Universidad del Desarrollo
Facultad de Gobierno

Documento de Trabajo
Nº7

.

Who Walks Out?: Entrepreneurship in a Global Economy

Juan Pablo Couyoumdjian N.

Octubre de 2009

Facultad de Gobierno
Facultad de Economía y Negocios

Who Walks Out?: Entrepreneurship in a Global Economy[*]

Juan Pablo Couyoumdjian

Facultad de Gobierno y FEN
Universidad del Desarrollo

Abstract

Modern entrepreneurially-driven capitalism is embedded in a global economy. Crucially, in this environment entrepreneurship must be viewed as a mobile resource. Entrepreneurs can thus "vote-with-their-feet" when deciding where to establish their businesses. The institutional context for entrepreneurship is a key determinant of an agent's decision to migrate. In this paper we put forward a new framework for an examination of the relationship between institutional quality and entrepreneurship. We then offer an exploration on the problem of entrepreneurship in an economy that is open to the international movement of goods and services, capital and, above all, labor, especially talented labor.

[*] Thanks are due to Eugenio Guzmán and Tyler Cowen for their helpful comments. For many thought provoking conversations I am also grateful to Claudio Bonilla, Cristián Larroulet and, especially, Patricio Cortés. Of course, the usual caveat applies.

Research in the field of entrepreneurship has experienced an impressive growth in the last couple of decades. This has led to a re-discovery of many classical contributions as well as to exciting new work in the boundaries of economics and business studies. Within the extended list of new research topics that have emerged, an issue that seems particularly exciting to us refers to the academic interest in the emergence of an entrepreneurially-driven capitalism in the modern world. Although this should really come as no surprise, individual ingenuity, that is, entrepreneurship, is nowadays recognized as the basic engine of economic progress and growth (for example, see Baumol, Litan and Schramm 2007). Several authors, including David Audretsch (2007) and Carl Schramm (2006), have dealt with the changes brought about in our daily lives by this entrepreneurially-driven capitalist process. In this paper we propose to extend this research programme focusing on the relationship between globalization and entrepreneurship. The entrepreneurially-driven capitalist system under which we live is embedded in a global economy. It thus seems strange to us that most studies on the economics of entrepreneurship have neglected this relationship[1].

Our starting point is the simple observation that in a globalized world entrepreneurship must be viewed as a mobile resource. Entrepreneurs can "vote-with-their-feet" when deciding where to establish their businesses[2]. This not only refers to the fact that they can undertake regional migrations within a given country, but they can also walk out of their home country and relocate internationally.

The institutional context for entrepreneurship (where, crucially, institutional quality is related to economic performance) seems an especially important determinant of an agent qua-entrepreneur's decision to migrate. To the extent that there is some diversity in institutional quality across the world we can expect to observe an international movement

[1] See, however, Vinig and De Kluijver (2007) for an analysis of the relationship between globalization and entrepreneurship. Another line of research has addressed the implications of globalization for small and medium-sized enterprises (see, for example, Acs and Yeung 1999). On the other hand, the literature on international entrepreneurship deals with the different problem of starting and developing global business ventures; on this topic see, for example, the volume edited by Oviatt and McDougall (2007).
[2] For an early model on this issue see the influential work by Tiebout (1956).

of entrepreneurs. This decision is contingent, of course, on the level of the transactions costs associated with migrations, which will determine whether migrating is actually economically feasible.

The international movement of entrepreneurs will also be affected by the size of the market where these talented agents act. In principle this seems an important variable for the problem at hand; after all, one should expect that larger markets offer increasing business opportunities for entrepreneurs. To the extent, however, that for the most part entrepreneurs do not act in closed or autarkic societies, but in economies that are integrated to the rest of the world, the size of the local market may not really be a relevant issue. Leaving aside the issue of overseas investments, in small open economies international trade epitomizes this process of taking advantage of entrepreneurial opportunities that exist beyond a nation's boundaries. As long as communications and transport costs are low, location does not matter for entrepreneurs qua-traders[3]. It is important to emphasize, however, that this result is contingent on institutional quality.

In this paper we put forward a new framework for an examination of the relationship between institutional quality and entrepreneurship. From this starting point we offer an exploration on the problem of entrepreneurship in an economy that is open to the international movement of goods and services, capital and, above all, labor, especially talented labor. We will start with a very simplified model in this sense which we will later extend so as to consider the possibility that entrepreneurial activities are heterogeneous, specifically in terms of allowing the possibility of unproductive and destructive entrepreneurship a-la Baumol (1990). Before we proceed a warning is in order, however. Our analysis will only deal with the problem of migration in the context of the behavior of economic agents qua-entrepreneurs; in this sense, while we are aware that the general topic of immigration presents several nuances, this is not an issue we will examine here (on these questions see, for example, Borjas 1994).

[3] Factor prices may emerge as relevant in this context. However, to the extent that we assume that these returns are related to the marginal productivity of the respective factors we can abstract from this issue here.

(HUMAN) CAPITAL MOBILITY IN AN OPEN ECONOMY.

International trade and capital mobility represent defining characteristics of an open economy. In an open economy agents can expect to move funds into and out of their country freely. Open economies are thus integrated in global capital markets, and this interconnectedness has had enormous effects on national economies. In particular here we wish to focus on the fact that in economies integrated to the rest of the world policymakers are faced with a loss of control over important variables; in the simplest of cases one finds that in open economies policymakers cannot control both exchange rates and the money supply. Moreover, in this context policymakers will be exposed to an important disciplining device; investors may reward or punish irresponsible policymakers by moving capital into or out of an economy.

Of course, restrictions to capital flows (and to foreign direct investment) still exist in many parts around the world. But note that these decisions can quite accurately be interpreted as reactions on the part of policymakers who do not want to lose control over the management of economic policy or be exposed to the discipline of capital markets. It is interesting to note, parenthetically, that restrictions to the international movement of capital and, in general, to the trade in goods and services, represent a component of the vector variable labeled “institutional quality” (Kaufmann, Kraay and Mastruzzi, 2007). In this sense, and as we shall discuss below, we observe that societies with a poor institutional quality will tend to have more extensive regulations of the international flows of capital and of trade in general.

Labor is also highly mobile. This is what migrations are all about, and economic history is full of episodes of migratory movements. When labor, or more specifically human capital, moves from less developing nations to developed nations, the expression “brain drain” has been employed. This expression evokes a negative effect in the country from which the migratory process is originating in terms of the export of talent, and as such has even led to

suggestions for the taxation of such types of migrations (Bhagwati 1972). This said, it is important to mention that different types of models offer very different conclusions regarding the welfare effects of migrations[4].

The point we wish to focus on here is that entrepreneurship is an especially obvious type of mobile human capital. One can of course recognize that entrepreneurs cannot move their businesses, or at least cannot transform them into liquid assets in the short-run, so there is an important constraint at play here. But here we are interested in the entrepreneurial element of a business, which is only present in the businessman or entrepreneur himself[5]. This constitutes a highly mobile resource in the sense that talented agents have a valuable form of human capital which they will try to allocate to their most productive uses (i.e. to those activities where they obtain the highest return), wherever these may be. In this sense, our work is closely related to the standard literature that suggests that the decision to migrate is motivated by the prospects of better opportunities that agents perceive in the host countries (Todaro 1969).

Throughout history entrepreneurs have represented a very important class of migrants. In the economic and business history of many countries immigrant entrepreneurs have represented a vital source of innovations, where we are employing this term in an encompassing Schumpeterian sense. The history of the U.S. may be an interesting example of the influence of foreign-born entrepreneurs, although perhaps the evidence in this sense is mostly of an anecdotal nature. Andrew Godley (2006) has referred to Nathan Mayer Rothschild and Khwaja Wajid as two illustrations of the brand of migrant entrepreneurs we are examining here. Rothschild's accomplishments in Britain, and in particular in the financial markets of London are well known; his upbringing in a Jewish ghetto in Frankfurt

[4] On this point note, for example, that some arguments have been advanced in the sense that the prospects of migration may end up increasing a nation's human capital stock as the expected returns to education increase once it is possible for agents to migrate (Beine, Docquier and Rapoport 2001). On the other hand, and from a different perspective, Dustmann and Kirchkamp (2002) stress the formation of business and trade networks as an important factor in this sense.

[5] In this sense our approach follows a "Misesian" framework, such that entrepreneurship lies in human action (Mises 1949/1996).

is, however, less talked about and is especially relevant in the context of our discussion (on Rothschild's life and work see, Ferguson 1998). As to Wajid, his story is not only one of entrepreneurial alertness and ingenuity, but part of the larger story of the Armenian Diaspora (Chaudhury 2005), which, in turn, represents a useful illustration of the important role played by immigrant entrepreneurial networks in the evolution of different industries across the world (Godley 2006)[6]. Paul Graham, a well known computer programmer and now also an important venture-capitalist in the United States, has argued that such a trend continues in present times and that today, in the U.S., "immigrants start startups, disproportionately so"[7].

Anecdotal evidence is also relevant when considering these points as well as the migration of entrepreneurs in contemporary times[8]. To consider a very basic illustration, an exploration of ethnic dining places in different cities in the U.S. and in Europe seems to depict a very enlightening picture as to the influence of foreign entrepreneurs in different countries. Most if not all of these locales are really managed by immigrants who, whatever their previous experience and background, have decided to undertake a new business venture of this type. Around ethnic cuisine we also find active ethnic communities. Of course, not all of the immigrants in these communities are entrepreneurs, even in the widest meaning of this word, but we actually do find several examples of entrepreneurial activities within these communities. Furthermore, casual observation suggests that the entrepreneurial spirit in these communities is very vibrant. The fact that the "ethnic entrepreneurship" is a quite dynamic research field seems to us indicative of this general point (see, for example, the volume edited by Waldinger, Aldrich and Ward 1990 and references cited therein).

[6]The activities of Chinese businessmen in Hong Kong during the 20th century represent another interesting illustration along these lines. In "The Call of the Entrepreneur" (DVD produced by Acton Media, 2007), we find an illustrative example in this sense in the case of Jimmy Lai.
[7] See his conversation with Russ Roberts in www.econtalk.org/archives/2009/08/graham_on_start.html.
[8] It is interesting to note that in contemporary times we are also observing a remarkable increase in the international mobility of talented management. This is, of course, closely related to the phenomena we are discussing here.

INSTITUTIONS AND THE MOBILITY OF ENTREPRENEURS

Institutions represent the system of formal rules and unwritten norms that guide human behavior (North 1990). As such they play a key role in terms of the allocation of resources in an economy. The especially important point to note in the context of our discussion is that across different societies we tend to observe a high degree of institutional diversity (Kaufmann, Kraay and Mastruzzi 2007). In models of entrepreneurship that focus on the allocation of talent (Baumol 1990; Murphy, Shleifer and Vishny 1991) the allocation of entrepreneurial effort to productive or unproductive (or destructive) activities depends critically on the specific sets of incentives agents face; i.e. on the existing institutional environment. If we stretch this argument we will observe that in the limit a poor institutional setup may end up leading agents to abandon the realization of (productive) entrepreneurial activities in their community; they may decide to work as dependent employees, to undertake unproductive entrepreneurial activities, or they may even decide to migrate to another community where their entrepreneurial effort is better rewarded. This latter possibility, the prospect of exit (assuming that entrepreneurial quality remains the same), represents a point that, to our knowledge, has not been considered in standard models of the allocation of talent.

As a way to think about these issues more systematically let us start by assuming that the existing institutional environment affects the distribution of entrepreneurial returns in an economy. Since institutional quality is a multidimensional variable it is important to explain how, precisely, this variable is expected to affect entrepreneurial returns. It should be uncontroversial that a respect for the rule of law, a key attribute of a good institutional setup, is important to entrepreneurial decision-making; in this context we will observe a reduction in opportunism and regulatory discretion and an overall decrease in uncertainty that is relevant to business planning. As this will lead to a reduction in the costs to "doing business", agents will have the opportunity to deploy their ingenuity in truly innovative ways, that is, in ways that lead to a process of creative destruction (Schumpeter 1950). Contrariwise, we should expect that in an unstable institutional environment the

opportunities to undertake radical innovations are very limited. We are thus ready to argue that it is precisely within the context of an environment of institutional stability that agents have the opportunity to deploy their abilities in exceptionally novel and inventive entrepreneurial activities, that offer the chance to disrupt the economic system, and obtain almost unbounded returns. Moreover, in countries where the institutional quality is better one will also tend to find that the costs of capital are lower; this should allow entrepreneurs who may have faced liquidity constraints elsewhere to be able to realize the net present value of their entrepreneurial/investment projects.

Formally, consider that the returns from entrepreneurial activities in any society *i*, which we shall label as R_i , can be represented by a statistical distribution which, as mentioned above, mirrors characteristics of the underlying institutional framework in the respective society. Specifically, let $R_i \sim N(\mu_i, \sigma_i^2)$, where μ_i, and σ_i^2 represent the first moments of a normal distribution; the mean and variance. Different societies can differ in terms of any of these moments. Differences in terms of the average returns represent the simplest and most intuitive of cases to analyze. For example, if we consider two separate societies (i = 1, 2), where in society 1 institutional quality (and thus economic performance) is better, we should expect that $\mu_1 > \mu_2$; that is, the expected return to entrepreneurship will be higher in the society with better institutional quality[9].

Naturally, the returns to entrepreneurship also depend on the abilities an agent has. Let us assume that the abilities of an agent *j* can also be represented by a uniform statistical distribution which can be expressed as a cumulative function F(X). Furthermore let us assume that entrepreneurs are amongst the most talented agents in any given society; i.e. entrepreneurs are characterized by $X_j > X_e$ (for every *j*), where X_e is the median level of talent.

[9] Our analysis can also deal with the fact that the same two societies (i = 1,2) differ in terms of the variance of the distribution of returns. In particular, if $\sigma_1^2 > \sigma_2^2$ we could argue that in society 1 talented agents (entrepreneurs) can obtain payoffs that seem almost boundless. In light of our previous discussion we would contend that this is one indicator in the sense that in society 1 the institutional environment is better.

As our previous argument suggests, for any agent qua entrepreneur *j* in a society with a good institutional setup, that is, of type 1, we should observe that, $E\left[R_{j1}\middle| X_j > X_e\right] > E\left[R_{j2}\middle| X_j > X_e\right]$. In other words, for equivalent talent levels the expected return to entrepreneurship will be higher in society 1[10]. This follows from the fact that a society with a good institutional matrix will consistently present more entrepreneurial opportunities which, moreover, will tend to be more productive in terms of generating economic value. All of this will be reflected in the expected rates of return to entrepreneurship in this type of society.

This is where the story ends in standard analyses. To the extent that entrepreneurship is a fundamental source of economic growth, societies with a weak institutional matrix will be poorer. Assuming that all agents have, in differing degrees, some inborn entrepreneurial disposition, and that this trait is distributed uniformly across societies, the mechanism at work is something like this: as agents find it less profitable to engage in entrepreneurial activities we will observe a lower overall level of entrepreneurship and, thus, lower economic growth. Furthermore, the fact that entrepreneurship is less productive (in terms of generating economic value) in countries where the institutional environment is poor will also negatively affect the growth prospects of these nations. To the extent that we consider that entrepreneurial activities are not homogeneous, and that depending on institutional quality agents can decide to allocate their talent to productive, unproductive or destructive activities, we can also resort to such differences in explaining differences in economic growth across countries (Baumol 1990). As a starting point, however, let us consider a simpler scenario such that entrepreneurial activities are indeed homogeneous.

What is not recognized in these standard models is that, to paraphrase Albert Hirschman (1970), entrepreneurs can "exit" from societies where the institutional setup is deficient. In

[10] Here we are also assuming that the distribution of entrepreneurial returns is not correlated with the distribution of talent that agents may have; that is, $\partial R_i / \partial X_j = 0$

other words, entrepreneurs can simply migrate to societies where there efforts are better rewarded in terms of their expected returns.

Continuing with our previous example, let us assume that an agent lives in the country where the institutional environment is poor (society 2). In this case (and assuming that all other relevant factors remain constant) we can state the following proposition:

> Proposition 1: An agent *j* living in a society of type 2 (with a low institutional quality) may migrate as long as the expected returns to entrepreneurship in another society of type 1 (where institutional quality is better), are sufficiently high; that is, as long as $E\left[R_{j2}\middle| X_j > X_e\right] + C_j < E\left[R_{j1}\middle| X_j > X_e\right]$

Here C_j reflects the fact that migrating is costly. It not only involves the direct monetary costs associated to migration, but also the psychological costs of leaving friends and family behind, and different types of costs involved in liquidating fixed assets. At the same time it also includes the fact that some agents may face liquidity constraints to migrating (Adams and Page 2003). The possibility that the human capital that talented agents have may be specific to their country of birth is also important to consider when talking about the transactions costs of migration; language may be viewed as one type of specificity, and the knowledge of local customs may also be important in this sense. To the extent that these are really relevant factors they should also be included in the costs of migrating. We have labeled all these costs as transaction costs, C_j, which, naturally, can be expected to be different for different individuals.

Proposition 1 must, however, be qualified in an important sense. In particular, note that exit is not the only option available to agents. If exit is expensive in the sense defined above, some agents will not migrate but use a "voice" option (again, following Hirschman). This will constitute the main avenue agents have for expressing their complaints with the institutional setup in their country which, as noted above, affects the expected return to their entrepreneurial activities. In a sense "voice" or active protesting will represent a

substitute for “voting-with-the-feet”. It is interesting to note that agents undertaking a voice option of this type can thus be viewed as representing a class of “political entrepreneurs” (Wagner 1966); below we will return to examine the implications of this behavior on the part of these talented agents.

At any rate, the applicable qualification to our previous proposition lies in the fact that even if the transaction costs associated with migrations are low, a sense of “loyalty” may be a constraint to migrating. As Hirschman has explained in a different context, “In deciding whether the time has come to leave an organization, members … will sometimes be held back not so much by the moral and material sufferings they would themselves have to go through as a result of exit, but by the anticipation that *the organization to which they belong would go from bad to worse if they left*” (1970, 98; italics in the original). In the context at hand this will correspond to a sense of patriotism and concern for the future of their home country. As a result, even if it is economically profitable to migrate, we may observe that some entrepreneurs may decide not to do so out of a sense of national loyalty or patriotism. Note, at any rate, that in many instances this effect can interact with some straightforward economic considerations; for example, agricultural businessmen claim to be less likely to migrate because they display a special interest and even fascination for rural and national traditions. While this may well be true, it is also worthwhile to note that these businessmen also suffer from important transactions costs in terms of liquidating their estates.

As is obvious our analysis so far has been mainly intuitive and has lacked formal modeling. The literature on the economic of migration surveyed by George Borjas (1994) seems to offer a particularly valuable starting point for further research in this field. What we wish to do with the simple framework advanced here is to highlight the implications that follow from the possibility that entrepreneurs may “vote-with-their-feet”. We believe that the proposed framework may be quite illuminating in this sense; in particular we are arguing that transactions costs and, more generally, institutions, are highly relevant to an agent’s decision to migrate (Williamson 1985).

Continuing with our analysis and keeping in mind that here we are concerned exclusively with the migration of entrepreneurs, and that even in this circumscribed problem other variables may be at play[11], we are willing to argue that we will tend to observe a selection bias amongst the agents qua-entrepreneurs that decide to migrate. We can expect that the agents most ready to exit or migrate from a society with a poor institutional system will be those that are the most creative and independent minded. These are the agents that really want to create a future for themselves in a freer economic environment, where their returns will depend mainly on their work, ingenuity and effort, and not on their contacts or specific associations. Focusing only on those agents that are entrepreneurs, when the chance to migrate to a society with a better institutional environment (and assuming that such migration is economically feasible) comes up, those that are more creative in the sense just examined would be the most likely to migrate. Moreover, we would expect that it is these agents who will tend to undertake greater efforts to actually migrate[12]. It is important to note, in any case, that this result is not necessarily related to the fact that these agents face lower transactions costs; rather their opportunity costs are higher. In all, this discussion suggests that creativity is an important element of what we view as the abilities of talented agents (although, of course, not necessarily the only one).

Richard Florida (2005) has drawn attention to the effects of the possibility of migration in his work on the "creative class"; in particular, this prospect is a motive of grave preoccupation for him. Although Florida presents his analysis in the context of the U.S., we believe that his study can also be interpreted in a global sense. Indeed, in this setting, we observe greater variance of institutional diversity such that the problems Florida argues are affecting the U.S. seem all the more significant.

[11] For example, in the popular press one observes that hunger and fleeing from fighting represent an important motivation for migration; our analysis does not, however, explicitly account for such factors. Differences in individual discount rates may also be relevant in this context, although this is not an issue we will consider here.

[12] A somewhat different type of argument along these lines has been advanced by Hoselitz (1964), who has argued that given their different cultural background, immigrant entrepreneurs will tend to have a different outlook of things and, thus, be more innovative (or creative).

It is important to point out, however, that in general empirical work on the hypothesis of the migration of the creative class is still somewhat meager. In an interesting recent paper testing this hypothesis, Høgni Hansen and Thomas Niedomysl (2009) do not find support for the arguments about the mobility of the creative class; then again, their analysis is only based on regional movements within Sweden. On the other hand, Jennifer Hunt (2009) has argued that in the case of immigrants entering the U.S. it is those who first entered on a student/trainee or temporary work visa that are more entrepreneurial and innovative. While this evidence seems inconsistent with our general argument, one should consider that immigration restrictions represent an important transaction cost to migrating to the U.S.; this surely also affects the decisions to migrate on the part of entrepreneurs. In all, this effect should lead to a different type of selection problem, particularly in terms of who applies for visa's to work or study in the U.S.

As noted above, the literature on migration suggests that this decision is motivated by the prospects of better opportunities that agents perceive in the host countries. And this, in turn, can be related to international differences in incentives or institutions, such that some activities (in the case under consideration entrepreneurial activities), are better rewarded in some societies than in others. Studies on the employment patterns of immigrants may be interesting to note here; for instance, George Borjas (1987) has presented the telling result that rates of self-employment for immigrants exceed that of national groups. On the other hand, data on remittances can shed some light on the international differences in returns to (entrepreneurial) talent. The existing evidence suggests that migrants do indeed obtain significant returns in their host countries. For the case of Latin America, a region characterized in general by low institutional quality, the data collected by Andrés Solimano and Claudia Allendes (2007) is especially illuminating. At the same time, information on the destination and educational background of migrants (Docquier and Marfouk 2004) indicates that it is high-skilled workers (in terms of educational attainment) that are migrating to industrialized countries. While neither type of evidence is necessarily correlated with entrepreneurial orientation, these results represent an invitation for further research on this topic.

EXTENSIONS

So far our analysis has not taken into account the fact that entrepreneurship may not only be of a productive nature, but may also be unproductive or destructive. As noted above, the quality of entrepreneurship, defined in these terms, is related to institutional quality (Baumol 1990). After all, recall that institutions represent the set of incentives in a given economy; when institutional quality is low, talented agents may well find it rational to allocate their entrepreneurial talent to unproductive or destructive activities.

In terms of our earlier model, if productive, unproductive and destructive entrepreneurial activities coexist in a given society, specifically in a society where institutional quality is low, we can infer that $E\left[R_{j2}^{P} \middle| X_j > X_e\right] = E\left[R_{j2}^{NP} \middle| X_j > X_e\right]$. That is, under the assumption that the distribution of returns to entrepreneurship is the same independently of the specific nature of entrepreneurial activities undertaken, if in a given society (society 2) the expected returns to entrepreneurship in productive (*P*) and not productive (*NP*) activities are identical, an agent can be expected to be indifferent in undertaking either type of activity[13]. When unproductive and destructive entrepreneurs are labeled as oligarchs (Baumol, Litan and Schramm 2007) we tend to block the possibility that identical types of agents are undertaking these different types of activities, but maybe the problem is with the analogies we are using[14].

At any rate, the important point to note here is that the impact each type of entrepreneurial behavior has on economic growth is not equivalent. As is well known, unproductive and

[13] The assumption that the distribution to entrepreneurial returns is uniform across different types of entrepreneurial activities follows from our previous baseline scenario. Naturally one could also explicitly consider the effects of differences in this sense. On the other hand, note that in a society with a good institutional environment (society 1) we should expect to find that $E\left[R_{1j}^{P} \middle| X_j > X_e\right] > E\left[R_{1j}^{NP} \middle| X_j > X_e\right]$.

[14] Note, in any case, that alternatively one can assume another form of agent-heterogeneity such that some agents may be more talented for undertaking not productive activities than others. In this case "oligarchs" would indeed be different from productive entrepreneurs.

destructive entrepreneurship have negative effects on economic growth (Baumol 1990; Murphy, Shleifer and Vishny 1991; Baumol, Litan and Schramm 2007). This has especially important consequences when we consider the problem of the dynamics of entrepreneurship and migration.

In particular, we are ready to argue that over time these types of entrepreneurial activities will lead to a reduction in the average returns to entrepreneurship in the economy. This will be due to the feedback effects that unproductive and destructive entrepreneurship can be expected to have on a nation's institutional and economic environment. In other words, low institutional quality will lead to a generalized sclerosis of an economy which will affect its so-called "natural" growth rate. Furthermore, this will also *asymmetrically* slim the tails of the distribution of profit opportunities, as slower growth involves the generation of fewer profit opportunities.

In terms of our previous example, if a society *i* has a poor institutional quality, we will observe that in each period of time, *t*, the returns to entrepreneurship will be distributed as $R_{it} \sim N(\mu_{it} ...)$. However, as agents undertake destructive and unproductive entrepreneurial activities, the average returns to entrepreneurship will fall such that for some $k>0$ we will find that $\mu_{it+k} < \mu_{it}$. In other words, through this effect we are arguing that as a country maintains a poor institutional environment, the expected returns associated to migration increase (*ceteris paribus*). This can be restated as the following proposition:

> Proposition 2: The cumulative effect of unproductive and destructive entrepreneurship, a product of the poor institutional environment existing in a given society, increases the incentives for agents qua-entrepreneurs to migrate from such a society.

It should be clear, of course, that this effect also provides incentives for institutional reform, and may even bring about an endogenous process of institutional change. But we will return to this issue below.

On this same point it is interesting to keep in mind that even in societies with a weak institutional environment, with all the associated costs to such a type of setup, some entrepreneurs earn significant returns and will have few incentives to migrate. We bring this point up here because this may be related to the type of entrepreneurial activities being undertaken; indeed, we believe this effect will occur with a greater likelihood when we are talking about unproductive or destructive entrepreneurship. In any case, whatever the nature of the entrepreneurial activities agents are taking on, we can advance the following corollary of our analysis:

> Corollary: We can expect that an entrepreneur *j*, interacting in any environment *i*, will not find it advantageous to migrate when $R_{ij} \rightarrow R_{i_{\max}}$.

In this case we are considering the activities of another class of "political entrepreneurs", for whom political contacts and networking are especially valuable. In another sense, here the costs of migration will be simply too high for the agent qua-entrepreneur.

IN CLOSING: TRANSACTION COSTS, IMMIGRATION, AND ENTREPRENEURSHIP IN A GLOBAL ECONOMY

Our argument suggests that institutional quality is the fundamental malaise pertinent to the problem of "exit" we are considering; institutional quality is the driver of the migration of entrepreneurs. While access to a telephone and a foreign bank account is all that financial investors need to carry out their jobs, productive entrepreneurs need more than that. Consider for instance that in countries with a poor institutional environment, which will tend to have larger barriers to international trade, entrepreneurs will be less able to search for and grasp potentially profitable business opportunities beyond the borders of their country in terms of foreign trade, as such process will involve, for local businessmen, overcoming significant regulations and restrictions of different types. This will end up affecting the expected returns they can obtain from their local entrepreneurial activities, and, thus, generate incentives to migrate.

Globalization has represented an important disciplinary device for countries with poor institutional quality (where we are viewing this variable in the vector sense of Kaufmann, Kraay and Mastruzzi 2007). It has forced governments to be responsible in terms of the management of their economic policy. In this sense capital inflows and outflows represent an important constraint to corruption, populism and other observable consequences of weak institutional setups. Concern about the migration of talented entrepreneurs provides an additional incentive to have a good institutional structure. If we believe that entrepreneurship is important for growth this should be an important consideration for local policymakers[15]. Note, however, that in the context of our argument not only is one society's loss another's gain, but global welfare is improved when "voting-with-the-feet" is possible. When agents undertake productive entrepreneurial activities (and obtain high rates of return) they are also creating economic value and (unintentionally) promoting the general welfare.

A relevant question that must be addressed at this point is whether the transaction costs of migration are falling in the modern world. In this respect it is important to point out that while transportation and communications costs are indeed falling, and the greater interrelatedness of capital markets also makes the international movement of labor easier, it seems that legal restrictions to immigration are much more relevant today than a century or so ago. This is related to the development and diffusion of citizenship law throughout the world. Of course, today we do not observe the types of barriers to exit that existed in many countries in Eastern Europe for several decades during the mid-20th century. But while in present times these restrictions may not be relevant, now the legal setting represents a much more important constraint to migration than in the past.

[15] In the end one can also argue that the case for entrepreneurship does not depend on its local effects in terms of economic growth, important as they may be. As Frank H. Knight, who undertook seminal research in the field of entrepreneurship explained, "The social theory of private property rests, then, not so much on the premise that productive resources will be more effectively used in the creation of goods for consumption, as on the belief that there will be a greater stimulus to progress through inducing men to take the risks of action increasing the supplies of productive resources themselves, including both material things and technical knowledge and skill" (Knight. XII.40).

We thus find that while globalization is a disciplining device to bad governance, enforced barriers to immigration mitigate such effects. The arguments in the sense that immigration is not socially costly, as commonly imagined, and that barriers to immigration are welfare-reducing are quite convincing to us (see, also, Simon 1989, Riley 2008). In a way we are providing further evidence in this sense. The corollary of this analysis is that high barriers to immigration will end up making unproductive and destructive entrepreneurship all the more pervasive and harmful in countries with a poor institutional environment, at least in the short-run. Moreover, entrepreneurial-political networking will be all the more present in this context. This is the simple consequence of the fact that economic agents simply respond to incentives and act under the constraints they face. On the other hand, in these cases "voice" will remain as a viable option for talented agents. This is a distinct type of political entrepreneurship, which presents elements of a positive externality. In any case, the fact that talented agents undertake entrepreneurial activities of such a nature (which, moreover, have an uncertain result), implies that they are sacrificing the opportunity to engage in productive entrepreneurial activities. While a bad institutional setup may fall apart endogenously, and this tipping point may even be influenced by the actions of political entrepreneurs, this opportunity cost is still important to consider.

REFERENCES

Acs, Zoltan and Bernard Yeung (eds.). 1999. *Small and Medium-Sized Enterprises in the Global Economy*. Ann Arbor: The University of Michigan Press.

Adams, Richard H. and John Page. 2003. "International Migration, Remittances and Poverty in Developing Countries". The World Bank, WPS3179.

Audretsch, David B. 2007. *The Entrepreneurial Society*. Oxford: Oxford University Press.

Baumol, William J. 1990. "Entrepreneurship: Productive, Unproductive and Destructive". *Journal of Political Economy*, Vol. 95 (5), pp. 893-921.

Baumol, William J., Robert Litan and Carl Schramm. 2007. *Good Capitalism, Bad Capitalism, and the Economics of Growth and Prosperity*. New Haven and London: Yale University Press.

Beine, Michel, Frederic Docquier and Hillel Rapoport. 2001. "Brain Drain and Economic Growth: Theory and Evidence". *Journal of Development Economics*, Vol. 64 (1), pp. 275-289.

Bhagwati, Jagdish N. 1972. "The United States in the Nixon Era: The End of Innocence". *Daedalus*, pp. 25-47.

Borjas, George H. 1994. "The Economics of Immigration". *Journal of Economic Literature*, Vol. XXXII (4), pp. 1667-1717.

Borjas, George H. 1987. "The Self-Employment Experience of Immigrants". *The American Economic Review*, Vol. 77 (4), pp. 531-553.

Chaudhury, Sushil. 2005. "Trading Networks in a Traditional Diaspora: Armenians in India", in I. Baghdiantz McCabe, G. Harlaftis and I. Pepelasis Minoglou (eds), *Diaspora Entrepreneurial Networks: Four Centuries of History*, New York: Berg, pp. 51-72.

Docquier, Frédéric and Abdeslam Marfouk. 2004. "Measuring the international mobility of skilled workers (1990-2000) –Release 1.0". The World Bank WPS3381.

Dustmann, Christian and Oliver Kirchkamp. 2002. "The Optimal Migration Duration and Activity Choice after Re-migration". *Journal of Development Economics*, Vol. 67 (2), pp. 351-372.

Ferguson, Niall. 1998. *The World's Banker, the History of the House of Rothschild*. London: Weidenfeld & Nicolson.

Florida, Richard. 2005. *The Flight of the Creative Class: The New Global Competition for Talent*. New York: Collins Business.

Godley, Andrew. 2006. "Migration of Entrepreneurs", in M. Casson, B. Yeung, A. Basu and N. Wadeson (eds.), *The Oxford Handbook of Entrepreneurship*. New York: Oxford University Press, pp. 601-610.

Hansen, Høgni K. and Thomas Niedomysl. 2009. "Migration of the creative class: evidence from Sweden". *Journal of Economic Geography*, Vol. 9 (2), pp. 191-206.

Hirschman, Albert O. 1970. *Exit, Voice and Loyalty: Responses to Decline in Firms, Organizations and States*. Cambridge: Harvard University Press.

Hoselitz, Bert F. 1964. "A Sociological Approach to Economic Development". In D. Novack and R. Lekachman (eds.), *Development and Society*. New York: St. Martin's Press, pp. 150-163.

Hunt, Jennifer. 2009. "Which Immigrants are most Innovative and Entrepreneurial? Distinctions by Entry Visa". NBER Working Paper No. 14.920.

Kaufmann, Daniel, Aart Kraay and Massimo Mastruzzi. 2007. "Governance Matters VI: Aggregate and Individual Governance Indicators 1996–2006". World Bank Policy Research Working Paper No. 4280.

Knight, Frank H. 1917/1921. *Risk, Uncertainty and Profit*. Available on-line at: www.econlib.org/

Mises, Ludwig von. 1949/1996. *Human Action: A Treatise on Economics*. Fourth Revised Edition. San Francisco, CA: Fox & Wilkes.

Murphy, Kevin M., Andrei Shleifer and Robert W. Vishny. 1991. "The Allocation of Talent: Implications for Growth". *The Quarterly Journal of Economics*, Vol. 106 (2), pp. 503-530.

North, Douglass C. 1990. *Institutions, Institutional Change, and Economic Performance*. New York: Cambridge University Press.

Oviatt, Benjamin, and Patricia Phillips McDougall (eds.). 2007. *International Entrepreneurship*. Cheltenham: Edward Elgar.

Riley, Jason. 2008. *Let Them In: The Case for Open Borders*. New York: Gotham Books.

Schramm, Carl J. 2006. *The Entrepreneurial Imperative: How America's Economic Miracle Will Reshape the World (and Change Your Life)*. New York: Collins Business.

Schumpeter, Joseph A. 1950. *Capitalism, Socialism and Democracy*. Third Edition. New York, NY: Harper.

Simon, Julian. 1989. *The Economic Consequences of Immigration.* Oxford: Basil Blackwell in association with The Cato Institute.

Solimano, Andrés and Claudia Allendes. 2007. "Migraciones internacionales, remesas y el desarrollo económico: la experiencia Latinoamericana". Working Paper, División de Desarrollo Económico, ECLAC.

Tiebout, Charles. 1956. "A pure theory of government expenditure". *Journal of Political Economy*, Vol. 64 (5), pp. 416-424.

Todaro, Michael P. 1969. "A Model of Labor Migration and Urban Unemployment in Less Developed Countries". *The American Economic Review*, Vol. 59 (1), pp. 138-148.

Vinig, Tsvi G. and J. De Kluijver. 2007. "Does Globalization Impact Entrepreneurship? Comparative Study of Country Level Indicators". *PrimaVera* Working Paper 2007-16, University of Amsterdam.

Wagner, Richard E. 1966. "Pressure groups and political entrepreneurs: A review article". *Papers on Non-Market Decision Making*, Vol. 1, pp. 161-170.

Waldinger, Roger, Howard Aldrich and Robin Ward. 1990. *Ethic Entrepreneurs: Immigrant Business in Industrial Societies*. London: Sage.

Williamson, Oliver E. 1985. *The Economic Institutions of Capitalism*. New York: Free Press.