THE ROLE OF LAW IN ECONOMIC GROWTH AND DEVELOPMENT

Thomas S. Ulen[1]

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Abstract: I begin with an overview of the statistics that characterize modern economic growth and of the various theories that have been proposed to explain those statistics. Among those theories, the one that encompasses law and seems to hold the most promise of providing an explanation of successful growth and a guide to policies for fostering and sustaining growth is the one that stresses the importance of growth-enhancing institutions. However, neither that theory nor any of the others surveyed here adequately explains growth. I argue that this view of law and other institutions as the "golden key" to successful economic growth is misplaced for four reasons: it ignores the existence of well-functioning substitutes for law, such as social norms; it ignores the multitude of different methods of achieving sustained modern growth; it ignores the remarkable success of China; and it places too small a value on the role of political factors—especially of political courage—in fostering growth and development. I conclude that our ability to specify the conditions under which sustained modern economic growth will take root are limited—but not nonexistent.

[1] Swanlund Chair Emeritus, University of Illinois at Urbana-Champaign; Professor Emeritus of Law, University of Illinois College of Law; and Former Director of the Illinois Program in Law and Economics and the Illinois Program in Law, Behavioral, and Social Sciences.

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I. Introduction

Why some nations have grown and prospered and others have not is one of the most remarkable puzzles of modern scholarship and one of the most pressing issues in public policy. And considering how long the topic has fascinated scholars, it is surprising how little we truly know about the subject. What we do know is that modern growth is very different from episodes of growth in the past: those historical episodes (the Roman Empire, the Holy Roman Empire, the triumphs of Ozymandias, Spain in the 16th and 17th centuries; the ancient Mayan, Aztec, and Incan empires; and those who developed Angkor Wat in Cambodia) were all transitory, based on conquest of other peoples, and premised on a finite store of valuable natural resources; modern growth is sustained, cumulative, driven by technology, discovery, (largely) private enterprise, and facilitating public legal and governance institutions. We know that the sustained growth that characterizes the last two centuries began: in the early 19th century in northern Europe—most notably in the United Kingdom and the Netherlands.

But there is no consensus on much else about modern economic growth and development. For instance, while there are, as we shall see, many theories of the causes of growth, none of those theories commands universal favor. Nor is there much agreement about what should be done to help the most distressed, the poorest people and countries in the world to begin the process of growth.[2] And there is great controversy about why some areas of the world—central Asia, sub-Saharan Africa, and much of the Arab world—seem to be nearly immune to modern growth.[3] Nor do we fully understand why some countries that were once relatively prosperous, such as Argentina and Spain, lost much of their wealth and then seem to have begun to regain prosperity.[4]

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[2] See Paul Collier, *The Bottom Billion* (2007), for thoughtful proposals for helping the poorest one-sixth of humanity.

[3] I shall also contend later that even the poorest regions of the world have recently experienced upsurges of growth that inspire hope for their continued betterment.

[4] The instances of Argentinian and Spanish decline are distinguishable. Spanish decline in the 16th and 17th centuries follows the pattern of pre-modern growth – betterment got through conquest and exploitation followed by decline as the resources run out and the conquest is challenged. Argentina's case is different: it was a relatively early participant in modern growth (which I further define in the a following section); indeed, Argentina was one of the wealthiest countries in the world in the 1930s; unlike almost any other participant in modern economic growth, Argentina then began a 70-year period of decline that has only begun to reverse itself within the last decade. For a persuasive theory of why Argentina stagnated and declined, see Lee J. Alston & Andres A. Gallo, "Electoral Fraud, the Rise of Peron, and the Demise of Checks and Balances in Argentina," 47 *Expl. Econ. Hist.* 179 (2009).

The search for explanations of what causes growth and how growth can become the standard human condition has ranged far and wide and has recently looked to law as a central causal factor.[5] In this essay I want to assess the role of law in fostering or sustaining economic growth. My view is that law is important but not central. Bad law (including no law) can certainly stifle growth or even reverse it, but the positive case for law as a central force in development is not, I argue, strong.

The essay proceeds in the following steps. In the next section I briefly review the most recent patterns of economic growth and some theories of economic growth, and identify some recent issues in development. Section III considers the role that law in its many forms might play in fostering development and prosperity. A concluding section summarizes the argument.

II. Patterns of Recent Economic Growth

Economic growth has long fascinated scholars. Arguably, the modern science of economics began—in Adam Smith's *An Inquiry into the Nature and Causes of the Wealth of Nations* (1776)—with a treatise on economic growth. Since then, the profession's concern with explaining and fostering growth and development has been episodic. We appear to be in a phase now in which economists (and others) are devoting a great deal of time to the subject. Before we turn to a summary of those efforts, let me first sketch the very long-run patterns of economic growth and then turn to consideration of the very recent record.

A. The Long View

Modern economic growth, by which I mean "sustained economic growth," began in the early 19th century (or possibly the late-18th century) in northern Europe, principally in the United Kingdom and the Netherlands.[6] There had been no discernible increase in human well-being during the first millennium of the modern era, and the best estimate is that average per capita income increased by 50 percent during the 800 years between 1000 A.D. and 1800 A.D. There were dif-

[5] There was a "first" law and development movement in the early and mid-1970s. That literature, to which David Trubek and Marc Galanter of the University of Wisconsin School of Law were prominent contributors, sought to explore the transferability of the great successes that U.S. law had worked in civil rights in the 1960s and 1970s to similar rights issues in developing countries. For a critical review of that earlier literature, see Brian Tamanaha, "The Primacy of Society and the Failures of Law and Development," SSRN Working Paper (October, 2009).

[6] Angus Maddison, who died in late April, 2010, dates the beginning of modern growth from 1820. See Angus Maddison, *The World Economy: A Millennial Perspective / Historical Statistics* (2007), and A. Maddison, *The Contours of the Word Economy 1 – 2030 A.D.: Essays in Macro-Economic History* (2007).

ferences in average per capita income across the world in 1800, but those differences were not that substantial.[7] The world's richest economy in roughly 1800, the United Kingdom, had an average per capita income that was approximately four times that of the then (and still) poorest region in the world, Africa.[8]

Between 1820 and 2000 average per capita income and total world output of goods and services increased substantially.[9] For the world as a whole, average

[7] See Maddison, *The World Economy*, supra n. 3, and Jeffrey Sachs, *The End of Poverty: Economic Possibilities for Our Time* (2006).

[8] Sachs, supra n. 4.

[9] Here is a brief primer on growth accounting. There are two standard measures of economic growth—the annual growth rate of Gross Domestic Product (GDP), which is the value of all goods and services produced in the economy, and the annual growth rate of GDP per capita, which is equal to the difference between the growth rate of GDP and the growth rate of population. For cross-country comparisons of GDP, adjustments are made to take account of price level differences in different countries, so that, after the adjustments are made, GDP is said to be measured at "purchasing power parity" or PPP. For the purposes of benchmarking, the annual growth rate of the United States has been in the range of 3.1 – 3.5 percent since, we believe, the early 17th century. (The U.S. growth rate in the first quarter of 2010 was recently reported to have been 3.2 percent, on an annual basis.) At that rate, real (that is, adjusted for price changes) GDP doubles approximately every 20 years—approximately once each generation or, if that rate is sustained and if average lifespan is 80 years, real GDP quadruples in the course of an average U.S. lifetime. (According to the rule of thumb known as the "Rule of 72," anything growing at the annual rate of r percent will double in $72/r$ years.)

Simply looking at GDP growth may be misleading because it does not tell us, among other things, the share of GDP potentially available to the average resident of the nation. To get that figure, we need to divide GDP by the population. And recall that the growth rate of GDP per capita (or income per capita) is the growth rate of GDP minus the growth rate of population. Population growth rates of approximately 2 percent per year are common in developed countries (and lead to what is called "steady state population"). So, in a country with that population growth rate and a GDP growth rate of 3.5 percent per year, GDP per capita is growing at a rate of 1.5 percent per year –doubling in approximately 48 years.

There is dissatisfaction in some quarters with reliance on GDP and GDP per capita as summary measures of the well-being in a society. Three recent attempts at supplemental or substitute measures of how well a society is doing are the UN Development Program's Human Development Index (first introduced in 1990 and recomputed annually), the World Values Surveys of subjective measures of well-being, and the recent report commissioned by President Nicolas Sarkozy of France (Joseph Stiglitz, Amartya Sen, & Jean-Paul Fitoussi, *Report of the Commission on the Measurement of Economic Performance and Social Progress* (2009)).

To give an example of an alternative measure, the UN Development Program developed the HDI in response to Amartya Sen's arguments that the principal goal of economic development should be the expansion of human capabilities. Each country's HDI is a weighted sum of the citizenry's life expectancy at birth (meant to be a proxy for health), education (a composite of the adult literacy rates, weighted two-thirds, and the combined elementary, secondary, and tertiary gross enrolment rate—the percentage of children enrolled as a percentage of those eligible to be enrolled—weighted one-third), and the standard of living (measured as the natural log of GDP per capita). In the most recent HDI rankings (published in October, 2009, based on data of 2007),

per capita income during this period increased by nine-fold. But some countries prospered far more than that. In the United States, average per capita income increased 25-fold; in Western Europe, 15-fold. For the world as a whole (world GDP, if you will), the total value of all goods and services increased by a factor of almost 50. We do not yet fully understand why some countries grew faster than others.

An important implication of this broad, long-term view of economic growth is that the phenomenon of increasing societal well-being is modern. For the vast stretch of human history, human beings did not have a reasonable expectation that their standard of living or per capita income would increase over the course of their lifetimes, nor that their children or grandchildren could anticipate easier, healthier, wealthier, or longer lives than they lived.

Increasingly since the early 19th century, the notion of growth in well-being and per capita income has come to be a reasonable expectation. And that expectation is not just reasonable in the developed economies; it has also become a reasonable expectation of those in the poorer, developing countries. And in some instances the expectation is not just of gradual increases in well-being or increases that will accrue to one's children and grandchildren but of rapid and palpable increases for each generation. Some economies, such as India and China, which contain 40 percent of the 6.5 billion people on Earth, are growing at annual rates on the order of 8 – 10 percent. Growth in Gross Domestic Product at that pace implies that GDP will double each 7 to 9 years.[10] Supposing that population growth is not too great, this rate of increase in GDP suggests that average per ca-

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Norway ranked first at 0.971, Australia ranked second at 0.970, and the United States ranked thirteenth at 0.956.

All this having been said, it nonetheless appears to be the case (see Justin Wolfers, Freakonomics blog, January, 2010) that there is a very high correlation among all these different measures. As a result, perhaps we may rely after all on GDP and GDP per capita as indicators of societal well-being.

See also Jon Gertner, "The Rise and Fall of the GDP," *New York Times Sunday Magazine* (May 16, 2010), available at www.nytimes.com/2010/05/16/magazine and www.stateoftheusa.org/.

[10] The People's Republic of China, which is, as we will see, anomalous in the standard account of growth has been growing at a real annual rate of 9 percent for almost 30 years. The most recent quarterly figure suggests that China will grow at a rate of greater than 10 percent in 2010. Growth rates of this magnitude have never been sustained for such long periods of time. The United States, for the sake of comparison, has only had one year of 9 percent real growth (in the late 1930s) in its history.

India has been growing at a more modest, but still relatively rapid, rate of 8 percent per year since the early 1990s, after the introduction of reforms by Manmohan Singh. In the development community there is a great deal of interest in speculating about which of these giants—the messy Indian democracy or the centrally controlled Chinese economy—will prove to be the better model for other developing countries.

pita income could double every decade or 15 years. As health improves and life-span increases, this means that individuals could see their annual incomes double or even quadruple during a single lifetime. That is demonstrable improvement in matters that creates strong expectations. And those expectations can and do give rise to societal disruptions and political pressures.[11]

To put the matter succinctly, the 190-year-long period of modern economic growth began with all countries roughly in equal conditions of well-being. The richest country in the world had an average per capita income in 1820 that was about 90 percent of that in a modern African country. The ratio between the average per capita income in the wealthiest country in the 1820 world and the poorest was on the order of four to one. And average life expectancy in Japan and Western Europe was approximately 40 years.

But by 2000, the picture was very different. Approximately one-sixth of humanity had risen to high-income status, levels of well-being hardly imaginable at the beginning of the 19th century. Approximately two-thirds of humanity had risen to middle-class status, with comfortable but not extravagant levels of well-being. And approximately one-sixth of humanity is stuck in extreme poverty—stuck, that is, at the same levels of well-being that characterized the entire world at the beginning of the modern period.[12]

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[11] To my knowledge, no one has written about how the experience of modern economic growth has changed the average person's expectations for his or her life's accomplishments and how those changes then give rise to political action. But the topic is a potentially important one and ought to command scholarly attention.

[12] Since the early 1990s, the development community has measured extreme poverty in two tranches—those who live on $1 per day (approximately $500 per year) and those who live on $2 per day (approximately $1,000 per year). There is now a consensus that the total number of people living in dire poverty has fallen dramatically since the 1980s. This wonderful accomplishment is largely due to the remarkable record of economic growth in the two largest (by population) countries in the world—India and China. Their sustained growth since the early 1980s or early 1990s has lifted a very large number of very poor people out of poverty and put them well on the way to middle income.

For a more detailed account of the lives of the poorest billion, see Abhijit Banerjee & Esther Duflo, "the Economic Lives of the Poor," 21 *J. Econ. Persp.* 141 (2007).

Although the total number of destitute human beings has fallen significantly over the past 30 years, there are still approximately one billion people who are living on $1 or $2 per day. Here are a few facts about the experience of those who remain desperately poor. About 70 percent of them live in sub-Saharan Africa. (See Collier, supra n. 2.) During the 1970s the per capita income of the bottom billion rose at the rate of 0.5 percent per year; during the 1980s, it *declined* at the rate of 0.4 percent per year so that by 1990 the poorest people on the planet were literally back at the point at which they had begun the 1970s. During the 1990s, which most scholars reckon to have been a golden decade of growth between the bookends of World War II and 9/11, the per capita income of the poorest declined at an even faster rate than it had in the 1980s—at 0.5 percent per year. Thus, in 2000 the bottom billion were literally worse off than they had been in 1970. There have been glimmers of hope for the worst off in the first decade of this century: since 2004 many

B. The Scholarly Literature on the Causes of Growth

When modern economists, beginning with Sir Roy Harrod, Evsey Domar, and Robert Solow, first turned their attention to economic growth, they characterized the growth process as one that was technical and, at root, driven by improvements in the technology of production. But these improvements were modeled to be exogenous—that is, while there was a certainly a logic to the pattern of technological improvement,[13] Harrod, Domar, and Solow assumed that it simply appeared, as if thrown from the sky by the gods. Growth was a technical matter of organizing production so as to use society's resources more efficiently. An excess of income over expense (or profit over cost) could be used to invest in expansion for greater output and greater income and profit in the future.

In Solow's famous and innovative attempt to test the applicability of the model's predictions to the record of 20th century U.S. growth, the vast bulk of growth—well more than 50 percent—was attributable to the "residual"—that is, to the growth of "total factor productivity," the accumulated improvement in the efficiency with which resources were organized for production (as opposed to growth occurring through increases in the quantities or productivity of individual factors of production, such as land, labor, and capital).[14] But, as noted, this clearly vital engine of growth was not explained within the model. Technological change was exogenous to the model.

The policy implications of the Harrod-Domar and Solow models of economic growth were seized upon in the 1960s and 1970s to guide aid and advice to the developing countries. The central policy recommendation that advisors gave to the developing world was to increase the amount of productive capital equipment, such as dams, roads, factories, power generation, and the like so as to put in place a capital infrastructure that would encourage entrepreneurial activity and raise the

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sub-Saharan African countries have been growing at a rate of 6 percent per year, and the income per capita of the poorest has grown at 1.7 percent per year. There is some skepticism among development scholars about the sustainability of these figures in that they may simply be due to the discovery of valuable natural resources and the increase in world prices for those resources. It is not at all certain that the revenues from the international sale of these resources is widely distributed so as to make a significant difference in the lives of the poor.

[13] For example, a labor-scare and resource-abundant society, like the 19th-century United States, looked for technological improvements that substituted for labor. In contrast, a labor-abundant and resource-poor society, like England in the 19th century, looked for technological change that saved resources and capital.

[14] Robert M. Solow, "A Contribution to the Theory of Economic Growth," 70 *Q. J. Econ.* 65 (1956), and Solow, "Technical Change and the Aggregate Production Function," 3 *Rev. Econ. & Stat.* 312 (1957).

capital-labor ratio to levels that would sustain higher growth rates. Because the developing world did not have sufficient domestic savings to invest in capital accumulation, the developed world filled this "financing gap" through aid that was to be invested in massive capital-accumulation projects.

The result of this (perhaps misguided) application of the Harrod-Domar and Solow models to development was grim failure. There was no discernible growth in the countries that received aid; nor was growth demonstrably faster in those countries that received more aid; nor was there any other empirical indication that the aid based on the "financing gap" model was helpful.[15]

The lack of progress of development in the poorest countries through the 1980s gave rise to searches for better theories of growth and better methods of helping the poor nations. Among scholars there was great interest in two strands of thought. The first was the elaboration of "endogenous growth" (or "new growth theory") models. The innovation of those models was to bring technical change within the model so that real factors in an economy determined the rate of technical change and, through that rate and other real factors, the nation's growth rate.[16] Although these new growth models were a tremendous scholarly advance, they have not had a deep impact on the policy of advising or aiding developing economies.

The second strand of academic thought on economic growth that gave rise to excitement was the interest in "institutions" as a fundamental determinant of national growth and development. Douglass North, a co-winner of the 1993 Nobel Memorial Prize in the Economic Sciences, had long been associated with the "new institutional economics," which holds, among other things, that the legally and otherwise-determined rules that govern economic activity have a profound influence on the ability of an economy to prosper.[17] For example, the mechan-

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[15] The story is marvelously told in William Easterly, *The Elusive Quest for Growth: Economists' Adventures and Misadventures in the Tropics* (2001). In more recent work, Easterly (*The White Man's Burden: Why the West's Efforts to Aid the Rest Have Done So Much Ill and So Little Good* (2007)) and others (see Dambisa Moyo, *Dead Aid: Why Aid Is Not Working and How There is a Better Way for Africa* (2009)) have argued that the most productive way forward in development is for the West to stop giving foreign aid; not to make it conditional on the adoption of better policies but simply to stop giving it. In contrast, Jeffrey Sachs (see Sachs, supra n. 4) has urged the West to make a stronger commitment to give aid, carefully targeted to the most promising ends, such as health and education.

[16] Paul Romer, "Increasing Returns and Long-Run Growth," 94 *J. Pol. Econ.* 1002 (1986), and Romer, "Endogenous Technological Change," 98 *J. Pol. Econ.* S71 (1990). For a nontechnical discussion, see Paul Romer, "Economic Growth," in David R. Henderson, ed., *The Concise Encyclopedia of Economics* (2007).

[17] Douglass C. North, *Understanding the Process of Economic Change* (2005), and Douglass C. North & Robert Paul Thomas, *The Rise of the Western World: A New Economic History* (1976). See also Stephen L. Parente & Edward C. Prescott, *Barriers to Riches* (2000). In his wonderful

isms by which a society encourages and rewards risk-taking will have a deep effect on investments that might be necessary for growth. If a society discourages economic risk-taking or does not have appropriate safety nets to catch those who take risks and fail, then that society may not have sufficient investment in entrepreneurial activity. In theory, economists could identify the institutions that are necessary for a nation to grow and prosper, see if a given nation has those institutions, and if it does not, suggest means by which it might acquire those vital institutions.[18]

One of the most interesting strands of scholarship to emerge from the institutional literature is the work of Daron Acemoglu, James A. Robinson, and Simon Johnson. In a series of insightful articles,[19] they have argued that there is persuasive theoretical and empirical evidence that those nations that have strong legal and social institutions have prospered and that those nations that do not have strong and stable institutions have not prospered. Consider the phenomenon they characterize as the "reversal of fortune."[20] The starting point for the article is the observation that in the 16th, 17th, and 18th centuries there were some colonies of European countries that were extremely wealthy (such as some Caribbean islands) and others that were relatively poor (such as North America). But by the late 20th century, these roles had been reversed: the former colonies that had been relative-

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survey of economic thinking about growth, Elhanan Helpman concludes that the technical models had not provided the explanatory power and guidance for practical policymaking that developing countries desire. But, he wrote, the interest in institutions as a bedrock of growth holds great promise for both explaining and directing growth. See Helpman, *The Mystery of Economic Growth* (2004).

[18] The "Washington consensus," which I shall discuss shortly, was the policy implementation of this view. Dani Rodrik of the Kennedy School of Government, Harvard University, has been a consistent champion of the view that institutions are central to economic prosperity. See "Getting Institutions Right" (April, 2004) (available at http://ksghome.harvard.edu/~drodrik/ifo-institutions%20article%20_April%202004_.pdf) (last accessed, October 21, 2009) and "Institutions Rule: The Primacy of Institutions Over Geography and Integration in Economic Development" (with Arvind Subramanian and Francesco Trebbi) 9 *J. Econ. Growth* 131 (2004). See also Michael Spence, Chair, Commission on Growth and Development, *The Growth Report: Strategies for Sustained Growth and Inclusive Development* (2008) (available at http://www.growthcommission.org/index.php?option=com_content&task=view&id=96&Itemid=169) (last accessed, October 21, 2009).

[19] See, for example, Daron Acemoglu, Simon Johnson, & James A. Robinson, "The Rise of Europe: Atlantic Trade, Institutional Change and Growth," 95 *Am. Econ. Rev.* 546 (2005) and "The Colonial Origins of Comparative Development: An Empirical Investigation," 91 *Am. Econ. Rev.* 1369 (2001). See also Acemoglu & Robinson, *Economic Origins of Dictatorship and Democracy* (2005) and Acemoglu, *Introduction to Modern Economic Growth* (2009).

[20] Acemoglu, Johnson, & Robinson, "Reversal of Fortune: Geography and Institutions in the Making of the Modern World Income Distribution," 117 *Q. J. Econ.* 1231 (2002).

ly wealthy were now relatively (and in some cases absolutely) poor and those that had been poor were now wealthy. What explains this reversal of fortune?

According to Acemoglu, Johnson, and Robinson, the key difference between the two groups of colonies is the presence of institutions that would facilitate long-run growth. The colonies that used to be wealthy were "extractive": they had substantial deposits of valuable natural resources that the European colonizers wanted to get out of the colony, onto ships, and into markets in Europe as quickly as possible. Because these colonies were valued only to the extent that they had valuable natural resources and those resources were finite, the colonizers did not have a long-term interest in the colony. As a result, there was no reason for the colonizers to invest in establishing and nurturing stable and valuable institutions. For example, there was nothing to be said for establishing representative and responsive governance structures in the extractive colonies. The inhabitants of the colonies were to be exploited, not encouraged to be self-governing. Nor was there much to be said for encouraging widespread and secure property interests or the other institutions of a well-functioning civil society. Nor was there an incentive to facilitate consensual agreements through third-party enforcement of contracts.

As a result, when the natural resources ran out, the Europeans left, and these extractive colonies began a long slide into poverty with no stable institutions to arrest that slide or to provide alternative sources of economic growth.

Contrast this account of the history of extractive colonies with that of what Acemoglu, Jonson, and Robinson call "settler colonies." In the 16th, 17th, and 18th centuries these colonies—such as Canada, the United States, and New Zealand—had no immediately valuable natural resources that could be extracted for transportation to markets in Europe.[21] In order to become valuable to their Euro-

[21] It is instructive to consider, in broad outline, the history of one of the most prominent early American colonies. Virginia was founded as a profit-maximizing enterprise by London and Bristol investors who had reason to believe, on the basis of reconnaissance reports, that there were mulberry trees in Virginia suitable for producing silk. The gentlemen who first populated that colony intended to be silk producers, with labor for gathering and weaving to be supplied by enslaved Indians. Things did not work out that way. First, there was no silk—there were mulberry trees but no silk worms. Second, the Indians refused to be enslaved and, indeed, fought back against such attempts. Third, the gentlemen had no experience with farming and so nearly died when their initial supplies and the willingness of the Indians to help them were exhausted. The venture was saved from complete failure by Captain John Smith, who organized everyone in the colony with military efficiency (and tolerated little dissent), married an Indian woman, and put the gentlemen to work planting tobacco as a cash crop, against the express wishes of the King (who thought tobacco to be a society-rotting habit and wrote a pamphlet against tobacco use). The King's objections vanished when the tax revenues and import duties on tobacco proved to be a welcome source of revenue in his battle with Parliament. Tobacco and indigo were the chief cash or export crops of the southern colonies until after the American Revolution of 1776-1783. And cotton did not become a viable cash crop for large numbers of farmers until after the invention and

pean masters, these colonies would require longer-run development. In particular, they would need to become populated with people who could develop the colony so that it would become valuable to the mother country. So, these colonies sought to encourage emigration from the mother country (and other European countries). And the settlers would be more eager to come to the extent that there were attractive prospects of success in the colony.[22] This fact, argue Acemoglu, Johnson, and Robinson, explains why these colonies developed stable, attractive, citizen-empowering institutions. And those institutions served the long-run interests of the colonists so well that over the long haul those colonies became wealthy.[23]

The recognition that institutions may be an important—and, possibly, the most vital—aspect of economic growth is the reason that there is now such elevated interest in the role of law in fostering development. Law is, after all, the institution that may be the one most under human control and the most amenable to change (by comparison to, say, cultural and religious institutions).

The interest in the role of institutions in furthering economic growth also had a great impact on the methods by which international organizations extended aid to developing countries. For example, the "Washington consensus" of the early 1990s held that aid should be conditional on the recipient's adopting institutions that were thought to be conducive to modern economic growth—such institutions (and policies) as fiscal discipline, privatization of state-owned enterprises, trade liberalization, and deregulation. There is now general agreement that the reform experiences of the 1990s, conducted under the Washington consensus, were not successful.[24]

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dissemination of the cotton gin in the early 1970s. Think, in light of Acemoglu, Johnson, and Robinson's distinction between extractive and settler colonies, how very different matters might have been for the U.S. if Virginia had become an extractive colony, rather than, as it became, a settler colony.

[22] An important statistic distinguishing the extractive from the settler colonies was the rate of European mortality: it was much higher in the extractive colonies.

[23] For a skeptical view of the role of institutions, see Edward Glaeser, Rafael La Porta, Florencio Lopez-de-Silanes, & Andrei Shleifer, "Do Institutions Cause Growth?," 9 *J. Econ. Growth*, 271 (2004).

[24] See World Bank, *Economic Growth in the 1990s: Learning from a Decade of Reform* (2005). See also Dani Rodrik, "Goodbye Washington Consensus; Hello Washington Confusion?: A Review of the World Bank's *Economic Growth in the 1990s: Learning from a Decade of Reform*," 44 *J. Econ. Lit.* 973 (2006). At the conference in Hyderabad at which I presented a very early version of this paper, Hans-Bernd Schaefer commented that the Washington consensus was not merely neutral (in the sense of doing no harm even if it did not do much good): it actually did harm in some areas of the world, notably Latin America and Russia (both of which implemented "big bang" policies to move to more "Washington-consensus friendly" policies). Bernd noted that two dire consequences of the implementation in Russia were that life expectancy went from 63 to 55 and per capita income fell dramatically.

The scholarly literature on the causes of economic growth and the practical policy advice that might follow from it are still evolving. Even so, there are two fundamental points about the causes of growth about which there is a general consensus. The first point is that there is no persuasive evidence that the more successful countries achieved their growth by exploiting other countries. The rich came by their wealth relatively honestly (although we are not precisely sure how they managed it). There is great hope in this observation: economic growth is not a zero-sum game in which some are destined to prosper and others not; it is not the case that the only viable path to sustained growth and prosperity is to take from others, thereby impoverishing them until they have the strength to take from you. Rather, the hopeful pattern is, to paraphrase Deng Xiao-ping, that "All will be wealthy; some will be first."[25]

A second point worth making is that among the many possible causes of growth, one that almost no serious student of the process takes seriously is that some portions of humanity—races, religions, ethnic groups—are more adept at growth than are others.[26] Economic growth, prosperity, and happiness are achiev-

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It is not clear that these well-known statistics are a fair characterization of the Russian record of growth after the fall of communism and the Soviet Union in 1991. Andrei Shleifer and Daniel Treisman (in "A Normal Country: Russian After Communism," 19 *J. Econ. Persp.* 151 (2005)) argue that although some aspects of the transition from communism were painful, Russia has made significant economic and social progress, reaching, for example, the middle level of developing countries (with a GDP per capita of $8,000) and that Russia's crime and corruption and other problems are "normal" for a country at that level of development. They attribute the despair over Russia's post-communist development to the widespread misconception that pre-1991 Russia, with its brilliant physicists, world chess champions, space program, and global military presence was a relatively wealthy country. In fact, Shleifer and Treisman show, 1991 Russia was not wealthy; it was more like Argentina or Mexico, in the middle ranks of developing countries.

On the bad effects of the adoption of "Washington-consensus friendly" policies in Latin America, see Francis Fukuyama, *Falling Behind: Explaining the Development Gap Between Latin America and the United States* (2008).

[25] I am grateful to Hans-Bernd Schaefer for this paraphrase. I don't mean to be Pollyanna-ish about the prospects for growth. Some countries and regions have greater resource endowments than others; some have greater access to trade than others; and so on. Nonetheless, if it is institutions that are more important than geography, the prospects for meaningful growth are good everywhere.

[26] There is an important strain in the economic development literature that has held that "culture" is an under-appreciated force in economic growth and development. Max Weber, for example, in *The Protestant Ethic and the Spirit of Capitalism* (1904), argued that northern Europe developed before southern Europe because the prevalent Protestant religions of the north urged its adherents to work hard in this life so as to reveal through their degree of worldly success the extent to which they were God's chosen. In contrast, Weber argued that the fatalistic theism of the Catholic religion prevalent in southern Europe created no incentive for hard work in this life. A more modern proponent of the view that "culture matters" is the great economic historian David Landes. In his *Wealth and Poverty of Nations: Why Some Are So Rich and Some So Poor* (1999), Landes argues

able by all humans. This hopeful point should not be taken to undermine the earlier point about the possible importance of institutions: all human societies may grow so long as they have growth-favoring institutions. The reconciliation of the points may lie in the observation that all human societies are capable of finding and implementing those institutions.

C. More Recent Experience

As I indicated above, roughly all countries began the modern period of growth at the same level of well-being. But they did not end at the same level. Indeed, one of the most significant results of this 190-year period of modern economic growth is the fact that the gap between the richest and the poorest has widened throughout that period. Today the richest country in the world, the United States, has a per capita income that is between 50 and 100 times greater than that of the poorest countries.[27]

The clearest-eyed view of the current state of comparative development holds that *all* nations follow the same general path from underdevelopment to sustained growth but that (as Deng Xiao-ping saw) some began a long time ago and others have begun the process at later dates.[28] For example, the leaders (the United States, Canada, and the countries of northern Europe) began the process in the late 18th or early 19th century.[29] Mexico began the process in the mid-19th century.

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that culture is the most important factor in explaining and predicting national prosperity. He notes, as have many others, that it is not mere coincidence that the countries that are the wealthiest have a connection to English culture. See also David Landes, "Culture Makes Almost All the Difference," in Lawrence E. Harrison & Samuel P. Huntington, eds., *Culture Matters* (2001). Finally, see Francis Fukuyama, *Trust: The Social Virtues and the Creation of Prosperity* (1995). I will address an interesting recent attempt to show how historical events can determine current culture (and thereby affect growth) in the next section.

[27] The per capita income in the United States is (or was before the current Great Recession) almost $50,000, and the annual income of the very poorest is between $500 and $1,000.

[28] Stephen L. Parente & Edward C. Prescott, "A Unified Theory of the Evolution of International Income Levels," in Philippe Aghion & Stephen Durlauf, eds., *The Handbook of Economic Growth* (2005). See also Stephen L. Parente, "Narrowing the Economic Gap in the 21st Century," in Kim R. Holmes, Edward J. Feulner, & Mary Anastasia O'Grady, eds., *2008 Index of Economic Freedom* (available at http://www.heritage.org/Index/) (last accessed, October 21, 2009).

[29] Sachs, supra n. 4, at 33-40. Sachs asks, "Why was Britain first?" And he gives six reasons for Britain's being a leader in modern economic growth. (1) "British society was relatively open, with more scope for individual initiative and social mobility than most other societies of the world." At 33. (2) "Britain had strengthening institutions of political liberty. Britain's parliament and its tradition of free speech and open debate were powerful contributors to the uptake of new ideas. They were also increasingly powerful protectors of private property rights." Id. (3) "Britain became one of the leading centers of Europe's scientific revolution." Sachs counts this factor as being critically important. Id. (4) "Britain had several crucial geographical advantages. It had

Japan began with the Meiji Restoration of the 1860s. Brazil began in the 1920s. The "late starters," such as India and China, began their sustained, modern growth only in the last two decades of the 20th century. And there is now some hope that the heretofore chronically poor sub-Saharan African nations have initiated the modern growth process in the first decade of the 21st century.[30]

There are good reasons for believing that the experience of the leaders will be replicated among the late starters, subject, of course, to the fact that there are different resource and other constraints, different technologies, and different policy concerns (such as global warming) facing the late starters than faced the leaders when they began the process.[31] Indeed, it might be the case that getting a late start may have some advantages. For example, rather than work their way through the various technologies of communication in the same order that the leaders have done, late starters can go straight to the mobile phone and the dizzying array of communications possibilities that the near future holds out.[32]

Do we know what the state of development is in the countries that are and have been seeking to grow? Yes, and the record is somewhere between mixed and encouraging. The "mixed" part is that there are some identifiably poor re-

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low-cost sea trade routes with most of Europe and proximity to North America, where the "new settlements … provided vast new territories for food production and raw materials such as cotton for British industry." Those settlements also provided a "safety valve that facilitated the exodus of impoverished people from the British countryside." Id. (5) "Britain remained sovereign and faced lesser risk of invasion than its neighbors." At 34. And (6) "Britain had coal." At 35. Sachs concludes his enumeration of these advantages with this marvelous observation: "When a society is economically dominant, it is easy for its members to assume that such dominance reflects a deeper superiority—whether religious, racial, genetic, cultural, or institutional—rather than an accident of timing or geography." At 39.

[30] See Alwyn Young, "The African Growth Miracle" (Working Paper, September, 2009); Jorge Arbache, Delfin S. Go, & John Page, "Is Africa's Economy at a Turning Point?," The World Bank, Africa Region, Office of the Chief Economist (February, 2008), Policy Research Working Paper 4519; and Maxim Pinkovskiy & Xavier Sala-i-Martin, "African Poverty Is Falling … Much Faster Than You Think!," Columbia University Working Paper, January 17, 2010.

[31] Parente & Prescott, supra n. 19.

[32] Robert Jensen and Emily Oster ("The Power of TV: Cable Vision and Women's Status in India," 124 *Q.J. Econ.* 1057 (2009)) show that the introduction of cable television into rural areas of India has led, by showing viewers new sources of information, to "significant decreases in the reported acceptability of domestic violence towards women and son preference, as well as increases in women's autonomy and declines in fertility." Robert Jensen ("The Digital Provide: Information (Technology), Market Performance, and Welfare in the South Indian Fisheries Sector," 122 *Q.J. Econ.* 879 (2007)) has shown that the introduction of mobile phones in south India has allowed fishers, while at sea, to call the various coastal market towns to find out where the best prices and thinnest markets are and then to go to those markets, has greatly increased the efficiency of fresh fish markets (in the sense that there is much greater availability, less wastage, and lower prices and higher incomes for fishers).

gions of the world—that is, serious difficulties with growth appear to be confined now to only certain areas rather than to be a pervasive and nearly worldwide phenomenon. To the extent that we now know where the worst poverty is—in the central Asian republics, some of the 22 Arab-speaking countries, and sub-Saharan Africa—we can target aid and other policies designed to address the particular problems of those areas.

The "encouraging" part of the current record is that there is evidence to suggest that the world distribution of income is improving—that is, that the relative and absolute numbers of the poorest people in the world has been declining and declining rapidly. Xavier Sala-i-Martin of Columbia University has argued that "the proportion of the world's people living in acute poverty (on less than a dollar a day) fell from 17 percent in 1970 to 7 percent in 1998; the proportion living on less than $2 a day fell from 41 percent to 19 percent."[33] Sala-i-Martin further contends that the absolute number of people in the world who were living at the lowest level of well-being (one dollar per day or an annual income of $500) fell by 200 million over the same period and that the absolute number of people living at the intermediate level of poverty (two dollars per day or an annual income of $1,000) also fell by 350 million over the same period.[34]

This finding is controversial. There are obvious measurement problems having to do with the validity and comparability of statistics from different countries. But the biggest controversy has to do with the underlying issue of whether to compute poverty using national income statistics (as Sala-i-Martin does) or using household surveys of consumption (as others have done).[35] Calculation of poverty levels by Chen and Ravallion at the World Bank using household survey data show little improvement in world poverty in the 1990s (and beyond).[36] They find

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[33] See Sala-i-Martin, "The World Distribution of Income: Falling Poverty And … Convergence, Period," 121 *Q.J. Econ.* 351 (2006). The quotation is from a summary of an earlier version of Sala-i-Martin's work in "More or less equal," *The Economist*, March 11, 2004.

[34] Some commentators, such as Surjit Bhalla in *Imagine There's No Country: Poverty, Inequality, and Growth in the Era of Globalization* (2002), argue that these data indicate that the U.N. Millennium Development Goal of reducing the number of people living on one dollar a day or less to half its 1990 level by the year 2015 had already been achieved by the time that goal was announced.

[35] There is no consensus among those learned in these matters about which source of data is preferable.

[36] See Shaohua Chen & Martin Ravallion, "How Did the World's Poor Fare in the 1990s?," 47 *Rev. Inc. & Wealth* 283 (2001), and Chen & Ravallion, "How Have the World's Poorest Fared Since the Early 1980s?," 19 *World Bank Res. Obs.* 191 (2004). The authors have updated their work to the present and have found similar discouraging results in Chen & Ravallion, "The Developing World Is Poorer Than We Thought, But No Less Successful in the Fight Against Poverty," World Bank, Development Research Group, Policy Research Working Paper 4703 (August,

that the percentage of world population living on less than a dollar a day in 1987 was 28 and that that figure had fallen by 1998 to only 24 percent of world population. In contrast, Sala-i-Martin, using national income data, had found a decline to 7 percent of world population and a decline in the absolute number of people in poverty.

Finally, some commentators note that while income inequality may be lessening across all poor nations, it may be widening among all nations—that is, while there may be improvement among the poorest world population, the rich are getting richer at a faster rate. And this trend might be replicated within the nations that are making progress in improving the well-being of the worst off. That is, even within the poorest countries, the income of the well-to-do could be increasing at a faster rate than that of the very poorest so that the degree of inequality within the poorest nations may be worsening. These critics ask then what sense it makes to be cheerful about the reduction in the proportion or absolute number of the poorest people in the world if both the gap in income between the richest and the poorest nations and the gap in income between the richest and the poorest within nations have widened.

These are vexing issues to which there appear to be no simple answers. Perhaps the most appropriate stance is to be cautiously optimistic about improvement in the condition of the very poorest but not to relax further efforts to continue those improvements. One encouraging way to look at recent developments is this one from Jeff Sachs:

> Approximately 4.9 billion people live in countries where average income—measured by GDP per person—increased between 1980 and 2000 An even larger number, roughly 5.7 billion people, live in countries where life expectancy increased.[37]

There is one sure method to improvement on which all thoughtful commentators agree: reduce population growth in the very poorest countries. There is no doubt at all that those countries that have managed to reduce their fertility rates are the ones that are either wealthy or are experiencing sustained economic growth. Half of the roughly 200 nations in the world, including the entire developed world, is at the zero population growth level of two children per couple, one of which children is female. By contrast, the poorest countries in the world have fertility rates of five or more, with the result that national populations are doubling every 20 or so years.[38] Of particular note in this regard are the poor countries

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2008), available at http://www-wds.worldbank.org/external/default/WDSContentServer/IW3P/IB/2008/08/26/000158349_20080826113239/Rendered/PDF/WPS4703.pdf (last accessed, October 21, 2009).

[37] Sachs, supra n. 4, at 51.

[38] Id. at 64.

that have made the demographic transition from high fertility rates to the lower rates that characterize the wealthy countries. And note how rapidly these changes have occurred. Bangladesh, for example, reduced its fertility rate from 6.6 in 1975 to 3.1 in 2000. Iran reduced its fertility rate from 6.7 in 1980 (just after the Islamic Revolution of 1979) to 2.6 in 2000.[39]

There is a chicken-and-egg problem with fertility declines: will higher growth cause a fertility decline or will an earlier fertility decline lead to higher economic growth? Whichever the direction of causation or whether the changes are complementary, a demographic transition is an almost essential part of national growth and development.[40] There is evidence to suggest that a global demographic transition has begun. China, the most populous country, has already begun that transition. And there are worries in some developed countries that there will not be a sufficient labor force in the future. Japanese newspapers have reported that, at current trends, there will be no Japanese people in the year 2569.

D. Some Recent Developments in the Scholarship of Modern Growth

In this section I want to give a brief account of three recent developments in the scholarship of economic growth and development. The first is the introduction of randomized field experiments to gauge which policies work and which do not. The second is a discussion of some new work that seeks to offer a novel explanation for some of the particular development problems of sub-Saharan Africa. And the third is a description of the economic conditions of the 22 Arab-speaking countries between Morocco and Iraq.

1. Randomized Experiments

In a previous section I referred to the fact that scholarly attempts to provide grand theories of economic growth and development have generally come to a halt. However, there is still much fascinating scholarship being done on development issues, but it has shifted its central focus from the consideration of grand,

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[39] Id.

[40] This is another example of a very common issue in talking about development—what is cause and what is effect? Does a decline in fertility cause growth, or does growth cause a decline in fertility? As I mentioned in my discussion of the relationship between democracy and growth above, many of these simultaneity problems are explained by the fact that the particular issue and growth are coevolutionary. To take an important policy to which this matter applies, consider corruption. Corruption is clearly an impediment to growth, but we are not certain how best to reduce corruption so that growth may proceed. See, for example, Jacob Svensson, "Eight Questions About Corruption," 19 *J. Econ. Persp.* 19 (2005). Nonetheless, we do know that higher levels of national income per capita are associated with lower levels of corruption. So, as with many bad things, their cure is economic growth.

macroeconomic issues (as in the Solow and Romer models) to consideration of small-scale experiments.[41]

The key tool in this new literature is the randomized field experiment.[42] To illustrate, suppose that one is eager to discover how to induce people in climates where malaria and other insect-borne diseases are endemic to use insecticide-treated nets (ITNs) at night. Netting is cheap by Western standards (approximately $1) but expensive by the standards of the sub-Saharan African countries where their use would do the most good. Should Western aid organizations give away the insecticide-treated nets for free or engage in cost-sharing (having the people bear some fraction of the cost, in the hope that this will establish an ownership claim that will increase use)?

This matter—whether to make the netting free or cost shared—cannot be resolved by appeal to theoretical argument. One can think of reasons why use would be greater under either scenario. But there may be some enlightenment to be had by performing a careful randomized field experiment. That is precisely what Jessica Cohen and Emil Dupas did:

> Working with twenty prenatal clinics [in western Kenya] to offer ITNs at varying prices, they divided the clinics randomly into five groups of four, with four of the groups offering the ITNs at a (single) price ranging from $0 to $0.60 per ITN and the fifth serving as the control. They then measured the uptake of ITNs from the clinics and also spot-checked for usage (whether the nets were hanging on beds or not). In addition, they checked the hemoglobin levels (anemia rates) of women getting ITNs to

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[41] See, for example, William Easterly & Jessica Cohen, eds., *What Works in Development?: Thinking Big and Thinking Small* (2009), the website of the Abdul Latif Jameel Poverty Action Laboratory (J-PAL) at the MIT Department of Economics, and the work of Abhijit Banerjee and Esther Duflo of MIT (such as "The Experimental Approach to Development Economics," Centre for Economic Policy Research Discussion Paper (October, 2008)). See also Ian Parker, "The Poverty Lab," *The New Yorker* (May 17, 2010).

[42] The randomized experiment is the gold standard of experimental methods. An experimenter who wants to discover the effects of some event or food or other "treatment" randomly divides his experimental subjects into two groups. If the division has been truly random, then each group should have roughly the same general characteristics as the entire group, such as the same distribution of gender, age, height, education, income, and so on. One group, called the "control group," does not receive the treatment; the other, the "treatment group," does. Because the only difference between the two groups is whether they received the treatment, the experimenter can attribute any observed differences—typically, the "mean effect" of the treatment—between the groups to the treatment and not to other factors. See Robert M. Lawless, Jennifer K. Robbennolt, & Thomas S. Ulen, *Empirical Methods in Law* Ch. 3 (2010).

> see if cost sharing does a better job of selecting women at greater risk for malaria.[43]

The results were clear: cost-sharing was on every measure less successful than free distribution of the ITNs. Specifically, the large social benefits that came from greater use under free distribution swamped the increased budgetary costs of free distribution.

This is only one example of many that could illustrate the great value of randomized field experiments in refining development policy.[44]

There are, of course, cautions that have been raised. Experiments tend to focus on small-scale development policies, not the grand strategies and policies that have been the focus of development studies over the past 60 years or more. But that is only a lament for things past; perhaps the appropriate focus for these studies right now is precisely the small scale experiment. It is hard to argue with the clear results that have come from the experiments that have been done just in the past decade.

Another concern—one that must always be raised with respect to experimental results—is whether the randomized field experiments have internal and external validity. Consider whether, in the Cohen and Dupas study, the fact that they focused on prenatal clinics as their distribution point might temper their results. Perhaps pregnant women who are willing to go to prenatal clinics are a select group that is not representative of the greater population for whom ITNs are desirable. And consider whether the results have external validity: do they, for example, apply just to western Kenya? Or would we expect the same results in a comparison between free and cost-shared ITNs in, say, central India? And what about the applicability of the results to some other desirable policy that one might either give away for free or cost-share, such as elementary education?

Finally, Dani Rodrik points out that there may be issues of scale that the experiments do not adequately treat but that might matter a great deal to a policymaker. That is, would we really expect the same results if, instead of dealing with 20 relatively small prenatal clinics in western Kenya, we were to scale up the program to cover the entire country of Kenya? Or would there be, for example, such large administrative costs or so much corruption if the program were to go large scale that the benefits of free distribution would no longer exceed budgetary costs?

Some of these perfectly reasonable concerns can be addressed simply by doing more experiments. If, for example, one worries that the Kenyan results

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[43] See Dani Rodrik, "The New Development Economics: We Shall Experiment, But How Shall We Learn?" in Cohen & Easterly, supra n. 39.

[44] For others, see Banerjee & Duflo, supra n. 39, and Rodrik, supra n. 41.

might not apply in Uttar Pradesh in India, one can do another experiment in India to find out. And if one wonders about the applicability of Cohen and Dupas' result to elementary education, one can do another experiment. But for other concerns, such as Rodrik's worries about scale effects, it may not be possible to resolve those issues prior to implementing the program on a large scale.

2. The Long-Lasting Effects of History as Impediments to Growth

In 1976, shortly before his death, the Chinese leader Chou En-Lai was asked by an interviewer what effect he thought that the French Revolution had had on the modern world. Chou answered, "It's too soon to tell." This remark might strike an American as both wise and weary—yes, there are long-lasting effects of historical events, but typically, historical events play out relatively quickly; at least they seem to most Americans to have done so.

So, many would think that distant historical events would be unlikely to have a controlling hold on current events. Specifically, one might be skeptical of a claim that events—even traumatic events—of more than 100 years ago might help to explain current difficulties in economic development.

But that is precisely the claim of Nathan Nunn and Leonard Wantchekon regarding Africa's historical experience with the slave trades and its current difficulties with economic growth.[45] Specifically, they claim that cultural attitudes today that impede economic growth in sub-Saharan Africa may have their origin in cultural attitudes developed during the 400 years of the various waves of slave trades that washed over Africa between the 15th and late 19th centuries.

The authors note that in the first three great waves of the slave trades in Africa, slaves tended to be captured and sold into slavery by state-organized raiding parties and through warfare. This itself engendered a great deal of social insecurity. In all the waves of the slave trade, there was such a ubiquitous sense of insecurity that individuals began to turn on one another—on their neighbors and even on their family members—to supply slaves through kidnapping, trickery, and deceit:

> We hypothesize that in this environment, where everyone had to constantly be on guard against being sold or tricked into slavery by those around them, a culture of mistrust may have evolved, and that this mistrust may continue to persist today.

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[45] See Nathan Nunn & Leonard Wantchekon, "The Slave Trade and the Origins of Mistrust in Africa," Working Paper, (February, 2009) (currently under review at the *American Economic Review*), and Nathan Nunn, "The Long-Term Effects of Africa's Slave Trades," 123 *Q.J. Econ.* 139 (2008). Nunn is an Assistant Professor in the Department of Economics, Harvard University, and Wantchekon is a Professor in the Departments of Political Science and Economics at New York University.

To test this hypothesis, Nunn and Wantchekon use data from the 2005 Afrobarometer survey as their dependent variable. That survey asked respondents to rate, on a scale of 1 to 5, their trust in their relatives, their neighbors, and their local government councils. They knew they ethnic affiliation of the respondents and where they lived. The authors regressed these trust responses on a set of independent variables that included the percentage of ethnicities and of geographic populations that were taken in the various waves of the slave trade. Their hypothesis is that ethnicities and regions that were the subject of greater takings for slaves will exhibit a higher level of distrust in their relatives, neighbors, and local government councils than will ethnicities and regions that did not give up large numbers to the slave trade. And that is precisely what they found.[46]

The authors then try to distinguish between two different channels by which the slave trade could have been changed cultural norms of trust. The first of those channels posits a direct effect—namely, that it was the trickery of the slave trade that directly and adversely affected the cultural norms of trust in the groups most exposed to the trade. The second channel posits an indirect effect—the loss of one's relatives and neighbors to the slave traders highlighted the ineffectualness of the political and legal institutions to protect people. They conclude that the first channel accounts for about 75 percent of the distrust currently observed in sub-Saharan Africa and that the second channel accounts for the remaining 25 percent.

As a result, Nunn and Wantchekon conclude that today sub-Saharan Africans distrust one another and legal and political institutions because of the events of the 400 years of the slave trades and that this pervasive distrust helps to explain the difficulties of sustaining modern economic growth and development in that region.

3. The Arab Economies

I have already mentioned several times that the 22 Arab-speaking states between Morocco and Iraq are typically included among the portions of the world in which modern sustained economic growth has not begun. These statements may seem to be at odds with widespread perceptions of, at least, the oil-rich Gulf states. But those perceptions are inaccurate.

The view that these 22 countries are very poor was brought into public discourse by the 2002 *Arab Human Development Report*, a report authored by scho-

[46] The authors are aware that their implicit causal relationship might have run the other way—that is, that ethnicities that, prior to the slave trade and for reasons predating the slave trade, exhibited high levels of social distrust were more actively involved in the slave trade. They try to instrument for this alternative causation by using distance from the coast as their instrument for trust because they find a strong positive relationship between distance from the coast and trust.

lars from the Arab countries. Among the startling testaments to the poverty in the region were these assertions:

(1.) if one were to add the GDPs of the 22 Arab-speaking countries, the sum would be less than the GDP of Spain, which is, of course, not one of the wealthier countries in Western Europe, and
(2.) there are more books translated into Greek from all other languages each year than have been translated into Arabic from all other languages over the past several hundred years.

These and other facts (for example, about extreme gender inequality) have given rise to a picture of the Arab-speaking world as one that is extraordinarily different from the rest of the world, even from the rest of the developing world. But as with many summary statements, this picture is not entirely fair or accurate. There are signs that the Arab-speaking world has begun the process of modern economic growth.

To begin, one should avoid the view that there is a uniformity of culture among the 22 Arab-speaking countries. Indeed, there is probably as much variety among those countries as there is among such English-speaking countries as India and Scotland and the United States, or as there is among the countries of Latin America.[47]

In a recent article James Rauch and Scott Kostyak divide their survey of the Arab countries into three "worlds": Arab sub-Saharan Africa, Arab fuel-endowed economies, and the Arab Mediterranean. They then assess the recent record of economic growth in each of those "worlds" with the records of the non-Arab countries in those areas. So, for instance, they compare the record of the Arab countries in sub-Saharan Africa with that of the non-Arab countries in that same region, and they compare the record of the Arab Mediterranean countries with that of the European countries that border the Mediterranean. These comparisons seem fairer than the comparison that lumps together the very different Arab-speaking countries and compares them to other developing countries that may not share much in the way of resource, population, education, or other important characteristics.

Rauch and Kostyak compare some elements of the UN's Human Development Index in 1970 and again in 2006 for the three Arab worlds. In almost every one of the comparisons, each section of the Arab world was doing significantly worse

[47] "The range of Arab values is more than double the range of Latin American values for life expectancy, more than 25 percent higher for literacy, more than triple for school enrollment, and more than six times greater for income (adjusted for purchasing power)." James Rauch & Scott Kostyak, "The Three Arab Worlds," 23 *J. Econ. Persp*. 265 (2009).

than its non-Arab reference group in 1970 but had caught up with the reference group or surpassed it by 2006. For instance, life expectancy in the three Arab worlds was lower than in their reference groups in 1970, but by 2006 life expectancy in two of the Arab worlds—sub-Saharan Africa and the fuel-endowed economies—exceeded that in their reference groups.

Similarly with education:

> By 2000, the Arab fuel-endowed economies and Arab Mediterranean [economies]… had caught up with the comparison country groups substantially, with the Arab Mediterranean [economies] almost equaling the educational attainment of Latin America. Arab sub-Saharan Africa, on the other hand, fell further behind non-Arab sub-Saharan Africa, though in this case due to limited data Arab sub-Saharan Africa is represented by only one country, Sudan. The lower levels of educational attainment for the Arab and non-Arab fuel economies relative to the remainders of the Arab and non-Arab worlds, respectively, are consistent with one of the common explanations for the oil/natural resources curse: abundant natural resources lower the return to obtaining an education by increasing wages for unskilled workers.[48]

Finally, with respect to GDP per capita, the picture is mixed. As with other elements of the HDI, GDP per capita in two of the three parts of the Arab worlds was less in 1970 than in their comparison groups. Only in the fuel-endowed Arab countries was GDP per capita higher in 1970 than in non-Arab fuel-endowed countries. Growth in those natural-resource-rich countries has been approximately equal between 1970 and 2006 so that by the close of the period, GDP per capita in the Arab fuel-endowed countries was still higher than in the non-Arab fuel-endowed economies. Arab sub-Saharan Africa has grown more rapidly than has non-Arab sub-Saharan Africa so that by 2007, income per capita in the Arab and non-Arab countries of sub-Saharan Africa was roughly equal. Finally, growth in the Arab Mediterranean countries between 1970 and 2007 has not been as rapid as in the reference countries so that the GDP per capita in that part of the Arab world was even further behind its comparison group than it had been in 1970.

With respect to two indicators, the state of the Arab worlds by comparison to their reference groups is not good. The first of those is population growth. Only in the sub-Saharan Arab world has population growth been lower than in its reference group. But in the other two Arab worlds the rate of population growth (at 3 percent per year) has been much higher than the rates in their reference countries. Indeed, population growth is so high in some countries in the Arab world that half of the population in those countries is younger than 15 years-old.

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[48] Id. at ___.

The second indicator on which the Arab countries do not do well is with regard to females, although here the picture has some nuanced aspects. First consider females in education. Female participation at all levels of education was much lower in all three Arab worlds in 1970 than in each of the comparison groups. However, in the Arab Mediterranean countries the rate of female participation in primary, secondary, and tertiary education had, by 2006, caught up to or surpassed its reference group. is much lower than in the non-Arab Mediterranean countries and the gap has widened over the period 1970 – 2006. Female educational participation in Arab sub-Saharan Africa is much higher at both dates than in non-Arab sub-Saharan African countries. Female participation in education in the Arab fuel-endowed economics was substantially behind that in the non-Arab fuel-endowed economies in 1970 and was no further behind in 2006.

Next, consider female labor force participation rates. In this category, the record of all three of the Arab worlds is poor:

> The Arab gender gaps exceed those in the comparison country groups across the board, and by extraordinarily large margins. Latin America, southern Europe, and the non-Arab fuel economies all reduced their labor force participation gender gaps since 1980 far more than any of the Arab worlds. Arab convergence in the near future seems unlikely.[49]

So, the picture of economic growth and development in the Arab-speaking countries that Rauch and Kostyak paint is less distressing than the picture that appears from the various *Arab Human Development Reports*.[50]

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[49] Id. at ___. Rauch and Kostyak regress the gender differences in labor force participation rates on the percentage of the national population that is Muslim. They find that "a country that is 100 percent Muslim will have a gender gap that is 18.3 percentage points higher than a country that is zero percent Muslim." But when they add a second independent variable that is a dummy for whether the country is Arab-speaking, the Muslim effect becomes insignificant. Id. at ___.

[50] And less distressing than the pictures presented by Timur Kuran, "Why the Middle East is Economically Underdeveloped: Historical Mechanisms of Institutional Stagnation," 18 *J. Econ. Persp*. 71 (2001) (arguing that institutional bottlenecks prevented Islamic countries from fostering large-scale private economic enterprises and governments from providing an optimal number of public goods; Kuran finds nothing in Islam that is inherently antithetical to modern economic growth[; indeed, the largest Muslim nation by population, Indonesia, has had a sustained annual GDP growth rate of 6 percent for several decades, and Turkey is one of the wealthiest countries in the Middle East]), and Ian Ayres & Jonathan R. Macey, "Symposium: National Building in the Middle East: Institutional and Evolutionary Failure and Economic Development in the Middle East," 30 *Yale J. Internat'l. L*. 397 (2005) (stressing the general lack of pro-growth policies in the Middle Eastern countries and the particular failure to adopt policies favorable to the creation of innovative new business entities).

4. The Limits of Modern Growth

I cannot leave this mixed and encouraging news about modern economic growth without mentioning the fact that there may be limits to growth and that those limits may be real, binding, and very, very troublesome.

One of those limits may be imposed by global climate change. The problem is that development, under our current technologies, involves a nation's using increasing per capita amounts of fossil fuels. Burning coal to generate electricity and using refined petroleum to provide transportation are putting ever-increasing amounts of carbon dioxide (CO_2) (and other greenhouse gases) into the atmosphere. And that CO_2 traps heat from the Sun close to the Earth's surface, leading to a rise in the average temperatures on the planet. There is a clear positive correlation between the concentrations of CO_2 in the atmosphere and Earth's average temperature. Since the dawn of modern growth in the late 18th century till today, concentrations of CO_2 have risen from approximately 275 parts per million (ppm) to approximately 380 ppm. If current rates of growth in usage of fossil fuels continue and, indeed, increase through 2050, the concentrations of CO_2 are expected to reach 500 ppm. The results of those increases are somewhat in controversy, but all serious students agree that the rise in concentrations is anthropogenic and that it could have serious, unforeseen, and costly consequences for the entire planet.[51]

Adding to the problem of fossil-fuel use is that the Earth's ability to absorb CO_2 through forests and the oceans is either compromised or decreasing. Deforestation to provide additional living space is removing one of the most effective methods of "carbon sequestration."

Let me relate this issue more clearly to modern economic growth. The current population of the Earth is approximately 6.5 billion. Of those, about one billion live in developed countries where the annual per capita income is $20,000 and above. About one billion live in poor countries where the annual per capita income is $1,000 or less. The remaining 4.5 billion live in countries whose annual per capita income lies between $1,000 and $20,00 and that are experiencing sustained economic growth.

These broad generalizations hide the fact that the average consumer of fossil-fuel-related products and services in the wealthy countries annually consumes 32 times the quantity of those resources than does the average person in the develop-

[51] See, for example, Elizabeth Kolbert, *Field Notes from a Catastrophe: Man, Nature, and Climate Change* (2005). See also Nicholas Stern, *The Economics of Climate Change: The Stern Review* (2007). Eleven of the 12 warmest years in recorded history have occurred in the last 12 years.

ing world.[52] Put dramatically, each one of the over 300 million U.S. citizens annually consumes as much fossil-fuel-related goods and services as 32 Kenyans. Presumably, those Kenyans and others in the 5.5 billion below U.S. consumption standards aspire to emulate the consumption patterns or wealth positions of the average U.S. citizen.

Imagine what would happen to the amount of fossil-fuel consumption if only one country, China, reached the U.S. level of consumption. China has a population of approximately 1.5 billion, and per capita consumption rates of fossil-fuel-related goods and services there are only one-eleventh of what they are in the U.S. (even though China has recently become, by volume, the greatest emitter of greenhouse gases in the world) Suppose, for the sake of argument, that China continues its remarkable growth of almost 10 percent per year into the near future so that their annual per capita consumption levels rise to ours. That fact alone (and assuming no other changes in the world) would double world consumption rates of oil, electric power, metals, plastics, and other greenhouse-gas emitting products and services. If India, with a current population of one billion people, were also to grow so that their annual per capita consumption rates rose to current U.S. levels, then world consumption rates would triple. Finally, suppose that the entire developing world of 5.5 billion people were to grow to U.S. annual per capita consumption levels. World consumption rates would increase to 11 times their current levels. This would be the equivalent of the world's population increasing, at current consumption levels, to 72 billion people from its current level of 6.5 billion.[53]

The clear problem that global warming poses is whether increasing wealth is consistent with widespread concerns for the stability of the environment. We know that development improves lives considerably, but we now also know (or strongly suspect) that it may do so at a significant cost. A planet that in the year 2100 or beyond is, on average, 5º C warmer than it is today will cause climatic change that has large costs for large numbers of human beings. For example, sea levels may rise, causing extraordinary expenses of shoring up large coastal cities or large costs of relocating population and fixed capital away from the coasts; growing seasons are likely to change, making some areas of agricultural productivity inhospitable but opening up other areas (such as Siberia) to cultivation; droughts are likely to become more common in areas, such as the Sahel, that are

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[52] Much of what follows is based on Jared Diamond, "What Is Your Consumption Factor?," *The New York Times*, January 2, 2008.

[53] This frightening thought experiment assumes that there are no dramatic technological changes that replace "carbon dioxide and other greenhouse-gas emitting" technologies. Of course, there may be such changes. Indeed, there almost have to be in order for widespread growth leading to current resource-consumption levels to succeed.

already hard pressed; and the melting of snows and glaciers could threaten the water supplies of South and East Asia where 40 percent of the human population lives.

The distressing aspect of these thoughts is that the problem is a worldwide one, and yet we do not have international institutions or agreements that address the issues. Nor is there any realistic prospect of creating such institutions or agreements. In the words of one careful student of global warming, "This is the most serious problem to face humanity."[54]

III. Law and Economic Growth

As we have seen, the most promising recent literature in economics on the causes of sustained modern growth focuses on institutions. In this section I draw a connection between "institutions" and law. I shall ultimately conclude that however important institutions may be to growth, the aspects of law to which people frequently point as being vital to national development are unlikely to be as flexible or as crucial as some other factors that I seek to identify.

I begin with an overview of the supposed or hypothesized relationship between law and economic growth. I then turn to a consideration of the most striking case of growth without the foundations of strong property, contract, and other legal protections—the People's Republic of China. And I conclude this section with a brief consideration of four factors that argue against the centrality of law in economic development.[55]

A. Overview

One of the shortcomings of the literature on institutions is its failure to be specific about just what counts as an "institution." A core understanding is that "institution" refers to the practices and organizations of public life – the societal, re-

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[54] Daniel Farber, "Modeling Climate Change and Its Impacts: Law, Policy, and Science," 86 *Texas L. Rev.* 1655 (2008).

[55] Nuno Garoupa has convinced me that I need to include a section on the "legal origins" literature. That literature finds, speaking broadly, that the countries with a common law system have grown faster than have countries with a civil law system. This is the finding, for example, of Paul G. Mahoney, "The Common Law and Economic Growth: Hayek Might Be Right," 30 *J. Legal Stud.* 503 (2001). Other entries in this literature worth noting are Rafael La Porta, Florencio Lopez-De-Silanes, Andrei Shleifer, and Robert W. Vishny, "Law and Finance," 106 *J. Pol. Econ.* 1113 (1998), Edward L. Glaeser & Andrei Shleifer, "Legal Origins," 117 *Q.J. Econ* 1193 (2002), and Rafael La Porta, Florencio Lopez-di-Silanes, & Andrei Shleifer, "The Economic Consequences of Legal Origins," 46 *J. Econ. Lit.* 285 (2008). The finding might be dismissed as indicative of correlation but not causation; some of the literature has argued that specific substantive areas of the common law system, such as its law of corporate governance, can be demonstrated to be more efficient than other corporate governance regimes.

gional, and local governance organizations; and the executive, legislative, and judicial organs of government. But the literature seems to spread out from that core to encompass the institutions of civil society,[56] private religious institutions, and commercial institutions. And even beyond those private institutions the literature sometimes cites the structure of the family and extended clan and social norms. We might further include "culture," that elusive but suggestive term that encompasses shared notions of right conduct or behavior, of ethical and moral values, and of senses of beauty, euphonious music, and art.

So broadly conceived, the idea of "institutions" seems to swallow up all categories of explanation and, in so doing, to become an ultimately useless catch-all. We have to have a clearer and more exclusive notion of an "institution" in order for that notion to be useful in explaining and predicting modern growth. As an important adjunct of this more precise notion, we ought to be able to explain how those institutions that favor growth come into being, why they finally appeared in northern Europe in the late 18th and early 19th centuries, why they have appeared only later in the "late starters," how inappropriate institutions give way to those that favor growth, and how, if at all, human intervention can consciously create growth-enhancing institutions.

This is a formidable list of questions and a demanding research agenda—both far beyond the scope of this essay. I want to look at a more limited subset of the possible meanings of "institutions" in order to see the extent to which that meaning of the word is vital to the onset and continuation of modern growth.

The subset of "institutions" upon which I want to concentrate are those gathered under the rubric "law." So as to be inclusive, I mean that term to include both the organizations that make and enforce the law (the legislature, administrative agencies, executive, and judiciary; the private legal profession; and the police) and the substantive content of the law. I want to include the realms of private law that seek to govern relationships between private parties, such as contract, tort, and property law. I also want to include public law—criminal law, corporation law, bankruptcy law, and so on. In addition, I want to include the general governance structure of the society—whether there is meaningful democ-

[56] See, for example, the pathbreaking work on the vital role of civil society: Robert Putnam, *Making Democracy Work: Civic Traditions in Modern Italy* (1992). Putnam compared similarly sized towns in northern Italy, some of which were well-governed and others of which were not. His attempt to explain the differences in why democracy worked in some towns and not in others focused on the role of the institutions of civil society—the clubs, choir groups, soccer team fan clubs, commercial organizations, neighborhood associations, and other informal groups that operated in the space between the families of the towns and their government and served to unify families and individuals. Where those intermediate civic organizations were present, democracy worked well; where they were absent or weak, democracy did not work very well. Putnam's hypothesis is that intermediate civic groups provide connections and cross relationships that are essential to a well-functioning democracy.

racy; whether political considerations are suitably under control or inappropriately intrude into decisions that would better be decided on principled, neutral grounds. Despite my attempt to focus on a limited set of institutions, this is a wide-ranging set.

Let me begin with a statement of the case that there is a connection between these legal institutions and modern growth. The broadest view holds that law is vital to national growth to the extent that it creates incentives for people to behave in a growth-enhancing manner. This means, among other things, harnessing individual self-interest to serve the public good, inducing people to "do good by doing well." Thus, a business organization must have the appropriate incentives to produce and market so as to make a profit but, in doing so, must respect the interests of their customers and employees in not being harmed unreasonably by the products they are purchasing or producing. And the production process must not result in unwanted and uncompensated pollution of the air or water. Those seeking to make agreements that will bind them for a period of time so as to secure a benefit from another similarly and reciprocally bound for a period of time must have confidence that those agreements will be kept or, if broken, result in adequate compensation. Those artists and inventors who seek to create new expressive works or new, useful, and nonobvious inventions (and in so doing, forego other profitable employment opportunities) should have reasonable expectations of being able to enjoy the economic benefits of their expressive and creative activities. Property owners should have reasonable security in their assets and know themselves to be free from unreasonable interference in the enjoyment and employment of those assets from other individuals, organizations, and the government.

There are, of course, many details to be added to this account, such as provisions for education of the populace, subsidies for basic scientific research, well-functioning financial intermediaries, an equitable taxation system, a reasonable health-care system, security for foreign investors, bankruptcy, and so on. But the core of the argument linking economic prosperity to legal institutions is the one in the previous paragraph.

One elaboration on this argument that is often left unstated but is implicit is that the governance structure of the system—including the judiciary who will decide private litigation—must be reasonably stable, inclusive, and productively and prudently responsive to the real events of the nation. Put in the negative, the government ought not to be cravenly corrupt.[57]

[57] There may be such a thing as "optimal corruption." The intuition is that some corruption is both inevitable and good and that attempts to zero-out corruption will be excessively costly and, among other social costs, may lead to discouraging otherwise talented people from devoting their energies to politics.

The key to implementing this view of the vital role of these legal institutions in fostering economic growth is the discovery of a mechanism for getting a low- or no-growth society to adopt these legal institutions. And so far, no obvious mechanism has presented itself. An important part of the Washington consensus was the attempt to condition aid from the international organizations on the adoption of some of the policies and institutions noted above. And as we have seen, that conditionality was not successful and, indeed, detrimental to sustained growth in several instances. As I also indicated above, we do not yet have a clear account of why these legal institutions—assuming for the moment that they *are*, in fact, essential to sustained modern growth—were adopted in northern Europe in the late 18th and early 19th centuries, nor why some former colonies (mostly former English colonies) saw fit to adopt those legal institutions while others did not. We do not know, in the parlance of comparative law, why some legal institutions are attractive as transplants and others are not. And because of our lack of knowledge about the reasons for the evolution or adoption of growth-enhancing legal institutions, we are at a loss as to how to persuade developing countries to follow the developed world's lead in this regard.

B. The Anomalous Example of the People's Republic of China

I have already remarked on the fact that the annual GDP growth rate of the People's Republic of China has been a staggering 9 percent for most of the past 30 years. This is not only the highest current economic growth rate; it is also one of the highest and most sustained growth rates ever recorded. So, if we are eager to pursue the hypothesis that law can have a particularly benign effect on fostering and sustaining growth, we ought to examine China closely. Our initial hypothesis might be that China's rapid and continuous growth is in substantial part attributable to its having efficiently defined and enforced property interests, provided for the neutral enforcement of consensual agreements, established an independent judiciary committee to the rule of law, made provisions for training an effective and competitive legal profession, and has done most of the other legal reforms that, by hypothesis, are important for growth.

There is an immediate question with which we must deal. Among the many legal reforms that one might imagine is growth-enhancing is the creation of an effective participatory regime of societal governance—in a word, democracy. And whatever else China may have done to spur growth, it has not adopted democratic values. But, as it happens, this is not fatal to the hypothesis. That is because, to summarize a vast literature boldly, participatory political regimes are not a precondition of growth.[58]

[58] This is the famous Lipset hypothesis: see Seymour Martin Lipset, Some Social Requisites of Democracy: Economic Development and Political Legitimacy," 53 *Am. Pol. Sci. Rev.* 69 (1959).

Let us turn to a consideration of the more central private law areas (property and contracts) to see if they can be shown to have played a significant role in Chinese economic growth. Before turning to the specific case of China, I begin with a recent research paper by Michael Trebilcock and Paul-Erik Veel that considers the general case for defining and enforcing property interests as a growth strategy.[59]

The case for replacing informal or tradition-based property interests with formal property rights is straightforward. On the assumption that formal property interests are clearer than traditional interests, the owners can make more efficient use of the resource is the physical, temporal, and other extents of their interest in the resource are more certain. Moreover, potential lenders are likely to be more generous in lending to a property-owner whose interests are more certain and therefore easier to evaluate to plan for the contingency of default.[60] Finally, clear, formal property interests make it less expensive for alternative uses – potentially more valuable uses – of the resource to be easier to evaluate and therefore lower the costs of negotiating between the current possessor and a higher-valuing user about a change in ownership. All of that is part of the central canon of property law through the lens of law and economics.[61]

Trebilcock and Veel acknowledge these benefits of formalization, but they also note that the process of formalization may be costly. Specifically, they note

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(That article was recently announced to be the seventh most cited article in the first 100 years of the *American Political Science Review*.) Lipset argued that democracy (and some other social effects) were coevolutionary with growth—that is, that democracy was both created and consolidated by growth. That, I venture to say, is the consensus opinion among students of economic growth. In "Income and Democracy," 98 *Am. Econ. Rev.* 808 (2008), Daron Acemoglu, Simon Johnson, and James Robinson use fixed-effects and instrument-variables approaches to show that the obvious correlation between income and democracy is not causal, either way.

[59] Trebilcock and Veel, "Property Rights and Economic Development: The Contingent Case for Formalization," SSRN Working Paper, December 2007.

[60] See Timothy Besley, "Property Rights and Investment Incentives: Theory and Evidence from Ghana," 103 *J. Pol. Econ.* 903 (1995) for an empirical study of the relationship between clearer property interests and incentives to invest. .

[61] And also part of the standard institutional argument about the importance of efficiently defining and enforcing property interests as a condition for modern economic growth. See, for example, Robert Barro, "Economic Growth in a Cross-Section of Countries," 106 *Q.J. Econ.* 407 (1991) (showing a statistically significant correlation between strongly enforced property interests and a nation's economic growth rate). See also Dani Rodrik, Arvind Subramanian & Francesco Trebbi, "Institutions Rule: The Primacy of Institutions Over Geography and Integration in Economic Development" 9 *J. Econ. Growth* 131 (2004), and Daron Acemoglu & Simon Johnson, "Unbundling Institutions" 113 *J. Pol. Econ.* 949 (2005) (both articles also finding a strong positive relationship between strong property interests and national economic growth rates, investment rates, and the strength of credit markets).

two potential costs: (1) that complementary social, economic, political, and legal arrangements in a developing society may not be sufficiently elaborated in order for a formal property regime to work efficiently (as might be true is there is no method of registering property claims, only a rudimentary legal profession, and no independent judiciary before whom to assert and defend property claims); and (2) that the transition costs from a traditional property rights regime (in which, for example, many different individuals and families may have fractional interests in the same piece of land) to a formal property regime in which interests are concentrated in an efficient manner may be so substantial that the benefits of formality are less than the costs.

The import of these eminently sensible observations is that there are costs and benefits to the formalization of property interests and that it may be the case that the benefits of formalization exceed the costs but that it may be that the costs exceed the benefits. In brief, the case for formalization depends on the specifics of a given instance.

These considerations also suggest that where formalization generates no net social benefits, it may be the case that a system of informal or incomplete or ill-defined property interests may be efficient.

Trebilcock and Veel use these general observations to consider the recent record of property interests in China. They begin with the observation that China effectively abolished private property rights in land in 1956. Instead, rural production of agricultural goods was organized around communes and collectives. Not surprisingly, from an economic point of view, grain production grew very modestly from the mid-1950s till the early 1970s.[62]

Along with other reforms that appeared in the late 1970s when Deng Xiaoping consolidated power, there was an important alteration in the status of rural property. The Household Responsibility System, introduced in the early 1980s, allowed the village collective to retain legal ownership of land but encouraged the collective to make contracts to provide individuals and families with use rights, initially for a term of five years. In 1984 the allowable term was extended to 15 years, and in 1993, to 30 years. Tenure security was an issue; the revisions to the Land Management Act of 1998 strengthened tenants' security interests by being more explicit about those interests and by greatly narrowing the circumstances in which adjustments to a lease could be made. The Rural Land Contracting Law of 2002 further narrowed the circumstances in which long-term leases could be adjusted to a few exceptional instances. And finally, a further revision of 2007 gave farmers the right to renew a 30-year lease for another 30 years upon the first lease's expiration.

[62] Indeed, there was a devastating famine in China from 1958 to 1961 in which between 20 and 43 million people are thought to have perished.

All of this notwithstanding, Trebilcock and Veel find four reasons why this increasing formalization has failed to provide the benefits posited to come from formal property interests. First, village leaders commonly redistributed land, giving rise to insecurity of tenure. A 2005 survey found that 74.3 percent of villages had had at least one round of redistribution since the institution of the Household Responsibility System in the mid-1980s and that 55 percent of villages had had two or more such rounds of redistribution.

Second, throughout China, both in urban areas and in rural areas, the expropriation of property without compensation is relatively common.[63]

Third, land transfers are becoming more common, but there are still significant impediments to the development of an active market in land and in land-use rights.

Fourth, the ability of private citizens to access the courts to seek enforcement of their property claims is severely limited. Not only is it difficult for peasants, in particular, to assert a legal claim, the evidentiary basis for their doing so is thin. Many land-tenure agreements were never written down or recorded. A 2006 survey found that only about 10 percent of farmers had a written contract or certificate that fully specified their rights and contained all the provisions that the various land-management acts required.[64]

C. Why Good Law is Not Sufficient to Growth

A previous section laid out the argument linking law to the view that the correct institutions are vital for growth and also noted that we do not know how to implement this view in the slow-developing countries or "late starters." But the previous section made the case that formal legal rules have not contributed significantly to the remarkable record of growth in China over the past 30 years.

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[63] See Michael Wines & Jonathan Ansfield, "Resisting Bulldozers in a Push for Property Rights," *International Herald Tribune*, April 29, 2010, p. 5 (describing incidents in an area of west Beijing where the Chinese national government has sold land to developers who must then buy out residents, sometimes resorting to "squads of toughs" to encourage sale).

[64] There is additional skeptical scholarly work on the relationship between formal legal protections and the process of economic development in China. For example, Michael Trebilcock and Jing Leng (in ""The Role of Formal Contract Law and Enforcement in Economic Development," 92 *Va. L. Rev.* 1517 (2006)) argue that it is difficult to find evidence of the importance of formal contract law in development outside the financial sector of developing countries. And Donald Clarke, Peter Murrell, and Susan Whiting (in "The Role of Law in China's Economic Development," January 27, 2006, available at www.ssrn.com) examine three areas of substantive law—property rights, agreements to trade, and corporate governance; they find that while law has been playing an increasingly important role in Chinese economic development, "formal legal institutions have not made a critical contribution to China's remarkable economic success."

In this section I want to express a more general skepticism about the relationship between growth-enhancing legal institutions and modern growth. My sense is that the arguments above about the vital role of private and public law and the legal profession are overblown and possibly inaccurate and misleading. This intuition takes some force from the evidence that the Washington consensus was not a successful growth plan and from the remarkable record of Chinese growth in the absence of formal legal protections. Nonetheless, my skepticism is not solidly grounded in either theory or thorough empirical evidence. As a result, these suggestions are preliminary and tentative, subject to revision in light of clearer theoretical and empirical arguments.

My arguments are three-fold. First, the view that law is central to growth ignores the fact that there are alternatives to law that can and do serve the same general functions as law. Second, the view ignores the great contribution that stability, in and of itself, can make to national growth and development. And third, the view underestimates the things that can go wrong in a society, even one that seems to have a well-functioning legal system, and also underestimates the value that a courageous political leader can have in fostering growth.

1. Alternatives to Law

The great psychologist Abraham Maslow memorably said, "If the only tool you have is a hammer, every problem is a nail." Lawyers have law as their principal tool, and, as a result, lawyers see every problem as amenable to legal solution. This "legal centrism," as Robert Ellickson called it,[65] suggests that other forms of ordering society are either ineffectual, unjust, or uncontrollable or all three. But we now know that those alternatives to law are not only possible but that in many instances are the driving force in social organization.

Bob Ellickson's study of social norms in Shasta County, California, made this point eloquently.[66] Ellickson discovered that the law on the books regarding damage done by cattle to private property was different in two halves of a large county in northern California. In one half, the cattle-owner could be held liable for damage done by his unsupervised cattle to another person's property—say, a homeowner's garden; in the other half, the cattle owner could not be held liable for similar damage. Ellickson's hope was that if the costs of bargaining between cattle-owners and other property owners were low in both halves of the county, then the same practices for dealing with cattle damage might prevail, regardless of

[65] *Order Without Law: How Neighbors Settle Disputes* (1991).

[66] Robert C. Ellickson, "Of Coase and Cattle: Dispute Resolution Among Neighbors in Shasta County," 38 *Stan. L. Rev.* 623 (1986).

the law. If so, this would be a real-world indication that the Coase Theorem is correct.[67]

What Ellickson found was that the practices were identical in the two halves but that the reason was not that the Coase Theorem was correct. Rather, cattle-owners and private property owners in the two halves were seeking to conform to a clear and dominant social norm of being a "good neighbor." That norm required that if a cow strayed onto your property, you should take steps to protect that cow—by, for example, moving your car out of your garage and moving the cow in—call the cow's owner to tell him that you have the cow, and feed and protect the cow until the owner could come to pick it up. You should not remonstrate with the owner about the costs you were incurring; nor should you seek to get compensation from the cow-owner for any minor damage that you might have suffered.

Of course, the "good neighbor" norm placed duties on the cow-owner, too. He should apologize for the inconvenience, offer to compensate the protector for the damage and the costs of housing and feeding his stray cow, and seek to come to retrieve the cow as quickly as possible. But so long as the norm was being observed by both sides, there was no talk of or need for lawyers. Indeed, Ellickson found that people in Shasta County only resorted to the law when people (typically recent immigrants from another region of the country) failed to obey the "good neighbor" norm.

The central point of this famous example and of much subsequent work on similar topics is that for most people social norms, not law, are the principal governing rules of their lives. Law is invoked only in unusual situations where social norms have broken down or are not being followed.

How is this literature relevant to the role of law in economic development? The obvious connection is that social norms appear to be a close substitute for the law. Put a little more forcefully, formal law may not be necessary for a well-ordered society; social norms may serve perfectly well. In fact, it may be the case that where the institutions of law are either absent or ill-managed, social norms become elaborate enough to perform many of the functions that a well-functioning legal system would have provided.

It may be, then, that the absence of a well-functioning legal system should not be taken as a signal that a society cannot sustain modern economic growth. It is possible that in developing societies, social norms are the principal guide to good behavior, as they appeared to be in Shasta County, California, and that they perform well in guiding behavior into efficient, growth-enhancing channels.

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[67] The Coase Theorem holds that "when transaction costs are zero, an efficient allocation will result, regardless of the law." See, for an extended discussion, Robert D. Cooter & Thomas S. Ulen, *Law and Economics* 85 – 99 (5th ed. 2007).

I am well aware that there can be detrimental social norms that impede growth as well as the beneficial social norms that substitute for law. Critics, such as Richard McAdams,[68] have noted, for example, that racism was a social norm in much of the United States that had a very toxic effect on society and required correction through concerted legal action. It is easily conceivable that developing countries or regions have deleterious social norms that prevent efficient investment or other growth-enhancing activities and that law might correct those adverse effects.

Nonetheless, a modern legal system may be a product of development, not a prerequisite to it. Until we know much more about the role of social norms in developing countries, we should not be so certain that social norms are not fulfilling the same societal functions that a well-functioning modern legal system might fill.

2. Stability and Growth

Decades ago Joseph Schumpeter characterized the capitalist system as one in which there was "creative destruction."[69] That wonderful phrase evokes the swirl of success and failure of new enterprises, the rise and fall of industries, the unsettling effects of new technologies that seems to many critics of capitalism to be chaotic and, therefore, undesirable. Modern growth brings along with it an unavoidable ferment and barely controlled chaos. There is no all-seeing institution in any society that can predict which enterprises should succeed and which should fail, which new technologies are going to have far-reaching effects, and which are going to stir minor ripples in the social and commercial fabric.

Nonetheless, stability is a valuable background condition for long-term growth. Investors, both foreign and domestic, must have reasonable assurances that next year will be much like this year. Too much uncertainty about fundamental conditions in which economic calculations are made will discourage anything other than very short-term decisionmaking. And that short-term decisionmaking is not conducive to the longer-range planning that seems such an essential part of modern growth.

How should a developing country seek to strike a sensible balance between allowing the ferment of modern growth and creating the stability within which that ferment may proceed? That is, of course, the key. And my central point here is to draw attention to this obvious and central point that may be lost in the literature on the salutary effects of good institutions and of good law—stability of background conditions is extremely important to long-run growth. Indeed, there may

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[68] Richard H. McAdams, "Cooperation and Conflict: The Economics of Group-Status Production and Race Discrimination," 108 *Harv. L. Rev.* 1003 (1995).

[69] Schumpeter, *Capitalism, Socialism, and Democracy* (1942). See also Thomas K. McCraw, *Prophet of Innovation: Joseph Schumpeter and Creative Destruction* (2007).

be a tension between having the correct legal institutions and having stable institutions such that stable-but-not-ideal institutions are more conducive to growth than less-stable-but-ideal institutions.[70]

We do not know the relative merits of stability versus correctness. But we have a hint that there is this trade-off in the literature on the role of democracy in fostering economic growth. Democracy is, like sound legal institutions, thought in some quarters to be a necessary precondition of modern growth. However, the great sociologist Seymour Martin Lipset noted in 1959 that democracy is typically a product of modern growth, not a precursor.[71] Because democracy can be an untidy system of government, societies just embarking on modern growth may prefer societal governance that is more stable than democracy and only tolerate the vagaries of democracy when the process of growth has taken such firm hold that stability of the background conditions (if not of the actual people in government) has been secured.

3. Political Courage

Modern growth unsettles society. The swirl of "creative destruction" raises some and dashes others; it elevates some sectors of the economy at the expense of others; it may expose previously secure domestic producers to withering competition from foreign enterprises; and so on. Accepting these and other changes is not at all easy. The prospect for betterment resulting from a change must be substantial for individuals to prefer the maelstrom of creative destruction to the less rewarding but comfortable life of low- or no-growth stasis. And most people prefer the known present to the unknown future, even with assurances of betterment. Change will command widespread approval or toleration only if it will positively affect the vast majority of people and that betterment is far more likely than not.

Regardless of what form of government a developing nation has, navigating the politics of modernization is extremely taxing on political skills. Indeed, the

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[70] I am grateful to Katharina Pistor for suggesting that I look at Robert H. Bate, Prosperity and Violence: The Political Economy of Development (2d ed. 2009) on this matter – a suggestion I have not yet followed. I am also mindful of the hypothesis in Ronald Gilson & Curtis Milhaupt, "Economically Benevolent Dictators: Lessons for Developing Democracies," Columbia and Stanford Law and Economics Working Paper (August, 2010), that "[s]ome autocratic regimes have fundamentally transformed their economies [for the better], despite serious deficiencies along a range of other dimensions" and will incorporate that material into subsequent drafts of this article.

[71] As noted above, the "Lipset hypothesis," sometimes called the "hypothesis," appeared in "Some Social Requisites of Democracy, Economic Development, and Political Legitimacy," 53 *Am. Pol. Sci. Rev.* 69 (1959) and was elaborated in *Political Man: The Social Bases of Politics* (1960). For modern, empirical confirmation of the Lipset hypothesis, see Adam Przeworski, Michael E. Alvarez, Jose Antonio Cheibub, & Fernando Limongi, *Democracy and Development: Political Institutions and Well-Being in the World, 1950-1990* (2000).

social strains of modernization can result in rioting and rebellion.[72] But even if they do not, modernization can place responsive politicians into very difficult situations. Growth involves change, and where there is change, there are gainers and losers. The gainers will surely encourage and accept the change, but the losers may fight to prevent their losses from becoming permanent or crippling. And because the losers are likely to have been people with considerable power in the pre-growth regime, they may begin their campaign to stall change from a very powerful position.[73]

There are two important implications of these observations. First, if change is disruptive and people are likely to resist it forcefully, is this not an argument for having a dictatorship or other form of nonresponsive government when modern growth begins?[74] This would certainly seem to follow, but I am sure that the suggestion in favor of dictatorship goes too far. It is true that a dictatorship could ignore the protests of those who are hurt by modernization or compensate them in some way. That is, the political costs of managing the transition to modernization might be lower under a dictatorship than under a responsive government. But the catch is that the dictatorship would have to be convinced that *it* would be better off under modern growth than under the alternative. And it is not at all clear that a dictator would always or even usually conclude that calculation in favor of modernization. Some, perhaps most, dictatorships will focus on what is best for them, not on what is best for the entire society. So, to be more precise, the argument in favor of overcoming political opposition to modernization's changes makes a case for an enlightened dictator, one who sees the benefits to all of the changes and subordinates his or her own desires in favor of that social good. Such dictatorships exist, but they are rare.

To be fair, it is not clear that a responsive government will opt for modernization either. It may mistakenly conclude that the costs of modern growth exceed the benefits. But it seems more likely that a responsive government will respond in favor of sustained growth when the benefits far exceed the costs. As I said above, there are good reasons for believing that a dictatorship will only take into account is own costs and benefits, not societal benefits.

Second, a further implication of the points above about the political costs of modernization is that nearly every society will opt for growth when the costs are small and the benefits large or when the gap between costs and benefits are very

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[72] See, for example, Amy Chua, *World on Fire: How Exporting Free-Market Democracy Breeds Ethnic Hatred and Global Instability* (2002). See also Tom Ginsburg, "Democracy, Markets and Doomsaying: Amy Chua's *World on Fire*," 22 *Berkeley J. Internat'l L.* 310 (2004)

[73] Daron Acemoglu & James Robinson, "Political Losers as a Barrier to Economic Development," 90 *Am. Econ. Rev.* 126 (2000).

[74] I am grateful to Ajit Mishra for posing this important question.

large and where the benefits will be widespread and when the likelihood of the benefits' being realized are high.[75] But this is a formidable list of preconditions, and in real-world situations, these preconditions may either not exist or may be attended by a large degree of uncertainty. For instance, it may be the case that the benefits are distant and hazy, while the costs are vivid and immediate.

What is to be done in those circumstances? I believe that in those instances a society needs leaders with extraordinary courage, vision, and determination. They need vision to see the benefits of modern growth, courage to take on the costs of battling the political losers from modernization, and determination to continue the battle to victory. These are, needless to say, rare qualities in anyone and perhaps rarer still in professional politicians. Nonetheless, a developing society that can identify and encourage courageous politicians is likely to make the transition to modern growth quickly and with a minimum of pain.[76]

Every society would like to have courageous and far-seeing leaders. But how often does an Abraham Lincoln or a Deng Xiao-ping come along? And that fact that great leaders are rare leads to the question of how a society is supposed to identify great leaders. How does a society select for political courage? Is its appearance random or due to luck? Or do dire circumstances create them, as the trauma of the U.S. Civil War may have made Abraham Lincoln?[77] Can a society establish processes or institutions that train political leadership and courage?

IV. Conclusion

This essay began with a review of the record of modern growth, noting that the experience of the past 190 years or so is fundamentally different from any preceding episodes of national wealth in human history in that this modern growth is sustained, not exploitative, and open to all nations and all humanity. I also briefly rehearsed the various academic theories of the causes of modern growth and how those theories have been instantiated in policies. I noted that there is an emerging consensus among students of growth and development that "institu-

[75] I demonstrated above that the very rapid growth that has characterized the modern experience of India and China has created an easily seen indication of the benefits of growth to the citizens of those societies. Presumably, people in a participatory regime can be enlisted to favor a policy that, although it does not make them wealthier, will make their grandchildren wealthier. But even that deferred benefit is often not enough to command current political support.

[76] In Hyderabad, Hans-Bernd Schaefer noted that politician who are frequently credited with being great leaders—such as Nehru and Gandhi in modern Indian history—have in fact been disastrously wrong-headed, from an economic point of view, while spectacularly successful leaders, such as Manmohan Singh, are frequently undervalued.

[77] "Some are born great; some achieve greatness; and some have greatness thrust upon them." William Shakespeare, *Twelfth Night*, Act II, Scene V (1602).

tions" are a vital ingredient, and I argued that among the various possible organizations and practices that the word "institution" might encompass, "law" and "legal institutions" seem to occupy a core position in fostering national growth.

Nonetheless, I expressed some skepticism about the ability of legal institutions to be the "golden key" to growth that has so long been sought. My skepticism centers on three factors—that there are suitable alternatives to growth-facilitating legal institutions and that many societies have found those alternatives, that just as important as the right institutions is social and national stability, and that focusing on the role of institutions and law as engines of growth draws attention away from the crucial role that political factors and particularly political courage can play in fostering a nation's growth and development.