Entrepreneurship and Growth: A Latin American Paradox?[*]

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Abstract

When we examine the evolution of entrepreneurship in Latin America, as presented in the Global Entrepreneurship Monitor studies, and contrast it with the evolution of economic performance in the region, we find an apparently puzzling result: Latin America is characterized by high levels of entrepreneurship as well as relatively modest rates of economic growth. We argue that an answer to this problem involves the recognition that in Latin America entrepreneurial activities are undertaken in the context of a mercantilistic type of capitalist society. Since economic growth is intimately related to the development of (productive) entrepreneurial activities under an appropriate institutional setup, we argue that the fundamental cause of the low growth in Latin America is poor institutional quality.

Keywords: Entrepeneurship, GEM, Institutions, Development, Political Economy

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Introduction

In Latin America concern about economic growth comes up again and again with a striking regularity. Throughout recent history many different types of recipes have been offered to address the question as to what can be done to promote growth in the region. The fact that economists do not seem to have a uniform understanding of what it really takes to achieve a sustained process of economic growth, and thus leap from being a developing country to a developed country, is certainly an important limitation on this point. In this sense one can say that growth or development policy has never been thoroughly consistent in terms of the recommendations that are advanced in this field. Populism and political instability have thus been a frequent response to this letdown in quite a few political communities in Latin America.

The fact that economic growth is still being discussed as a sort of mysterious problem seems, in any case, surprising to us. A strongly convincing argument can be made in the sense that economic growth is intimately related to the development of (productive) entrepreneurial activities under an appropriate institutional setup. The historical evidence suggests that the impressive progress in terms of standard of living achieved in human society over the years is related to the development of personal resourcefulness and ingenuity under a system of rules that is characterized by the deference to the principles of private property and contract (Baumol 2002, Landes 1999). To be sure we must consider that entrepreneurship may well be heterogeneous in nature, and this may have important effects on our argument regarding the primacy of entrepreneurship. But these are issues we will examine more carefully below.

In our ensuing discussion we will examine the evolution of entrepreneurship in Latin America, as presented in the Global Entrepreneurship Monitor (GEM) studies. These studies present a key set of internationally comparable statistics on entrepreneurship, and have formed the basis of important studies on the role and the determinants of entrepreneurship in an economy. Here we propose another study along these lines; contrasting the evolution of entrepreneurship with the evolution of economic performance. When this exercise is undertaken in the Latin American context we find an apparently paradoxical result: Latin America is characterized by high levels of entrepreneurship as well as relatively modest rates of economic growth. Is it possible that, after all, entrepreneurship does not really matter for economic growth? Or is Latin America in some way immune from the beneficial effects of entrepreneurship? In what follows we will attempt to explain this apparent puzzle.

Economic growth and entrepreneurship

The problem of economic growth has been studied extensively over the years. In terms of modern economic theory the work by Robert Solow (1956) highlighting the role of technological progress as the key to a process of sustained growth represented an important breakthrough. But while this work, labelled as the neoclassical growth model, was highly influential for many decades, it is important to explain that apart from its accounting of the

sources of sustained growth, in the last resort it was unable to explain the *causes* of such growth.

Developments on the field of endogenous growth theory should be interpreted as an attempt to face this fundamental problem. This program was inspired by the fact that the neoclassical model only explained growth by relying on an exogenous factor, technological progress, which was not explicitly modelled. The process of endogenizing growth took into consideration that agents could make conscious decisions to invest in technology, whether in the form of innovations, new knowledge, or through investments in specialized human capital[1]. Moreover, to the extent that these investments presented increasing returns to scale, this would provide a mechanism for a process of sustained economic growth (Romer 1986, 1990; Lucas 1988).

More recently, attention in the literature has focused on the role that institutions have in terms of upholding responsible economic policies, respecting the principles of private property and contract, and hence promoting economic growth. Institutions thus matter in terms of representing the structure of incentives in the economy. William Easterly (2002) has been especially eloquent in advancing the notion that since people respond to incentives, when a nation's incentive structure is not set up correctly, the agents interacting under those rules may not find it advantageous to undertake growth enhancing activities. In modern times these ideas owe a great deal to the work by Douglass North; today, these observations on the relationship between institutional design and economic performance are common knowledge among economists and professionals interested in the problem of development economics (North 1990; see, also, Acemoglu et al 2005).

The relevance of these contributions notwithstanding, we believe that in the final analysis entrepreneurial effort is the key element behind the process of economic growth. Entrepreneurship is human action (Mises 1949). And it is such behaviour, in the form of human ingenuity and creativity that, paraphrasing Ludwig von Mises and Israel Kirzner, is the "driving force" of economic growth. In the context of the modern economic theory, it is recognized that economic agents do not act in a vacuum and that they respond to incentives (i.e. institutions do in effect matter in terms of guiding individual behaviour), but the fundamental point remains that entrepreneurship, understood as purposeful behaviour, surely represents the ultimate source of innovation and economic progress.

In Israel Kirzner's well-known model of entrepreneurship (Kirzner 1973), this predisposition towards entrepreneurial activities involves recognizing ("discovering") previously unnoticed profitable opportunities in the economic system. This would lead to a greater degree of coordination of the plans of economic agents. But more than that, to the extent that through their activities entrepreneurs lead scarce resources and assets to uses where their economic value is greater, they can also be said to promote economic growth (Steele 1998).

[1] Some extensions of the Solow model have also included human capital as an additional type of capital. This has made it easier to explain the differences in income levels across countries (Mankiw 1995). But these types of models are still unable to account for the sources of economic growth.

The specific mechanism through which entrepreneurship influences economic growth has been more thoroughly (and one could even say, convincingly) explained by Joseph Schumpeter, who stressed the importance of these points in his now classic *The Theory of Economic Development* (1934) and *Capitalism, Socialism and Democracy* (1950). As stated in its title, in the former work entrepreneurship plays a key role precisely on the problem of economic development. Furthermore, here we find a clear description of the mechanisms through which entrepreneurs act; in this framework innovation appears as the central activity undertaken by entrepreneurs. In the context of our argument it is especially important to note that here we also find that the entrepreneur acquires a definite personality as an individual, as a person; it is the entrepreneur who is an innovator and a leader. In all, for Schumpeter entrepreneurship influences economic growth through the well known process of "creative destruction" that appears in *Capitalism, Socialism and Democracy*; new innovations lead to a situation where the marketplace is continually changing, where competition occurs not only at the margin, but at the very foundations of the lives of existing firms. The marketplace is thus characterized by a continuous process of entry and exit of business firms, leading to high efficiency in terms of what modern economists call total factor productivity, and thus to high rates of economic growth[2].

It is interesting to note that despite their apparent fascination with the study of markets, few economists seem to recognize the fundamental relevance of this type of dynamic competition, and of the key role played by entrepreneurs in this context, for economic growth. Arnold Harberger, who has for a long time been interested in the problems of economic development, may be an exception as he shows an awareness of this issue in his treatment of total factor productivity as a Schumpeterian entrepreneurial process (Harberger 1998). On the other hand, other seemingly attractive studies that consider the role of market rivalry as key in promoting economic growth (see, for example, the works by Aghion and Howitt 1992, and Peretto 1998), do not seem to properly account for the entrepreneur himself in this process.

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 (note that Schumpeter's work is also relevant on this point). 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, has convincingly argued that the "growth miracle of capitalism" is inextricably linked to the innovation efforts spurred by a competitive system, in a setting where the principles of property and contract are respected. In different works Baumol has offered a greater or smaller emphasis on the role of individual entrepreneurs as promoters of this innovation; in the work we are referring to,

[2] Following Kirzner, as well as Schumpeter, Holcombe (1998) has argued that entrepreneurship not only represents an activity through which agents take advantage of new profit opportunities, but that the existence of such profit opportunities is not an exogenous element to a given economic system. To the extent that, as Holcombe argues, entrepreneurship gives rise to knowledge externalities and increasing returns, entrepreneurship creates a positive feedback for more entrepreneurship. This feedback mechanism would in turn represent the key to a process of sustained growth. Note that as a reader of this journal has suggested, this argument is similar to Arrow's (1962) model of externalities driven by learning by doing. For another attempt at incorporating entrepreneurship into the theory of economic growth, see Audretsch et al (2006).

for example, he underscores the relevance of what we could call a corporate form of entrepreneurship, of firms caught up in a fierce process of oligopolistic competition. The role that entrepreneurs have in terms of representing the engine of economic growth plays a key role, on the other hand, in his important article on "productive, unproductive and destructive" entrepreneurship, where institutional considerations play a key role on the allocation of entrepreneurial effort (Baumol 1990).

Recognizing the role played by entrepreneurs in advancing economic growth has important policy implications. Let us consider these consequences in 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 are those nations where there are simply not enough entrepreneurs. In this case we can say that economic growth will be constrained by an insufficient supply of entrepreneurs.

If, on the other hand, we proceed more conservatively and assume that entrepreneurial ability is uniformly distributed across the population, or across countries, low growth countries are those where the existing entrepreneurs are, for some reason, less productive. As Peter Boettke and Christopher Coyne (2006) have explained the unproductiveness of entrepreneurs may be related either to a lack of profit opportunities due to the existence of restricted markets, or because of the growth-retarding nature of the entrepreneurial activities being undertaken, in the sense of "unproductive" and "destructive" entrepreneurship as examined by Baumol (1990). The allocation of entrepreneurship to these activities would, in turn, depend on 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 between different types of activities. Throughout this paper we will focus on the relevance of the latter issue, that is, on the allocation of entrepreneurial talent in an economy.

Entrepreneurship across the World

Research in the field of entrepreneurship is fortunate to have the Global Entrepreneurship Monitor (GEM) studies. GEM data sets, in particular, represent an invaluable resource in terms of shedding light as to the evolution of entrepreneurship and its determinants, in the sense that they provide an almost unique internationally comparable data-set on entrepreneurial activities[3]. In these studies the measurement of entrepreneurship is

[3] On the GEM methodology, see Reynolds et al (2005). For recent changes see Bosma et al (2008). An alternative data-set on entrepreneurship has recently been assembled by the World Bank Group (Klapper et al, 2007). While, as we shall explain below, the GEM data is not free from problems, in this paper we will rely on this source. Several points are relevant in this decision (on these issues see Acs et al, 2007): The World Bank data only considers new businesses that are legally registered as limited liability corporations, thus passing over firms organized under other legal forms (as well as ignoring informal activities). In this sense one can imagine that in some economies firms may register several such corporations because forming limited

represented by a variable called "Early-Stage Entrepreneurial Activity", which identifies nascent entrepreneurs as a percentage of the economically active population.

Laymen regularly believe that many developed countries have a greater than average "entrepreneurial spirit"; the established evaluation of the United States is apparent in this respect. It is even claimed that the cultural heritage and institutions of developed nations may have something to do with this different entrepreneurial ethos. In the case of Latin America, on the other hand, it could be argued that statist policies prevalent during great part of the 20th century made economic success through the development of new businesses (i.e. entrepreneurship) quite restricted. In this sense, the general feeling of economic frustration thus encouraged, together with a fragile institutional setup, has led to recurrent episodes of populism that inevitably led to deep economic and political crises in the region (Dornbusch and Edwards 1991).

In spite of this history of instability and institutional fragility it is interesting to note that GEM studies show that Latin America is a region that exhibits especially high levels of entrepreneurial activity (EA)[4]. During the period for which we have available information (and ignoring the years for which we have missing data), countries in the Latin American region present the second highest rates of entrepreneurship in the world[5]; as an average between 2000-2007, almost 18% of the population in a working age were involved in entrepreneurial activities in this region. This is significantly higher than the rates of entrepreneurship in the European Union, Asia and North America (Figure 1).

Moreover, in 2007 all of the nine Latin American nations that participated in the GEM studies had entrepreneurship rates that were higher than the total average rate in the sample[6]. These results suggest that the evidence in the sense that Latin America countries have high levels of entrepreneurship is not merely an accident, but quite a systematic pattern.

INSERT FIGURE 1 AROUND HERE

Note that in light of these figures we now have to address the different question as to what is so special about Latin America that countries in this region should exhibit such *high* levels of entrepreneurship. This is precisely the opposite to what the prevailing wisdom suggests regarding the distribution of entrepreneurship across the world. Dealing with this matter involves a closer examination of the precise characteristics and nature of the

liability corporations may be related to other objectives that are not directly business-related. We believe these effects may distort the specific patterns we are interested in examining in this paper.

[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] Note that the average rate of entrepreneurship for the African region, which presents the highest rates of entrepreneurship, includes observations from only two countries, South Africa and Uganda, and is heavily influenced by the data from Uganda, which is only available for 2003 and 2004 and presents especially high levels of entrepreneurship (29,3 and 31,6 percent of the population in working age respectively).

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

entrepreneurial activities in the region, as well as a discussion of the institutional context of entrepreneurship.

Economic Growth in Latin America

According to the arguments developed above, to the extent that Latin American nations exhibit especially high levels of entrepreneurial activity we should expect that they also present high rates of economic growth. As we shall see, however, the evidence does not support this view.

In order to consider comparable time-periods, and given limitations with the availability of GEM data, we consider economic performance over the years 2001-2007 as our sample; in particular our indicator in this sense is the evolution of the per capita Gross Domestic Product (GDP), measured in terms of equal purchasing power (PPP), as calculated by the International Monetary Fund[7].

Figure 2 shows the evolution of economic growth throughout the world during this period in terms of the average annual growth rate of GDP per capita (additionally, we also present data on the level of per capita GDP). As is apparent, in a context of quite vigorous worldwide economic growth the performance of Latin American nations is unspectacular, if not mediocre[8].

INSEERT FIGURE 2 AROUND HERE

We are thus faced with a puzzle: Why is it that Latin American countries, that present high levels of entrepreneurship, exhibit such ordinary rates of economic growth? One general type of answer would suggest that entrepreneurship does not really matter for economic growth, or maybe that there is something very special about the process of economic growth in Latin American economies. Another possible alternative would rely on the existence of significant time-lags between new entrepreneurial ventures and their effects on overall economic growth. Indeed, this is an effect that we should expect in a context of a process of dynamic competition, although we should point out that we have no direct way of figuring out the precise length of these lags. In any case note that this argument does not take into account that the GEM data only records the total number of entrepreneurs across countries (in relation to each nation's population). In other words, it is important to keep in mind that GEM figures do not really provide information on the number of *new* entrepreneurial activities undertaken every year. But let us address these issues more carefully.

[7] The data set is available at the IMF's World Economic Outlook database; http://www.imf.org/external/ns/cs.aspx?id=28.

[8] For a longer perspective on Latin American economic performance see, for example, De Gregorio (2008).

The puzzle: Entrepreneurship in Latin America

In order to examine the puzzle that interests us in a proper manner we need to have a very clear understanding as to what exactly we are measuring when we are working with the definition of entrepreneurship used by the GEM project. As mentioned above, a key point in this respect is the fact that in GEM studies the level of entrepreneurship is measured as a stock variable; as the percentage of people in the labour force that are engaged in entrepreneurial activities. This has vital implications when we analyze the effects of entrepreneurship, measured in such a fashion, 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, thus leading to important changes in the structure of an economy in terms of the activities of *other* businessmen. It is through this process of creative destruction that entrepreneurship is expected to have important effects on an economy's productivity and its rate of growth. At this point it seems relevant to call to mind that as Erik Bartelsman and Mark Doms (2000) have explained, many econometric studies indeed confirm that the reallocation of production is the most important source of productivity gains (and, thus, economic growth) across different economies.

To the extent that most countries present numerous types of microeconomic distortions we would see an interruption or at least a moderation of the natural inflow and outflow of businesses into and out of different industries. Thus, simply observing high average levels of entrepreneurship would not necessarily imply that an economy is actually efficient or productive in terms of 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, would not necessarily be expected to be related with economic growth. If microeconomic distortions are not uniform across countries or geographic regions, we can imagine that this inferential problem would be all the more relevant.

More generally, observing rates of entrepreneurial activities for two periods, say t=1 and t=2, does not really provide us with complete information as to the inflow and outflow of entrepreneurs from an economy during the intervening period (which, as argued, is the relevant variable for a correct evaluation of the problem under examination). In this case we would only have information regarding the net effect of these two opposite movements that, as noted, may be influenced by the existence of barriers to entry or to exit of new businesses which may be quite different across countries or regions.

We believe that these arguments cannot be easily dismissed. Indeed, we believe that all of this may well explain the fact that while 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[9].

Entrepreneurship de-homogenized

A more critical issue regarding the level of entrepreneurship across countries as presented in the GEM studies, and that we glossed over in our previous discussion of the methodology used by the GEM for the measurement of entrepreneurship, refers to the distinction made between different types of entrepreneurial activities. In particular, GEM studies recognize that entrepreneurship is not homogenous or uniform. This is a point that does not seem surprising. There is no reason to expect that different entrepreneurs and their activities should be identical, either in terms of their contribution to economic growth or in any other way[10]. Having data that considers this heterogeneity is highly valuable, and thus constitutes an important strength of the methodology used in the GEM studies.

In particular GEM studies make a distinction in the motivation agents have for engaging in entrepreneurial activities; thus we have what are referred to as entrepreneurship motivated by opportunity and entrepreneurship motivated by necessity. This distinction does not of course capture all of the heterogeneity of entrepreneurial activities, but it is especially useful in terms of the problem we wish to address in this paper. The motivation underlying the actions of entrepreneurs is of key importance when we want to examine the contribution that entrepreneurs are expected to have in terms of economic growth.

Entrepreneurship motivated by opportunity represents an entrepreneurial activity that is stimulated by an open desire to take advantage of a potentially profitable business opportunity. In this sense it 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 point to activities that are expected to be productive in the economic sense of the word. This would be so even if we allow for the fact that some of these activities may actually turn out to be unsuccessful (i.e. that they were entrepreneurial errors), in which case we would have to consider these decisions in terms of the expected value the agents involved perceived they would obtain.

On the other hand, entrepreneurship motivated by necessity is characterized by an entrepreneurial activity that may be labelled involuntary, in the sense that the agent involved is forced to undertake this activity because of a lack of other opportunities. In this case, accordingly, entrepreneurship will be related to the fact that the agent under consideration may face severe constraints. This means that in this situation the decision to undertake an entrepreneurial activity will *not necessarily* be related to the actual merits or qualities of the project being undertaken[11].

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[9] As an example of this literature on the level of GDP and entrepreneurship see, for example, Amorós and Cristi (2008a), Wennekers et al (2005), and Carree and Thurik (2002).

[10] Indeed, it is interesting to note that in the literature there is actually no real agreement as to what "entrepreneurship" is really all about; for an early paper addressing this point, see Hébert and Link (1989).

[11] This important point has been called to attention previously by Larroulet and Ramírez (2007).

As noted above developed countries have, in general, relatively lower levels of entrepreneurship; but what is more important, the allocation of this entrepreneurial activity is characterized by low levels of entrepreneurship motivated by necessity and high levels of entrepreneurship motivated by opportunity (which represent approximately 20% and 80% of total entrepreneurial activities, respectively). Conversely, less developed countries present relatively lower rates of entrepreneurship motivated by opportunity (which represent approximately 63% of total entrepreneurial activities).

Therein should lie another part of the solution to the paradox we are examining. In Latin America engaging in entrepreneurial activities due to a necessity is a relatively important motivation; on average 35% of all entrepreneurial activities are motivated by necessity rather than of opportunity. This distinction will have a profound effect on the productivity of entrepreneurial efforts undertaken in the region.

This analysis thus suggests that the relevant variable to consider if we are interested in analyzing the impact of entrepreneurship is not the total level of entrepreneurship but the ratio of entrepreneurship motivated by opportunity to total entrepreneurial activities (EOp/TE). In Figure 3 we present some 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 percentage of total entrepreneurship)[12].

INSERT FIGURE 3 AROUND HERE

Our argument thus suggests that the motivations for engaging in entrepreneurial activities matter for economic growth. This result is complementary to the argument advanced by Baumol (1990) in the sense that in terms of its impact on economic performance not only is there a difference between productive and destructive entrepreneurship, where the motivation of the entrepreneur is in essence identical, but there is also a difference between what we refer to as entrepreneurship motivated by necessity and entrepreneurship motivated by opportunity.

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 behaviour. The fact that some agents should decide to allocate their entrepreneurial talent to unproductive activities suggests that in these cases the sets of incentives are placed so that these activities are optimal from the point of view of the agents involved.

[12] It is interesting to note that in a fascinating paper that models the volatility of entrepreneurship, Amorós and Cristi (2008b) have recently documented that entrepreneurship motivated by necessity is more volatile that entrepreneurship motivated by opportunity. This result is fully consistent with our argument in the sense that since 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 that are motivated by the decision to engage in potentially profitable opportunities.

We are ready to argue that these types of factors are also central in terms of the allocation of talent between entrepreneurship motivated by necessity and entrepreneurship motivated by opportunity. In other words, here we will claim that this dimension of the quality of entrepreneurship also depends on institutional factors.

This 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 represents an important fraction of the official gross domestic product (Schneider 2005). In addition, differences across countries regarding the size of such informal economies are very informative. Recent studies that have examined the determinants of informality have found that the size of the so-called informal sector in an economy is dependent on the extent of tax-burdens and labor market restrictions, as well as on the quality of government institutions (Loayza 1996, Schneider and Enste 2000, Servén et al 2005). Informality should thus be seen as a means to avoid expensive regulations and, when considered as self-employment, a means to avoid poverty and starvation. More generally, we can say that informality represents a response to a weak institutional environment (de Soto 1986)[13].

It is especially interesting to us to note that informality also represents an entrepreneurial activity. It represents an individual's best response to a particularly difficult environment he is facing, where regulations and corruption limit his opportunities in terms of obtaining a formal job, or in terms of opening a small business in the formal sector of the economy. At the same time, the specter of poverty is an additional incentive to engage in self-employment or to participate in the informal sector of the economy.

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 that are motivated by opportunity. While in the case of entrepreneurship by necessity entrepreneurial errors may very well be less likely (i.e. the distribution of the entrepreneurial returns in this case may be expected to have a small variance), the average returns, which we may consider as indicative of the productivity of the projects being undertaken, may be expected to be low. Since the informal sector of the economy offers a very fragile protection of property rights, small businesses will have a limited scope for irreversible investments and other productivity enhancing measures, at least while the organization remains informal. In other words, while an organization remains informal it will be unable to realize its market valuation in terms of the present value of the future expected cash flows. The fact that as an economy's institutional quality improves and it grows richer entrepreneurship motivated by necessity tends to fall, further suggests that informal entrepreneurial activities may be of a low-quality.

[13] Regarding this point note that, for example, Johnson, Kaufmann and Zoido-Lobaton (1998) have argued that in countries where governmental regulatory discretion is higher, which can be interpreted as an indicator of poor institutions, we should observe a larger informal sector. De Soto's (1986) own analysis provides further anecdotal evidence regarding the relation between informality and institutional quality. These results are to be expected since informality will exist whenever the costs of doing businesses formally, that is, complying with all the legal requirements, are sufficiently high.

Complementary to the problem of informality, other avenues through which institutional considerations affect the productivity of entrepreneurship deal with its direct influence on entrepreneurship motivated by opportunity. Following a similar line of argumentation as advanced above, the existence of poor institutions can be expected to lead to smaller than optimal investments in productive entrepreneurial activities, as well as to their early harvest. This problem can be expected to be ubiquitous in the context of societies where there are financial market constraints and political (or economic) instability; Latin America seems to fill this pattern[14]. One could also add that the quality of entrepreneurship motivated by opportunity cannot really be expected to be homogeneous across countries given international differences in the levels of human capital, which are relevant as they influence the execution of these entrepreneurial opportunities. This would be an additional factor for the modest effects of entrepreneurship on economic growth in less developed countries.

This emphasis on institutional quality as a problem in Latin America is consistent with the evidence presented by Harold Cole et al (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. As these authors then go on to explain, this problem is, in turn, related to low institutional quality.

At this point it is important to recognize that considering 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 suggests is a quite pervasive problem[15].

It is important to recognize, however, that the possibility of capturing institutions or engaging in some type of institutional rent-seeking (Stigler 1971; Tullock 1967; Ekelund and Tollison 2001) is critically dependent on having a weak institutional structure. This is precisely the point that Russell Sobel, J. R. Clark and Dwight Lee (2007) emphasize when they explain that successful entrepreneurs will always be able to offer reasons to try to impede competition and lobby for restrictions to their markets. Under a good institutional setup, however, authorities do not, and moreover, cannot, yield to these requests. The fact that throughout history Latin America authorities have generally yielded to such demands points to fundamental institutional weaknesses in the region. The discussion by Daron Acemoglu (2008), in his important work on democratic and oligarchic societies, likewise points in this direction. In the final analysis, then, we believe that our focus on the effects of institutional quality on the entrepreneurship points to the basic problem we should be interested in.

[14] In this scenario corporate entrepreneurship in large conglomerates would the main originator of productive entrepreneurial activities (Khanna and Palepu, 2000). We are grateful to Patricio Cortés for calling this point to our attention.

[15] For an example of the role of entrepreneurs shaping institutions from a historical perspective, see North (1981). In Latin America the evidence in this sense is quite ample, although mostly of an anecdotal nature.

A case for institutional reform[16]

In this paper we have argued that entrepreneurship is a key determinant of economic growth. More precisely, for a country to become developed there must exist a flux of entrepreneurial activity associated with a process of dynamic competition that leads to an overall increase in efficiency and to high economic growth. As suggested above, this relationship is mediated by considerations related to institutional quality that determine the allocation of resources in an economy.

In this sense, we believe our work complements William Baumol's model on productive, unproductive and destructive entrepreneurship (Baumol 1990), which actually represents one of the most important contributions to the study of entrepreneurship in several decades[17]. Note, crucially, that one of the many merits of this paper lies in the fact that it focuses the discussion on policies regarding entrepreneurship on institutional considerations.

Our work follows the same principle. While, if our analysis is correct, an increase in the number of entrepreneurs motivated by opportunity would be the best way to promote economic growth, our work should *not* be interpreted in the sense of advocating the direct promotion of any type of entrepreneurship. A key foundation for this conviction is that we believe that as economists-qua-policymakers we do not know enough about how to promote entrepreneurship directly. A more efficient manner to proceed in this sense would be by laying the foundations of an environment that better brings to light potentially profitable opportunities for entrepreneurs and may even generate new such opportunities; this can be achieved through institutional reform.

In a likewise fashion, it would be possible to increase the relative number of entrepreneurs motivated by opportunity by discouraging informality and inducing a re-allocation of entrepreneurial effort in the economy; once again institutional reform would be required here, particularly in terms of moving forward in dimensions of economic freedom (as a proxy of institutional quality).

In stronger terms we claim that economic freedom is important; it is crucial, precisely, for the realization of an agent's entrepreneurial spirit. As we have argued above, this

[16] This section mirrors the arguments advanced by Larroulet and Ramírez (2007).

[17] Despite its intuitive appeal and the anecdotal evidence provided by Baumol, this theory still lacks, however, more testing. One exception in this sense is provided by Sobel (2008), who works with data at the U.S. state level. The econometric approach used by Sobel 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 is inspired, like ours, on the universal character of entrepreneurship, Coyne and Leeson (2004) undertake an examination of Baumol's model of the allocation of entrepreneurial talent in the context of Romania, pointing out some key weaknesses in the institutional matrix in that country that has had an important effect on the allocation of entrepreneurship towards unproductive activities.

deployment of human ingenuity can be expected to be associated with higher rates of economic growth[18].

Figure 4 presents the relationship between the ratio of Entrepreneurship Motivated by Opportunity to Total Entrepreneurship (which, as noted above, is the relevant measure of entrepreneurial activities in the context of the problem under examination here) and the Index of Economic Freedom prepared by the Fraser Institute[19]. Consistent with our discussion, this figure suggests that countries that have a greater degree of economic freedom, as measured by this index, are the same nations that have higher degrees of entrepreneurship motivated by opportunity (measured as percentage of total entrepreneurship; EOp/TE)[20]. Given the possibility of a two-way causality these results should be interpreted with care; in particular note that they are only intended to portray a correlation and not a relation of causality. In any case, it is important to point out that this evidence is consistent with existing studies on the relationship between entrepreneurship and economic freedom; for example, our results are coherent with the arguments advanced by Steven Kreft and Russell Sobel (2005) who, by the way, also try to deal with the causality issue that we are concerned with here, and argue that an "environment consistent with economic freedom" encourages entrepreneurial activity and economic growth[21].

INSERT FIGURE 4 AROUND HERE

This evidence thus suggests that moving towards greater degrees of economic freedom should be a beneficial path for institutional reform to consider. In particular, in terms of moving towards greater freedom in the dimension relating to the regulation of credit, labor and business, the World Bank's "Doing Business" project sheds some additional light as to some specific reforms that can be undertaken. This is an avenue that may also be beneficial by itself; simplifying the bureaucratic regulations that new business ventures face is really important in its own merit, specifically in terms of truly appreciating the opportunity costs of an agent.

Table 1 presents some data on the ease of "doing business" in Latin America, as estimated by the World Bank. Recall that this project considers the scope and type of regulations that foster or hamper entrepreneurial activities, and prepares standardized indicators

[18] On this issue see, for example, the evidence provided by Kreft and Sobel (2005); see also Gwartney et al (1999).

[19] The latest Index of Economic Freedom prepared by the Fraser Institute reports data for the year 2006; see Gwartney et al (2008). The dimensions of economic freedom considered in the index are five; 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 data availability here we do not consider the following Latin American countries: Dominican Republic, Ecuador, Venezuela and Puerto Rico.

[20] Additionally, it is interesting to observe that calculations based on the sample of countries considered in this figure (where n=42) indicate that all the Latin American countries except Chile and Peru have a lower than average value on "Economic Freedom".

[21] For a similar result, see Hall and Sobel (2008). Interestingly, in another paper Bjørnskov and Foss (2008) find that the size of government and sound money are the only dimensions of economic freedom that are statistically related to entrepreneurship.

INSERT TABLE 1 AROUND HERE

As can be seen in this table, developed countries, proxied as the group of nations that are members of the OECD, present significantly better scores than Latin American nations in the different components of this index. Developed countries thus present a regulatory environment that is much more conducive to entrepreneurship than Latin American nations. Consider, for instance, the number of days it takes to start a new business and its associated costs (as a % of the national income) in Latin America (68 days and almost 44% of GDP) and in OECD nations (almost 15 days and 5% of GDP). In terms of the time involved in registering property and the number of tax payments to be undertaken, the situation is just as bad in Latin America.

As we have examined above, the easiness both in terms of entrepreneurial entry *and* exit are relevant to the process of dynamic competition that is crucial for the beneficial effects of entrepreneurship to be realized. The fact that both the costs of starting a business and of closing a business are high in Latin America point to some really fundamental problems with the institutional matrix existing in this region. Note, for instance, that in OECD countries the number of years involved in closing a business is half of that in Latin America; in terms of recovery rates for bankruptcy and labour firing costs, the differences are also quite impressive. Institutional reform must be at the top of the agenda in Latin America if it is to encourage highly productive entrepreneurial activities.

Conclusions

In this paper we have argued that the fact Latin America is characterized by high levels of entrepreneurship and mediocre rates of economic growth is not really as paradoxical as it may seem, since Latin American nations present a lower proportion of productive entrepreneurship than developed countries. This is, also, not really surprising. Many Latin American nations still present features of a mercantilist society. Recently some authors have used the expression “oligarchic capitalism” to refer to these societies (Baumol, Litan and Schramm 2007), but these are, essentially, the types of societies that Adam Smith was criticizing over two centuries ago.

Studies in comparative economics show that poor institutional quality can have important economic effects in the long-run (Baumol 2002, Landes 1999). It is interesting to note that recent general-equilibrium macroeconomic studies have also shown that microeconomic distortions can have very significant effects on economic growth (Parente and Prescott 2000)[22]. The importance of institutional reform cannot really be emphasized enough.

Even though in this paper 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

[22] On these issues see, also, the analysis in Larroulet (2003).

used. As mentioned above, the World Bank Group recently started an effort of measuring entrepreneurship based on the collection of statistics of formal business registrations across countries (Klapper et al 2007). A recent study that compares the GEM and World Bank indicators explains that the GEM statistics present higher levels of entrepreneurship in developing countries than the World Bank figures, and argues that these differences may lie in differences between entrepreneurial intent (which is part of what the GEM studies estimate), and formal entrepreneurial activities proper (Acs et al 2007)[23]. This may be related to institutional quality and the ease of doing business, as just examined.

In closing it is important to emphasize that our discussion on the nature of entrepreneurship in Latin America should not lead us to underrate the importance of entrepreneurship motivated by necessity. These activities represent a paradigm of human resourcefulness and entrepreneurial activity. In this sense, our argument should be interpreted as fully consistent with the thrust of the papers that appear in the volume edited by Alvaro Vargas Llosa (2008), where it is claimed that grass-roots entrepreneurial efforts must be commended, not discouraged, and that it is the removal of the obstacles to entrepreneurship that will bring about an improvement in economic conditions (i.e. economic growth) in developing countries.

[23] It is important to emphasize that these variables are measured in different terms; the GEM figures report the number of entrepreneurs as a percentage of population in working age, while the World Bank figures refer to the entry rate of new (registered) businesses as a percentage of existing -lagged- number of firms.

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Figure 1:

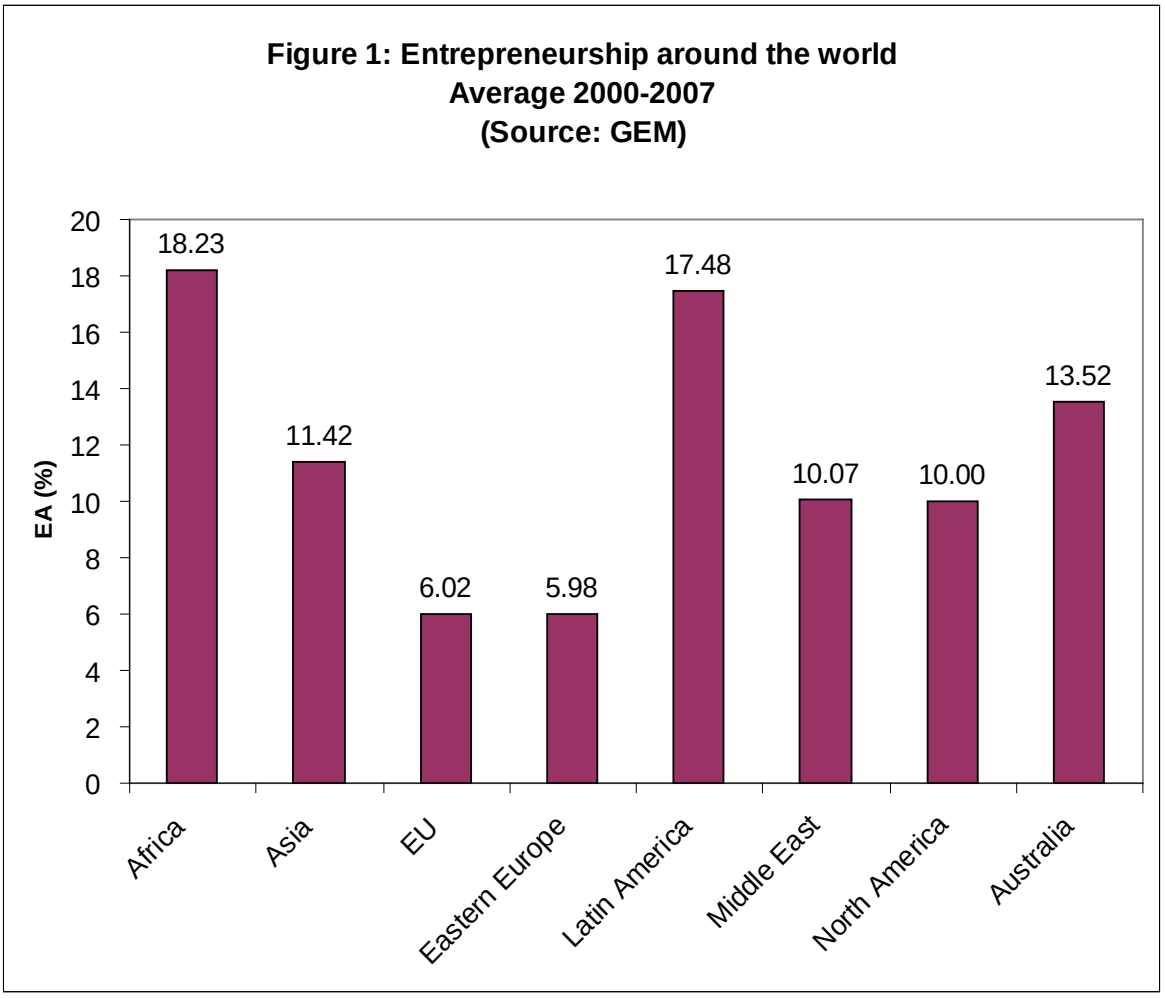
Figure 1: Entrepreneurship around the world
Average 2000-2007
(Source: GEM)
EA (%)
20
18
16
14
12
10
8
6
4
2
0
18.23
11.42
6.02
5.98
17.48
10.07
10.00
13.52
Africa
Asia
EU
Eastern Europe
Latin America
Middle East
North America
Australia

Figure 2:

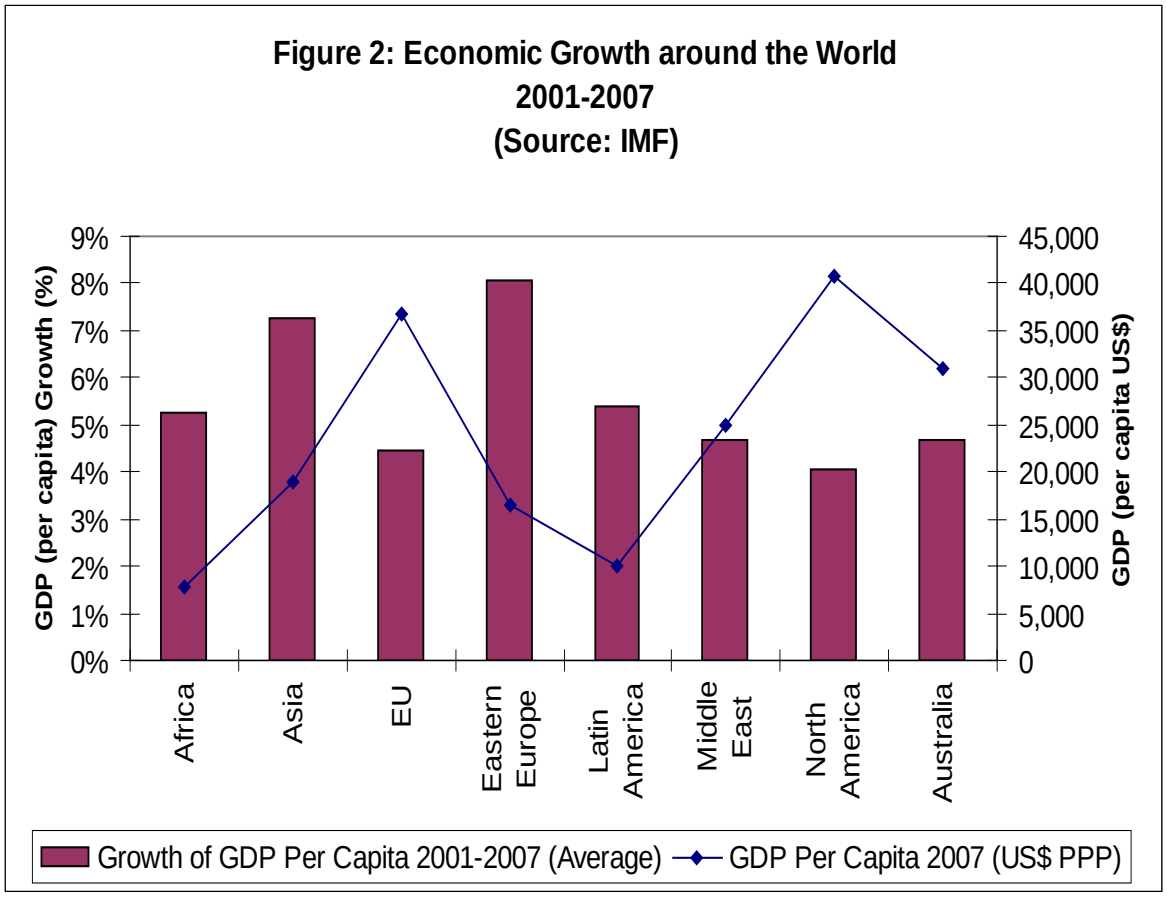
Figure 2: Economic Growth around the World
2001-2007
(Source: IMF)
GDP (per capita) Growth (%)
9%
8%
7%
6%
5%
4%
3%
2%
1%
0%
45,000
40,000
35,000
30,000
25,000
20,000
15,000
10,000
5,000
0
GDP (per capita US$)
Africa
Asia
EU
Eastern Europe
Latin America
Middle East
North America
Australia
Growth of GDP Per Capita 2001-2007 (Average)
GDP Per Capita 2007 (US$ PPP)

Figure 3:

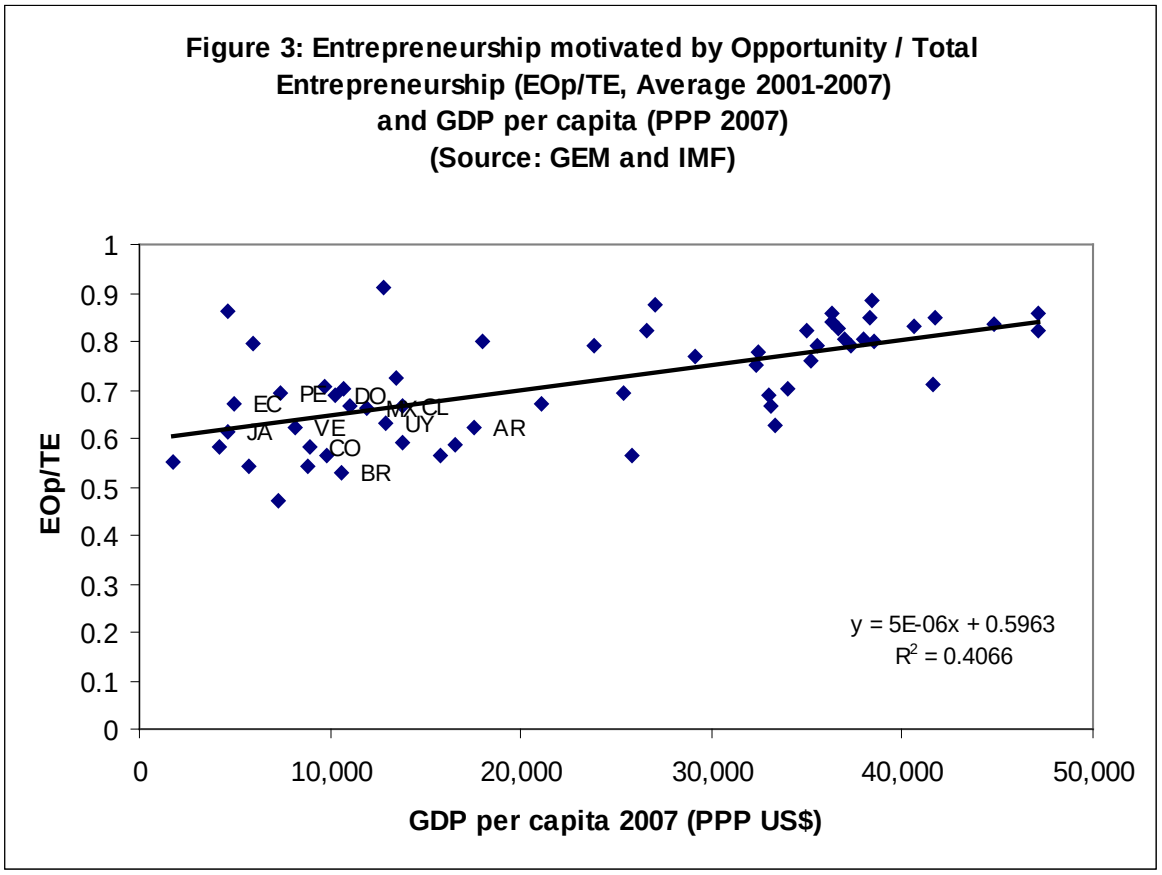
Figure 3: Entrepreneurship motivated by Opportunity / Total Entrepreneurship (EOp/TE, Average 2001-2007) and GDP per capita (PPP 2007) (Source: GEM and IMF)
EOp/TE
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
0
10,000
20,000
30,000
40,000
50,000
GDP per capita 2007 (PPP US$)
EC
PE
DO
MX
CL
JA
VE
UY
AR
CO
BR
y = 5E-06x + 0.5963
R2 = 0.4066

Figure 4:

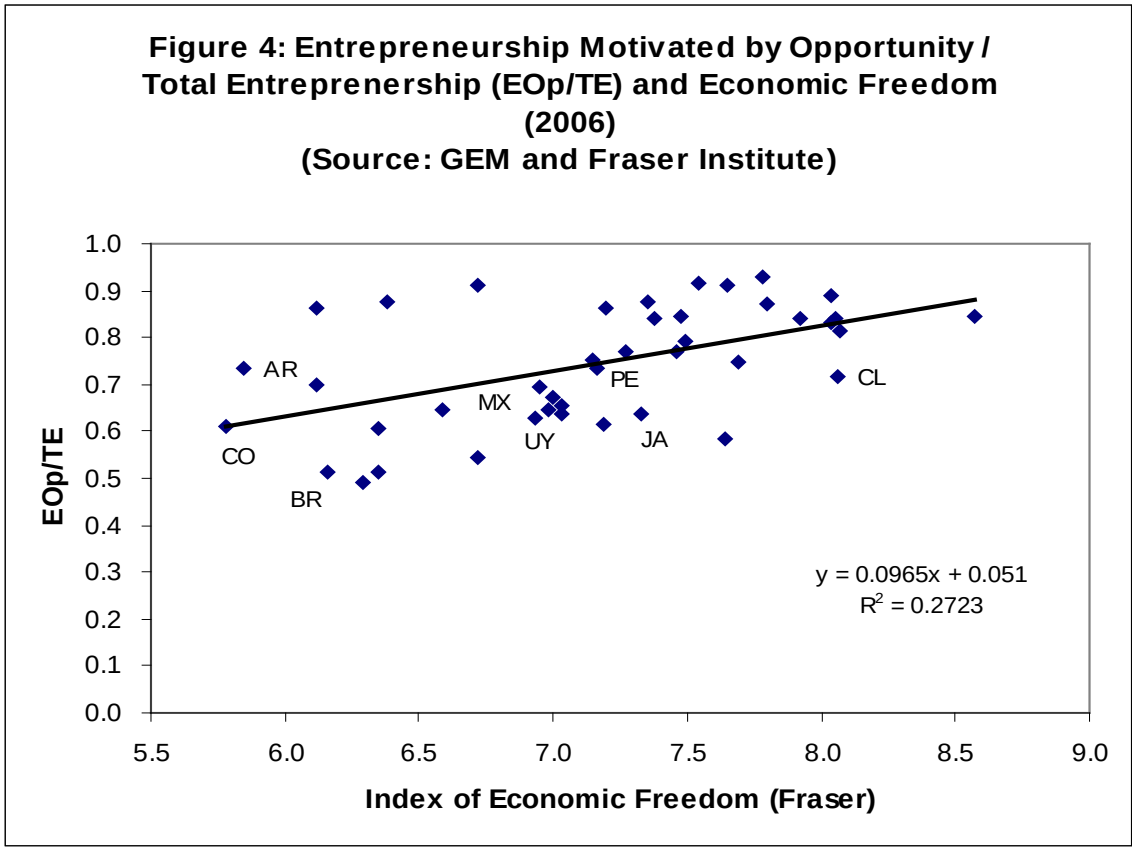
Figure 4: Entrepreneurship Motivated by Opportunity / Total Entreprenership (EOp/TE) and Economic Freedom (2006)
(Source: GEM and Fraser Institute)
EOp/TE
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
5.5
6.0
6.5
7.0
7.5
8.0
8.5
9.0
Index of Economic Freedom (Fraser)
AR
CO
BR
MX
UY
PE
JA
CL
y = 0.0965x + 0.051
R2 = 0.2723

Table 1

Table 1: Doing Business in Latin American and the OECD Countries 2008

	OECD	LA
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 (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: www.doingbusiness.org