



# Who walks out? Entrepreneurship in a global economy

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## 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.

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## 1. Introduction

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, & Schramm, 2007](#)). Several authors, including [Audretsch \(2007\)](#) and [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.<sup>1</sup>

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.<sup>2</sup> 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 seems an especially important determinant of an agent qua-entrepreneur's decision to migrate. The quality of institutions is important to consider because the rules governing private exchange and the relations between private agents and the state in any given economy can be different in key respects. In this sense, institutional quality refers to freedom of choice in terms of low barriers to entry in different economic activities as well as to the existence of political safeguards to innovative behavior such that there is good governance and the state is unable to predate on private agents while fostering private exchange in the economy ([Kaufmann, Kraay, & Mastruzzi, 2007](#); [La Porta, López-de-Silanes, Shleifer, & Vishny, 1999](#)). In all, to the extent that there is some diversity in institutional quality across the world we can expect to observe an international movement of entrepreneurs. This decision is contingent, of course, on the level of the transactions costs associated with

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<sup>1</sup> See, however, [Vinig and De Kluijver \(2007\)](#) for an analysis of the relationship between globalization and entrepreneurship. Other lines of research have addressed the implications of globalization for small and medium-sized enterprises (see, for example, [Acs & Yeung, 1999](#)), and for the development of entrepreneurial business

networks (for example, [Yeung, 1998](#)). The literature on international entrepreneurship deals with the different problem of starting and developing global business ventures ([Oviatt & McDougall, 2007](#)).

<sup>2</sup> For an early model on this issue see the influential work by [Tiebout \(1956\)](#).

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.<sup>3</sup> It is important to emphasize, however, that this result is contingent on institutional quality as considered above.

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 the sub-set of economic agents that have entrepreneurial traits or talents. This is due to our specific interest in the problem of entrepreneurship and in the mobility of these types of innovative agents, whose activities have important macro effects; the international allocation of the particularly scarce resource under consideration does, indeed, involve such effects. 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).

## 2. (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 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, are component elements of indices used to measure institutional quality (for example, Kaufmann et al., 2007); as mentioned, institutional quality is a vector variable that attempts to reflect the degree to which private agents are able to undertake their daily activities freely while being protected by predation by the state or from other agents. In this sense, and as we shall discuss in greater detail below, we observe that more extensive regulations of the international flows of capital and of trade in general are associated to low levels of institutional quality.

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.<sup>4</sup>

The point we wish to focus on here is that entrepreneurial talent 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. 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 well-known 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. 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 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).

The history of the US is an especially interesting example of the influence of foreign-born entrepreneurs. Saxenian (1999, 2006) has discussed these points in the context of her work on foreign immigrants turned “global commuters” employed in the high-tech sector in the US, specifically around Silicon Valley. The interesting point

<sup>3</sup> 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.

<sup>4</sup> 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, & Rapoport, 2001). From a different perspective, Dustmann and Kirchkamp (2002) have stressed the formation of business and trade networks as an important factor in this sense; for a review of these issues, see the discussion in Solimano (2008).

to call to mind here is that these immigrant entrepreneurs have not only had a huge impact in their host countries, where they arrived in search of better opportunities, but they are also generating important changes in their countries of birth. Saxenian refers to this process as “brain circulation”. The entrepreneurial spirit of these “Argonauts”, as Saxenian labels these agents, has taken them to develop business projects in their home countries, thus influencing institutional quality in these countries, as well as changing the dynamics of international migration. This is, of course, also consistent with the experience in several countries in South East Asia that has been documented by Yeung (1998). Entrepreneurial networks are crucial in terms of explaining not only migration but also back-migration and the latter process has, in turn, profoundly influenced the countries involved and changed the way in which we view the problem of immigration.

Anecdotal evidence is also relevant when considering these points. To consider a very basic illustration, an exploration of ethnic dining places in different cities in the US 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 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 really do find many 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). In this sense, Paul Graham, a well-known computer programmer and now also an important venture-capitalist in the United States, has argued that the influence of immigrants in terms of their entrepreneurial activities continues to be highly significant so that, today in the US, “immigrants start startups, disproportionately so”.<sup>5</sup>

### 3. Institutions and the mobility of entrepreneurs

Institutions represent the system of formal rules and unwritten norms that guide human behavior, and as such they play a key role in terms of the allocation of resources in an economy (North, 1990). We can thus define the quality of institutions as a multi-dimensional variable in this sense. Kaufmann et al. (2007) have proposed an index to assess institutional quality along these lines that is based on six dimensions, namely, voice and accountability, political stability and absence of violence, government effectiveness, regulatory quality, rule of law, and control of corruption. While these different components point toward different institutional features, in a fundamental sense they all seek to uncover the quality of the set of rules which govern social interactions in a given economy in the Northian sense referred to above. We are convinced that these dimensions are also relevant as determinants of entrepreneurial behavior (on these issues see Amorós, 2010; Boettke & Coyne, 2006; Larroulet & Couyoumdjian, 2009). The fact that across different societies, who perform differently in economic terms, we tend to observe a high degree of institutional diversity is consistent with a view that incentives matter for economic behavior.

In models of entrepreneurship that focus on the allocation of talent (Baumol, 1990; Murphy, Shleifer, & 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. 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.

In this context it seems important to explain how, precisely, institutional quality is expected to affect entrepreneurial returns. Consider a respect for the rule of law, a key attribute of a good institutional setup. This variable is important to entrepreneurial decision-making as it will be associated with a reduction in opportunism and regulatory discretion (also relevant as regulatory quality), lower levels of corruption (also important in itself), and an overall decrease in uncertainty that is relevant to business planning as it involves greater institutional stability. The absence of barriers to entry is probably the issue that has been studied more extensively in this respect (Djankov, La Porta, Lopez-De-Silanes, & Shleifer, 2002); this reflects regulatory quality in the sense that governmental regulations do not constrain the development of entrepreneurial activities (Sobel, Clark, & Lee, 2007). These effects lead to a reduction in the costs to “doing business”, such that 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). As we spell out similar effects for other dimensions of institutional quality, we can expect that in a low quality institutional environment the opportunities to undertake radical innovations are very limited. The effects, for example, of political stability are evident in this sense. 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.<sup>6</sup> Moreover, in countries where 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 projects.

Formally, let us suppose that the existing institutional environment affects the distribution of returns in the economy. Thus, 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 mirrors characteristics of the underlying institutional framework in the respective society. Specifically, let  $R_i \sim N(\mu_i, \sigma_i^2)$ , where  $\mu_i$ , and  $\sigma_i^2$  represent the first moments of a normal distribution; the mean and variance. Different societies can differ in terms of any of these moments (and we assume that other environmental variables that influence returns are constant). 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 is better, we should expect that  $\mu_1 > \mu_2$ ; that is, on the basis of our

<sup>6</sup> Here it is interesting to recall that Acemoglu and Verdier (1998) have also noted that the difficulty to reward (entrepreneurial) talent is related to institutional qual-

<sup>5</sup> See his conversation with Russ Roberts in [www.econtalk.org/archives/2009/08/graham\\_start.html](http://www.econtalk.org/archives/2009/08/graham_start.html).

previous discussion the expected return to entrepreneurship will be higher in the society with better institutional quality.<sup>7</sup>

Naturally, the returns to entrepreneurship also depend on the specific abilities an agent has. Let us assume that the abilities of any agent  $j$  can be represented through a uniform statistical distribution which can be expressed as a cumulative function  $F(X)$ . Furthermore let us assume that entrepreneurs are among 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.

Following on our previous argument, for any agent  $j$  in a society with a good institutional setup, that is, of type 1, we should observe that,  $E[R_{j1}|X_j > X_e] > E[R_{j2}|X_j > X_e]$ . In other words, for equivalent talent levels the expected return to entrepreneurship will be higher in society 1.<sup>8</sup> 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. Security, stability and low barriers to entry to entrepreneurial activities are crucial here. And 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 within 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 (Baumol et al., 2007). 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 this additional factor in explaining differences in economic growth across countries (Baumol, 1990). As a starting point, however, let us continue considering the simpler scenario where entrepreneurial activities are indeed homogeneous.

What is not recognized in these standard models is that, to paraphrase Hirschman (1970), entrepreneurs can “exit” from societies where the institutional setup is deficient. In other words, entrepreneurs can simply migrate to societies where their 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  $E[R_{j2}|X_j > X_e] + C_j < E[R_{j1}|X_j > X_e]$ .*

Here  $C_j$  reflects the fact that migrating is costly. In this sense, it not only involves the direct monetary costs associated to

migration, but also the opportunity cost of migrating, which includes the psychological costs of leaving friends and family behind.<sup>9</sup> At the same time it also includes different types of costs of liquidating fixed assets as well as the fact that some agents may face liquidity constraints to migrating (Adams & 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 another type of specificity, and the knowledge of local customs may also be important in this sense. These effects may, however, be offset by the existence of different network relations among migrants that reduce the costs of migrating. In all, these transaction costs, labeled as  $C_j$ , which can of course be expected to be different for different individuals, in effect separate those agents who want to migrate from those who are able to migrate.

Proposition 1 must, in any case, 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”. 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 (Hirschman, 1970). In the context at hand this may 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 the unexpected result that some entrepreneurs may decide not to do so out of a sense of national loyalty or patriotism. In many instances, however, 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 a fascination for rural and national traditions. While this may well be true, it is also worthwhile to bear in mind that these businessmen also suffer from important transactions costs in terms of liquidating their assets (i.e. their estates).

#### 4. Extensions and further implications

While our analysis so far has lacked rigorous formal modeling, we believe it is quite illuminating in the sense that several important extensions and implications follow from our general argument that transactions costs and, more generally, institutions, are highly relevant to an agent's decision to migrate (on this see, also, Williamson, 1985). For one, note that our examination so far has not taken into account the fact that the relationship between institutional quality and entrepreneurship may be more complicated if we consider a dynamic view of institutions. Specifically, we need to take into account that the decision to engage in entrepreneurial activities not only depends on the level of institutional quality, but also on changes in institutional quality. Agents can be expected to respond to changes in the set of incentives they face in a fashion very similar to that suggested in our baseline setup. In terms of our model, this leads to the following proposition:

**Proposition 2** (:). *As we move from a static to a dynamic model of rational behavior and institutions, worsening institutional quality (as*

<sup>7</sup> If 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.

<sup>8</sup> Technically, here we are also assuming that the distribution of entrepreneurial returns is not correlated with the distribution of talent that agents may have.

<sup>9</sup> Note that the compensating differentials to institutional quality would also be reflected in the opportunity cost to migrating; thus, this is not a possibility we will explicitly consider here.



defined above) increases the incentives for agents qua-entrepreneurs to migrate (*ceteris paribus*).

Note, of course, that here we have not examined how or why changes in institutional quality occur; moreover, in our model institutional quality is exogenous. Considering entrepreneurial heterogeneity may be a useful way to engage these issues.

It is well-known that entrepreneurship may not only be of a productive nature, but may also be unproductive or destructive. The quality of entrepreneurship, defined in these terms, is related to institutional quality as the system of incentives in the economy in terms of the rules governing private exchanges and the relations between citizens and the state in any country (Baumol, 1990). As mentioned previously, when institutional quality in this sense 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  $E[R_{j2}^P | X_j > X_e] = E[R_{j2}^{NP} | X_j > X_e]$ . 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, in equilibrium an agent can be expected to be indifferent in undertaking either type of activity.<sup>10</sup> When unproductive and destructive entrepreneurs are labeled as oligarchs (Baumol et al., 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.<sup>11</sup>

The important point to note here is that the impact (in terms of its external effect) that each type of entrepreneurial behavior has on economic growth is not equivalent. Unproductive and destructive entrepreneurship have negative effects on economic growth (Baumol, 1990; Baumol et al., 2007; Murphy et al., 1991). This has especially significant 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, as these activities may crowd-out productive entrepreneurship. A destruction of institutional (and social) capital is also at play here. In this sense, low (and worsening) 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 analysis, 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  $R_{it} \sim N(\mu_{it}, \dots)$ . 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, the expected returns associated to migration will increase (*ceteris paribus*). This can be restated as the following proposition:

**Proposition 3** (:). *The cumulative effect of unproductive and destructive entrepreneurship increases the incentives for agents qua-entrepreneurs to migrate from such a society through its effects on institutional quality.*

At this point we are faced with the additional and separate question as to whether (and, if so, how) successive migrations can also lead us to expect some type of institutional reform in the country from which the migration is originating. The issue at play here is whether there exist feedback effects of migration on institutional quality (in economic and political terms), and the answer is probably in the affirmative as we have noted above in terms of our discussion of the "new Argonauts" (Saxenian, 2006; on these issues see, also Solimano, 2008). Political or institutional entrepreneurs (Leeson & Boettke, 2009; Wagner, 1966) must play an important role if constructive changes are to be expected in this sense. Recently, Leeson and Boettke (2009) have analyzed the possibility that such agents may help bring about the institutions that are lacking in a given society, thus providing the foundations for productive entrepreneurial activities. Note, however, that in this context the possibilities for state predation continue unhindered, hence making institutional quality quite fragile. This suggests that the role of political entrepreneurs need not be so closely confined. At any rate this problem offers a supplementary invitation for further research on the dynamics of institutional reform. Romer (2010), on the other hand, has recently argued that slow institutional reform represents an invitation to migration which can be jointly addressed by the transplantation of institutions; in this sense he has proposed the idea of "charter cities" as a solution for matching good rules and agents who want to wish to live in a high-quality institutional environment. This would, of course, also require a political or institutional entrepreneur.

## 5. A sorting equilibrium?

While this does not necessarily follow from our analysis so far, it is important to note that when institutional quality is low we should not only expect to find a migration of entrepreneurs from the society under examination, but also tend to observe a selection bias among the agents qua-entrepreneurs that decide to migrate; that is, we should 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 entrepreneurial.

Differences in individual discount rates across agents, which we have not explicitly considered till now, are especially relevant in this context. When an agent migrates to a society where institutional quality is better the business environment he expects to find is more predictable as the overall costs of doing business are lower. Migrating is, however, a highly risky activity, as it involves undertaking business activities in a new and presumably very different setting (for compelling evidence in this sense, see Hatton & Williamson, 2006). If, additionally, we consider that the most entrepreneurial agents are independent minded in the sense that they want to create a future for themselves, and that this is easier in a freer economic environment, we should expect that it is the most entrepreneurial agents that will be most likely to take these risks and migrate.

As we consider the possibility of a sorting equilibrium of the migration of talented agents to nations where institutional quality is better it is important to bear in mind that different meanings can be given to being "entrepreneurial". On the one hand, we have the standard connotation that associates being entrepreneurial to being creative and willing to take risks. It is important to consider, in any case, that entrepreneurship may be heterogeneous in terms

<sup>10</sup> The assumption that the distribution to entrepreneurial returns is uniform across different types of entrepreneurial activities follows from our previous baseline scenario. Note that in a society with a good institutional environment (society 1) we should expect to find that  $E[R_{ij}^P | X_j > X_e] > E[R_{ij}^{NP} | X_j > X_e]$ .

<sup>11</sup> At any rate one could also assume some form of agent-heterogeneity such that some agents may be more talented for undertaking non-productive activities than others. In this case "oligarchs" would indeed be different from productive entrepreneurs.

of its motivations, such that some entrepreneurial activities may be motivated by a truly profitable opportunity, while others are motivated by simple economic necessity; the latter also constitute entrepreneurial activities, although it must be granted that the talent involved here does not correspond to the usual use of this term. At any rate, in either case, the most entrepreneurial agents are those that really want to create a future for themselves in an environment where their returns will depend mainly on their work, ingenuity and effort, and not on their contacts or specific associations, and where they are not constrained by the chains of some sort of social exclusion. When the chance to migrate to a society with a better institutional environment comes up (and assuming that such migration is economically feasible), it is those that are more entrepreneurial in the sense just examined that would be the most likely to migrate.<sup>12</sup> This is an important point, since it implies that the agents that migrate do not necessarily have to be entrepreneurs in their host countries, but have a general entrepreneurial disposition. It is these entrepreneurial traits that are relevant to our analysis.

## 6. Some preliminary evidence

Evidence on the mobility of talented agents tends to suggest that industrialized countries, with high institutional quality in terms of political and economic freedom, are the main recipients of high-skilled migrant agents (as measured by their educational attainment) (Docquier & Marfouk, 2004; Solimano, 2008). Furthermore, it has also been shown that the rates of self-employment for immigrants exceed that of national groups (Borjas, 1987). To the extent that the decision to migrate is motivated by the prospects of better opportunities that agents perceive in their host countries these results, as well as similar results on the employment patterns of immigrants, are highly suggestive, although we do admit that they are not necessarily correlated with entrepreneurial orientation.

Recently, Florida (2005) has drawn attention to the effects of the possibility of migration of the “creative class” which, he argues, generates significant external effects in the economy. Although Florida presents his analysis in the context of the US, we believe that his study can also be interpreted in a global sense. Indeed, in this setting we observe a much greater variance of institutional diversity such that the problems Florida argues are affecting the US seem all the more significant. Formal studies on institutional quality across the US states (Sobel, 2008) have not overlapped with this type of analysis on the migration of talent. It has been suggested, however, that states with poorer institutional quality tend to exhibit lower rates of economic growth (Hall & Sobel, 2008). While the effect of destructive entrepreneurship can play a role here, it is likely that the migration of productive entrepreneurs is also an important mechanism at work here. This said, a truly rigorous assessment of this argument would require a careful examination of data on migration across the US states.

In this sense it should be pointed out 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, Hansen and Nedomysl (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 US 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 US, which 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 a visa to work or study in the US.

Economic history can provide significant material for an examination of the type of argument we are considering here. The decision to migrate depends on several considerations, but institutional quality is certainly an important motivation in this sense (Hatton & Williamson, 2006; Solimano, 2008).<sup>13</sup> The fact that throughout history young adults have represented the majority of migrants points to some self-selection in this sense as well as to a marked responsiveness to market conditions which is important to take into account as this factor may be correlated to entrepreneurial traits (Hatton & Williamson, 2006).

Let us consider some concrete examples which can be helpful in terms of portraying the type of mechanism we have been examining. One especially illuminating experience is given by the case of migratory patterns to and from Argentina since the late 19th century. In the late 19th century Argentina offered highly interesting economic opportunities to foreign workers, capitalists and entrepreneurs; these opportunities were directly related to the fact that the country presented a stable and predictable institutional environment in economic and political terms. In all, this combination of labor, capital, and talent led to Argentina experiencing an impressive period of prosperity in an era that what was called, quite tellingly, the *belle-epoque*. On the other hand, and as is well-known, the institutional breakdown in the country, during the late 20th and early 21st centuries have led to a remarkable migration of talent (including entrepreneurial talent) from Argentina (Solimano, 2004).

Previously we mentioned the history of the US as an interesting case in point of the influence of foreign-born entrepreneurs. While most evidence in this sense is of an anecdotal nature, McCraw (2010) has recently examined the role of immigrant entrepreneurs in the financial industry in the US since the 18th century. Not surprisingly, many of the names considered here came from countries with poor institutional quality in significant respects. The role played by Jewish immigrants from all over Europe, including many from the German provinces, is particularly worthy to consider here; in this respect, it is important to note that these immigrants were escaping institutional environments with strong anti-Semitic tendencies. Godley (2001) has elaborated on the role of Jewish immigration from Eastern Europe to the United States and England providing evidence for significant upward economic mobility associated to the entrepreneurial activities undertaken by the immigrants. Although the author is careful to note that the migratory movements from at least some countries were motivated to a greater extent by economic rather than political factors, anti-Semitism (which reflects low institutional quality) is still an important consideration to keep in mind. On the other hand, the explanation provided for differences in entrepreneurial orientation between Jewish immigrants to New York and London is also interesting to note here, as it points to the role of the migrant networks formed in each country which significantly affected the incentives agents faced to actually venture as entrepreneurs as well as impacted the transactions costs associated to migration.

More recent migratory movements have also been the subject of examination in the literature. As noted above, Saxenian (1999, 2006) has examined the role of immigrants, mainly Chinese and

<sup>12</sup> Along these lines, although different in a subtle sense, Hoselitz (1964) 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).

<sup>13</sup> Note that some of the evidence presented by Sowell (1997) can also be interpreted in this light.

Indian, in Silicon Valley. It is interesting to note that these countries have institutional environments that until quite recently have not really been very friendly to productive entrepreneurship, although this has been changing lately. This latter evidence has resulted in the processes of back-migration we tend to observe across different migrant entrepreneurial communities, which have had positive feedback effects in the institutional setup in these communities.<sup>14</sup> Entrepreneurial alertness and the role of entrepreneurial network relations have been key drivers of these migratory processes. The case of modern African migration, examined by Hatton and Williamson (2006) provides further evidence along these lines; moreover, the dynamics of migration from this region also point to the importance of changes in institutional quality as a determinant of migration.

The cases we have reviewed so far point to the importance of potential rewards as crucial determinants to the decision to migrate. This suggests that, in general, it is agents that are more responsive to different types of rewards, including economic rewards, who will be more likely to migrate; this may be a proxy of sorts for entrepreneurial orientation. In any case, the decisions to migrate are multifaceted and complex, including both “push from home” and “pull from abroad” type of considerations (to use a couple of now old-fashioned expressions), all of which makes the evidence in favor of a sorting equilibrium less clear. The fact that we do not have access to many natural experiments is also an important limitation in this respect.

## 7. In closing: transaction costs, immigration, and entrepreneurship in a global economy

Our argument suggests that institutional quality is the fundamental malaise pertinent to the circumscribed problem of “exit” we are considering; that is, migration is non-random. Institutional quality, that is, a system of rules that increases an agent’s freedom while protecting him from arbitrariness and predation, is the main 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, among other problems, higher levels of corruption and 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 opportunities for foreign trade) as such process will involve, for local businessmen, overcoming costly regulations and restrictions. This will end up affecting the expected returns they can obtain from their entrepreneurial activities, and, thus, generate incentives to migrate.

Globalization has represented an important disciplinary device for countries with poor institutional quality. 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 may provide an additional incentive to have a good institutional structure. In this case, the counterintuitive argument that exit may actually weaken the prospects for (institutional) reform (Hirschman, 1970) may not hold. If we believe that entrepreneurship is important for growth this should be an important consideration for local policymakers.<sup>15</sup>

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 second half of the 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.

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). In a way we are providing further evidence in this sense. 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.

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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).

<sup>14</sup> See, also, Yeung (1998). The work by Solimano (2010), published as this paper was being finished, provides further evidence along the lines we are discussing here.

<sup>15</sup> 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

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