity of large numbers of people. The incentive for achieving such coordination is that it delivers far greater productivity. The role of political organization is to provide the conditions under which economic organization is possible. More specifically, the role of political organization is to prevent or to contain violence—the primary obstacle to productive economic organization. The principal vehicle of political organization is the state, and the evolution of the state is therefore at the center of economic and political development. This work represents a major step forward in our understanding of institutional development. However, it falls short of its very ambitious goal, because of two fundamental weaknesses that it shares with much of the NIE program.

The model of human behavior on which NIE rests is the model of the atomistic rational individual. In a recent critique, Field (2007) reviews evidence from psychology, anthropology, and behavioral economics that refutes this model (see also Baumeister 2005). He argues that humans have evolved as social and cultural beings with an innate tendency to cooperate with one another—for example, to demon-

<sup>1</sup>For other examples of this approach, see Bates et al. (1998).

<sup>2</sup>See the review of Greif's book by Clark (2007b).

strate reciprocity and to exhibit moral outrage at “cheaters.” This more realistic model of human nature undermines NWW’s rather Hobbesian understanding of the essential role of the state in restraining a violent and selfish human nature. Humans, having evolved to be naturally cooperative, are often able to create a viable social order without a coercive state having to impose it on them.<sup>3</sup> Field’s critique also casts doubt on the usefulness of the “analytical” part of the method of analytical narrative as a way of understanding institutions (it does not, however, detract from the value of the narrative part). More generally, the “rational” model of human behavior is a gross simplification that provides a workable foundation for the Ricardian theory of production. However, it is not an adequate foundation for a study of economic and political institutions.

A second weakness of NWW, again characteristic of NIE in general, is its treatment of the economy. In fact, the book has very little to say about the economy as such. But we cannot really understand how institutions affect the economy—or how the economy affects institutions—without a detailed understanding of how the economy actually works. NWW, and NIE, implicitly assume a Ricardian theory of production—a theory of resources and technology. They simply add to this a “social technology” of institutions.

One danger of merely tacking on institutions to a Ricardian theory of the economy is that it practically invites yet another dirigiste fad in development economics—aimed this time at making up deficiencies in institutions.<sup>4</sup>

## Conclusion

So where does this leave our quest to understand the nature and causes of economic progress? We began by recognizing the failures of the Ricardian approach both in economic history and in development economics. We saw that there has consequently been a movement in a Smithian direction—expressed particularly in recognizing the importance of institutions. This has found expression in development economics in a program of econometric analysis of cross-country data aimed at unraveling the connection between institutions and growth. This work has been suggestive, but its contribution to our

<sup>3</sup>See Dixit (2008) for a valuable summary of how they do so.

<sup>4</sup>See, for example, Rodrik (2007). For a critique, see Lal (2007) and Dixit (2007).

understanding has been constrained by the limitations of the data and by a lack of theoretical foundations. It is not clear that much more can be expected from this line of research.

Economic history has taken a more micro and theoretical approach. The resulting work has shed considerable light on the functioning of institutions, on which institutions matter, and to some extent on why. However, it has paid insufficient attention to the nature of the overall economic process within which institutions are embedded. What is needed, therefore, is a more Smithian understanding of the economy—one that sees it not as a machine but as an evolving organism (a biological rather than a mechanical analogy).<sup>5</sup> If this can be done, a theory founded on the lessons of economic history offers the greatest promise of answering the basic questions of economic development and growth.<sup>6</sup>

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<sup>5</sup>See Kohn (2004) for a discussion of these two very different views of the economy and for references to work that takes the second view. In the terminology of that article, the NIE generally takes a “hybrid” approach to theory—an unhappy compromise between the two views. A Smithian understanding of the economy has very different implications—much less rosy ones—for the likely outcome of interventions aimed at changing institutions.

<sup>6</sup>I am currently attempting to develop just such a theory: manuscript chapters of my book-in-progress may be downloaded from [www.dartmouth.edu/~mkohn/how.html](http://www.dartmouth.edu/~mkohn/how.html).

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