

**A BRIEF REVIEW OF THE LITERATURE ON ECONOMIC DEVELOPMENT AND
GROWTH**

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For economics the most basic challenge is to explain 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 showed that increases in *physical* inputs explain only a small part of observed changes or differences in output, Ricardian theory has focused primarily on the non-physical—on technological change and on increases in human capital (skills and knowledge)—in explaining growth.¹

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 since the early 1800s. There have been attempts at purely Ricardian explanations: Pomeranz has suggested that it was the discovery of new resources in the Americas and in England's coalfields that did the trick; Clark, that human evolution in England came to favor human capital accumulation and

¹Robert M. Solow, "Technical Change and the Aggregate Production Function," *Review of Economics and Statistics* 39 (1957)., Robert E. Lucas, *Lectures on economic growth* (Cambridge Mass., 2002)., Oded Galor, "From Stagnation to Growth: Unified Growth Theory," (2005).

technological progress.² However, neither explanation has achieved wide acceptance, and Broadberry has challenged both studies on the facts.³

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, human capital—all had their day. The results, to put it mildly, were disappointing; Lal and Easterly have documented the sorry record.⁴

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.⁵ The obstacle to their development is not a lack of resources or technology, but a failure to exploit the resources and technology that are available. In development economics and in economic history, attention has therefore shifted to how and to what degree economies

²Kenneth Pomeranz, *The great divergence : Europe, China, and the making of the modern world economy* (Princeton, N.J., 2000)., Gregory Clark, *A Farewell to Alms: A Brief Economic History of the World* (Princeton, 2007)..

³Stephen Broadberry, "Recent Developments in the Theory of Very Long Run Growth: A Historical Appraisal," (2007), Stephen Broadberry and Bishnupriya Gupta, "The early modern great divergence: wages, prices and economic development in Europe and Asia 1500-1800," *Economic History Review* vol 59 no 1 (2006).

⁴Deepak Lal, *The poverty of "development economics"*, 2nd rev. and expanded U.S. ed. (Cambridge, Mass., 2000)., William Easterly, *The elusive quest for growth: Economists' adventures and misadventures in the Tropics* (Cambridge, Mass., 2001), William Easterly, *The white man's burden : why the West's efforts to aid the rest have done so much ill and so little good* (New York, 2006).

⁵See, for example, Hernando de Soto, *The mystery of capital : why capitalism triumphs in the West and fails everywhere else* (New York, 2000)., S. L. Parente and E. C. Prescott, *Barriers to Riches* (Cambridge, 2000)., and Robert Guest, *The shackled continent : power, corruption, and African lives* (Washington [D.C.], 2004)..

succeed in realizing their potential. Grantham has labeled this approach—more in the spirit of Adam Smith than of David Ricardo—Smithian.⁶

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—by North and Thomas and by Jones in particular.⁷ But many others have made important contributions—economists such as Buchanan, Tullock and Olson, and historians such as McNeill and Macfarlane.⁸ Development economists, too, soon began to take an intense interest in economic and political institutions.⁹

In the study of institutions and their role in economic progress there are two fundamental questions: How do different institutional arrangements affect economic growth and development? 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.

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

⁶George Grantham, "Contra Ricardo: On the macroeconomics of pre-industrial economies," *European Review of Economic History* 2 (1999).

⁷Douglass C. North and Robert Paul Thomas, "An economic theory of the growth of the Western world," *The Economic History Review* 23 (1) (1970)., E.L. Jones, *Growth Recurring: Economic Change in World History* (Oxford, 1988).

⁸James M. Buchanan and Gordon Tullock, *The Calculus of Consent: Logical Foundations of Constitutional Democracy* (Ann Arbor, 1965)., Mancur Olson, *The Rise and Decline of Nations* (New Haven, Conn., 1982)., William H. McNeill, *The Pursuit of Power: Technology, Armed Force, and Society* (Chicago, 1982)., Alan Macfarlane, *The making of the modern world : visions from the West and East* (Houndmills, Basingstoke, Hampshire, 2002)..

⁹For a useful survey, see Mary M. Shirley, "Institutions and development," in *Handbook of new institutional economics*, ed. Claude Ménard and Mary M. Shirley (Dordrecht, 2005)..

political institutions in an attempt to uncover which institutions are associated with more rapid economic growth. Some important contributors to this literature includes Levine, Shleifer, Glaeser, and Acemoglu and their various collaborators.¹⁰ 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 establishing 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.¹¹ 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, and the numerical measures used are therefore always problematic.

There is, however, a deeper problem with this literature: it does not, and indeed cannot, shed any light either on *how* different institutions affect economic growth (as opposed to whether they do) or 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 shed light on the mechanisms at work: these are micro issues and they cannot be addressed with macro data.

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 above).¹² The modifier ‘new’ distinguishes this movement from the school of institutional economics that predated the

¹⁰Two surveys: Ross Levine, "Financial development and economic growth: views and agenda," *Journal of Economic Literature* 35 (1997)., Andrei Shleifer et al., "The New Comparative Economics," *Journal of Comparative Economics* 31 (2003)..

¹¹Edward L. Glaeser et al., "Do Institutions Cause Growth?," *Journal of Economic Growth* 9 (2004).

¹²Claude Ménard and Mary M. Shirley, eds., *Handbook of new institutional economics* (Dordrecht, 2005).

mathematical and statistical revolutions in economics in the 1940s and 1950s.¹³ 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 brings together much of his seminal work on medieval institutions.¹⁴ Greif describes his approach as that of the ‘analytical narrative’.¹⁵ This 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 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.¹⁶

An important forthcoming book by North, Wallis, and Weingast 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.¹⁷ Its analysis is ‘macro’ rather than micro, and it does not employ explicit mathematical modeling. North, Wallis, and Weingast argue that economic and political organization are not only interdependent but, more than this, they are two parts of an organic organizational whole

¹³See Warren J. Samuels, "Institutional economics," in *The New Palgrave: A Dictionary of Economics*, ed. John Eatwell, Murray Milgate, and Peter Newman (London, 1987)..

¹⁴Avner Greif, *Institutions and the path to the modern economy : lessons from medieval trade* (Cambridge, 2006).

¹⁵For other examples, see Robert H. Bates et al., eds., *Analytical Narratives* (Princeton, 1998).

¹⁶See the review of Greif’s book by Gregory Clark, "A Review of Avner Greif’s *Institutions and the Path to the Modern Economy: Lessons from Medieval Trade*," *Journal of Economic Literature* 45 (2007)..

¹⁷Douglass C. North, John Joseph Wallis, and Barry R. Weingast, " A conceptual framework for interpreting human history," in mss presented at Harvard Institute for Quantitative Social Science (October, 2007).

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 higher 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 political and economic development. However, it falls short of its very ambitious goal, because of two fundamental weaknesses that it shares with much of the NIE program in general.

The model of human behavior on which NIE rests is the model of the atomistic rational individual. In a recent critique, Field brings evidence from psychology, anthropology, and behavioral economics that rejects this model.¹⁸ He argues that humans have evolved as social and cultural beings with an innate tendency to cooperate with one another—for example, to demonstrate reciprocity and to exhibit moral outrage at ‘cheaters’. This more realistic model of human nature undermines North, Wallis, and Weingast’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.¹⁹ Field’s critique also casts doubt on the usefulness of the ‘analytical’ part of the method of analytical narratives 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 Ricardian theory. However, it is not an adequate foundation for the study of institutions.

¹⁸Alexander J. Field, "Beyond foraging: behavioral science and the future of institutional economics," *Journal of Institutional Economics* 3: 3 (2007).. See also Roy F. Baumeister, *The cultural animal : human nature, meaning, and social life* (Oxford ; New York, 2005)..

¹⁹See Avinash Dixit, "Economic governance," in *The New Palgrave Dictionary of Economics, 2nd edition*, ed. Steven Durlauf and Lawrence Blume (London, 2008 (forthcoming)). for a valuable summary.

A second weakness of North, Wallis, and Weingast, again characteristic of NIE in general, is its treatment of the economy. In fact, North, Wallis, and Weingast have very little to say about the economy as such. However, 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. North, Wallis, and Weingast, and NIE, implicitly assume a Ricardian theory—a theory of resources and technology. They simply add to this a ‘social technology’ of institutions. In this sense they, and NIE, are not Smithian enough.

A more thoroughgoing Smithian approach would embed the theory of institutions in a very different understanding of the economy—one that sees it not as a machine but as an evolving organism (a biological rather than a mechanical analogy).²⁰ Such a Smithian view of the nature of the economy implies a very different understanding of the meaning of economic progress and consequently of the role of institutions.

One danger of merely tacking institutions on to a Ricardian theory is that it almost invites yet another dirigiste fad in development economics—aimed this time at making up deficiencies in institutions.²¹ A Smithian understanding of the economy has very different implications—much less rosy ones—for the likely outcome of such interventions.²²

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

²⁰See Meir Kohn, "Value and exchange," *Cato Journal* 24 (3) (2004). for a discussion of these two very different views of the economy and for references to work that takes the second view. A recent example of the latter is Eric D. Beinhocker, *The origin of wealth : evolution, complexity, and the radical remaking of economics* (Boston Mass., 2006)..

²¹See Dani Rodrik, *One economics, many recipes : globalization, institutions, and economic growth* (Princeton, 2007).. For a critique, see Deepak Lal, "Review of *Biography of a Subject: An Evolution of Development Economics* by Gerald M. Meier," *Journal of Economic Literature* 45 (2007). and Avinash Dixit, "Evaluating recipes for development success," (2005)..

²²See Kohn, "Value and exchange."

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 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 a great deal of light on the functioning of institutions, on which institutions matter, and to some extent on why. However, insufficient attention has been paid to the nature of the overall economic process within which institutions are embedded. This has limited the contribution of this line of research in addressing the broader questions of economic progress. Nonetheless, this line of research holds the greatest promise for furthering our understanding, especially if its deficiencies can be addressed.