



Entrepreneurship and Growth: A Latin American Paradox?

Author(s): Cristián Larroulet and Juan Pablo Couyoumdjian

Source: *The Independent Review*, Summer 2009, Vol. 14, No. 1 (Summer 2009), pp. 81-100

Published by: Independent Institute

Stable URL: <https://www.jstor.org/stable/24562213>

JSTOR is a not-for-profit service that helps scholars, researchers, and students discover, use, and build upon a wide range of content in a trusted digital archive. We use information technology and tools to increase productivity and facilitate new forms of scholarship. For more information about JSTOR, please contact support@jstor.org.

Your use of the JSTOR archive indicates your acceptance of the Terms & Conditions of Use, available at <https://about.jstor.org/terms>



JSTOR

Independent Institute is collaborating with JSTOR to digitize, preserve and extend access to *The Independent Review*

Entrepreneurship and Growth

A Latin American Paradox?

CRISTIÁN LARROULET AND JUAN PABLO
COUYOUMDJIAN

In recent Latin American history, economists have advanced many different recipes to promote the region's economic growth. Given these differences of professional opinion and the region's on-again, off-again development, populism and political instability have been frequent responses to economic setbacks in many countries.

That economic growth continues to be discussed as a mystery seems, in any case, surprising to us. A convincing argument can be made that economic growth is intimately related to the development of productive entrepreneurial activities in the context of an appropriate institutional setup. Historical evidence shows that the great improvements in standards of living achieved during the past two centuries have been associated with the development of personal resourcefulness and ingenuity under a system of private-property rights and contractual liberty (Landes 1999; Baumol 2002). To be sure, entrepreneurship may take various forms, and certain forms are antithetical to economic growth, so we must bear this fact in mind as we develop our arguments here.

In this article, we examine the evolution of entrepreneurship in Latin America as presented in the Global Entrepreneurship Monitor (GEM) studies. These studies

Cristián Larroulet is a member of the Facultad de Economía y Negocios, and Juan Pablo Couyoumdjian is a member of the Facultad de Economía y Negocios and the Facultad de Gobierno, both at the Universidad del Desarrollo in Santiago, Chile.

The Independent Review, v. 14, n. 1, Summer 2009, ISSN 1086-1653, Copyright © 2009, pp. 81-100.

present a key set of internationally comparable statistics on entrepreneurship, which have supplied the data for important studies of the role and determinants of entrepreneurship. Here we propose another study along these lines, relating changes in entrepreneurship to changes in economic performance. We obtain an apparently paradoxical result: Latin America has high levels of entrepreneurship, but relatively modest rates of economic growth. Is it possible that, after all, entrepreneurship does not matter much for economic growth? Or is Latin America somehow immune to the beneficial effects of entrepreneurship? We attempt to explain this apparent puzzle.

Economic Growth and Entrepreneurship

Economic growth has been studied extensively over the years. In a highly influential contribution to economic theory, Robert Solow (1956) identified technological progress as the key to a process of sustained growth. Yet Solow's neoclassical growth model, however useful it might have been in accounting exercises related to the *sources* of sustained growth, failed to explain the *causes* of such growth.

Developments in the field of endogenous growth theory may be seen as attempts to deal with this fundamental problem. The point of departure for these developments was the fact that the neoclassical model explained growth by relying on an exogenous factor, technological progress, which was not explicitly modeled. Endogenous-growth theorists took into consideration that agents can make conscious decisions to invest in technology, whether in the form of physical innovations, new knowledge, or specialized human capital.¹ Moreover, to the extent that these investments take forms with increasing returns to scale, they serve as a mechanism for attaining a process of sustained economic growth (Romer 1986, 1990; Lucas 1988).

More recently, attention in the literature has focused on the role that institutions play in upholding responsible economic policies, respecting the principles of private property and contract, and hence promoting economic growth. Institutions determine the structure of incentives in the economy. William Easterly (2001) has been especially effective in arguing that because people respond to incentives, when a nation's incentive structure is not set up correctly, the agents who interact under those rules may not find it advantageous to undertake growth-enhancing activities. In modern times, these ideas owe a great deal to Douglass North's (1990) work. Today, economists and professionals in the field of development economics widely appreciate these observations on the relationship between institutional design and economic performance (see Acemoglu, Johnson, and Robinson 2005).

The relevance of these contributions notwithstanding, we believe that entrepreneurial effort is ultimately the key element in the process of economic growth.

1. Some extensions of the Solow model have also included human capital as an additional type of capital. This modification has helped analysts to explain the differences in income across countries (Mankiw 1995). But these types of models still cannot account for the causes of economic growth.

Entrepreneurship is human action (Mises [1949] 1996), and such action, expressing human ingenuity and creativity, is, as Ludwig von Mises and Israel Kirzner have emphasized, the driving force of economic growth. Although modern economic theorists recognize that economic agents do not act in a vacuum and that they respond to incentives (that is, institutions do guide individual choices), the fundamental point remains that entrepreneurship, understood as purposeful behavior, represents the ultimate source of innovation and economic progress.

In Kirzner's (1973) well-known model of entrepreneurship, this predisposition toward entrepreneurship involves recognizing ("discovering") previously unnoticed opportunities for profit in the economic system. Action based on this recognition leads to a greater degree of coordination of economic agents' plans. Moreover, to the extent that entrepreneurs reallocate scarce resources to more valuable uses, they may also be said to promote economic growth (Steele 1998).

Joseph Schumpeter has more thoroughly and convincingly explained the specific mechanism by which entrepreneurship influences economic growth in his classic books *The Theory of Economic Development* (1934) and *Capitalism, Socialism, and Democracy* (1950). As emphasized in the former work, entrepreneurship plays the key role in driving the process of economic development. Schumpeter also describes clearly the mechanisms through which entrepreneurs act. In his framework, innovation is the central activity undertaken by entrepreneurs, who, as personality types, are leaders, not followers. For Schumpeter, entrepreneurship influences economic growth through the well-known process of "creative destruction," described and analyzed in *Capitalism, Socialism, and Democracy*: new innovations cause constant change in the marketplace, where competition occurs not only at the margin, but at the very foundations of existing firms. The upshot is a continuous process of business firms' entry and exit, leading to ongoing increases of total factor productivity and thus to high rates of economic growth.²

Despite economists' fascination with the study of markets, few seem to recognize the fundamental relevance of this type of dynamic competition and the key role that entrepreneurs play in it for economic growth. Arnold Harberger, a long-time student of economic development, may be an exception; he shows an awareness of this issue in his 1998 treatment of rising total factor productivity as a Schumpeterian entrepreneurial process. Other studies that consider market rivalry as a key factor in economic growth (for example, Aghion and Howitt 1992; Peretto 1998) do not account properly for the entrepreneur himself in this process.

2. Following Kirzner as well as Schumpeter, Randall Holcombe (1998) has argued not only that entrepreneurship represents an activity through which agents take advantage of new profit opportunities, but also that the existence of such profit opportunities is not exogenous to a given economic system. To the extent that entrepreneurship gives rise to knowledge externalities and increasing returns, as he argues, entrepreneurship creates a positive feedback for more entrepreneurship. This feedback mechanism represents the key to a process of sustained growth. This argument calls to mind Kenneth Arrow's (1962) model of externalities driven by "learning by doing." For another attempt to incorporate entrepreneurship into the theory of economic growth, see Audretsch, Keilback, and Lehmann 2006.

The importance of entrepreneurial activities appears much more clearly in the work of economists who are also interested in the analysis of comparative economic systems (again, Schumpeter's work is germane). The difference between progressing and retrogressing (or stationary) societies is that the former have productive entrepreneurs. In a recent work, William Baumol (2002), who over the years has undertaken a vigorous research program on the economics of entrepreneurship, argues convincingly that the "growth miracle of capitalism" is inextricably linked to the innovation efforts spurred by a competitive system in a setting where private property and contract are respected. In different works, Baumol has placed greater or lesser emphasis on the role of individual entrepreneurs as promoters of this innovation; in the 2002 work cited, for example, he underscores the relevance of what we may call a corporate form of entrepreneurship, firms caught up in a fierce process of oligopolistic competition. The entrepreneur's role in driving the engine of economic growth features prominently in his important 1990 article on "productive, unproductive, and destructive" entrepreneurship, where institutional considerations decisively affect the allocation of entrepreneurial effort.

Recognition of how entrepreneurs advance economic growth has important policy implications. Let us consider two different scenarios. If we assume that entrepreneurship is not uniformly distributed across the population or across countries, we will be led to conclude that low-growth countries simply do not have enough entrepreneurs.

If we proceed more conservatively, however, by assuming that entrepreneurial ability is uniformly distributed across the population or across countries, low-growth countries are those in which the existing entrepreneurs are for some reason less productive. As Peter Boettke and Christopher Coyne (2006) have explained, the entrepreneurs' unproductiveness may reflect either a lack of profit opportunities owing to restricted markets or the growth-retarding nature of the entrepreneurial activities being undertaken, in the sense of "unproductive" and "destructive" entrepreneurship à la Baumol (1990). The allocation of entrepreneurship to these activities would spring from the nature of incentives determined by an economy's institutional matrix.

These alternative settings point to differences across countries either in the supply of entrepreneurship or in the allocation of a given supply of entrepreneurship to different types of activities. In this article, we focus on the relevance of the latter issue.

Entrepreneurship around the World

Research in the field of entrepreneurship is fortunate to have the GEM studies. GEM data sets, in particular, are an invaluable resource in shedding light on the evolution of entrepreneurship and its determinants because they provide an almost unique

internationally comparable data set on entrepreneurial activities.³ These studies measure entrepreneurship by a variable called “early-stage entrepreneurial activity,” which identifies nascent entrepreneurs as a percentage of the economically active population.

Laymen commonly believe that many developed countries, especially the United States, have a greater than average “entrepreneurial spirit.” It is even claimed that the developed nations’ cultural heritage and institutions may have something to do with this different entrepreneurial ethos. In regard to Latin America, in contrast, it might be argued that statist policies prevalent during much of the twentieth century impeded economic success by restricting the development of new businesses (that is, entrepreneurship). The resulting general feeling of economic frustration and fragile institutional setup have fostered recurrent episodes of populism that inevitably give rise to deep economic and political crises in the region (Dornbusch and Edwards 1991).

Notwithstanding this history of instability and institutional fragility, however, GEM studies show that Latin America exhibits especially high levels of entrepreneurial activity.⁴ During the period for which we have information, Latin American countries have the second-highest rates of entrepreneurship in the world.⁵ On average, between 2000 and 2007, almost 18 percent of the working-age population were involved in entrepreneurial activities. This involvement significantly exceeds the rates of entrepreneurship even in the European Union, Asia, and North America (figure 1). Moreover, in 2007 all nine of the Latin American nations that participated in the GEM studies had entrepreneurship rates higher than the average rate for the total sample.⁶ These results suggest that the evidence that Latin America countries have high levels of entrepreneurship is not a fluke, but a persistent pattern.

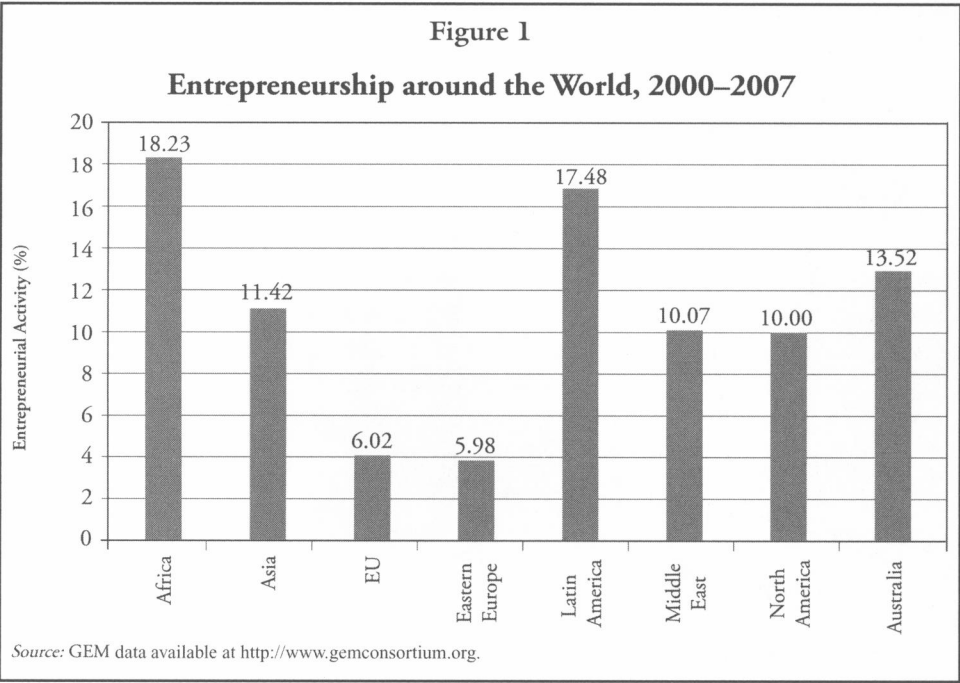
In light of this evidence, we must now consider a different question: What causes Latin American countries to exhibit such *high* levels of entrepreneurship, precisely the opposite of what the prevailing wisdom would lead us to expect?

3. On the GEM methodology, see Reynolds et al. 2005. For recent changes, see Bosma et al. 2008. The World Bank Group has recently assembled an alternative data set on entrepreneurship (Klapper et al. 2007). Although the GEM data are not free from problems, in this paper we rely on this source. Several points are relevant in this decision (on these issues, see Acs, Desai, and Klapper 2007). The World Bank data apply only to new businesses that are legally registered as limited liability corporations, thus passing over firms organized under other legal forms and ignoring informal activities. In some economies, firms may register several such corporations because forming limited liability corporations may be related to other, nonbusiness objectives. We believe these effects may distort the specific patterns we are interested in examining in this article.

4. The Latin American nations included in the GEM surveys are Argentina, Brazil, Chile, Colombia, Dominican Republic, Ecuador, Jamaica, Mexico, Peru, Puerto Rico, Uruguay, and Venezuela.

5. The average rate of entrepreneurship for the African region, which presents the highest rates of entrepreneurship, includes observations for only two countries, South Africa and Uganda, and is heavily influenced by the Ugandan data for 2003 and 2004, which show especially high levels of entrepreneurship (29.3 and 31.6 percent of the working-age population, respectively).

6. Data for Ecuador, Jamaica, and Mexico are missing for this year.



Answering this question requires a closer examination of the specific characteristics and nature of the region’s entrepreneurial activities and a consideration of the institutional context of entrepreneurship.

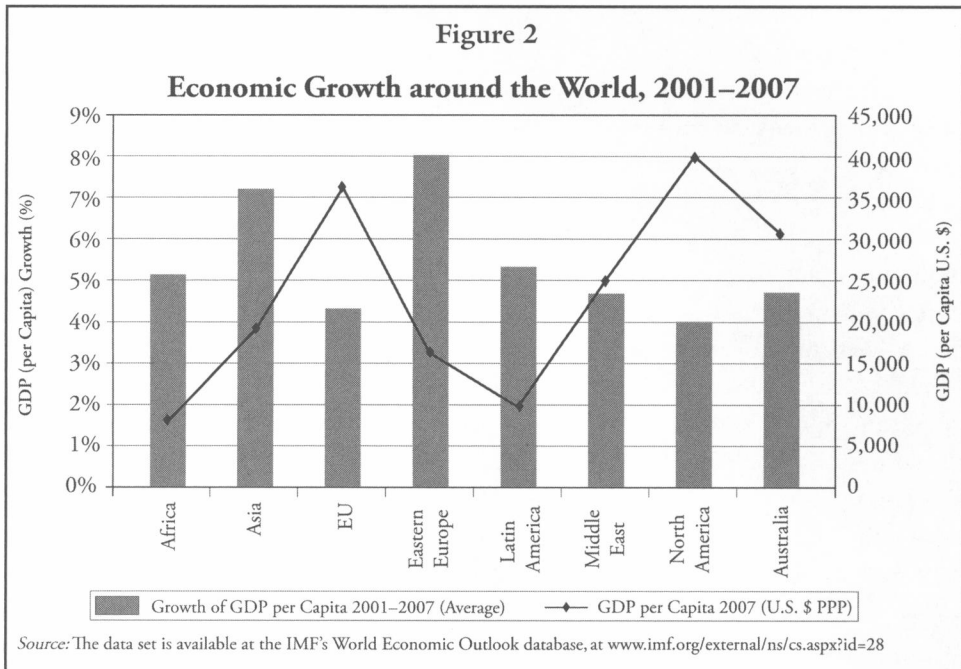
Economic Growth in Latin America

To the extent that Latin American nations exhibit especially high levels of entrepreneurial activity, we should expect them also to have high rates of economic growth. The evidence, however, does not support this view.

In order to consider comparable time periods, and given the limitations of the GEM data, we consider economic performance from 2001 to 2007 as our sample. Our indicator is the change of gross domestic product (GDP) per capita, measured in terms of purchasing power parity (PPP), as calculated by the International Monetary Fund (IMF).

Figure 2 shows economic growth throughout the world during this period in terms of the average annual growth rate of GDP per capita (we also present data on the level of GDP per capita). In a context of vigorous worldwide economic growth, the performance of Latin American nations was unspectacular, if not mediocre.⁷

7. For a longer perspective on Latin American economic performance, see, for example, De Gregorio 2008.



We are thus faced with a puzzle: Why do Latin American countries have such ordinary rates of economic growth when they have such high levels of entrepreneurship? Perhaps entrepreneurship does not really matter for economic growth, or perhaps the process of economic growth is different in Latin American economies. Another possible explanation pertains to significant time lags between new entrepreneurial ventures and their effects on overall economic growth. Indeed, we might well expect such delays in a process of dynamic competition, although we have no direct way of figuring out their precise length. In any case, this argument does not take into account the fact that the GEM data relate only to the total number of entrepreneurs relative to each nation's population; they do not provide information on the number of *new* entrepreneurial activities undertaken each year.

The Puzzle of Entrepreneurship in Latin America

In order to examine in a proper manner the puzzle that interests us, we need to have a clear understanding of what we are measuring when we are working with the definition of entrepreneurship used in the GEM project. In GEM studies, the level of entrepreneurship is measured as a stock variable—the percentage of people in the labor force engaged in entrepreneurial activities. This measure has vital implications when we analyze entrepreneurship's effect on economic growth.

From a theoretical (Schumpeterian) point of view, entrepreneurial activities are embedded in a dynamic process of creation and destruction of business firms. Entrepreneurs create new firms or exploit potentially profitable opportunities, thereby causing important changes in *other* businesspersons' activities. Through this process of creative destruction, entrepreneurship has important effects on an economy's productivity and its rate of growth. As Erik Bartelsman and Mark Doms (2000) have noted, many econometric studies confirm that the reallocation of production is the most important source of productivity gains (and, thus, economic growth) across different economies.

Given that governments create many kinds of microeconomic distortions, we would expect an interruption or at least a moderation of the natural flow of businesses into and out of different industries. So high average levels of entrepreneurship would not necessarily imply that an economy is actually efficient or productive in the allocation of its resources (including, critically, the allocation of entrepreneurial talent). In this case, the level of entrepreneurship, measured as the relative number of people engaged in entrepreneurial activities, might be unrelated to the rate of economic growth. If microeconomic distortions are not uniform across countries or geographic regions, this problem presents the analyst with a serious difficulty.

More generally, observing rates of entrepreneurial engagement for two periods does not provide us with complete information as to the inflow and outflow of entrepreneurs in an economy (which, as argued, is the relevant variable for a correct evaluation of the problem under examination). In this case, we would have information regarding only the net effect of these two opposite movements, which, as noted, may be influenced by the existence of barriers to entry or exit of new businesses—barriers that may differ substantially across countries or regions.

These interpretive problems cannot be easily dismissed. They may well explain the fact that although an important empirical literature (based on GEM data) exists on the relationship between the *level* of GDP and the level of entrepreneurship, documenting a relationship between total entrepreneurship and the *growth rate* of GDP has proved much more difficult.⁸

Entrepreneurship Dehomogenized

A more critical issue regarding the level of entrepreneurship across countries as presented in the GEM studies, which we glossed over in our previous discussion of the methodology GEM used for the measurement of entrepreneurship, refers to the distinction made between different types of entrepreneurial activities. In particular, the GEM studies recognize that entrepreneurship is not homogenous or uniform. This point should be obvious: we have no reason to expect different entrepreneurs

8. Examples of this literature on the level of GDP and entrepreneurship include Carree and Thurik 2002, Wennekers et al. 2005, and Amorós and Cristi 2008b.

and their activities to be identical or even similar in their contribution to economic growth or in any other way.⁹ Data that consider this heterogeneity convey more information, and this aspect of the GEM studies constitutes an important strength of their methodology.

In particular, the GEM studies make a distinction in agents' motivation for engaging in entrepreneurial activities, recognizing entrepreneurship motivated by opportunity and entrepreneurship motivated by necessity. This distinction does not capture all of the heterogeneity of entrepreneurial activities, of course, but it is especially useful in dealing with the problem at issue here because entrepreneurs' motivations are of key importance for the contribution they make to economic growth.

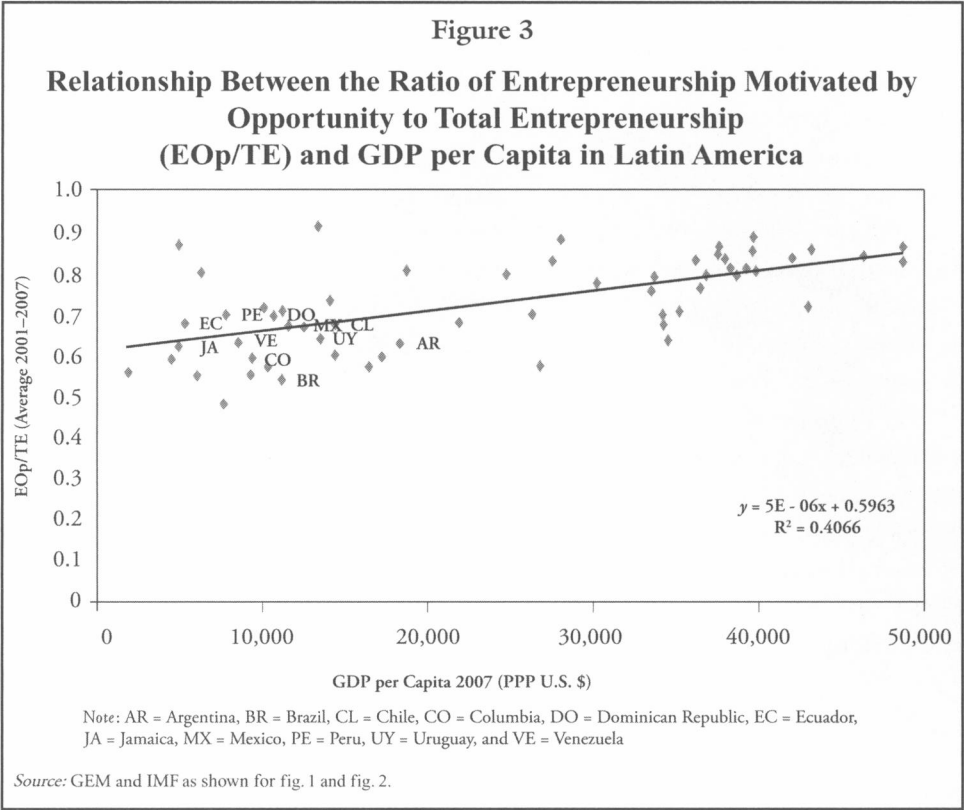
Entrepreneurship motivated by opportunity represents an activity stimulated by desire to take advantage of a potentially profitable business opportunity and may be classified as analogous to Schumpeterian or Kirznerian entrepreneurship (keeping in mind, of course, the differences between these models). These types of entrepreneurial actions relate to activities expected to be productive in the economic sense of the word, even though some of them may turn out to be unsuccessful (that is, to be entrepreneurial errors), and we can analyze these decisions by considering the expected value the agents involved perceived they would obtain.

Entrepreneurship motivated by necessity pertains to activity that might almost be labeled "involuntary" in the sense that the actor undertakes it only because of a lack of other opportunities. In this case, the agent faces severe constraints, and the decision to undertake an entrepreneurial activity will *not necessarily* be related to the merits or qualities of the project being undertaken (Larroulet and Ramírez 2007), except in the sense that it amounts to the actor's way of making the best of a bad situation.

As noted previously, developed countries in general have relatively low levels of entrepreneurship; more important, however, they have low levels of entrepreneurship motivated by necessity and high levels of entrepreneurship motivated by opportunity (each representing approximately 20 percent and 80 percent of total entrepreneurial activities, respectively). Conversely, less-developed countries have relatively lower rates of entrepreneurship motivated by opportunity, which represents approximately 63 percent of total entrepreneurial activities.

Thus, we have another part of the solution to the paradox we are examining. In Latin America, necessity is a relatively important motivation for engagement in entrepreneurial activities: on average, 35 percent of all entrepreneurial activities are motivated by necessity, rather than by opportunity. This aspect of entrepreneurial efforts profoundly affects their productivity in the region.

9. Indeed, it is interesting to note that in the literature no real agreement exists as to what "entrepreneurship" is all about; for an article that deals with this point, see Hébert and Link 1989.



In analyzing the impact of entrepreneurship, the key variable is not its total level, but the ratio of entrepreneurship motivated by opportunity to total entrepreneurial activities. In figure 3, we present evidence in support of our argument. As can be seen, Latin American nations are located quite distinctly within the group of less-developed countries with relatively low levels of entrepreneurship motivated by opportunity (measured as a percentage of total entrepreneurship).¹⁰

Our argument thus suggests that the motivations for engaging in entrepreneurial activities matter for economic growth. This result complements Baumol's (1990) argument: in impact on economic performance, not only is there a difference between productive and destructive entrepreneurship where the entrepreneur's motivation in each case is in essence identical, but there is also a difference between entrepreneurship motivated by necessity and entrepreneurship motivated by opportunity.

10. In a fascinating paper that models the volatility of entrepreneurship, Ernesto Amorós and Oscar Cristi (2008a) find that entrepreneurship motivated by necessity is more volatile than entrepreneurship motivated by opportunity. This result is fully consistent with our argument. Because entrepreneurship motivated by necessity is a best-response strategy, conditional on the economic environment in which an agent interacts, it will tend to fluctuate more than entrepreneurial activities motivated by the decision to engage in potentially profitable opportunities.

Institutional factors are critical in Baumol's model. As the system of rules under which agents interact in an economy, institutions have an important influence on economic behavior. That some agents decide to allocate their entrepreneurial talent to unproductive activities suggests that in these cases the incentives are set so that these activities are optimal from their point of view. Institutional factors are also central in the allocation of talent between entrepreneurship motivated by necessity and entrepreneurship motivated by opportunity.

Our argument builds on the close relationship between entrepreneurship motivated by necessity and the decision to participate in the informal sector of the economy. In many countries, especially in Latin America, the informal sector amounts to the equivalent of a substantial fraction of the official GDP (Schneider 2005). In addition, differences across countries regarding the size of such informal economies are informative. Recent studies that have examined the determinants of informality have found that the size of the informal sector depends on the extent of tax burdens and labor-market restrictions and on the quality of government institutions (Loayza 1996; Schneider and Enste 2000; Servén, Oviedo, and Loayza 2005). Informality should thus be seen as a means of avoiding expensive regulations and, when considered as self-employment, a means of avoiding poverty and starvation. More generally, informality represents a response to a weak institutional environment (de Soto 1986).¹¹

Informal activities often represent entrepreneurial activity—an individual's best response to an especially difficult environment in which regulations and corruption limit his opportunities to obtain a formal job or open a small business in the formal sector. At the same time, the specter of poverty provides an additional incentive to engage in self-employment or to participate in the informal sector.

Given the nature of informality, we should not expect informal business activities to be highly productive, at least when compared to the results of entrepreneurial activities motivated by opportunity. Although entrepreneurial errors may very well be less likely in entrepreneurship by necessity (that is, the distribution of entrepreneurial returns in this case may be expected to have a small variance), the average returns, which we may consider indicative of the projects' productivity, may be expected to be low. Because the informal sector offers only a fragile protection of property rights, small businesses will have limited scope for irreversible investments and other productivity-enhancing measures, at least while the organization remains informal, and they will not find ready buyers prepared to pay an amount equal to the present value of the future expected cash flows. As an economy's institutional quality improves and

11. Simon Johnson, Daniel Kaufmann, and Pablo Zoido-Lobaton (1998) argue that in countries where governmental regulatory discretion is higher (an indicator of poor institutions), we should observe a larger informal sector. Hernando de Soto's (1986) analysis provides further anecdotal evidence regarding the relation between informality and institutional quality. These results are to be expected because informal activities arise whenever the costs of doing businesses formally—that is, complying with all the legal requirements—are sufficiently high.

the economy grows richer, entrepreneurship motivated by necessity tends to decrease, which further suggests that informal entrepreneurial activities may be of a low quality.

Other ways in which institutional considerations affect the productivity of entrepreneurship pertain to their direct influence on entrepreneurship motivated by opportunity. Poor institutions result in smaller-than-optimal investments in productive entrepreneurial activities and in their early harvest—outcomes that are ubiquitous problems in societies with financial-market constraints and political (or economic) instability. Latin America fits this pattern.¹² Moreover, we cannot expect the quality of entrepreneurship motivated by opportunity to be homogeneous across countries because of international differences in the levels of human capital, which influences the execution of these entrepreneurial opportunities. Scarcities of human capital help to account for the modest effects of entrepreneurship on economic growth in less-developed countries.

Emphasis on institutional quality as a problem in Latin America is consistent with the evidence presented by Harold Cole and his colleagues (2005) and by Juan Blyde and Eduardo Fernández-Arias (2006), who have also argued that the problem of economic growth in Latin America is one of low productivity, which, these authors explain, reflects low institutional quality.

Consideration of institutional factors gives rise to the problem of endogeneity between entrepreneurship and institutions. Not only do institutions influence the allocation of entrepreneurial efforts, but entrepreneurial activities may also affect an institutional environment. If our argument is to be taken seriously, some consideration must be given to the issue of double causation, which, as economic history and daily observations suggest, is a pervasive problem.¹³

The possibility of capturing institutions or engaging in some type of institutional rent seeking (Tullock 1967; Stigler 1971; Ekelund and Tollison 2001) depends critically, however, on a weak institutional structure. Russell Sobel, J. R. Clark, and Dwight Lee (2007) emphasize this point in explaining that successful entrepreneurs will always be able to offer reasons for impeding competition and to lobby for restrictions on entry into their markets. Under a good institutional setup, however, authorities do not and indeed cannot yield to these entreaties. The fact that throughout history Latin America authorities have generally yielded to such pleas evinces the region's fundamental institutional weaknesses. In an important work on democratic and oligarchic societies, Daron Acemoglu (2008) likewise points in this direction.

12. In this setting, corporate entrepreneurship in large conglomerates constitutes the main originator of productive entrepreneurial activities (Khanna and Palepu 2000). We are grateful to Patricio Cortés for bringing this point to our attention.

13. On the role of entrepreneurs shaping institutions from a historical perspective, see North 1981. In Latin America, the evidence is ample, although mostly anecdotal.

A Case for Institutional Reform

We have argued that entrepreneurship is a key determinant of economic growth.¹⁴ More precisely, a country's development requires a flow of entrepreneurial activity associated with a process of dynamic competition that leads to an overall increase in efficiency and a high rate of economic growth. This relationship is mediated by factors related to institutional quality that determine an economy's allocation of resources. Our work complements Baumol's (1990) model of productive, unproductive, and destructive entrepreneurship—one of the most important contributions to the study of entrepreneurship in several decades.¹⁵ A significant element of Baumol's approach is that he focuses attention on the relationship between entrepreneurship and institutions.

Our work follows the same principle. If our analysis is correct, an increase in the number of entrepreneurs motivated by opportunity would be the best way to promote economic growth, but our work should *not* be interpreted as advocating the direct promotion of any type of entrepreneurship. A key foundation for this conviction is that we believe that we, as economists qua policymakers, do not know enough about how to promote entrepreneurship directly. A more efficient approach is to lay the foundations of an environment that better brings to light potentially profitable opportunities for entrepreneurs and may even generate new opportunities. Institutional reform is the means to this end.

Likewise, it might be possible to increase the relative number of entrepreneurs motivated by opportunity by discouraging informal activities, thereby inducing a reallocation of entrepreneurial effort. Again, however, institutional reform would be required, particularly in moving toward greater economic freedom (as a proxy of institutional quality).

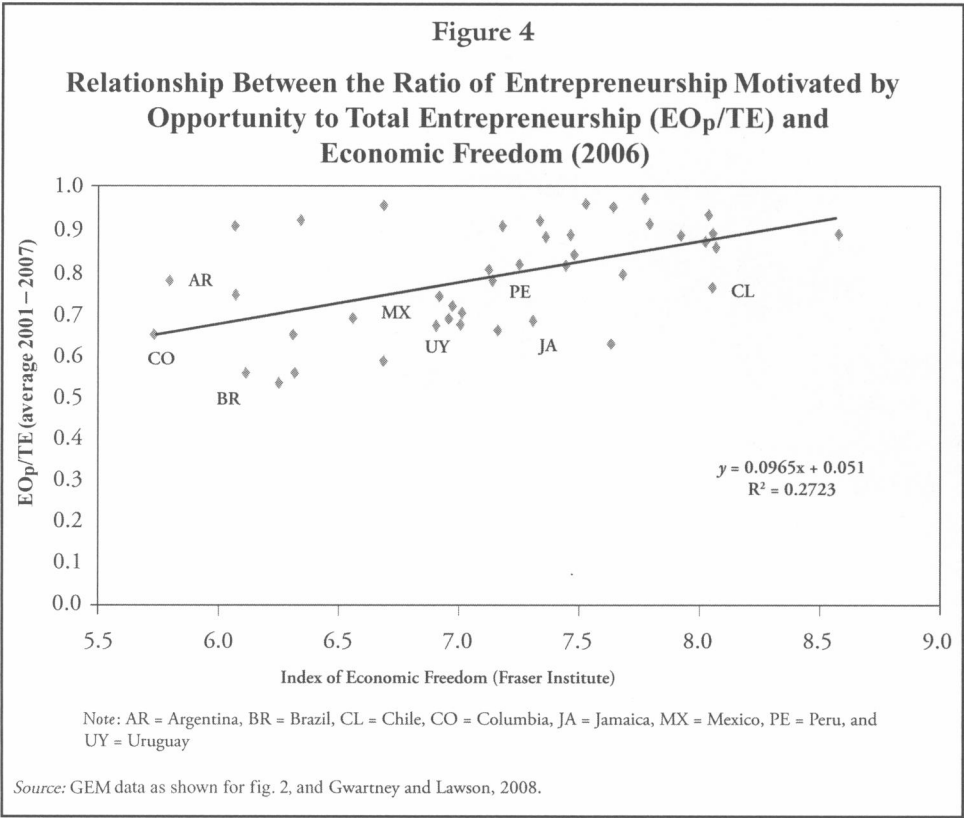
In stronger terms, we claim that economic freedom is crucial precisely for the expression of an agent's entrepreneurial spirit. This deployment of human ingenuity can be expected to foster higher rates of economic growth.¹⁶

Figure 4 presents the relationship between the ratio of entrepreneurship motivated by opportunity to total entrepreneurship and the Index of Economic Freedom

14. This section mirrors the arguments advanced in Larroulet and Ramírez 2007.

15. Despite its intuitive appeal and the anecdotal evidence provided by Baumol, this theory requires more testing. Russell Sobel (2008) works with data at the U.S. state level. Sobel's econometric approach is ingenious, but his definition of productive and unproductive entrepreneurship may be inadequate; for example, considering self-employment as productive entrepreneurship is not necessarily accurate in light of the arguments advanced here. In a work that, like ours, is inspired by the universal character of entrepreneurship, Christopher Coyne and Peter Leeson (2004) examine Baumol's model of the allocation of entrepreneurial talent in the context of Romania, pointing out some key weaknesses in that country's institutional matrix that have had an important effect on the allocation of entrepreneurship toward unproductive activities.

16. On this issue, see, for example, the evidence provided in Kreft and Sobel 2005; see also Gwartney, Lawson, and Holcombe 1999.



prepared by the Fraser Institute.¹⁷ Consistent with our discussion, this figure suggests that countries that have a greater degree of economic freedom, as measured by this index, have higher degrees of entrepreneurship motivated by opportunity.¹⁸ Given the possibility of two-way causality, these results should be interpreted with care. Note in particular that they are intended to portray only a correlation and not necessarily a causal relation. In any case, this evidence is consistent with existing studies of the relationship between entrepreneurship and economic freedom, including the one by Steven Kreft and Russell Sobel, who try to deal with the causality issue

17. The latest Index of Economic Freedom prepared by the Fraser Institute reports data for the year 2006; see Gwartney and Lawson 2008. Five dimensions of economic freedom are considered in the index: size of government; legal structure and security of property rights; access to sound money; freedom to trade internationally; and regulation of credit, labor, and business. Given the unavailability of data, we do not consider here the following Latin American countries: Dominican Republic, Ecuador, Puerto Rico, and Venezuela.

18. Moreover, calculations based on the sample of countries considered in figure 4 (where $n = 42$) indicate that all the Latin American countries except Chile and Peru have a lower than average value on “economic freedom.”

Table 1
Doing Business in Latin American and OECD Countries, 2008

	OECD	Latin America
Starting a business (duration in days)	15.4	66.3
Cost of starting a business (% of GNI per capita)	5.9	42.6
Registering property (duration in days)	32.4	71.5
Time involved in closing a business (in years)	1.6	3.3
Recovery rate (cents on the dollar)	69.8	26.8
Firing costs (weeks of wages)	25.4	55.4
Tax payments (number)	14.2	38.0

Source: <http://www.doingbusiness.org>.

that concerns us here and argue that an “environment consistent with economic freedom” encourages entrepreneurial activity and economic growth (2005, 609).¹⁹

This evidence suggests that moving toward greater economic freedom should be a beneficial path for institutional reform. With regard to moving toward greater freedom in the regulation of credit, labor, and business, the World Bank’s Doing Business project sheds additional light on specific reforms that might be undertaken. This approach may also be beneficial by itself: simplifying the bureaucratic regulations that new business ventures face is important in its own right because it lightens business operators’ opportunity costs. Table 1 presents data on the ease of “doing business” in Latin America as estimated by the World Bank. This project considers the scope and type of regulations that foster or hamper entrepreneurial activities and prepares standardized indicators.

As table 1 shows, developed countries, proxied by members of the Organization for Economic Cooperation and Development (OECD), have significantly better scores than Latin American nations in the different components of this index. Developed countries enjoy a regulatory environment much more conducive to entrepreneurship than do Latin American nations. Consider, for example, the number of days required to start a new business and its associated costs (as a percentage of the gross national income [GNI] per capita) in Latin America (sixty-six days and almost 43 percent of GNI per capita) and in OECD nations (more than fifteen days and almost 6 percent of GNI). In Latin America, the situation regarding the time involved in registering property and the number of tax payments to be made is just as bad.

The ease of entrepreneurial entry *and* exit are relevant to the process of dynamic competition that is crucial for the realization of entrepreneurship’s benefits. The fact

19. For a similar result, see Hall and Sobel 2008. Christian Bjørnskov and Nicolai Foss (2008) find that the size of government and sound money are the only dimensions of economic freedom that are statistically related to entrepreneurship.

that both the costs of starting a business and the costs of closing a business are high in Latin America points to fundamental problems in the region's institutional matrix. In OECD countries, the number of years required for closing a business is half of that in Latin America; differences are also substantial for recovery rates for bankruptcy and labor firing costs. Institutional reform must be given high priority if Latin America is to encourage highly productive entrepreneurial activities.

Conclusions

The combination of high levels of entrepreneurship and mediocre rates of economic growth in Latin America is thus not as paradoxical as it may seem because Latin American nations have a lower proportion of productive entrepreneurship than developed countries have. Many Latin American nations still present features of a mercantilist society. Some authors have recently used the expression "oligarchic capitalism" to refer to these societies (Baumol, Litan, and Schramm 2007), but, whatever label is pinned on them, they are essentially the type of society that Adam Smith criticized more than two centuries ago.

Studies in comparative economics show that poor institutional quality has important economic effects in the long run (Landes 1999; Baumol 2002). Recent general-equilibrium macroeconomic studies have also shown that microeconomic distortions may have significant effects on economic growth (Parente and Prescott 2000).²⁰ Institutional reform is plainly crucial if high rates of economic growth are to be sustained in Latin America.

Although we have used data on entrepreneurship compiled by the GEM project, we do not believe that our results are critically sensitive to the specific data set used. The World Bank Group recently started a project to measure entrepreneurship based on the collection of statistics about formal business registrations across countries (Klapper et al. 2007). A recent study that compares the GEM and World Bank indicators shows that the GEM statistics identify higher levels of entrepreneurship in developing countries than the World Bank figures do, and it argues that these differences may relate to differences between entrepreneurial intent (part of what the GEM studies estimate) and formal entrepreneurial activities proper (Acs, Desai, and Klapper 2007).²¹ This difference may be related to institutional quality and the ease of doing business.

Our discussion of the nature of entrepreneurship in Latin America should not lead anyone to underrate the importance of entrepreneurship motivated by necessity. These activities represent a form of human resourcefulness and entrepreneurial

20. On these issues, see also the analysis in Larroulet 2003.

21. These variables are measured differently: the GEM figures report the number of entrepreneurs as a percentage of the population that is of working age, whereas the World Bank figures refer to the entry rate of new (registered) businesses as a percentage of the (lagged) existing number of firms.

enterprise. Thus, our argument should be interpreted as fully consistent with the thrust of the contributions to the recently published volume edited by Alvaro Vargas Llosa (2008), in which the authors conclude that grassroots entrepreneurial efforts must be commended, not discouraged, and that the removal of obstacles to entrepreneurship will bring about an improvement in economic conditions (that is, economic growth) in developing countries.

References

- Acemoglu, Daron. 2008. Oligarchic versus Democratic Societies. *Journal of the European Economic Association* 6, no. 1: 1–44.
- Acemoglu, Daron, Simon Johnson, and James A. Robinson. 2005. Institutions as the Fundamental Cause of Long-Run Growth. In *Handbook of Economic Growth*, edited by Philippe Aghion and Steven Durlauf, 1A:386–472. New York: Elsevier.
- Acs, Zoltan, Sameeksha Desai, and Leora F. Klapper. 2007. A Comparison of GEM and the World Bank Group Entrepreneurship Data. Unpublished manuscript.
- Aghion, Philippe, and Peter Howitt. 1992. A Model of Growth Through Creative Destruction. *Econometrica* 60, no. 2: 323–51.
- Amorós, Ernesto, and Oscar Cristi. 2008a. *Entrepreneurship “Volatility”? Linking Entrepreneurial Dynamics to Entrepreneurial Framework Conditions*. Working Paper no. 6. Santiago, Chile: Universidad del Desarrollo.
- . 2008b. Longitudinal analysis of Entrepreneurship and Competitiveness Dynamics in Latin America. *International Entrepreneurship and Management Journal* 4, no. 4: 381–99.
- Arrow, Kenneth. 1962. The Economic Implications of Learning by Doing. *Review of Economic Studies* 29, no. 3: 155–73.
- Audretsch, David, Max Keilback, and Erik Lehmann. 2006. *Entrepreneurship and Economic Growth*. Jena, Germany, and Oxford, U.K.: Max Planck Institute of Economics and Oxford University Press.
- Bartelsman, Eric, and Mark Doms. 2000. Understanding Productivity: Lessons from Longitudinal Microdata. *Journal of Economic Literature* 38: 569–94.
- Baumol, William J. 1990. Entrepreneurship: Productive, Unproductive, and Destructive. *Journal of Political Economy* 98, no. 5: 893–921.
- . 2002. *The Free-Market Innovation Machine: Analyzing the Growth Miracle of Capitalism*. Princeton, N.J.: Princeton University Press.
- Baumol, William J., Robert Litan, and Carl Schramm. 2007. *Good Capitalism, Bad Capitalism, and the Economics of Growth and Prosperity*. New Haven, Conn.: Yale University Press.
- Bjørnskov, Christian, and Nicolai Foss. 2008. Economic Freedom and Entrepreneurial Activity: Some Cross-Country Evidence. *Public Choice* 127, no. 3: 307–28.
- Blyde, Juan S., and Eduardo Fernández-Arias. 2006. Why Does Latin America Grow More Slowly? In *Sources of Growth in Latin America: What Is Missing?* edited by Eduardo

- Fernández-Arias, Rodolfo Manuelli, and Juan S. Blyde, 3–54. Washington, D.C.: Inter-American Development Bank.
- Boettke, Peter, and Christopher Coyne. 2006. Entrepreneurial Behavior and Institutions. In *Entrepreneurship: The Engine of Growth*, edited by Maria Minniti, 1:119–34. Westport, Conn.: Praeger.
- Bosma, Niels, Kent Jones, Erkkö Autio, and Jonathan Levie. 2008. *Global Entrepreneurship Monitor, 2007 Executive Report*. Wellesley, Mass., and London: Babson College and London Business School.
- Carree, Martin, and Roy Thurik. 2002. Economic Development and Business Ownership: An analysis Using Data of 23 OECD Countries in the Period 1976–1996. *Small Business Economics* 19: 271–90.
- Cole, Harold, Lee E. Ohanian, Alvaro Riascos, and James A. Schmitz Jr. 2005. Latin America in the Rearview Mirror. *Journal of Monetary Economics* 52, no. 1: 69–107.
- Coyne Christopher, and Peter Leeson. 2004. The Plight of Underdeveloped Countries. *Cato Journal* 24, no. 3: 235–49.
- De Gregorio, José. 2008. El Crecimiento Económico de la América Latina: Del desencanto del siglo XX a los desafíos del XXI. *El Trimestre Económico* 75, no. 1: 5–45.
- De Soto, Hernando. 1986. *El otro sendero: La revolución informal*. With the collaboration of Enrique Ghersi, Mario Ghibellini, and Instituto Libertad y Democracia. Lima, Peru: Editorial El Barranco.
- Dornbusch, Rudiger, and Sebastián Edwards. 1991. *The Macroeconomics of Populism in Latin America*. Chicago: University of Chicago Press.
- Easterly, William. 2001. *The Elusive Quest for Growth: Economists' Adventures and Misadventures in the Tropics*. Cambridge, Mass.: MIT Press.
- Ekelund, Robert B., and Robert D. Tollison. 2001. The Interest-Group Theory of Government. In *The Elgar Companion to Public Choice*, edited by William F. Shughart II and Laura Razzolini, 357–78. Cheltenham, U.K.: Edward Elgar.
- Gwartney, James, Robert Lawson, and Randall Holcombe. 1999. Economic Freedom and the Environment for Economic Growth. *Journal of Institutional and Theoretical Economics* 155, no. 4: 1–21.
- Gwartney, James, and Robert Lawson, with Seth Norton. 2008. *Economic Freedom of the World: 2008 Annual Report*. Toronto: Fraser Institute. Data retrieved from <http://www.freetheworld.com>.
- Hall, Joshua, and Russell S. Sobel. 2008. Institutions, Entrepreneurship, and Regional Differences in Economic Growth. *Southern Journal of Entrepreneurship* 1, no. 1: 69–96.
- Harberger, Arnold. 1998. A Vision of the Growth Process. *American Economic Review* 88, no. 1: 1–32.
- Hébert, Robert F., and Albert Link. 1989. In Search of the Meaning of Entrepreneurship. *Small Business Economics* 1, no. 1: 39–49.
- Holcombe, Randall. 1998. Entrepreneurship and Economic Growth. *Quarterly Journal of Austrian Economics* 1, no. 2: 45–62.

- Johnson, Simon, Daniel Kaufmann, and Pablo Zoido-Lobaton. 1998. Regulatory Discretion and the Unofficial Economy. *American Economic Review* 88, no. 2: 387–92.
- Khanna, Tarun, and Krishna Palepu. 2000. The Future of Business Groups in Emerging Markets: Long-Run Evidence from Chile. *Academy of Management Journal* 43, no. 3: 268–85.
- Kirzner, Israel. 1973. *Competition and Entrepreneurship*. Chicago: University of Chicago Press.
- Klapper, Leora, Raphael H. Amit, Mauro F. Guillén, and Juan Manuel Quesada. 2007. *Entrepreneurship and Firm Formation across Countries*. World Bank Policy Research Working Paper no. 4313. Washington, D.C.: World Bank.
- Kreft, Steven, and Russell S. Sobel. 2005. Public Policy, Entrepreneurship, and Economic Freedom. *Cato Journal* 25, no. 3: 595–616.
- Landes, David S. 1999. *The Wealth and Poverty of Nations: Why Some Are So Rich and Some So Poor*. New York: W. W. Norton.
- Larroulet, Cristián. 2003. Políticas públicas para el desarrollo. *Estudios Públicos* 91: 153–79.
- Larroulet, Cristián, and Macarena Ramírez. 2007. Emprendimiento: Factor clave para la nueva etapa de Chile. *Estudios Públicos* 108: 93–116.
- Loayza, Norman. 1996. The Economics of the Informal Sector: A Simple Model and Some Empirical Evidence from Latin America. *Carnegie-Rochester Conference Series on Public Policy* 45: 129–62.
- Lucas, Robert E. 1988. On the Mechanics of Economic Development. *Journal of Monetary Economics* 22, no. 1: 3–42.
- Mankiw, N. Gregory. 1995. The Growth of Nations. *Brookings Papers on Economic Activity*, no. 1: 275–326.
- Mises, Ludwig von. [1949] 1996. *Human Action: A Treatise on Economics*. 4th rev. ed. San Francisco: Fox and Wilkes.
- North, Douglass C. 1981. *Structure and Change in Economic History*. New York: W. W. Norton.
- . 1990. *Institutions, Institutional Change, and Economic Performance*. Cambridge, U.K.: Cambridge University Press.
- Parente, Stephen L., and Edward C. Prescott. 2000. *Barriers to Riches*. Cambridge, Mass.: MIT Press.
- Peretto, Pietro. 1998. Technological Change, Market Rivalry, and the Evolution of the Capitalist Engine of Growth. *Journal of Economic Growth* 3, no. 1: 53–80.
- Reynolds, Paul, Niels Bosma, Erkkö Autio, Steve Hunt, Natalie De Bono, Isabel Servais, Paloma Lopez-Garcia, and Nancy Chin. 2005. Global Entrepreneurship Monitor: Data Collection Design and Implementation 1998–2003. *Small Business Economics* 24, no. 3: 205–31.
- Romer, Paul. 1986. Increasing Returns and Long-Run Growth. *Journal of Political Economy* 94, no. 5: 1002–37.
- . 1990. Endogenous Technological Change. *Journal of Political Economy* 98, no. 5: S71–S102.

- Schneider, Friedrich. 2005. *Shadow Economies of 145 Countries All over the World: What Do We Really Know?* Center for Research in Economics, Management, and the Arts (CREMA) Working Paper no. 2005-13. Basel, Switzerland: CREMA.
- Schneider, Friedrich, and Dominik H. Enste. 2000. Shadow Economies: Size, Causes, and Consequences. *Journal of Economic Literature* 38, no. 1: 77–114.
- Schumpeter, Joseph A. 1934. *The Theory of Economic Development: An Inquiry into Profits, Credit, Interest, and the Business Cycle*. 2d ed. Translated by R. Opie. Cambridge, Mass.: Harvard University Press.
- . 1950. *Capitalism, Socialism, and Democracy*. 3rd ed. New York: Harper.
- Servén, Luis, Ana María Oviedo, and Norman Loayza. 2005. *The Impact of Regulation on Growth and Informality: Cross-Country Evidence*. World Bank Policy Research Working Paper no. 3623. Washington, D.C.: World Bank.
- Sobel, Russell S. 2008. Testing Baumol: Institutional Quality and the Productivity of Entrepreneurship. *Journal of Business Venturing* 23, no. 6: 641–55.
- Sobel, Russell S., J. R. Clark, and Dwight Lee. 2007. Freedom, Barriers to Entry, Entrepreneurship, and Economic Progress. *Review of Austrian Economics* 20, no. 4: 221–36.
- Solow, Robert. 1956. A Contribution to the Theory of Economic Growth. *Quarterly Journal of Economics* 70, no. 1: 65–99.
- Steele, Charles. 1998. Entrepreneurship and the Economics of Growth. *Advances in Austrian Economics* 5: 51–84.
- Stigler, George J. 1971. The Theory of Economic Regulation. *Bell Journal of Economics* 2, no. 1: 3–21.
- Tullock, Gordon. 1967. The Welfare Costs of Tariffs, Monopoly, and Theft. *Western Economic Journal* 5: 224–32.
- Vargas Llosa, Alvaro, ed. 2008. *Lessons from the Poor: Triumph of the Entrepreneurial Spirit*. Oakland, Calif.: The Independent Institute.
- Wennekers, Sander, André van Wennekers, Roy Thurik, and Paul Reynolds. 2005. Nascent Entrepreneurship and the Level of Economic Development. *Small Business Economics* 24, no. 3: 293–309.

Acknowledgments: We are grateful to the editor and several anonymous referees of this journal for their helpful comments and suggestions. We also acknowledge very stimulating conversations with Patricio Cortés and especially Ernesto Amorós, who also provided us with the most recent GEM data set, which is not publicly available. Macarena Ramírez's assistance is also appreciated.