International Financial Integration
and Entrepreneurship

Laura Alfaro
Harvard Business School

Andrew Charlton
London School of Economics

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Abstract

We explore the relation between international financial integration and the level of entrepreneurial activity in a country. Using a unique data set of approximately 24 million firms in nearly 100 countries in 1999 and 2004, we find suggestive evidence that international financial integration has been associated with higher levels of entrepreneurial activity. Our results are robust to using various proxies for entrepreneurial activity such as entry, size, and skewness of the firm-size distribution; controlling for level of economic development, regulation, institutional constraints, and other variables that might affect the business environment; and using different empirical specifications. We further explore various channels through which international financial integration can affect entrepreneurship (a foreign direct investment channel and a capital/credit availability channel) and provide consistent evidence to support our results.

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1 Introduction

In this paper, we explore the relation between a country's level of international financial integration, that is, its links to international capital, and the level of entrepreneurial activity. Researchers have stressed the roles of entrepreneurship, new firm activity, and economic dynamism in economic growth.[1] The empirical effects of international capital mobility on firm dynamism and entrepreneurial activity, however, have received little attention in the literature albeit the intense academic and policy debates. Using different measures commonly employed in the literature in a new data set of more than 24 million firms in nearly 100 countries in 1999 and 2004, we find higher entrepreneurial activity in more financially integrated countries and countries with fewer restrictions on international capital flows.

The theoretical effects of international financial integration on entrepreneurship are ambiguous. The rapid rate of global financial integration, perhaps most directly observed in the explosive growth of foreign direct investment (FDI), has raised concerns in both the public and academic communities about potential negative effects of international capital on the development of domestic entrepreneurs with negative consequences to the economy as a whole. It has been argued that foreign enterprises crowd out local efforts, and thus impart few, if any, benefits to the local economy. Grossman (1984) shows, for example, that international capital, and in particular FDI, can lead to the crowding out of the domestic entrepreneurial class.[2] Hausmann and Rodrik (2003) argue that laissez-faire and in particular openness can lead to too little investment and entrepreneurship ex-ante. Similar concerns were raised by an earlier development literature. Hirschman (1958), for example, warned that in the absence of linkages, foreign investments can have negative effects on an economy (the so called 'enclave economies'). More generally, researchers have argued that in the presence of pre-existing distortions and weak institutional settings, international capital mobility can increase the likelihood of financial crises; higher volatility and risk can reduce entrepreneurship and innovative efforts in a country. Some scholars have asserted that open capital markets may be detrimental to economic development (see Bhagwati (1998), Rodrik (1998), and Stiglitz

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[1] Entrepreneurship and firm creation are often described as the keys to economic growth (Schumpeter 1942). See Aghion and Howitt (1998) for an exhaustive survey of Schumpeterian growth models.

[2] In addition, if foreign firms borrow heavily from local banks, instead of bringing scare capital from abroad, they may exacerbate domestic firms' financing constraints by crowding them out of domestic capital markets; see Harrison, Love and McMillian (2004) and Harrison and McMillian (2003).

(2002)). As Eichengreen (2001) notes, "[C]apital account liberalization, it is fair to say, remains one of the most controversial and least understood policies of our day."

On the other hand, access to foreign resources can enable developing countries with little domestic capital to borrow to invest, and resource constrained entrepreneurs to start new firms. Indeed, availability of funds has been shown to be an important determinant of entrepreneurship.[3] International financial integration should also facilitate international risk sharing and thus lower the cost of capital for many developing countries, and, by fostering increased competition, improve the domestic financial sector with further benefits to entrepreneurship.[4] Furthermore, researchers have stressed the potential positive role of knowledge spillovers and linkages from foreign firms to domestic firm activity and innovation.[5]

Whether international capital mobility is fostering or destroying entrepreneurship is a critical question in academic and policy circles.[6] Yet, empirical analysis of the effects of international capital mobility on entrepreneurial activity and firm dynamism are all but absent from the literature. This is largely due to the difficulty of obtaining an international data set sufficiently comprehensive to support studies of firm dynamism in both developed and developing countries. We overcome this problem by using a new data set of private firms in 98 countries in 1999 and 2004. Our data set contains more than 24 million observations of both listed and unlisted firms across a broad range of developed and developing countries at different stages of international financial integration. Over the last decades, barriers to international capital mobility have fallen in developed countries and diminished considerably in many developing countries. But despite recent trends, restrictions on international financial transactions are still quantitatively important for many countries, and *de facto* flows remain low relative to those predicted by standard models, in particular,

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[3] Evans and Jovanovic (1989) show theoretically that wealth constraints negatively affect entrepreneurship. Evans and Leigthon (1989) find evidence that credit constraints are a critical factor in the founding and survival of new firms.
[4] Increased risk sharing opportunities might encourage entrepreneurs to take on more total investments, or shift production activities towards higher-risk, higher-return projects; see Obstfeld (1994), Acemoglu and Zilibotti (1997).
[5] Markusen and Venables (1999) propose a model that suggests that FDI will be associated with firm turnover. Although entry of foreign firms increases competition and, initially, forces the exit of domestic firms, in the longer run multinationals might stimulate local activity through linkages with the rest of the economy. See also Rodriguez-Clare (1996) for a formalization of the linkage effects between foreign and domestic firms.
[6] An example is the on-going debate in the Irish economy about the impact of foreign capital flows, in particular, FDI, on local entrepreneurial efforts. Given the limited size of the indigenous sector, one concern has been the potential crowding out of domestic entrepreneurship. But some contend that local entrepreneurs have benefited from foreign capital, in particular, from interacting with foreign firms as suppliers or costumers or from previous experience working in multinational firms. See Alfaro, McIntyre, and Dev (2005) for a discussion.

for developing countries.[7] The coverage of the data enables us to study the differential effects of restrictions on capital mobility on entrepreneurial activity.

Identifying the effects of international financial integration on entrepreneurial activity is, however, not an easy task. There is no one definition of entrepreneurship or what it entitles, hence, no one variable to measure it.[8] Therefore, we analyze a variety of measures commonly used in the literature as imperfect proxies for various aspects of entrepreneurial activity.[9] We focus on firm entry, average firm size and skewness of the firm-size as these measures better capture firm activity. We also study other measures used in the literature such as age and vintage (a size-weighted measure of the average age of the firm). The literature distinguishes between *de jure* indicators of financial integration, which are associated with capital account liberalization policies, and *de facto* indicators, which are associated with actual capital flows.[10] We use both, as they capture different aspects of international capital mobility and financial integration. We also control for other determinants found in the literature to affect the level of entrepreneurship such as local development level, market size, and institutional constraints. We use industry fixed effects to control for technological determinants of entry, size and activity in an industry.

We first study the cross-section properties of our sample in 2004. We find positive correlations between the different measures of international financial integration and the different measures of entrepreneurial activity in a country. More firm activity is observed in more financially integrated countries and countries with fewer restrictions to capital mobility. Figure 1 is illustrative of this point. The figure, which plots the firm-size distribution for countries with high and low *de jure* restrictions on foreign capital, shows the countries with fewer barriers to international capital to have a higher proportion of small firms.[11] Specifically, in the regression analysis we find more capital controls to be associated with larger firm size

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[7] See Table 3 for stylized facts, and Alfaro, Kalemli-Ozcan, and Volosovych (2006) for a comprehensive analysis of the main trends related to international capital flows in the last thirty years.
[8] Different views in the literature have emphasized a broad range of activities including innovation (Schumpeter, 1942), the bearing of risk (Knight 1921), and the organization of the factors of production (Say, 1803).
[9] See Desai, Gompers, and Lerner (2003) Klapper, Laeven, and Rajan (2005), and Black and Strahan (2002).
[10] See Prasad et al. (2003) for a discussion of the different indices and measures used in the literature.
[11] We divide the firms in our final sample into groups according to *de jure* restrictions on capital flows (proxied by the IMF index). The figure plots the firm-size distribution measured by employment for each group. The skewness values for the high and low controls distributions were 562 and 1,446, respectively. Appendix A provides detailed descriptions of the variables and the list of countries included in the sample.

and lower skewness of the firm size distribution and firm entry. Firms also tend to be older in less financially integrated countries. Our results are both statistically and economically significant.

As mentioned, our data set allows us to study the determinants of the business environment in a broad sample of developed and developing countries. In line with the literature, we find variables related to the regulation of entry, for example, days to start a business, to negatively affect entrepreneurial activity; while corruption, a proxy for the institutional environment, has a negative and significant effect on the dynamism of the economy. In terms of our research question, the relation between international financial integration and entrepreneurship remains positive and significant even when we control for these other determinants of entrepreneurship.

Our results are robust to different measures and specifications. We compare our results for 2004 and 1999 using a difference in differences approach obtaining similar results. In addition, we follow the methodology of Rajan and Zingales (1998) and Klapper, Laeven and Rajan (2005) and focus on cross-industry, cross-country interaction effects. Following these authors, we use the Unites States as a proxy for the "natural activity" in an industry. We test whether entry and skewness of the firm size distribution are relatively higher or lower in naturally-high-activity industries when the country has relatively high international capital mobility. The results confirm our main findings.

The nature of our data allows us to explore some of the channels through which these benefits might materialize. First, international financial integration might increase capital in the economy and improve its intermediation (a capital/credit availability channel). Although small firms might not be able to borrow directly in international markets, improved financial intermediation and other firms' (and the government's) international borrowing might ease financing constraints until some of the additional capital finds its way to new firms. Second, local firms might benefit from spillovers and linkages from foreign firms (FDI channel). We test for the former channel by exploring whether entrepreneurial activity is higher in firms that are more dependent on external finance as defined by Rajan and Zingales (1998). The evidence does indeed suggest this to be case. In terms of the FDI channel, our data set has the advantage of enabling us to distinguish between foreign and local firms. We regress our entrepreneurship measures on the share of foreign owned firms in the same industry. We also test whether our measures of domestic activity are correlated with the

presence of multinational firms in downstream and upstream sectors. Given the difficulty of finding input and output matrices for all the countries in our data, we follow Acemoglu, Johnson, and Mitton (2005) and use U.S. input and output matrices, which are assumed to describe the technological possibilities of production. Our results are consistent with our previous findings.

Important concerns in our analysis are related to policy endogeneity and omitted variables biases in terms of establishing the causality between international financial integration and proxy variables of entrepreneurial activity. Capital account liberalization and entrepreneurial activity might be positively correlated with an omitted third factor. If that factor was a government policy—for example, a policy-maker anticipating improvements in external conditions liberalizes a country's capital account—we would observe capital liberalization and intensified firm activity. We take different steps to mitigate these concerns. We control for other variables that might affect entrepreneurial activity. We believe the extensive robustness analyses we perform eases concerns about potential omitted variables. Although, naturally, it is impossible to control for all possible variables that might be correlated with international financial integration and firm activity, the results using the difference in differences and the Rajan and Zingales (1998) methodologies further ease concerns. We also look at different proxies for entrepreneurial activity and capital mobility. We analyze firm/industry characteristics as opposed to country characteristics, and test effects controlling for the different sectors. Even if firm dynamism is correlated because of an omitted common factor, it is hard to argue that the latter affects the relation between capital flows and entrepreneurial activity in a systematic way for firms in sectors with different characteristics. As an imperfect control for exogenous growth opportunities, we use growth forecast from the Economist Intelligence Unit (EIU). As another imperfect attempt to account for possible endogeneity biases, we also use institution-based instruments for financial integration from La Porta et al (1998), which have been used in the literature for international financial liberalization and domestic financial development.[12] This instrumentation strategy yields similar results and confirms that our results are quite robust. Finally, we feel more comfortable in interpreting our correlation as causation in as much as mechanisms consistent with such an interpretation are supported by the empirical evidence. However, even after all of these tests, our estimates should be interpreted with caution.

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[12] See Imbs (2004), Kalemli-Ozcan, Sorensen, and Yosha (2003).

We noted earlier the scarcity of empirical work on the effects of international capital mobility on entrepreneurial activity. A number of papers, however, have studied how different aspects of capital account liberalization affect a firm's financing constraints and the cost of capital. Chari and Herny's (2004) examination of the effect of stock market liberalization in 11 emerging markets suggests that publicly-listed firms that become eligible for foreign ownership experience a significant average stock price revaluation and significant decline in the average cost of capital. Harrison, Love and McMillian (2004) find FDI inflows to be associated with a reduction in firms' financing constraints while restrictions on capital account transactions negatively affect their financial constraints.[13] Our results are consistent with these findings.

Our paper also relates to the research on the effects of the external environment on entrepreneurship. Desai, Gompers, and Lerner (2003), Klapper, Laeven, and Rajan (2005), and Kumar, Rajan, and Zingales (1999) have studied different aspects of the external environment on firm creation and entrepreneurship in a cross-section of European countries. Other work on aspects of entrepreneurship include Johnson et al.'s (2002) finding that investment by entrepreneurs is lower in countries with weak property rights; Black and Strahan's (2002) and Guiso, Sapienza, and Zingales' (2004) finding that financial development fosters firm entry; Giannetti and Ongena's (2005) study of the effects of foreign bank lending on the growth of Eastern European firms; Fisman and Sarria-Allende's (2005) study of the effects of regulation of entry on the quantity and average size of firms; Beck, Demirguc-Kunt, Laeven, and Levine's (2006) finding that financial development exerts a disproportionately positive effect on small firms; and Acemoglu, Johnson and Mitton (2005) cross-country study of concentration and vertical integration. Most of these papers, with the exception of the latter two, use data from the Amadeus dataset (which has firm rather than plant level data for Western and Eastern Europe only) or the Worldscope database (which includes information for a large number of countries but covers only relatively large, publicly trade firms).[14]

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[13] The authors use large publicly traded firm level data for 38 countries and 7079 firms from the Worldscope data base. In contrast, Harrison and McMillian (2003), find that in the Ivory Coast for the period 1974-1987 borrowing by foreign firms aggravated domestic firms' credit constraints.

[14] Acemoglu, Johnson, and Mitton (2005) use data for 769,100 firms from the 2002 WorldBase file; Beck et al. (2006) use industry level data complemented by U.S. Census data; Fisman and Sarria-Allende (2005) complement industry data from UNIDO with Worldscope data for a sample of 34 countries. Publicly listed firms account for only 25 percent of jobs, even in the United States (Davis, Faberman, and Haltiwanger 2006). Although it is difficult to quantify this number for our broad sample of countries, presumably, publicly traded firms are of much greater importance in the United States than in most other countries.

Our paper contributes to this literature by exploring the determinants of firm dynamism in a broader sample of developed and developing countries using data for both private and public firms.[15]

Finally, by focusing on micro effects, our results contribute to the broader debate on the effects of international financial integration. As argued by Schumpeter, firm entry is a critical part of an economy's dynamism. Previous work has documented the important effects of new firm entry and economic dynamism on economic growth. Obstacles to this process can have severe macroeconomic consequences. International competition is an important source of creative destruction. Researchers have documented significant productivity, firm dynamism, and reallocation effects from trade openness with positive effects for specific countries.[16] To the best of our knowledge, this is the first paper to document and study the relation between firm dynamism and international financial integration. Our results suggest that, contrary to the fears of many, capital mobility has not hindered entrepreneurship. Instead, international financial integration has been associated with greater firm activity.

The rest of the paper is organized as follows. Section 2 describes the data. Section 3 presents the main empirical results. Section 4 discusses potential channels and presents evidence consistent with the main results. Section 5 concludes.

2 Data and Descriptive Statistics

2.1 Firm Level Data

We use data from WorldBase, a database of public and private companies in more than 213 countries and territories. For each firm, WorldBase reports the four-digit SIC-1987 code of the primary industry in which each firm operates, and for a few countries the SIC codes of up to five secondary industries, listed in descending order of importance. Dun & Bradstreet compiles the WorldBase data from a number of sources with a view to providing its clients contact details and basic operating information about potential customers, competitors, and suppliers. Sources include partner firms in dozens of countries, from telephone directory records, websites, and self-registering firms.[17] All information is verified centrally via a

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[15] Bartelsman, Haltiwanger and Scarpetta (2004) provide evidence for the process of creative destruction across 24 countries and two-digit industries.

[16] See Caballero (2006) for an overview of empirical evidence.

[17] Firms self-register to receive a widely recognized DUNS business identification number.

variety of manual and automated checks. Information from local insolvency authorities and merger and acquisition records are used to track changes in ownership and operations.

The unit of record in the WorldBase data is the "establishment" rather than the firm. Establishments like firms have their own addresses, business names, and managers, but might be partly or wholly owned by other firms. Our data is thus able to capture new entrepreneurial ventures owned and capitalized by existing firms as well as by private entrepreneurs.

We use data for 2004, excluding establishments missing primary industry and year started information.[18] We also excluded territories with fewer than 80 observations, establishments for which the World Bank provides no data, and government related firms (SIC >8999). With these restrictions, our final data set includes more than 24 million observations in 98 countries. The criteria used to clean the sample are detailed in the Appendix A. Table 1 lists the countries represented in the data set.

2.1.1 Sample Frame

In our final sample, the number of observations per country ranges from more than 7 million firms in the United States to fewer than 90 firms in Burkina Faso (see Table 1). This variation reflects differences in country size, but also differences in the intensity with which Dun & Bradstreet samples firms in different countries and in the number of firms in the informal sector. This raises concerns that our measures of entrepreneurship might be affected by cross-country differences in the sample frame. For example, in countries where coverage is lower or where there are a large number of firms in the informal sector (which are not captured in our data), more established enterprises—often older and larger firms—may be overrepresented in the sample. This may bias our results if the country characteristics which determine the intensity of sampling are correlated with our explanatory variables.

We address this concern in a number of ways. We compare our results for 2004 and 1999 and study how changes in our measures of entrepreneurship between these time periods relate to changes in capital restrictions and capital mobility. This gives us more confidence that our results are not driven by the sample frame, although it is still possible that changes in sampling procedure are correlated with changes in

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[18] We use data for 2004. We also use information for 1999-2000 (close to 6 million observations) in the difference-in-differences section. The coverage of this sample is more limited. We performed a similar analysis with these data obtaining similar results (available upon request).

financial integration over the same period. A comparison of the 2004 and 1999 samples suggested this not to be the case.[19] In particular we analyzed the correlation between the change in the sampling intensity of old firms (defined as percentage change in the number of firms established before 2000 in the two samples) and the change in the capital mobility measures. The correlation of these variables was low and in fact negative for most of our measures.[20] Second, we repeat our specifications for subsamples which include only the rich countries which are the most intensively sampled by Dun & Bradstreet. Third, we deal with the possibility that our results might be driven by a small number of observations in country/industry pairs by excluding outliers and weighting country/industry pairs by the number of observations in the industry. Fourth, we include a measure of country sampling intensity in our regressions and find that our results are robust.[21] We also included a measure of change in the sampling intensity in our difference-in-different specification further easing concerns that our results are driven by sample biases. Finally, in the robustness section we include a measure of the size of the informal sector.

Finally, it is worth noting that the variety of sources from which the data are collected avoids a sample selection problem presented in previous studies. Because many international databases collect firm data from national authorities, samples drawn from such sources will vary across countries with the parameters of the national statistical agency's reporting requirements. The sample of firms entered into the database from different countries is thus not random but determined by the local institutional environment. These reporting requirements may be correlated with other national characteristics, potentially biasing the results. The wide variety of sources from which Dun & Bradstreet collects data reduces the likelihood that the sample frame will be determined by national institutional characteristics. In Appendix A, we compare the Dun & Bradstreet data to the United States Census data. The comparison illustrates that our data set seem to be well suited for our analysis.

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[19] Conversations with Dun & Bradstreet also suggested that this was unlikely to be the case.

[20] The correlations between the change in the sampling intensity of old firms in 99-04 (number of firm in the 2004 data set established before 2000 minus the number of firms in the 1999 data set to the total number of firms in the 1999 data set) were -0.12 with the IMF index; 0.12 with Net Capital Flows/GDP; 0.05 with FDI Inflows/GDP; -0.07 with Foreign Liabilities/GDP; 0.07 with Capital Inflows/GDP; 0.02 with GDP Growth; -0.01 with Entry; and -0.07 with Skewness.

[21] We use the ratio of the number of firms in the database to GDP. We attempted to control for employment data at the industry level to get a sense of coverage, but these data were not available consistently for our cross-section of countries for 2004.

2.2 Entrepreneurship Measurements

How to measure entrepreneurship? Given the different perspectives in the literature on the role of entrepreneurs in an economy, definitions have emphasized a broad range of activities including the introduction of innovation (Schumpeter, 1942), bearing of risk (Knight, 1921), bringing together of factors of production (Say, 1803). In general, entrepreneurs are risk-bearers, coordinators and organizers, gap-fillers, leaders, and innovators or creative imitators.

If there is no one way to define entrepreneurship, there is certainly no one way to measure it. Hence, we use a variety of proxies commonly used in the literature which should give us an overall picture of entrepreneurial activity in the country.[22] Following Black and Strahan (2002), Desai, Gompers, and Lerner (2003) and Klapper, Laeven, and Rajan (2005), we calculate for each industry/country pair the rate of entry, average firm size, the skewness of firm size, age, and vintage.[23]

i. Firm Entry: Firm entry is defined as the number of new firms divided by the total number of firms in the country/industry pair.[24] Markets that provide an opportunity for more startup firms are said to be more dynamic and entrepreneurial. Greater access to capital and improvements in a country's financial markets associated with international financial integration should ease capital constraints and positively influence entry decisions in a country.[25]

ii. Size: We calculate average firm size measured by the log of the average number of employees in each country/industry pair. Small firms play an important role in the economy as they are often portrayed as sources of innovation, regeneration, change and employment. Although the prediction is not unambiguous, we expect lower levels of capital rationing associated with international financial integration to result in greater numbers of small firms being able to enter and survive in the market.

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[22] The Global Entrepreneurship Monitor (GEM) publishes indices of entrepreneurial activity. These data did not seem to be empirically consistent with other measures used in the literature and hence are not used in this paper.

[23] Throughout the rest of the paper we use the terms firm and establishment interchangeably.

[24] Due to lags in reporting and collecting, we classify a firm as new if it less than two years old. See Klapper, Laeven, and Rajan (2005) for a similar treatment.

[25] This might depend on whether a country is exporting or importing capital, but there might still be an improvement in intermediation of capital.

[27] Cooley and Quadrini (2003) and Cabral and Mata (2003) argue that in the presence of capital constraints firm size distribution will be skewed.

iii. Firm Size Distribution: We also examine the relation between skewness of the firm-size distribution and international financial integration. If capital constraints are operative in shaping the nature of industrial activity, the firm-size distribution should be skewed.[27]

iv. Age: In the robustness section, we use average age in each industry/country pair—an alternative measure of firm turnover. We expect greater financial integration to be associated with more dynamic business environments and lower average firm age.

v. Vintage: We also use in the robustness section a weighted average measure of age. Following Desai, Gompers and Lerner (2003) vintage is the weighted (by numbers of employees) average age of the firms in each country/industry pair. This measure shows the importance of young firms to the productive capacity of an industry. Low vintage indicates that young firms dominate the productive capacity. The predictions with respect to vintage are not unambiguous, although we expect smaller, younger firms to benefit from greater access to international funds.

Appendix A explains all variables in detail.

2.3 Capital Mobility Data

How to measure international financial integration? Assessing a country's integration with international financial markets is a complicated task. The process, that is, the change in the degree to which a country's government restricts cross-border financial transactions, is complex and involves multiple phases. Markets can be liberalized gradually and the effects smoothed if the reforms can be anticipated.[28] The literature, as we observed earlier, differentiates between *de jure* financial integration associated with policies on capital account liberalization and *de facto* measures related to actual capital flows. *De jure* liberalization processes might not reflect *de facto* liberalization processes. If, for example, one part of the system is liberalized, investors might use it to circumvent other controls. Some reforms might not be credible, and countries, albeit officially open, might nevertheless not have access to foreign capital. Hence, we use both measures of financial integration.

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[28] Anticipation and gradualness should bias our results away from finding an effect.

2.3.1 *De Jure* Measures

Most empirical analyses that require a measure of capital account restrictions use an index constructed from data in the International Monetary Fund's (IMF's) *Annual Report on Exchange Arrangements and Exchange Restrictions* (*AREAER*). [29] This is a rule-based indicator in that it focuses on *de jure* restrictions imposed by the legal authorities in each country. The index uses data on different restrictions: capital market securities, money market instruments, collective investment securities, derivatives and other instruments, commercial credits, financial credits, guarantees, securities, and financial backup facilities, direct investment, real estate transactions, and personal capital transactions. A corresponding dummy variable takes the value of 1 if each of the restrictions is present in each country, zero otherwise. We use the average of the dummies as our measure of restrictions for each country.

2.3.2 *De Facto* Measures

Our analysis employs the following *de facto* measures of capital mobility.

i. Capital Inflows/GDP: Capital inflows to GDP are the sum of flows of FDI, equity portfolio, financial derivatives, and debt from the IMF, International Financial Statistics (IFS). Data are calculated as a percentage of GDP as reported in the World Bank Development Indicators (WDI).

ii. Inflows of Foreign Direct Investment/GDP, Net: Using net inflows of FDI as a percentage of GDP emphasizes the potential benefits derived from FDI associated with technological transfers, knowledge spillovers, and linkages that go beyond the capital foreign firms might bring into a country.

iii. Stock of Foreign Liabilities/GDP: In our analysis, the stock of foreign liabilities proxies the thickness of banking and equity relationships (both FDI and portfolio investment) with other countries. This variable thus captures the effects of existing foreign capital relations on current entrepreneurial activity. The data are from Lane and Milesi Ferretti (2006), whose estimates of foreign assets and liabilities and their subcomponents for different countries in the 1970s, 1980s, and 1990s were recently updated to 2004. The data are calculated as a percentage of GDP.

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[29] The index is constructed from data on restrictions presented in the survey appendix. In 1997, the IMF changed the way they report the capital controls data. The new classification is a vast improvement over the previous measure, although issues regarding circumvention of controls remain.

iv. Gross Capital Flows/GDP: Gross private capital flows to GDP are the sum of the absolute values of direct, portfolio, and other investment inflows and outflows recorded in the balance of payments financial account, excluding changes in the assets and liabilities of monetary authorities and general government. The indicator is calculated as a ratio to GDP in U.S. dollars. The trade literature frequently uses the sum of exports and imports to GDP as a measure of openness. Similarly, gross capital flows to GDP capture a country's overall foreign capital activity. Data are from the World Bank, WDI.

The following measures are also used in the robustness section.

v. Equity Inflows/GDP: We use this variable to assess the relation between entrepreneurial activity and equity flows of capital (sum of foreign direct investment and portfolio inflows from IFS, IMF).

vi. Net Capital Flows/GDP: Net flows to GDP allow us to focus on the net capital available to the economy. Net flows are the sum of flows of foreign claims on domestic capital (change in liabilities) and flows of domestic claims on foreign capital (change in assets) in a given year. Coverage for this variable is more limited and is from the IMF, IFS statistics.

2.4 Other Controls

The literature has found the institutional and business environment as well as industry characteristics to affect the levels of entrepreneurial activity in a country.

In the main specification we use the (logarithm of) GDP per capita to proxy for development. The level of economic development is likely to affect the attractiveness/success of becoming an entrepreneur. We use the (logarithm of) GDP to control for scale effects that might affect entrepreneurial activity. We control for the rate of real GDP growth to capture current economic activity. These variables are from the World Bank, World Development Indicators (WB, WDI). In addition, we use various controls for institutional quality. We use data from the International Country Risk Guide (ICRG), a monthly publication of Political Risk Services. We use specifically the variables non-corruption, law and order, and bureaucratic quality, all of which we expect to be positively related to entrepreneurial activity.[30] We also use the number

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[30] ICRG presents information on the following variables: investment profile, government stability, internal conflict, external conflict, no-corruption, non-militarized politics, protection from religious tensions, law and order, protection from ethnic tensions, democratic accountability, and bureaucratic quality. We do not use the entire index as we do not

of days required to start a business from the World Bank, WDI. We expect this variable to have a negative impact on entrepreneurial activity.

In the robustness section, we use additional controls for regulation such as a business disclosure index, legal rights of borrowers and lenders index, and share of the informal sector. To control for financial development, we use domestic credit on GDP and the stock market capitalization to GDP. To capture uncertainty in the macro-economy, we use inflation and volatility of growth. We also control for trade flows and use the sum of exports and imports over GDP. All of these variables were taken from the WB, WDI. Finally, we use growth forecasts from Economist Intelligence Unit (EIU) as an imperfect control for a country's exogenous growth opportunities. Detailed descriptions of all data are provided in Appendix A.

3 Empirical Analysis

3.1 Summary Statistics

Table 1 presents summary statistics by country for our main variables. We have for the United States, for example, more than 7 million firms. France follows with more than 4 million. At the other end of the spectrum, we have Zimbabwe with 99 firms and Burkina Faso with 87. There is clearly wide variation in entrepreneurial activity across countries. Countries such as Denmark, Netherlands, and South Korea exhibit high firm creation, Papua New Guinea and Yemen relatively low firm creation, in 2004. Median employment per firm was relatively high for Indonesia, Papua New Guinea, and Thailand and relatively low for Netherlands, Belgium, and Italy. Table 2 presents summary statistics by industry at the two-digit SIC code level. The service sector shows, overall, higher entry rates and lower median employment levels. Table 3 presents summary statistics on *de jure* and *de facto* capital mobility. Countries such as Costa Rica, Netherlands, and Belgium have low levels of *de jure* restrictions according to the IMF index, while Zimbabwe, Papua New Guinea and Thailand high levels of restrictions. There is also widespread variability in *de facto* flows of capital.[31] Table 4 reports summary statistics for our main control variables. In countries such as Australia and Canada it takes from two to three days to start a business; in Brazil and India more

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have, a priori, a view on how some of these variables might affect entrepreneurial activity, and suspect that some might have opposite effects.

[31] Ireland experienced particularly high flows during this period. Results are robust to excluding Ireland from the sample.

than 150 days. There is also great variation in terms of corruption and bureaucratic quality. Table 5 presents the correlation matrix of the main variables. Our data seem to be not only internally consistent, but also consistent with other studies of firm dynamics reported in the literature.[32]

Figure 1, as mentioned, plots the firm-size distribution measured by the number of employees for countries with high and low *de jure* restrictions to capital mobility. The figure shows there to be higher entrepreneurial activity in countries with lower restrictions. Figure 2, presents for low and high capital controls countries histograms of firm entry by industry, each industry observation weighted by the number of firms. Similarly, the figure shows firm activity to be higher in countries with fewer controls.

These figures, however, do not control for industry composition within countries or the level of development or activity in a country, which might be related to the level of *de jure* restrictions. We consider these issues in the following section.

3.2 Cross Sectional Analysis

The purpose of the cross-sectional analysis is to investigate whether there is variation in entrepreneurial activity across countries that is correlated with capital mobility (*de jure* or *de facto*). We run the following specification:

$$\mathrm{E}_{ic} = \alpha K_c + \beta X_c + \delta_i + \varepsilon_{ic} \quad (1)$$

where E_{ic} corresponds to the entrepreneurial activity measure in industry i of country c, K_c corresponds to the measure of capital account integration, X_c corresponds to country level controls, δ_i is a full set of industry dummies, and ε_{ic} corresponds to the error term. Our analysis is at the two-digit industry level. The industry dummies control for cross-industry differences in technological level or other determinants of entrepreneurship.[33] Hence, in equation (1), we look at whether, in the same industry, firms in a country with greater capital mobility exhibit more entrepreneurial activity than firms in a country with less capital mobility. In other words, cross-country comparisons are relative to the mean propensity to "generate

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[32] See Bartelsman, Hatliwanger, Sarpetta (2004).
[33] Klepper and Graddy's (1990) results point to the importance of industry characteristics in firm's entry and exit patterns. Dunne and Roberts (1991), who describe certain industry characteristics that explain much of inter-industry variation in turnover rates, find the correlation between those industry characteristics and industry turnover pattern to be relatively stable over time.

entrepreneurial activity" in an industry. The estimation procedure uses White's correction for heteroskedasticity in the error term. Because the capital mobility variables vary only at the country level, we present results with standard errors corrected at the country level (clustering).

In our main regressions, we run specification (1) on the different measures of entrepreneurship: entry, firm size, and skewness of the firm-size distribution, and on different measures of capital account integration, namely, the IMF index, capital inflows, FDI inflows, stock of foreign liabilities, and gross flows. Appendix B presents results for the additional measure of entrepreneurship and capital mobility. Our main control variables are (log of) GDP, (log of) GDP per capita, GDP growth, days to start a business, and indices of bureaucracy, non-corruption, and law and order. We use weights in the regressions to reflect the different size of each industry/country observation.[34] For many industries, the rate of firm entry is zero or negligible. To account for this large number of zeros and our upper bound at 1, we use a Tobit estimation model for the firm entry regressions.[35] This specification allows us to observe a regression line that is not heavily weighted by the large number of industries with a wide range of characteristics but which did not generate any observed new firms in our sample period.

Tables 6a-6c present the main results that, overall, suggest a negative and significant relation between different measures of entrepreneurial activity and restrictions on capital mobility.

Table 6a presents results for firm entry as the dependent variable. In column (1), the marginal effect of the IMF index conditional on the dependent variable (rate of firm entry) being uncensored is -1.63. Consider a movement from the 25th percentile (Ghana, 0.77) to the 75th percentile (New Zealand, 0.15) in the distribution of the index of restrictions. Based on the results shown in column (1), we have, on average, 1.0 percent more entry in an industry in the country with less restrictive controls. This represents, in industries with average rates of entry such as textiles and apparel, an 22 percent increase in entry over

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[34] We find similar results when unweighted and when weighted by either the number of firms or the total employment in the industry/country.
[35] Entry regressions are not clustered. Several clustered entry estimates using Tobit were not significant at standard levels. These results, however, do not contradict our main findings. We believe the loss of robustness in our estimates to be due to computational issues associated with the use of the non-linear estimator Tobit and clustering, another large-sample asymptotic approximation. Together these techniques might be giving us more imprecise estimates. When we run the regression using OLS and clustering, the results are significant.

average entry.[36] Columns (2)-(5) present the main results of controlling for *de facto* measures of capital account integration. A movement from the 25th percentile (Mauritius, 2.36) to the 75th percentile (Greece, 14.2) of the Capital Inflows/GDP variable is associated, based on the results in column (2), with an increase in entry of 1.61, which represents a 26 percent increase in entry over average entry. Similarly, based on the results in column (3), an inter-quartile range movement in the FDI/GDP variable is associated with an increase in FDI/GDP of 0.44, which is a 10 percent increase over the industry average.

In terms of the other control variables, our results are in line with the literature. The development level and growth are positively and significantly related to entrepreneurship, and we find a positive effect of non-corruption and law and order. The number of days required to start a business has a negative effect on entrepreneurship. To give some sense of the relative size of the effect of our capital mobility variable relative to our controls, if we move up from the 25th percentile (U.K) to the 75th percentile (Philippines) in the distribution of the days to start a business variable (a difference of 32 days), based on the results shown in column (2) we have, on average, 0.07 percent less entry in an industry.[37] This represents, in industries with average rates of entry such as textiles and apparel, a 2 percent decrease in entry over average entry, which is significantly less than the effect of a similar inter-quartile change in the IMF index.

In Table 6b, the dependent variable is the log of employment in the industry/country pair. As seen in column (1), an inter-quartile reduction in the IMF index (less restrictive controls) is associated with a decrease in average firm size by 32 percent. Similar increases in the Capital Inflows/GDP and FDI/GDP variables are associated with a significant decreases in average firm size of 76 percent and 2 percent, respectively. The small FDI coefficient is expected as FDI is often associated with the entry of large firms.

In table 6c, the dependent variable is skewness of the firm-size distribution. We believe this variable to constitute the most complete characterization of firm activity in the economy. Our results are both economically and statistically significant. Column (1) of the table shows the effect of the IMF index on the skewness of the firm size distribution in each industry to be negative and significant. To get a sense of the magnitude of the effect of a reduction in the IMF index on the level of entrepreneurial activity, consider a

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[36] Average entry in uncensored industries is 4.5 percent.
[37] In column 1, the marginal effect of the IMF index variable conditional on the dependent variable being uncensored is -0.0077.

movement from the 25th percentile to the 75th percentile in the distribution of the index of restrictions; based on the results shown in column (1), we see a 5.43 reduction in skewness, which represents 46 percent of average industry skewness. In terms of the effect of *de facto* measures of integration on the firm size distribution, a similar interquantile movement of the Capital Inflows/GDP variable is associated, based on the results in column (2), with an increase in skewness of 2.77, which represents a 24 percent increase over the industry average.

We performed additional robustness checks some of which we report on Appendix B. Table B1 shows the coefficients on the capital mobility measures to be stable across specifications with different controls. Table B2 shows our results to be robust to controlling for other measures of regulation and level of domestic financial development as well as other macroeconomic controls. Table B3 uses additional proxies for entrepreneurship and other measures of *de facto* financial integration. Table B4 shows our results to be robust to using only the manufacturing sector, only developed countries, excluding the United States from the sample, and adding regional dummies.

Appendix C presents the results of using the Rajan and Zingales (1998) methodology and focusing on cross-industry, cross-country interaction effects. Following these authors, we use the Unites States as a proxy for the "natural" rate of entry and entrepreneurial activity in an industry. We test then whether entry and skewness of the firm size distribution are relatively higher or lower in a naturally-high-activity industry when the country allows for international capital mobility. As seen in the Table C1 our main results remain robust to using this methodology.

3.3 Difference in Differences

We compare our results for 2004 and 1999 using an event study based on the difference in differences (DiD) method (Card and Krueger, 1994). We measure the difference between the level of entrepreneurship in the two periods for the group of countries which experienced liberalization in the interim, and for the control group of countries which did not. The difference in differences is the difference between these two measures. This model differences out all the individual characteristics of each observation and thereby controls for more heterogeneity than the cross-sectional estimation. The model is:

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$$DE_{ic} = \gamma L + \beta D X_c + d_I + v_{ic} \quad (2)$$

where L indicates whether the country experienced liberalization as measured by a reduction in the IMF index. γ is the parameter of interest and captures the difference between the change in entrepreneurship in liberalized countries and the change in control countries. The DiD estimator is given by $\hat{\gamma} = DE_{ic/L=1} - DE_{ic/L=0}$. The estimation procedure uses White's correction for heteroskedasticity in the error term and errors are clustered at the country level. The key identifying assumption in this model is that in the absence of liberalization, both the liberalized and control observations would have experienced the same change in entrepreneurship over the period. Having only two periods of data, our ability to test this assumption is limited. For this reason we interpret the results from this specification with some caution. We do however include differenced control variables.

In our sample, 56% per cent of countries in our sample had a lower IMF index in 2004 than in 1999. Differences between the statistics summarizing the measures of entrepreneurship in the two samples are generally not very large.[38] Tables 7a and 7b present the main DiD results for *de jure* and *de facto* restrictions on international financial integration, which suggest a positive and significant relation between different measures of entrepreneurial activity and capital mobility. Table 7a presents results for entry, Table 7b results for skewness.[39] In terms of economic magnitude, Table 7b, column (1), for example, indicates that industries in countries which liberalized in the period had a firm size distribution which, on average, had a higher skewness than countries which did not liberalize by 7.03 equivalent to 44 percent of the mean industry skewness. Appendix Table B5, shows the coefficients on the capital mobility measure to stable across different specification while Table B6 shows the results to be robust to adding a measure of changes in the sampling intensity, using only the manufacturing sector, restricting the sample to only developed countries, and excluding the United States from the sample. Overall, the results across two cross-sections of the same data give us some confidence that our results are not driven by correlations between the sampling

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[38] Summary statistics for 1999 and 2004 are, respectively, 0.52 and 0.49 for the IMF Index, 12.91 and 11.80 for Capital Inflows/GDP, 5.19 and 2.74 for FDI Inflows/GDP, 30.84 and 29.45 for Gross Capital Flows/GDP, and 125.73 and 142.35 for Stock of Foreign Liabilities/GDP. For the entrepreneurship measures, average entry for 1999 and 2004 was, respectively, 7.56 and 4.53, skewness of employment 6.07 and 9.52.

[39] We obtain similar results for log size, not included due to space considerations (skewness provides a more complete characterization of the data).

intensity of our data provider and capital flows, generating apparent correlations between observed industry characteristics and capital mobility.

3.4 Endogeneity

Important concerns related to the previous findings include whether a potential omitted third factor explains the relation between the different measures of entrepreneurship and international financial integration and whether reverse causality might be driving our results. We take different steps to mitigate these concerns.[40]

First, the extensive robustness analysis undertaken in Appendix B suggests the relation between entrepreneurship and international financial integration not to be determined by an omitted third factor. Second, we use in addition to *de facto* measures *de jure* measures that are less likely to be subject to reverse causality.[41] Third, we analyze firm/industry characteristics as opposed to country characteristics and test effects controlling for the different sectors. Fourth, we use as an imperfect proxy of forward-looking growth opportunities (growth forecasts from the EIU).[42] Reassuringly, as shown in Table B1, column (6), our results are robust to including this measure.

We also run instrumental variable (IV) regressions using instruments that are not subject to reverse causality. La Porta et al. (1998) examine the laws that govern investor protection, the enforcement of these laws, and the extent of concentration of firm ownership across countries. Most countries' legal rules, either through colonialism, conquest, or outright borrowing, can be traced to one of four distinct European legal systems: English common law, French civil law, German civil law, and Scandinavian civil law. The authors find that countries with different legal histories o offer different types of legal protection to their investors. These legal origin variables have been increasingly adopted as exogenous determinants of international financial liberalization and domestic financial development. The last column in Table B3 presents IV results

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[40] In section 2.2.1, we discuss potential sampling biases and the different ways we addressed these concerns.

[41] In particular, it might be possible that policy makers liberalize at a time when the world economy is booming or after they observe good economic outcomes. But this does not seem to be borne out by the facts. Henry (2000), for example, shows that countries do not pursue stock market liberalization in response to investment booms, and Bekaert, Harvey, and Lundblad (2005) find, using a probit analysis, that past GDP growth cannot explain liberalization.

[42] One potential concern is that the data set is for a good year in the international arena (2004). As well as analyzing the differences between the two time periods, we rerun our cross-section specifications with our 1999-2000 data set (post Asia and Russia crises, during the Brazil crisis, and before Turkey and Argentina crises) obtaining similar results.

using the legal origin variables.[43] Criticism of these instruments notwithstanding, overall, the IV regression supports the conclusions drawn from the OLS regressions.

Finally, as explained before, in Appendix C we also follow the methodology of Rajan and Zingales (1998) and focus on cross-industry, cross-country interaction effects. This methodology allows correcting for country and industry characteristics and as the authors explain, it is less subject to criticism about omitted variable bias or model specification. Similarly, our difference in difference results further ease concerns about endogeneity biases.

Notwithstanding the battery of robustness tests, we acknowledge the difficulties of establishing causation. At our most cautious, we can conclude that we find a robust positive correlation between capital mobility and entrepreneurship.

4 Channels

The Dun & Bradstreet data enable us to investigate possible channels through which international financial integration might affect entrepreneurial activity. That is, whether capital mobility affects entrepreneurship through a change in the activity of domestically-owned firms in contact with foreign firms (an FDI channel) or through the availability of resources (a capital/credit availability channel).

4.1 FDI Channel

We first test for the effect of international financial integration on entrepreneurial activity through foreign firms' (FDI) influence on the creation of new domestic firms. Our data contain information on the nationality of each firm's ownership, which enables us to directly test the FDI channel through the presence of foreign-owned firms. Initially, we investigate the effects of foreign firms on new domestically-owned firms in the same industry. Specifically, we run:

$$Domestic\,Entry_{ic} = \alpha\,Share\,of\,Foreign\,Firms_{ic} + \beta X_c + \delta_i + \varepsilon_{ic}\ (3)$$

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[43] First stage results indicate that the legal origin variables are, individually and jointly, significant determinants of the IMF index.

where *Domestic Entry$_{ic}$* refers to the percentage of new domestic firms in sector *i* in country *c*. The *Share of Foreign Firms$_{ic}$* in sector *i* is the number of foreign firms calculated as total firms in industry *i* in country *c*. X_c represents country-level controls.[44]

In columns (1) and (4) of Table 8, we find the presence of foreign firms to have a positive effect on entrepreneurial activity by domestically-owned firms in the same industry. An increase in the share of foreign firms equivalent to moving from an industry in the 25th percentile of the distribution of foreign presence to an industry in the 75th percentile is associated with an increase in the percentage of new domestic firms in the industry by 4.68 points, or a 103 percent increase over an industry with mean levels of foreign firms. There is a large literature examining horizontal spillovers from FDI. Caves (1974), Blomstrom and Persson (1983), and Haskel, Pereira, and Slaughter (2002), for instance, find a positive correlation between foreign presence and sectoral productivity, and Haddad and Harrison (1993) and Aitken and Harrison (1999) find little evidence of horizontal spillovers to domestic firms. The positive effects of FDI are often attributed to the replacement effect of productive multinationals forcing domestic firms to exit. Both the positive and negative effects of FDI are consistent with industrial restructuring and, ultimately, firm turnover. We find evidence that the existence of multinational firms increases the rate of domestic firm creation. This might reflect changes in the industry resulting from large new entrants increasing their market share at the expense of some firms and creating new opportunities for others.

We also test whether our measures of domestic activity are correlated with the presence of multinational firms in upstream and downstream sectors. Given the difficulty of finding input and output matrices for all the countries in our data, we use U.S. input and output (IO) matrices from the U.S. Bureau of Economic Analysis following Acemoglu, Johnson, and Mitton (2005). As the authors explain, IO tables from the U.S. should be informative about input flows across industries in our different sample of countries as long as they are determined by technology. For example, in all countries, car makers use tires, steel and plastic from plants specialized in the production of these intermediate inputs. Hence, for industry i in country c we calculate the presence of foreign firms in all industries j in country c which are downstream of industry i as:

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[44] Note that in this case, both our variable of interest and the dependent variable are aggregated at the industry level. Regressions are weighted by number of firms.

$$Down \ Stream \ \Pr esence_{ic} = \sum_{j} \left(Z_{ji\_US} \times W_{jc} \right) \quad (4)$$

where W_{jc} is the total number of foreign firms in industry j in country c as a percentage of the total number

of firms in industry j in country c. Z_{jc} is an input-output coefficient—we use the ratio of the inputs in

industry j sourced from industry i in the United States to the total output of industry i in the United States

according to the BEA 4-digit SIC direct input output tables. Thus, the presence of foreign firms downstream

from industry i is weighted by the volume of goods they purchase from industry i. We estimate the

following relation:

$$Domestic \ Entry_{ic} = \alpha \ Down \ Stream \ \Pr esence_{ic} + \beta X_c + \delta_i + \varepsilon_{ic} \quad (5)$$

We estimated as well a similar regression for upstream presence.

In columns (2)-(3) and (5)-(6) of Table 8, we investigate the effect of forward and backward

linkages on the creation of new domestic firms (domestic entry) and skewness of the firm-size distribution

of domestic firms.[45] Columns (2) and (3) show positive and significant the effect of foreign presence on

upstream and downstream sectors. In this case, the interquartile change in foreign ownership in upstream

industries is associated with a 14% increase over mean entry and the same change in downstream industries

is associated with a 72% increase over the mean entry. Columns (4) and (6) suggest the presence of foreign

firms to have a significant and positive effect on the skewness of domestic downstream activities while the

effect on upstream activities was not significant at standard levels. Overall, these results are broadly

consistent with the evidence of vertical spillovers from FDI.[46] Firm entry (and exit) might be increased if

multinational firms' demand for intermediate goods increases or their more stringent requirements for

product standards and on-time delivery create opportunities for new firms with better technology or better

operations. This is consistent with case study evidence from Hobday (1995), who found that foreign

investments in East Asia encouraged hundreds of domestic firms to supply components or assembly

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[45] Note that for the industries upstream and downstream the variable is the number of foreign firms in the up/down industry weighted by the IO coefficient between the industries (which are in the range of 0.001-0.005). Hence, the coefficients between "same" (which is the number of domestic firms in the same sector) and "up" and "down" sectors are not directly comparable.

[46] Gorg and Strobl (2002) find that foreign presence encourages entry by domestic-owned firms in the high-tech sector in Ireland. Javorcik (2004) finds that FDI fosters spillovers through backward linkages in Lithuania although her work does not analyze firm entry patterns.

services. Overall, although our data do not permit to correct for some of the concerns associated with cross-section analysis, our results are consistent with our previous findings.

4.2 Capital/Credit Availability Channel

In addition to an FDI channel, we also investigate the possibility that capital mobility affects entrepreneurship through the availability of resources (i.e. a capital /credit availability channel). There is considerable evidence suggesting that financing constraints are important determinants of firm dynamics. We investigate whether firm activity in industries which are more reliant on external finance are positively or negatively affected by our measures of international financial integration. We divide our sample into those industries with high dependence on external finance as defined by Rajan and Zingales (1998).[47] We run the following appended specification:

$$\mathrm{E}_{ic} = \alpha K_c + \theta K_c \times High\ External\ Finance_i + \beta X_c + \delta_i + \varepsilon_{ic} \quad (6)$$

where *High External Finance* is a dummy that takes the value of 1 for high financial dependence industries. We run this specification across *de jure* (the IMF index) and three *de facto* measures of capital mobility. Table 9 reports our main results.[48] We find entrepreneurship in industries more reliant on external finance to be more sensitive to restrictions on capital mobility and more strongly affected by increased flows of finance. This result is robust to controlling for financial development proxied by domestic credit to GDP and stock market capitalization (not shown). Our results are also consistent with the findings of Harrison et al. (2004) that incoming FDI has a significant impact on investment cash flow sensitivities for domestically owned firms and firms with no foreign assets. The authors argue that their results are in line with the hypothesis that foreign investment is associated with a greater reduction of credit constraints on firms less likely to have access to international capital markets. This is plausible because incoming foreign investment provides an additional source of capital, freeing up scare domestic credit which can then be redirected towards domestic enterprises.

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[47] The authors identify an industry's need for external finance (the difference between investment and cash generated from operations) under two assumptions: (a) that U.S. capital markets, especially for the large, listed firms they analyze, are relatively frictionless enabling us to identify an industry's technological demand for external finance; (b) that such technological demands carry over to other countries. Following their methodology, we constructed similar data for the period 1999-2003 as explained in Appendix A.

[48] The lower number of observations in Table 9 relative to Table 6c is due to the lack of external finance measures for some industries.

5 Conclusions

Using a new data set of 24 million firms in nearly 100 countries, we found a positive relation between measures of capital account integration and entrepreneurial activity in a country. Concerns related to the data set and estimation notwithstanding, there is noteworthy consistency across our different specifications and robustness test. We also describe a number of plausible channels through which international financial integration might affect firm dynamism. One might argue that from a neoclassical perspective our results are to be expected. Access to foreign capital and improved risk sharing should encourage start-ups and foster opportunities in a country. But from a theoretical perspective, in light of empirical findings on capital account liberalization and growth, our results might seem surprising. We believe that more micro analysis is required to understand the effects of capital account openness in a country. It is worth emphasizing that this work is silent on growth and overall welfare effects of capital liberalization. However, at a minimum, the use of micro firm level data should enhance our general understanding of the process by which the effects of liberalization are transmitted to the real economy.

Data Appendix A. Data Description

a. The Dun and Bradstreet Data Set: Final Sample

We use data for 2004, excluding information lacking primary industry and year started. Our original data set included 118 countries. We excluded territories with fewer than 80 observations and those for which the World Bank provides no data (most were in Africa and had fewer than 20 firms). The final dataset of 24,606,036 establishments in 98 countries covers all economic sectors (SIC) with the exception of Public Administration (Division J, group 9) and sector 43 (United States Postal Service). We also dropped all establishments for which year started preceded 1900. When we estimated mean, median, and skewness, we dropped 6 observations that were clearly outliers: a firm with sales of 648.7 trillions in Denmark, a firm with sales of 219.3 trillions in Spain, a firm with sales of 219.3 billions in Spain, a firm with sales of 32.7 trillions in Germany, a firm with sales of 5,6 trillions in Lithuania, a firm with sales of 4.9 trillions in United Arab Emirates, a firm with sales of 352 billions in Nigeria, a firm with sales of 291 billions in Chad, a firm with sales of 291 billions in Angola, a firm with sales of 121 billions in Congo, and a firm with sales of 99

billions in Haiti. We retained data with certain information (e.g., employment) but missing other information (e.g., sales), which was the case mostly in less developed countries (Africa, in particular), our objective being to maximize the number of observations for these countries. The creation rate shows the number of establishments reporting starting year in 2003-2004 over all establishments. We define foreign firms as having an uppermost parent of a corporate family located in a country different from that in which the firm operates. In terms of sample biases, we discussed with Dun & Bradstreet the possibility of over-sampling in countries with lower levels of controls or higher capital mobility (such as foreign direct investment). The firm did not seem to believe this to be a bias in its sampling strategy. In the case of Czech Republic, a country with high sampling intensity, Dun & Bradstreet derives the bulk of its information from official registries.

b. Comparing Dun & Bradstreet Data and US Census Data

To give some sense of the coverage of the Dun & Bradstreet sample used in this study, we compare our data with that collected by the U.S. Census Bureau, Statistics of U.S. Businesses. The U.S. 2001-2002 business census recorded 24,846,832 establishments.[49] Our data include 6,185,542 establishments (from which we exclude establishments in the total sample without the year started). About three quarters of all U.S. establishments have no payroll. Most are self-employed persons operating unincorporated businesses that might or might not be the owner's principal source of income. The U.S. census records 7,200,770 'employer establishments' with total sales of $22 trillion. Our data include 4,293,886 establishments with more than one employee with total sales of $17 trillion. The U.S. census records 3.7 million small employer establishments (fewer than 10 employees). Our data include 3.2 million U.S. firms with more than one and fewer than 10 employees. In our data, 6.1 percent of establishments are new.[50] The U.S. Census reported 12.4 percent of establishments to be new in 2001-2002.[51, 52]

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[49] The unit of record in the Dun & Bradstreet data is the "establishment" (a single physical location where business is conducted or services or industrial operations are performed) as opposed to a "firm" (one or more domestic establishments under common ownership or control). The U.S. census collects information on establishments as well as firms.

[50] We define as new an establishment having a year started date less than two years previous.

[51] Establishment and Employment Changes from Births, Deaths, Expansions, and Contractions, http://www.census.gov/csd/susb/usst01_02.xls.

[52] For firms with 1-4 employees this was 15.9 percent, for firms with more than 500 employees 11 percent.

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c. Variable Description and Sources

Dependent Variables

Firm Level Data: From Worldbase - Dun & Bradstreet. In the analysis, we use 2 digit SIC-1987.

Skewness: Skewness of the firm employment distribution for each country/industry pair.

Size: (Log) of the average number of employees for each country/industry pair.

Entry: Number new firms (less than two years) divided by the total number of firms in the country/industry pair. We also calculate domestic new firms (the ration of domestically-owned new firms to total domestic firms).

Age: Average age of the firms in each country/industry pair.

Vintage: Weighted average of the age of the firms in each industry/country pair, the weights being the total number of employees.

Independent Variables

IMF's Capital Account Liberalization Index: From the IMF's Annual Report on Exchange Arrangements and Exchange Restriction (AREAER). The index considers controls to: capital market securities; money market instruments; collective investment securities; derivatives and other instruments; commercial credits; financial credits; guarantees, securities and financial backup facilities; direct investment; real estate transactions; personal capital transactions. For each indicator, a corresponding dummy variable takes the value of one if the restrictions is present in the country. The index is the average of the dummies.

Capital Inflows/GDP: From the IMF, International Financial Statistics. Capital Inflows are the sum of FDI, equity portfolio, debt and derivative flows. FDI: direct investment in reporting economy (line 78bed). Portfolio equity investment: equity security liabilities (line 78bmd). Derivative flows: financial derivative liabilities (line 78bxd). Debt flows: debt security liabilities (line 78bnd) and other investment liabilities (line 78bid). Data is calculated as a percentage of GDP in U.S. dollars (taken from the World Bank, World Development Indicators).

Inflows of Foreign Direct Investment/GDP: From the World Bank, World Development Indicators. FDI to GDP are inet inflows of investment to acquire a lasting management interest (10 percent or more of voting

stock) in an enterprise operating in an economy other than that of the investor. It is the sum of equity capital, reinvestment of earnings, other long-term capital, and short-term capital.

Gross Capital Flows/GDP: From the World Bank, World Development Indicators. Gross private capital flows to GDP are the sum of the absolute values of direct, portfolio, and other investment inflows and outflows recorded in the balance of payments financial account, excluding changes in the assets and liabilities of monetary authorities and general government.

Stock of Foreign Liabilities: From Lane and Milesi Ferretti (2006). The authors estimate stocks of portfolio equity and FDI based on the IMF, IFS flow data. In order to estimate FDI stocks, the authors cumulate flows and adjust for the effects of exchange rate changes. For portfolio equity stocks, they adjust for changes in the end of year U.S. dollar value of the domestic stock market. Data is reported as percentage of GDP.

Equity Flows/GDP: From the IMF, International Financial Statistics. Sum of FDI inflows and portfolio equity investment inflows as a percentage of GDP.

Net Capital Flows/GDP: From the IMF, International Financial Statistics. Net capital flows are the sum of changes in assets and liabilities on FDI, equity portfolio and debt. FDI: direct investment abroad (line 78bdd) and direct investment in reporting economy (line 78bed). Portfolio equity investment: equity security assets (line 78bkd) and equity security liabilities (line 78bmd). Derivative flows: financial derivative assets (line 78 bwd) and financial derivative liabilities (line 78bxd). Debt flows: debt security assets (IFS line 78bld) and debt security liabilities (line 78bnd) and other investment assets (line 78bhd) and other investment liabilities (line 78bid). Data reported as a percentage of GDP.

Macroeconomic Data: From the World Bank, World Development Indicators: (Log) GDP, (Log) GDP per capita, growth real GDP, volatility of growth (standard deviation of gdp growth for 2000-2004 divided by the period's mean), inflation (percent growth in the CPI), domestic credit to GDP, stock market capitalization to GDP, trade (exports plus imports over GDP). From the Economist Intelligence Unit: growth forecasts. Size of the informal sector as percentage of GDP in year 2000, from Schneider (2002).

Institutional Quality: From the International Country Risk Guide (ICRG), a monthly publication of Political Risk Services. Non-corruption (assessment of corruption within the political system; average yearly rating from 0 to 6, where a higher score means lower risk). Law and order (the law subcomponent is an assessment

of the strength and impartiality of the legal system; the order sub-component is an assessment of popular observance of the law; average yearly rating from 0 to 6, where a higher score means lower risk). Bureaucratic quality (institutional strength and quality of the bureaucracy; average yearly rating from 0 to 4, where a higher score means lower risk.).

Regulation: From the World Bank, World Development Indicators: number of days required to start a business; business disclosure index (0=less disclosure to 7=more disclosure); legal rights of borrowers and lenders index (0=less credit access to 10=more access).

Dependence on External Finance: Constructed by authors for 1999-2003 following Rajan and Zingales (1998). An industry's external financial dependence is obtained by calculating the external financing of U.S. companies using data from Compustat calculated as: (Capex-Cashflow)/Capex, where Capex is defined as capital expenditures and Cashflow is defined as cash flow from operations. Industries with negative external finance measures have cash flows that are higher than their capital expenditures.

d. Industry Codes: Standard Industrial Classification (SIC) - 1987 Version

A. Agriculture, Forestry, and Fishing: 01: Agricultural Production Crops; 02: Agriculture production livestock and animal specialties; 07: Agricultural Services; 08: Forestry; 09: Fishing, hunting, and trapping.

B. Mining: 10: Metal Mining; 12: Coal Mining; 13: Oil and Gas Extraction; 14: Mining and Quarrying Of Nonmetallic Minerals, Except Fuels.

C. Construction: 15: Building Construction General Contractors and Operative Builders; 16: Heavy Construction Other Than Building Construction Contractors; 17: Construction Special Trade Contractors.

D. Manufacturing: 20: Food and Kindred Products; 21: Tobacco Products; 22: Textile Mill Products; 23: Apparel and Other Finished Products Made From Fabrics and Similar Materials; 24: Lumber and Wood Products, Except Furniture; 25: Furniture and Fixtures; 26: Paper and Allied Products; 27: Printing, Publishing, and Allied Industries; 28: Chemicals and Allied Products; 29: Petroleum Refining and Related Industries; 30: Rubber and Miscellaneous Plastics Products; 31: Leather and Leather Products ; 32: Stone, Clay, Glass, And Concrete Products; 33: Primary Metal Industries; 34: Fabricated Metal Products, Except Machinery And Transportation Equipment; 35: Industrial And Commercial Machinery And Computer Equipment; 36: Electronic and Other Electrical Equipment And Components, Except Computer Equipment;

37: Transportation Equipment; 38: Measuring, Analyzing, and Controlling Instruments; Photographic, Medical And Optical Goods; Watches and Clocks; 39: Miscellaneous Manufacturing Industries.

E. Transportation, Communications, Electric, Gas, And Sanitary Services: 40: Railroad Transportation; 41: Local and Suburban Transit and Interurban Highway Passenger Transportation; 42: Motor Freight Transportation and Warehousing; 44: Water Transportation; 45: Transportation by Air; 46: Pipelines, Except Natural Gas; 47: Transportation Services; 48: Communications; 49: Electric, Gas, and Sanitary Services.

F. Wholesale Trade: 50: Wholesale Trade-durable Goods; 51: Wholesale Trade-non-durable Goods.

G. Retail Trade: 52: Building Materials, Hardware, Garden Supply, and Mobile Home Dealers; 53: General Merchandise Stores; 54: Food Stores; 55: Automotive Dealers And Gasoline Service Stations; 56: Apparel And Accessory Stores; 57: Home Furniture, Furnishings, And Equipment Stores; 58: Eating And Drinking Places; 59: Miscellaneous Retail.

H. Finance, Insurance, and Real Estate: 60: Depository Institutions; 61: Non-depository Credit Institutions; 62: Security and Commodity Brokers, Dealers, Exchanges, and Services; 63: Insurance Carriers; 64: Insurance Agents, Brokers, and Service; 65: Real Estate; 67: Holding and Other Investment Offices.

I. Services: 70: Hotels, Rooming Houses, Camps, And Other Lodging Places; 72: Personal Services; 73: Business Services; 75: Automotive Repair, Services, and Parking; 76: Miscellaneous Repair Services; 78: Motion Pictures; 79: Amusement And Recreation Services; 80: Health Services; 81: Legal Services; 82: Educational Services; 83: Social Services; 84: Museums, Art Galleries, And Botanical And Zoological Gardens; 86: Membership Organizations; 87: Engineering, Accounting, Research, Management, and Related Services; 88: Private Households; 89: Miscellaneous Services.

Appendix B. Robustness Checks

We performed additional robustness checks on the regressions results in (1). Table B1 presents the results of equation (1) using skewness as proxy for entrepreneurship and the IMF index in columns (1) to (4) and capital inflows in columns (5) to (6), as measures of international financial integration. The table shows the coefficient of the capital mobility measures to be relatively stable across specifications which consider

different main controls. We obtain similar results using the other measure of entrepreneurship and proxies for international financial integration.

As Table B2 shows, our main results are robust to controlling for other measures of regulation, financial development and macro economic conditions. In columns (1)-(3), we control for indices of borrowers' and lenders' rights and business disclosure from the World Bank as additional proxies for regulation, and domestic credit to GDP and stock market capitalization as proxies for financial development. Our results are also robust to controlling for M3/GDP as another proxy for financial development (not shown). Column (4) controls for inflation as a measure of macroeconomic instability while column (5) uses GDP volatility. In columns (6) we use the EIU growth forecasts as an imperfect measure of exogenous growth opportunities. As shown in column (7), our results are robust to the inclusion of the value of the trade openness defined as the sum of exports and imports as a share of output. Column (8) controls for the share of the informal sector in the economy obtaining similar results (these data, however, were available for a wide range of countries for 2000 only). Controlling for the (the log) of population (as an alternative proxy for scale) and for education levels (share of primary school) yielded similar results (not shown).

Columns (1)-(2) in Table B3 show our results to be robust to using as additional proxies for entrepreneurship: firm age and firm vintage. Column (3) presents non-weighted results. An additional concern is that our results may be driven by considering establishments as the unit record. Column (4), however, shows our results robust to using only wholly owned firms when calculating our entrepreneurship measures (the table shows skweness results).[53] Our results are also robust to alternative measures of *de facto* financial integration such as net flows to GDP in column (5) and equity flows in column (6). Column (7) presents IV results using LLSV variables as instruments for the international financial integration measure.

Another concern is that our results may be driven by different sampling intensities in different countries. It might be the case, for example, that countries with higher sampling intensity have disproportionately more small firms. Column (1) in Table B4, which controls for the number of firms sampled in each country, suggests this not to be the case. As mentioned, our results are also weighted. In addition, table B4 shows our results to be robust to using only the manufacturing sector in column (2), only

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[53] That is, we exclude from the sample establishments that report to domestic parents. Our results were similar when considering domestic parents and subsidiaries as a single entity and using other the measures of entrepreneurship.

rich countries in column (3), excluding the United States from the sample in column (4), and adding regional dummies in column (5).

In terms of the differences in differences approach, Table B5, column (1) shows the coefficients of the capital mobility measures to be similar across alternative specifications. Moreover, column (1) in Table B6 shows the results to be robust to controlling for changes in the sampling intensity (defined as percentage change in the number of firms established before 2000 in the two samples) further reducing concerns that are results are driven by the sample frame. Moreover, Table B5 shows our results to be robust to (1) using only the manufacturing sector, (2) using only rich countries, and (3) excluding the United States.

Appendix C. Rajan and Zingales' (1998) Methodology

We follow the methodology of Rajan and Zingales (1998) and Klapper, Laeven, and Rajan (2005) and focus on cross-industry, cross-country interaction effects. This methodology, as explained by the authors, enables us to address issues associated with country effects.[54] We run:

$$\mathrm{E}_{ic} = \theta(Z_i \times K_c) + \delta_i + \gamma_c + \varepsilon_{ic} \quad (A.1)$$

where E_{ic} corresponds to the entrepreneurial activity measure in industry i of country c, δ_i represents industry dummies, and γ_c corresponds to country level dummies. The industry indicators correct for industry-specific effects; country dummies correct for country-specific variables. The focus of analysis is on the interaction term θ between a country characteristic (K_c) and an industry characteristic, Z_i. For country characteristics, we use the capital mobility measures. For industry characteristics, we use the United States as a proxy for the "natural" entrepreneurial activity in an industry reflecting technological barriers in that industry like economies of scale. "Of course, there is a degree of heroism in assuming that entry in the United States does not suffer from artificial barriers," write Klapper, Laeven, and Rajan (2005, p.17). But the methodology requires only that rank ordering in the United States correspond to the rank ordering of natural barriers across industries, and the latter rank ordering correspond to that of other countries.

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[54] This is equivalent to de-meaning the variables using their industry and country averages and thus removing some of the sample selection problems. The interpretation of a positive coefficient on the interaction term would be that in countries with above average capital mobility, industries with above average "country characteristics" have higher than average rates of firm entry. For a detailed description of their methodology, see Rajan and Zingales (1998).

Focusing on entry and the skewness of the firm size-distribution, we find the coefficient on the interaction term θ to be positive and significant for the different proxies of capital integration. Moreover, the magnitude of the relationship is economically significant. For example, a change in the IMF index equivalent to an increase from the 25th to the 75th percentile in our sample (0.61) reduces the percentage of new firms in an industry with average levels of entry in the U.S. (textiles, 4.5 percent) by 15%. Similar interquantile changes for the inflows of capital and inflows of foreign investment variables are associated with increases of 10% and 8% respectively.

References

Acemoglu, Daron, Simon Johnson, and Todd Mitton, 2005. "Determinants of Vertical Integration: Finance, Contracts and Regulation," NBER Working Paper 11424.

Acemoglu, Daron and Fabrizio Zilibotti, 1997. "Was Prometheus Unbound by Chance? Risk, Diversification and Growth," *Journal of Political Economy* 105, 709-751.

Aghion, Philippe and Peter Howitt, 1998. *Endogenous Growth Theory*. MIT Press: Cambridge.

Aitken, Brian J. and Ann E. Harrison, 1999. "Do Domestic Firms Benefit from Direct Foreign Investment? Evidence from Venezuela," *American Economic Review* 89, 605-618.

Alfaro, Laura, Sebnem Kalemli-Ozcan, and Vadym Volosovych, 2006. "Capital Flows in a Globalized World: The Role of Policies and Institutions," in Sebastian Edwards, editor, *Capital Controls and Capital Flows in Emerging Economies: Policies, Practices and Consequences*. Forthcoming.

Alfaro, Laura, Steven McIntyre, and Vinati Dev, 2005. "Foreign Direct Investment and Ireland's Tiger Economy," Harvard Business School Case 705-009.

Bartelsman, Eric J., John Haltiwanger, and Stefano Scarpetta, 2004. "Microeconomic Evidence of Creative Destruction in Industrial and Developing Countries," mimeo.

Beck, Thorsten, Asli Demirguc-Kunt, Luc Laeven, and Ross Levine, 2006. "Finance, Firm Size and Growth," mimeo.

Bekaert, Geert, C. Harvey, and Christian Lundblad, 2005. "Does Financial Liberalization Spur Growth?" *Journal of Financial Economics* 77, 3-55.

Bhagwati, Jagdish, 1998. "The Capital Myth," *Foreign Affairs* 77, 3 (May-June): 7-12.

Black, Sandra E. and Philip E. Strahan, 2002. "Entrepreneurship and Bank Credit Availability," *Journal of Finance* 57, 2807-2833.

Blomstrom, Magnus and Hakan Persson, 1983. "Foreign Investment and Spillover Efficiency in an Underdeveloped Economy: Evidence from the Mexican Manufacturing Industry," *World Development* 11, 493-501.

Caballero, Ricardo, 2006. "Creative Destruction," in *The New Palgrave* (forthcoming).

Cabral, Luis and Jose Mata, 2003. "On the Evolution of the Firm Size Distribution: Facts and Theory," *American Economic Review* 93, 1075-1090.

Card, David and Alan B. Krueger, 1994. "Minimum Wages and Employment: A Case Study of the Fast-Food Industry in New Jersey and Pennsylvania," *American Economic Review* 84, 772-793.

Caves, Richard E, 1974. "Multinational Firms, Competition and Productivity in Host-Country Markets," *Economica* 41, 176-193.

Chari, Anusha and Peter B. Henry, 2004. "Risk Sharing and Asset Prices: Evidence from a Natural Experiment," *Journal of Finance* 59, 1295-1324.

Cooley, Thomas F. and Vincenzo Quadrini, 2003. "Common Currencies vs. Monetary Independence," *Review of Economic Studies* 70, 785-806.

Davis, Steven J., R. Jason Faberman, and John C. Haltiwanger, 2006. "The Flow Approach to Labor Markets: New Data Sources and Micro-Macro Links," NBER Working Paper 12167.

Desai, Mihir, Paul Gompers, and Josh Lerner, 2003. "Institutions, Capital Constraints and Entrepreneurial Firm Dynamics: Evidence from Europe," NBER Working Paper 10165.

Dunne, Timothy and Mark J. Roberts, 1991. "Variation in Producer Turnover across U.S. Manufacturing Industries," in P. A. Geroskiand and J. Shwalbach, editors, *Entry and Constestability: An International Comparison*, Blackwell, 197-203.

Eichengreen, Barry, 2001. "Capital Account Liberalization: What Do Cross-Country Studies Tell Us?" *The World Bank Economic Review* 15, 341-365.

Evans, David S. and Boyan Jovanovic, 1989. "An Estimated Model of Entrepreneurial Choice Under Liquidity Constraints," *Journal of Political Economy* 97, 808-827.

Evans, David S. and Linda S. Leighton, 1989. "Some Empirical Aspects of Entrepreneurship," *American Economic Review* 79, 519-535.

Fisman, Raymond and Virginia Sarria-Allende, 2005. "Regulation of Entry and the Distortion of Industrial Organization," mimeo.

Giannetti, Mariassunta and Steven Ongena, 2005. "Financial Integration and Entrepreneurial Activity: Evidence From Foreign Bank Entry in Emerging Markets," mimeo.

Gorg, Horg and Eric Strobl, 2002. "Multinational Companies and Indigenous Development: An Empirical Analysis," *European Economic Review* 46, 1305-1322.

Grossman, Gene, 1984. "International Trade, Foreign Investment, and the Formation of the Entrepreneurial Class," *American Economic Review* 74, 605-614.

Guiso, Luigi, Paola Sapienza, and Luigi Zingales, 2004. "Does Local Financial Development Matter?" *Quarterly Journal of Economics* 119, 929-969.

Haddad, Mona and Ann Harrison, 1993. "Are There Positive Spillovers from Direct Foreign Investment? Evidence from Panel Data for Morocco," *Journal of Development Economics* 42, 51-74.

Harrison, Ann, Inessa Love, and Margaret S. McMillian, 2004. "Global Capital Flows and Financing Constraints," *Journal of Development Economics* 75, 269-301.

Harrison, Ann and Margaret S. McMillian, 2003. "Does Foreign Direct Investment Affect Domestic Firms' Credit Constraints," *Journal of International Economics* 61, 73-100.

Haskel, Jonathan E., Sonia C. Pereira, and Matthew J. Slaughter, 2002. "Does Inward Foreign Direct Investment Boost the Productivity of Domestic Firms?" NBER Working Paper 8724.

Hausman, Ricardo and Dani Rodrik, 2003. "Economic Development as Self-Discovery," *Journal of Development Economics* 72, 603-633.

Henry, Peter. B., 2000. "Do Stock Market Liberalizations Cause Investment Booms?" *Journal of Financial Economics* 58, 301-334.

Hirschman, Albert, 1958. *The Strategy of Economic Development*, New Haven: Yale University Press.

Hobday, Michael, 1995. *Innovation in East Asia: The Challenge to Japan*. U.K.: Edward Elgar Publishing

Imbs, Jean, 2004. "Trade, Finance, Specialization and Synchronization." *Review of Economics and Statistics* 86, 723-734.

International Monetary Fund. *Annual Report on Exchange Arrangements and Exchange Restrictions*, various issues. Washington, DC: International Monetary Fund.

Javorcik, Beata S., 2004. "Does Foreign Direct Investment Increase the Productivity of Domestic Firms? In Search of Spillovers Through Backward Linkages," *American Economic Review* 94, 605-627.

Johnson, Simon, John McMillan, and Christopher Woodruff, 2002. "Property Rights and Finance," *American Economic Review* 92, 1335-1356.

Kalemli-Ozcan, Sebnem, Bent Sorensen, and Oved Yosh, 2003. "Risk Sharing and Industrial Specialization: Regional and International Evidence," *American Economic Review* 93, 903-918.

Klapper, Leora, Luc Laeven, and Raghuram Rajan, 2005. "Entry Regulation as a Barrier to Entrepreneurship," mimeo, University of Chicago.

Klepper, Steven and Elizabeth Graddy, 1990. "The Evolution of New Industries and the Determinants of Market Structure," *Rand Journal of Economics* 21, 27-44.

Knight, Frank, 1921. *Risk, Uncertainty and Profit*. Boston: Houghton Mifflin.

Kumar, Krishna, Raghu Rajan, and Luigi Zingales, 1999. "What Determines Firm Size?" C.E.P.R. Discussion Paper 2211.

La Porta, Rafael, Florencio Lopez-de-Silanes, Andrei Shleifer, and Robert W. Vishny, 1998. "Law and Finance," *Journal of Political Economy* 106, 1113-1155.

Lane, Philip R. and Gian Maria Milesi-Ferretti, 2006. "The External Wealth of Nations Mark II: Revised and Extended Estimates of Foreign Assets and Liabilities, 1970-2004," IMF Working Paper 06/69.

Markusen, James and Anthony J. Venables, 1999. "Foreign Direct Investment as a Catalyst for Industrial Development," *European Economic Review* 43, 335-338.

Obstfeld, Maurice, 1994. "Risk-Taking, Global Diversification and Growth," *American Economic Review* 84, 1310-1329.

The Political Risk Services Group, 2005. *International Country Risk Guide,* The PRS Group, New York.

Prasad Eswar, Kenneth Rogoff, Shang-Jin Wei, and M. Ayhan Kose, 2003. "The Effects of Financial Globalization on Developing Countries: Some Empirical Evidence," International Monetary Fund Occasional Paper 220.

Rajan, Raghuram and Luigi Zingales, 1998. "Financial Dependence and Growth," *American Economic Review* 88, 559-586.

Rodriguez-Clare, Andres, 1996. "Multinationals, Linkages and Economic Development," *American Economic Review* 86, 852-873.

Rodrik, Dani, 1998. "Who Needs Capital Account Convertibility?" *Princeton Essays in International Finance* 207: 55-65.

Say, J. B., 1803. *Treatise on Political Economy: On the Production, Distribution and Consumption of Wealth*, Kelley, New York: 1964 (1st edition: 1827).

Schneider, Friedrich, 2002. "Size and Measurement of the Informal Economy in 110 Countries Around the World," mimeo.

Schumpeter, Joseph A., 1942. *Capitalism, Socialism and Democracy.* London: Unwin University Books.

Stiglitz, Joseph, 2002. *Globalization and Its Discontent.* W.W. Norton.

World Bank, 2005, *World Development Indicators*, Washington D.C.: World Bank.

Table 1: Country Entrepreneurship Data: Summary Statistics—2004

Country	# Firms	Empl. Mean	Empl. Skewness	Age Mean	Entry	% Foreign Firms
Algeria	1,182	575	12	14	3.1	0.6
Angola	195	748	9	16	5.1	23.1
Argentina	8,627	107	17	17	4.7	8.3
Australia	653,466	28	191	18	0.2	0.5
Austria	207,939	11	84	18	5.5	1.6
Belgium	639,073	7	697	16	6.1	0.8
Bolivia	563	80	4	16	4.5	7.6
Bosnia-Herzegovina	170	89	4	17	2.6	1.8
Brazil	263,090	46	89	18	0.3	0.8
Bulgaria	2,196	169	19	9	6.6	3.0
Burkina-Faso	87	583	9	16	2.9	10.3
Cameroon	125	242	5	20	2.8	11.2
Canada	597,993	11	163	19	2.8	1.2
Chile	3,218	161	10	17	5.1	6.2
China	78,237	408	114	13	4.6	5.5
Colombia	2,898	147	8	21	3.3	7.5
Costa Rica	1,332	354	35	19	4.8	5.3
Croatia	979	106	11	17	1.8	1.3
Czech Republic	1,097,489	67	13	11	2.0	0.3
Denmark	404,637	4	335	12	13.0	0.7
Dominican Republic	1,536	177	13	19	2.7	2.9
Ecuador	1,024	147	8	19	4.4	6.9
Egypt	2,198	552	13	20	2.3	3.6
El Salvador	664	173	6	19	3.3	6.2
Estonia	1,383	87	8	11	2.2	18.7
Ethiopia	132	926	4	22	2.3	1.5
Finland	267,694	3	91	15	7.2	0.8
France	4,024,287	3	1,053	12	11.9	1.1
Gabon	76	139	4	21	3.3	11.8
Gambia	26	142	3	16	5.8	0.0
Georgia	106	205	7	9	5.7	1.9
Germany	1,228,884	17	502	19	5.4	1.0
Ghana	521	189	10	16	3.4	2.9
Greece	27,883	33	60	16	3.1	0.3
Guatemala	679	139	13	15	4.0	5.2
Honduras	450	163	5	19	3.3	7.6
Hungary	66,585	41	95	12	1.6	2.3
India	9,682	637	88	20	1.8	2.1
Indonesia	682	688	10	18	2.1	9.2
Iran	1,226	476	10	19	4.0	0.2
Ireland	17,429	60	36	23	1.7	5.8
Israel	68,164	25	62	19	0.9	0.0
Italy	1,181,012	6	374	18	1.6	0.2
Jamaica	424	153	6	21	2.6	5.9
Japan	1,356,841	20	650	26	5.9	0.2
Jordan	734	119	9	15	5.4	0.3
Kenya	1,111	266	13	21	1.5	4.3
Korea South	156,168	14	144	5	19.9	0.1
Kuwait	922	337	8	20	4.6	0.5
Latvia	1,386	110	18	9	9.1	15.9

cont.

Table 1: Country Entrepreneurship Data: Summary Statistics—2004 (*Continued*)

Country	# Firms	Empl. Mean	Empl. Skewness	Age Mean	Entry	% Foreign Firms
Lebanon	921	72	7	14	7.4	0.8
Lithuania	1,248	155	16	12	3.6	5.7
Madagascar	124	591	8	20	3.2	6.5
Malaysia	23,118	102	31	17	1.7	3.9
Mauritius	358	253	4	21	2.2	0.3
Mexico	23,817	123	23	17	2.9	8.1
Morocco	2,295	202	17	20	4.4	4.2
Mozambique	159	616	9	17	3.1	18.2
Netherlands	1,042,095	8	184	13	12.5	1.2
New Zealand	50,541	20	58	18	1.9	2.7
Nicaragua	213	104	3	19	2.6	7.5
Nigeria	1,088	254	11	19	2.3	3.3
Norway	168,981	10	114	14	10.8	3.3
Oman	405	806	8	17	4.0	0.7
Panama	1,250	125	16	18	5.1	7.9
Papua New Guinea	102	386	4	26	0.5	19.6
Paraguay	411	118	9	18	3.9	7.1
Peru	7,746	77	10	14	6.8	2.4
Philippines	1,718	303	6	17	6.1	6.1
Poland	4,619	114	16	13	1.2	15.2
Portugal	488,633	5	103	13	7.2	0.5
Romania	3,877	244	25	10	9.5	15.3
Saudi Arabia	1,850	935	12	20	3.4	0.8
Senegal	237	176	6	21	4.4	3.0
Singapore	63,277	30	38	13	9.1	3.9
Slovakia	4,466	164	17	12	4.4	19.4
Slovenia	3,265	73	15	18	2.5	2.8
Spain	320,577	7	96	11	10.5	0.1
Sudan	135	1,275	11	20	4.8	2.2
Sweden	825,988	4	247	13	9.3	1.0
Switzerland	271,689	30	160	16	6.7	2.7
Syria	441	456	13	21	2.8	0.2
Tanzania	179	257	5	15	2.0	6.1
Thailand	1,471	443	8	16	2.9	5.8
Togo	59	160	4	20	3.4	6.8
Trinidad & Tobago	563	176	12	21	2.2	3.4
Tunisia	2,289	225	33	15	4.3	1.5
Turkey	10,467	761	10	11	11.6	4.0
Uganda	154	480	6	19	2.3	7.8
United Arab Emirates	5,407	674	13	12	9.2	6.9
United Kingdom	893,589	19	424	19	3.3	1.7
Uruguay	934	107	12	20	3.7	10.0
USA	7,389,228	9	2,351	18	6.1	0.2
Venezuela	2,134	130	7	22	2.4	7.8
Vietnam	114	1,073	10	10	7.5	1.8
Yemen	189	981	4	23	1.1	1.1
Zambia	112	1,215	10	19	4.9	14.3
Zimbabwe	98	375	4	26	4.6	4.1

Notes: Summary statistics correspond to D&B Data Set of 24 million firms for 2004. Counts do not consider SIC 9 (public sector) and industry 43. Entry corresponds to the percentage of new firms to total firms. See Appendix A for detailed data description.

Table 2: Industry Entrepreneurship Data Summary Statistics—2004

SIC	# Firms	Sales Mean (U.S.$)	Employ. Mean	Employ. Skew.	Age Mean	Entry	% Foreign Firms	SIC	# Firms	Sales Mean (U.S.$)	Sales Skew.	Employ. Mean	Employ. Skew.	Age Mean	Entry	% Foreign Firms
01	713,580	371,031	3	435	20	3.26	0.02	46	3,402	112,349,111	17	59	7	14	2.59	0.38
02	428,394	354,196	2	105	20	3.95	0.01	47	213,269	4,307,284	90	14	92	13	7.11	1.13
07	295,844	526,947	5	120	15	6.90	0.03	48	79,048	20,836,546	81	49	158	10	12.26	0.98
08	128,309	431,695	3	178	11	8.96	0.04	49	94,020	26,437,706	65	52	59	17	6.38	0.86
09	27,370	1,070,338	8	53	16	5.41	0.15	50	1,145,973	6,793,763	823	14	465	16	6.02	1.26
10	6,630	36,115,356	176	28	17	2.29	1.61	51	939,051	8,613,254	220	15	453	16	4.83	0.69
12	2,219	37,816,832	768	12	20	2.66	1.01	52	181,317	1,855,490	255	7	252	19	4.41	0.17
13	22,876	54,532,790	106	88	19	4.08	1.29	53	59,883	25,936,266	179	34	112	15	8.78	0.22
14	19,904	7,361,145	34	121	22	4.09	1.45	54	510,605	3,017,759	136	9	418	15	6.84	0.25
15	696,335	1,901,223	8	650	18	6.40	0.05	55	393,621	4,342,818	131	10	366	19	4.98	0.32
16	206,270	4,971,769	23	267	24	4.32	0.22	56	394,170	1,116,349	242	5	126	16	7.75	0.29
17	1,765,406	137,907,664	6	473	17	6.50	0.07	57	406,919	1,608,978	444	6	271	18	6.13	0.26
20	208,737	12,668,835	40	126	19	6.12	0.62	58	987,537	661,171	241	8	176	13	8.33	0.19
21	1,009	129,953,155	380	11	21	5.15	6.10	59	1,284,587	431,245,780	728	4	830	15	7.55	0.23
22	70,833	4,910,092	68	37	20	3.65	0.57	60	60,375	54,469,078	132	85	43	26	5.39	1.85
23	127,738	2,907,002	32	48	16	5.00	0.22	61	82,477	12,645,087	142	18	176	12	9.52	0.84
24	165,074	3,159,681	16	162	17	3.54	0.16	62	101,485	7,669,455	112	19	146	12	13.15	0.69
25	93,738	2,704,394	18	42	18	4.45	0.30	63	44,338	438,666,659	169	99	78	20	5.69	1.86
26	30,691	21,072,167	74	45	22	3.66	2.08	64	217,775	2,285,519	367	7	210	17	5.24	0.24
27	240,919	3,598,782	18	453	18	5.85	0.36	65	1,147,555	1,103,200	515	5	822	16	9.93	0.21
28	72,077	29,874,511	89	60	19	5.48	3.31	67	556,167	13,814,174	258	35	205	14	8.91	0.65
29	5,344	188,566,761	320	66	20	4.02	2.78	70	237,768	1,444,980	116	15	148	17	5.12	0.24
30	72,595	9,534,537	57	55	20	3.51	1.81	72	897,896	325,497	263	4	177	14	7.19	0.07
31	29,394	3,203,448	49	24	19	3.41	0.55	73	1,878,877	4,724,003	1,175	11	236	11	9.22	0.47
32	91,907	6,933,111	39	91	20	4.41	1.29	75	503,720	778,447	289	5	219	17	4.78	0.21
33	46,587	24,965,634	120	49	20	4.03	1.65	76	317,479	578,566	348	5	314	16	6.14	0.16
34	279,551	4,085,868	24	82	19	3.48	0.55	78	112,650	1,455,396	177	6	123	12	9.10	0.21
35	227,043	9,654,378	38	75	20	4.65	1.42	79	576,247	1,212,539	332	10	667	14	9.34	0.04
36	150,398	40,090,440	84	42	16	5.32	1.66	80	866,390	1,617,395	314	16	82	16	5.42	0.03
37	56,890	65,109,353	103	61	19	5.75	1.93	81	244,511	597,825	298	6	162	18	4.09	0.02
38	72,627	9,876,270	40	241	17	5.50	1.54	82	310,302	2,755,343	175	27	111	19	6.43	0.06
39	130,857	2,160,329	16	59	16	5.54	0.32	83	318,884	911,584	84	16	161	17	5.71	0.03
40	1,894	96,294,822	417	19	19	5.86	2.11	84	18,920	907,950	18	10	23	21	5.26	0.06
41	150,949	1,710,587	31	349	15	6.71	0.23	86	627,854	1,017,928	275	8	387	24	4.08	0.01
42	372,994	2,402,695	12	287	16	6.34	0.29	87	1,571,535	1,530,838	419	8	284	12	8.43	0.30
44	35,435	8,918,267	29	89	18	6.34	0.88	88	3,757	392,338	23	2	31	6	22.85	0.00
45	18,339	41,512,170	94	50	15	5.27	1.70	89	131,361	771,817	79	8	182	12	10.67	0.18

Notes: Notes: Summary statistics correspond to D&B Data Set of 24 million firms for 2004. Counts do not consider SIC 9 (public sector) and industry 43. Entry corresponds to the percentage of new firms. See Appendix A for detailed data description.

Table 3: Summary Statistics for Capital Mobility—2004

Country	De Jure IMF Index	De Facto Capital Inflows/GDP	De Facto FDI Inflows/GDP	De Facto Foreign Liabilities/GDP	De Facto Gross Capital Flows/GDP	De Facto Net Capital Flows/GDP
Algeria	0.917		1.042	36.185		
Angola	0.846	6.983	7.409	138.803	25.735	-3.236
Argentina	0.615	-5.034	2.669	135.792	15.634	-12.983
Australia	0.769	11.092	6.664	145.651	32.016	8.592
Austria	0.308	20.562	1.376	205.214	41.900	-0.775
Belgium	0.154	37.291	11.376	394.311	73.485	-7.038
Bolivia	0.308	3.470	1.328	133.344	5.029	3.706
Bosnia-Herzegovina	0.462		7.181	82.474	21.790	
Brazil	0.538	1.432	3.008	77.587	8.788	-1.334
Bulgaria	0.462	17.730	8.310	110.525	29.591	12.081
Burkina-Faso	1.000		0.726	40.715		
Cameroon	0.923		0.002	56.257		
Canada	0.154	4.376	0.643	111.613	13.984	0.465
Chile	0.462	7.165	8.079	118.219	21.499	-6.122
China	0.923	5.387	2.844	47.403	9.985	6.751
Colombia	0.846	4.499	3.123	70.749	10.887	2.755
Costa Rica	0.000	4.475	3.350	68.744	12.316	3.976
Croatia	0.846	14.072	3.622	126.210	20.844	9.534
Czech Republic	0.385	11.785	4.162	98.606	19.622	8.884
Denmark	0.154	2.003	-3.647	207.762	37.962	-13.973
Dominican Republic	0.615	3.603	3.455	88.038	13.521	1.188
Ecuador	0.231	6.177	3.832	99.613	13.081	1.059
Egypt	0.462	1.602	1.591	77.683	13.258	-5.358
El Salvador	0.231	4.497	2.944	97.246	12.461	4.590
Estonia	0.308	28.934	9.330	194.070	51.933	21.678
Ethiopia	0.846	4.185	6.811	109.375	3.987	0.914
Finland	0.385	12.853	1.654	207.551	42.103	-12.821
France	0.154	19.763	1.198	206.368	26.102	-3.513
Gabon	1.000		4.465	66.398		
Gambia	0.154		14.455			
Georgia	0.167	10.138	9.595	93.503	12.359	8.958
Germany	0.077	6.444	-1.274	159.067	27.421	-4.765
Ghana	0.769	4.246	1.570	131.620	6.783	2.273
Greece	0.231	14.211	0.660	140.271	32.346	11.842
Guatemala	0.231	4.498	0.564	39.418	11.564	7.092
Honduras	0.615	9.382	3.975	115.248	7.986	9.764
Hungary	0.154	11.120	4.576	138.969	24.692	18.807
India	1.000		0.772	34.320		
Indonesia	0.846	1.163	0.397	76.452	4.564	2.414
Iran	1.000		0.306	12.325		
Ireland	0.154	134.261	6.079	949.880	314.072	-2.871
Israel	0.154	5.049	1.424	116.012	18.682	-3.192
Italy	0.154	6.432	1.000	123.625	10.430	2.403
Jamaica	0.417	28.593	6.786	146.729	45.506	14.784
Japan	0.154	4.733	0.169	50.989	14.374	0.983
Jordan	0.231	4.950	5.387	105.826	18.125	-5.595
Kenya	0.462	2.636	0.286	51.437	7.249	-0.166
Korea South	0.846	4.347	1.205	56.600	8.546	2.620
Kuwait	0.538	-0.018	-0.037	25.267	35.804	-60.182
Latvia	0.308	28.552	5.149	122.556	43.069	16.238

cont.

Table 3: Summary Statistics for Capital Mobility—2004 (*Continued*)

Country	*De Jure* IMF index	*De Facto* Capital Inflows/GDP	*De Facto* FDI Inflows/GDP	*De Facto* Foreign Liabilities/GDP	*De Facto* Gross Capital Flows/GDP	*De Facto* Net Capital Flows/GDP
Lebanon	0.615	31.954	1.323	243.293		32.373
Lithuania	0.385	10.095	3.473	71.972	19.420	6.075
Madagascar	1.000		1.031	119.808		
Malaysia	0.923	16.061	3.908	113.051		10.630
Mauritius	0.308	2.360	0.230	34.480	6.460	-0.466
Mexico	0.769	2.889	2.569	63.368	6.897	3.158
Morocco	0.846	1.087	1.537	80.127	7.558	1.282
Mozambique	1.000	1.110	4.021	108.767	7.919	-1.181
Netherlands	0.077	-6.413	0.065	408.345	66.604	-14.714
New Zealand	0.154	10.038	2.296	154.822	15.448	15.352
Nicaragua	0.231	1.570	5.489	132.920	6.088	1.339
Nigeria	1.000	0.000	0.000			
Norway	0.385	15.223	0.201	140.781	31.751	-19.622
Oman	0.333	6.836	-0.070	32.373	8.615	5.217
Panama	0.000	18.218	7.369	207.828	39.017	4.210
Papua New Guinea	1.000		0.651	128.898		
Paraguay	0.077	1.737	1.259	63.630	3.433	1.538
Peru	0.154	4.061	2.646	83.622	6.769	4.654
Philippines	0.923	1.075	0.555	97.969	13.703	-5.444
Poland	0.769	9.219	5.206	84.914	18.084	7.263
Portugal	0.385	15.907	0.492	245.704	37.566	6.307
Romania	0.385	15.857	7.435	65.314	14.225	13.982
Saudi Arabia	0.769	0.472		25.072	19.964	-29.567
Senegal	1.000		0.900	75.584		
Singapore	0.385	44.971	15.009	424.184	116.893	-22.673
Slovakia	0.231	0.000	2.731	97.037		
Slovenia	0.538	11.440	2.570	84.430	22.407	-0.154
Spain	0.154	18.345	1.596	174.532	30.793	13.366
Sudan	0.818	3.835	7.162	113.067	10.398	6.862
Sweden	0.462	-1.560	-0.170	222.986	44.801	-17.271
Switzerland	0.154	9.462	-0.223	421.277	54.774	-29.122
Syria	1.000	-0.250	1.145	142.015	1.561	-0.250
Tanzania	1.000	2.111	2.296	97.850	3.508	2.013
Thailand	0.846	0.196	0.873	74.153	7.945	0.945
Togo	1.000		2.911	131.259		
Trinidad & Tobago	0.308		7.983	108.609		
Tunisia	0.923	6.176	2.105	134.442	6.583	5.253
Turkey	0.769	8.797	0.903	72.875	12.838	8.277
Uganda	0.154	4.660	3.254	94.938	4.819	4.411
United Arab Emirates	0.385			20.581		
United Kingdom	0.154	46.156	3.416	373.679	91.744	-3.410
Uruguay	0.154	6.848	2.352	154.671	22.043	-3.353
USA	0.308	12.296	0.912	106.661	20.043	10.606
Venezuela		0.027	1.379	72.272	16.213	-9.681
Vietnam	1.000	6.131	3.561	85.403		6.209
Yemen	0.308	-0.287	1.119	49.923	1.563	-0.585
Zambia	0.077		6.183	134.320		
Zimbabwe	1.000		1.278			

Notes: The IMF index is the average of controls to: capital market securities; money market instruments; collective investment securities; derivatives and other instruments; commercial credits; financial credits; guarantees, securities and financial backup facilities; direct investment; real estate transactions; and personal capital transactions, from IMF, AREAER. Total Capital Inflows/GDP are the sum of inflows of foreign direct investment, portfolio, derivatives and debt flows, from IMF, IFS. FDI Inflows/GDP are foreign direct investment flows, net from WB, WDI. Gross Capital Flows/GDP are the sum of the absolute values of direct, portfolio, and other investment inflows and outflows excluding changes in the assets and liabilities of monetary authorities and general government from WB, WDI. Net Capital Flows are the sum of the inflows and outflows of foreign direct investment, portfolio, derivatives and debt flows, from IMF, IFS. Foreign Liabilities/GDP from Lane-Milesi Ferreti. See Appendix A for detailed data description.

Table 4: Summary Statistics for Main Control Variables by Country—2004

Country	Bureau. Qual.	Non-Corrup.	Law and Order	Days to Start Business	Country	Bureau. Qual.	Non-Corrup.	Law and Order	Days to Start Business
Algeria	2.00	1.50	2.00	26	Latvia	2.50	2.00	5.00	18
Angola	1.00	2.00	3.00	146	Lebanon	2.00	1.00	4.00	46
Argentina	3.00	2.50	1.50	32	Lithuania	2.50	2.50	4.00	26
Australia	4.00	4.50	6.00	2	Madagascar	1.00	4.00	2.50	44
Austria	4.00	5.00	6.00	29	Malaysia	3.00	2.50	3.00	30
Belgium	4.00	4.00	5.00	34	Mexico	3.00	2.00	2.00	58
Bolivia	2.00	2.00	3.00	59	Morocco	2.00	3.00	5.00	11
Bosnia-Herzeg.				54	Mozambique	1.00	1.50	3.00	153
Brazil	2.00	4.00	1.50	152	Netherlands	4.00	5.00	6.00	11
Bulgaria	2.00	2.00	4.00	32	New Zealand	4.00	5.50	6.00	12
Burkina-Faso	1.00	2.00	3.50	135	Nicaragua	1.00	2.50	4.00	45
Cameroon	1.00	2.00	2.00	37	Nigeria	1.00	1.00	1.50	44
Canada	4.00	5.00	6.00	3	Norway	4.00	5.00	6.00	23
Chile	3.00	2.50	5.00	27	Oman	2.00	2.50	5.00	34
China	2.00	2.00	4.50	41	Panama	2.00	2.00	3.00	19
Colombia	2.00	3.00	1.00	43	Papua New Guinea	2.00	1.00	2.00	56
Costa Rica	2.00	2.50	4.00	77	Paraguay	1.00	1.00	2.00	74
Croatia	3.00	3.00	5.00	49	Peru	2.00	2.50	3.00	98
Czech Republic	3.00	2.50	5.00	40	Philippines	3.00	2.00	2.00	50
Denmark	4.00	5.50	6.00	4	Poland	3.00	2.00	4.00	31
Dominican Rep.	1.00	2.00	2.00	78	Portugal	3.00	3.50	5.00	78
Ecuador	2.00	3.00	3.00	92	Romania	1.00	2.50	4.00	28
Egypt	2.00	1.50	4.00	43	Saudi Arabia	2.00	2.00	5.00	64
El Salvador	2.00	2.50	2.50	115	Senegal	1.00	2.50	3.00	57
Estonia	2.50	3.00	4.00	72	Singapore	4.00	4.50	5.00	8
Ethiopia	1.00	2.00	5.00	32	Slovakia	3.00	2.50	4.00	52
Finland	4.00	6.00	6.00	14	Slovenia	3.00	3.00	4.50	61
France	3.00	3.00	5.00	8	Spain	4.00	3.50	4.50	108
Gabon	2.00	1.00	3.00		Sudan	1.00	1.00	2.50	
Gambia	2.00	3.00	4.00		Sweden	4.00	5.00	6.00	16
Georgia				25	Switzerland	4.00	4.50	5.00	20
Germany	4.00	4.50	5.00	45	Syria	1.00	2.00	5.00	47
Ghana	2.00	2.50	2.00	85	Tanzania	1.00	2.00	5.00	35
Greece	3.00	2.50	3.00	38	Thailand	2.00	1.50	2.50	33
Guatemala	2.00	1.50	1.50	39	Togo	0.00	1.50	3.00	53
Honduras	2.00	2.50	1.50	62	Trinidad & Tobago	3.00	2.00	2.00	
Hungary	4.00	3.00	4.00		Tunisia	2.00	2.00	5.00	14
India	3.00	1.50	4.00	89	Turkey	2.00	2.50	4.50	9
Indonesia	2.00	1.00	2.00	151	Uganda	2.00	2.00	4.00	36
Iran	2.00	2.00	4.00	48	UAE	3.00	2.00	4.00	54
Ireland	4.00	3.50	6.00	24	United Kingdom	4.00	4.50	6.00	18
Israel	4.00	4.00	5.00	34	Uruguay	2.00	3.00	2.50	45
Italy	2.50	2.50	3.00	13	USA	4.00	4.00	5.00	5
Jamaica	3.00	1.50	1.00	31	Venezuela	1.00	1.50	1.00	
Japan	4.00	3.50	5.00	31	Vietnam	2.00	1.50	4.00	56
Jordan	2.00	3.00	4.00	36	Yemen	1.00	2.00	2.00	63
Kenya	2.00	3.50	2.00		Zambia	1.00	2.00	4.00	35
Korea South	0.00	1.00	5.00	22	Zimbabwe	2.00	0.00	0.50	96
Kuwait	2.00	2.00	5.00	35					

Notes: Days to start a business data are from World Bank, World Development Indicators. The indices of Bureaucratic Quality (institutional strength and quality of the bureaucracy, 0-6) Non-Corruption index (assessment of corruption within the political system, 0-6), Law and Order (law: assessment of the strength and impartiality of the legal system; order: assessment of the popular observance of the law; 0-6) from the International Country Risk Guide, PRS Group. See Appendix A for detailed data description.

Table 5: Correlation for Main Variables—2004

	Entry	Age	Empl.	Skew. Empl.	IMF Index	FDI Inflows	Gross Capital Flows	Capital Inflows	Foreign Liabilities	Net Capital Flows	Log GDP	Log GDPpc	GDP Growth	Days to Start Business	Bureau. Qual.	Non-Corrup.	Law and Order	Diff. in Sampling Intensity
Entry	1.0000																	
Age	-0.4185	1.0000																
Empl.	-0.1764	0.2184	1.0000															
Skew. Empl.	0.0791	-0.0400	-0.4111	1.0000														
IMF Index	-0.0863	-0.0177	0.4191	-0.2326	1.0000													
FDI Inflows/GDP	-0.0574	-0.1044	0.1143	-0.1183	0.0393	1.0000												
Gross Capital Flows/GDP	-0.0034	0.0613	-0.1939	0.1235	-0.3083	0.3083	1.0000											
Capital Inflows/GDP	-0.0425	0.0399	-0.1348	0.1108	-0.2837	0.4168	0.9296	1.0000										
Foreign Liabilities/GDP	0.0369	0.0520	-0.3018	0.1912	-0.3675	0.2491	0.9391	0.8335	1.0000									
Net Capital Flows/GDP	-0.1262	-0.0919	0.1610	-0.0839	0.0636	0.1847	-0.2140	0.0287	-0.2719	1.0000								
Log GDP	0.0599	0.0760	-0.3461	0.4772	-0.1722	-0.2725	0.1611	0.1199	0.2053	-0.1664	1.0000							
Log GDPpc	0.1186	0.0167	-0.5537	0.4087	-0.5352	-0.1058	0.4395	0.3555	0.4820	-0.3192	0.6460	1.0000						
GDP Growth	-0.0086	-0.0798	0.4230	-0.2874	0.3760	0.3848	-0.0769	-0.0357	-0.1926	0.0572	-0.3105	-0.4430	1.0000					
Days to Start Business	-0.1168	0.0255	0.2111	-0.2129	0.1591	0.0004	-0.2398	-0.1910	-0.2579	0.1901	-0.2601	-0.4660	0.0967	1.0000				
Bureaucratic Quality	0.0581	0.0306	-0.5320	0.3706	-0.4326	-0.0826	0.4424	0.3542	0.5090	-0.2125	0.6024	0.8564	-0.4400	-0.4265	1.0000			
Non-Corruption	0.1078	0.0244	-0.5526	0.3511	-0.4292	-0.1460	0.3247	0.2105	0.4341	-0.3067	0.4532	0.7413	-0.3976	-0.3608	0.7849	1.0000		
Law and Order	0.1484	-0.0511	-0.3808	0.2941	-0.3165	-0.0318	0.4053	0.3523	0.4472	-0.2135	0.3696	0.6758	-0.2472	-0.5416	0.6484	0.6793	1.0000	
Diff. Sampl. Intensity	-0.0418	-0.0905	0.0396	-0.0781	0.0093	-0.0023	-0.1223	-0.0852	-0.1252	0.1162	-0.0963	-0.1011	-0.0484	0.1608	-0.1274	-0.1449	0.0097	1.0000

Notes: See Appendix A for detailed data description.

Table 6a: Entrepreneurship and Capital Mobility I—Cross Section 2004 (Tobit)
Dependent Variable: Entrepreneurship—Entry

| | Capital Mobility measured as | | | | |
	De Jure IMF Index (1)	*De Facto* Capital Inflows/GDP (2)	*De Facto* FDI Inflows/GDP (3)	*De Facto* Foreign Liabilities/GDP (4)	*De Facto* Gross Capital Flows/GDP (5)
Capital Mobility	-1.638	0.098	0.145	0.010	0.120
	[0.599]***	[0.019]***	[0.046]***	[0.005]*	[0.015]***
Log GDP	0.702	1.011	0.798	0.990	1.319
	[0.105]***	[0.114]***	[0.113]***	[0.133]***	[0.123]***
Log GDP per capita	1.783	0.966	1.533	1.468	0.275
	[0.220]***	[0.220]***	[0.202]***	[0.222]***	[0.238]
GDP Growth	0.386	0.148	0.101	0.341	0.105
	[0.065]***	[0.059]**	[0.058]*	[0.068]***	[0.060]*
Days to Start Business	-0.002	-0.009	-0.008	-0.005	-0.012
	[0.005]	[0.005]*	[0.005]	[0.006]	[0.005]**
Bureaucratic Quality	-1.141	-1.096	-1.224	-0.728	-1.341
	[0.283]***	[0.305]***	[0.286]***	[0.336]**	[0.313]***
Non-Corruption	0.261	0.651	0.333	-0.083	0.497
	[0.188]	[0.208]***	[0.193]*	[0.258]	[0.207]**
Law and Order	0.651	0.857	0.781	0.890	0.764
	[0.143]***	[0.145]***	[0.146]***	[0.164]***	[0.146]***
# Observations	5736	4873	5680	4568	4531

Notes: All regressions include industry dummies and are estimated using Tobit. Robust standard errors are in parentheses denoting *** 1%, **5%, and *10% significance. Regressions are weighted by the number of firms in each industry used to calculate the entrepreneurship measure. The dependent variable corresponds to the number of new firms relative to all firms in the country/industry pair. The capital mobility variable corresponds to IMF index in (1); Capital Inflows/GDP in (2); FDI Inflows/GDP in (3); Foreign Liabilities/GDP in (4); and Gross Capital Flows/GDP in (5). GDP data and Days to Start a Business come from WB, WDI. Bureaucratic Quality, Non-corruption and Law and Order from ICRG. See Appendix A for detailed description of the data.

Table 6b: Entrepreneurship and Capital Mobility II—Cross Section 2004 (OLS)
Dependent Variable: Entrepreneurship—Size (Log of Employment)

	Capital Mobility measured as				
	De Jure IMF Index	*De Facto* Capital Inflows/GDP	*De Facto* FDI Inflows/GDP	*De Facto* Foreign Liabilities/GDP	*De Facto* Gross Capital Flows/GDP
	(1)	(2)	(3)	(4)	(5)
Capital Mobility	0.518	-0.064	-0.006	-0.010	-0.020
	[0.232]**	[0.019]***	[0.055]	[0.004]***	[0.009]**
Log GDP	0.001	-0.037	0.124	-0.041	-0.020
	[0.054]	[0.057]	[0.110]	[0.075]	[0.094]
Log GDP per capita	-0.102	-0.571	-1.835	-1.133	-1.777
	[0.103]	[0.187]***	[0.464]***	[0.339]***	[0.418]***
GDP Growth	0.143	0.104	0.048	-0.042	-0.011
	[0.030]***	[0.050]**	[0.083]	[0.093]	[0.073]
Days to Start Business	0.001	0.005	-0.005	0.000	-0.007
	[0.003]	[0.004]	[0.008]	[0.005]	[0.007]
Bureaucratic Quality	-0.027	0.462	1.557	0.496	1.878
	[0.131]	[0.251]*	[0.434]***	[0.224]**	[0.380]***
Non-Corruption	-0.467	-0.537	-0.317	-0.002	-0.297
	[0.083]***	[0.134]***	[0.242]	[0.205]	[0.208]
Law and Order	0.020	0.203	-0.060	0.262	-0.213
	[0.066]	[0.101]**	[0.196]	[0.127]**	[0.175]
R^2	0.48	0.67	0.69	0.81	0.75
# Observations	5625	4644	5570	4470	4445

Notes: All regressions include industry dummies and are estimated by OLS with White's correction of heteroskedasticity and corrected at the country level (clustering). Robust standard errors are in parentheses denoting *** 1%, **5%, and *10% significance. Regressions are weighted by the number of firms in each industry used to calculate the entrepreneurship measure. The dependent variable corresponds to the log of the average number of employees in the country/industry pair. The capital mobility variable corresponds to IMF index in (1); Capital Inflows/GDP in (2); FDI Inflows/GDP in (3); Foreign Liabilities/GDP in (4); and Gross Capital Flows/GDP in (5). GDP data and Days to Start a Business come from WB, WDI. Bureaucratic Quality, Non-corruption and Law and Order from ICRG. See Appendix A for detailed description of the data.

Table 6c: Entrepreneurship and Capital Mobility III—Cross Section 2004 (OLS)
Dependent Variable: Entrepreneurship—Skewness of Employment

	Capital Mobility measured as				
	De Jure IMF Index	*De Facto* Capital Inflows/GDP	*De Facto* FDI Inflows/GDP	*De Facto* Foreign Liabilities/GDP	*De Facto* Gross Capital Flows/GDP
	(1)	(2)	(3)	(4)	(5)
Capital Mobility	-8.816	0.234	3.200	0.053	0.188
	[2.823]***	[0.063]***	[1.402]**	[0.015]***	[0.034]***
Log GDP	6.272	6.269	16.706	4.212	5.517
	[1.035]***	[1.026]***	[2.597]***	[0.491]***	[0.680]***
Log GDP per capita	-0.618	0.902	17.659	0.694	0.244
	[0.944]	[1.146]	[13.310]	[0.506]	[1.189]
GDP Growth	-1.463	-1.229	-4.586	-0.670	-0.993
	[0.293]***	[0.380]***	[2.388]*	[0.209]***	[0.332]***
Days to Start Business	-0.064	-0.040	-0.214	-0.017	-0.034
	[0.030]**	[0.030]	[0.221]	[0.015]	[0.026]
Bureaucratic Quality	-2.389	-3.439	-39.851	-2.089	-2.788
	[1.194]**	[1.575]**	[10.374]***	[0.894]**	[1.541]*
Non-Corruption	2.999	3.540	9.400	2.655	3.475
	[0.804]***	[1.008]***	[8.135]	[0.638]***	[0.795]***
Law and Order	0.531	0.017	2.599	0.202	-0.187
	[0.699]	[0.858]	[5.699]	[0.483]	[0.803]
R^2	0.38	0.38	0.41	0.52	0.46
# Observations	4597	4238	4547	3554	3976

Notes: All regressions include industry dummies and are estimated by OLS with White's correction of heteroskedasticity and corrected at the country level (clustering). Robust standard errors are in parentheses denoting *** 1%, **5%, and *10% significance. Regressions are weighted by the number of firms in each industry used to calculate the entrepreneurship measure. The dependent variable corresponds to the skewness of the employment distribution. The capital mobility variable corresponds to IMF index in (1); Capital Inflows/GDP in (2); FDI Inflows/GDP in (3); Foreign Liabilities/GDP in (4); and Gross Capital Flows/GDP in (5). GDP data and Days to Start a Business come from WB, WDI. Bureaucratic Quality, Non-corruption and Law and Order from ICRG. See Appendix A for detailed description of the data.

Table 7a: Entrepreneurship and Capital Mobility—Differences in Differences I, 2004-1999 (OLS)
Dependent Variable: Entrepreneurship—Difference in Entry

	Capital Mobility measured as				
	De Jure	*De Facto*	*De Facto*	*De Facto*	*De Facto*
	IMF Index	Capital Inflows/GDP	FDI Inflows/GDP	Foreign Liabilities/GDP	Gross Capital Flows/GDP
	(1)	(2)	(3)	(4)	(5)
D Capital Mobility	1.185	0.147	0.090	0.002	0.086
	[0.587]**	[0.057]**	[0.021]***	[0.008]	[0.026]***
D Log GDP	-3.689	45.806	-9.793	22.406	-52.345
	[9.601]	[28.692]	[17.930]	[9.128]**	[24.791]**
D Log GDP per capita	-10.159	-56.341	9.573	-21.023	49.124
	[10.467]	[25.822]**	[17.953]	[8.215]**	[24.070]**
D GDP Growth	0.266	-0.245	-0.343	-0.083	-0.728
	[0.222]	[0.153]	[0.469]	[0.111]	[0.407]*
D Bureaucratic Quality	-0.077	-0.281	-0.086	-1.245	-2.524
	[0.605]	[1.758]	[4.252]	[0.640]*	[5.301]
D Law and Order	0.152	-1.786	-2.715	-0.396	-3.434
	[0.180]	[0.741]**	[1.404]*	[0.430]	[0.791]***
D Non-Corruption	0.313	0.360	-1.174	-0.158	-1.926
	[0.413]	[0.785]	[1.817]	[0.492]	[1.936]
# Observations	2910	2580	3009	3616	2596
R^2	0.26	0.08	0.32	0.06	0.36

Notes: All regressions include industry dummies and are estimated by OLS with White's correction of heteroskedasticity and corrected at the country level (clustering). Robust standard errors are in parentheses denoting *** 1%, **5%, and *10% significance. Regressions are weighted by the number of firms in each industry used to calculate the entrepreneurship measure. The dependent variable corresponds to the number of new firms relative to all firms in the country/industry pair. The capital mobility variables correspond to IMF index in (1); Capital Inflows/GDP in (2); FDI Inflows/GDP in (3); Foreign Liabilities/GDP in (4); and Gross Capital Flows/GDP in (5). GDP data and Days to Start a Business come from WB, WDI. Bureaucratic Quality, Non-corruption and Law and Order from ICRG. See Appendix A for detailed description of the data.

Table 7b: Entrepreneurship and Capital Mobility—Differences in Differences II, 2004-1999 (OLS)
Dependent Variable: Entrepreneurship—Skewness of Employment

	Capital Mobility measured as				
	De Jure	*De Facto*	*De Facto*	*De Facto*	*De Facto*
	IMF Index	Capital Inflows/GDP	FDI Inflows/GDP	Foreign Liabilities/GDP	Gross Capital Flows/GDP
	(1)	(2)	(3)	(4)	(5)
D Capital Mobility	7.039	0.661	0.586	0.256	0.653
	[3.786]*	[0.346]*	[0.290]**	[0.118]**	[0.197]***
D Log GDP	-55.415	-432.685	71.320	424.433	-459.390
	[72.300]	[216.790]*	[123.786]	[108.562]***	[147.251]***
D Log GDP per capita	44.663	453.169	-90.924	-588.679	383.610
	[76.852]	[173.589]**	[125.799]	[137.700]***	[155.676]**
D GDP Growth	-1.044	-1.574	5.730	0.481	-7.351
	[1.333]	[2.923]	[2.447]**	[1.593]	[2.644]***
D Bureaucratic Quality	9.329	8.108	-4.360	-9.499	-6.545
	[5.810]	[8.577]	[14.808]	[11.728]	[8.844]
D Law and Order	-3.176	17.567	-5.006	9.376	-22.759
	[1.542]**	[4.824]***	[7.860]	[5.923]	[6.560]***
D Non-Corruption	0.352	2.619	9.176	-19.782	10.896
	[2.034]	[4.853]	[5.553]	[8.912]**	[5.895]*
R^2	0.360	0.420	0.550	0.320	0.510
# Observations	2104	1927	1452	1921	1817

Notes: All regressions include industry dummies and are estimated by OLS with White's correction of heteroskedasticity.with White's correction of heteroskedasticity and corrected at the country level (clustering). Robust standard errors are in parentheses denoting *** 1%, **5%, and *10% significance. Regressions are weighted by the number of firms in each industry used to calculate the entrepreneurship measure. The dependent variable corresponds to the skewness of the employment distribution. The coefficient on the capital mobility variable indicates whether the country experienced liberalization as measured by a change in the IMF index in (1); Capital Inflows/GDP in (2); FDI Inflows/GDP in (3); Foreign Liabilities/GDP in (4); and Gross Capital Flows/GDP in (5). GDP data and Days to Start a Business come from WB, WDI. Bureaucratic Quality, Non-corruption and Law and Order from ICRG. See Appendix A for detailed description of the data.

Table 8: Channels I—FDI:
Effects of Foreign Firms' Activity on Same, Upstream, and Downstream Industries 2004 (OLS)
Dependent Variable: Domestic Entrepreneurship

	Entrepreneurial Activity in					
	Same Industry	Upstream Industries	Downstream Industries	Same Industry	Upstream Industries	Downstream Industries
Dependent Variable:	Domestic Entry (Tobit)			Domestic Skewness (OLS)		
	(1)	(2)	(3)	(4)	(5)	(6)
Foreign Firms	1.025	83.090	161.822	1.805	68.773	242.920
	[0.001]***	[2.578]***	[2.047]***	[0.373]***	[57.957]	[74.639]***
Log GDP	0.070	-0.001	-0.009	1.396	1.360	1.843
	[0.004]***	[0.028]	[0.019]	[0.596]**	[0.684]**	[0.727]**
Log GDP per capita	0.005	0.004	0.005	-23.729	-24.319	-27.242
	[0.008]	[0.108]	[0.070]	[2.306]***	[2.623]***	[2.752]***
GDP Growth	0.002	-0.123	-0.113	-5.990	-6.509	-6.661
	[0.003]	[0.030]***	[0.020]***	[0.616]***	[0.707]***	[0.757]***
Days to Start Business	0.000	-0.003	-0.003	-0.218	-0.241	-0.298
	[0.000]	[0.002]*	[0.001]***	[0.033]***	[0.038]***	[0.040]***
Bureaucratic Quality	0.004	-0.448	-0.147	-17.472	-17.215	-17.317
	[0.009]	[0.087]***	[0.057]***	[1.721]***	[2.041]***	[2.129]***
Non-Corruption	0.048	0.250	0.019	18.531	18.061	18.943
	[0.007]***	[0.060]***	[0.040]	[1.081]***	[1.364]***	[1.441]***
Law and Order	0.031	0.402	0.215	9.863	11.094	10.341
	[0.005]***	[0.053]***	[0.034]***	[1.037]***	[1.217]***	[1.265]***
R^2				0.39	0.38	0.44
# Observations	5108	4051	3618	4899	3886	3597

Notes: All regressions include industry dummies and are estimated by OLS in columns (1)-(3) and Tobit in columns (4)-(6) with White's correction for heteroskedasticity. Robust standard errors are in parentheses denoting *** 1%, **5%, and *10% significance. Regressions are weighted by the number of firms in each industry used to calculate the entrepreneurship measure. In columns (1)-(3), the dependent variable is the skewness of the employment distribution of domestic firms; in columns (4)-(6) entry of new domestic firms. For the "same industry," foreign firms are the share of foreign firms to total firms. For the industries upstream and downstream the variable is the number of foreign firms in the up/down industry weighted by the I.O. coefficient between the industries. GDP data and Days to Start a Business are from WB, WDI, Bureaucratic Quality, Non-corruption and Law and Order from ICRG. See Appendix A for a detailed description of the data.

Table 9: Channels II—Financial Dependence 2004 (OLS)
Dependent Variable: Entrepreneurship—Skewness of Employment

	Capital Mobility Measured as				
	De Jure	*De Facto*	*De Facto*	*De Facto*	*De Facto*
	IMF Index	Capital Inflows/GDP	FDI Inflows/GDP	Foreign Liabilities/GDP	Gross Capital Flows/GDP
	(1)	(2)	(3)	(4)	(5)
Capital Mobility	-7.660	0.071	0.191	0.007	0.144
	[2.014]***	[0.039]*	[0.078]**	[0.004]	[0.034]***
High External Finance Dep. x Capital Mobility	-5.373	0.385	0.312	4.076	0.016
	[2.484]**	[0.058]***	[0.146]**	[0.675]***	[0.035]
Log GDP	8.080	7.791	4.089	8.856	5.657
	[0.254]***	[0.331]***	[0.120]***	[0.359]***	[0.209]***
Log GDP per capita	0.221	1.965	1.274	0.652	0.800
	[0.633]	[0.847]**	[0.265]***	[0.830]	[0.496]
GDP Growth	-1.855	-1.721	-0.948	-1.132	-1.267
	[0.186]***	[0.210]***	[0.076]***	[0.207]***	[0.111]***
Days to Start Business	-0.106	-0.091	-0.003	-0.079	-0.033
	[0.013]***	[0.017]***	[0.006]	[0.016]***	[0.009]***
Bureaucratic Quality	-3.388	-4.153	-2.227	-3.587	-3.549
	[0.756]***	[1.015]***	[0.366]***	[1.000]***	[0.583]***
Non-Corruption	2.431	3.352	2.988	2.015	3.346
	[0.476]***	[0.641]***	[0.227]***	[0.603]***	[0.341]***
Law and Order	0.281	-0.887	0.658	0.172	0.047
	[0.384]	[0.521]*	[0.179]***	[0.514]	[0.274]
R^2	0.39	0.44	0.56	0.44	0.51
# Observations	4219	3791	4044	3487	3382

Notes: All regressions include industry dummies and are estimated by OLS with White's correction for heteroskedasticity and corrected at the country level (clustering). Robust standard errors are in parentheses denoting *** 1%, **5%, and *10% significance. Regressions are weighted by the number of firms in each industry used to calculate the entrepreneurship measure. The dependent variable corresponds to the skewness of the employment distribution. The capital mobility variable corresponds to the IMF index in (1); Capital Inflows/GDP in (2); FDI Inflows/GDP in (3); Foreign Liabilities/GDP in (4); and Gross Capital Flows/GDP in (5). GDP data and Days to Start a Business are from WB, WDI, Bureaucratic Quality, Non-corruption and Law and Order from ICRG. See Appendix A for a detailed description of the data.

Table B1: Robustness I—Entrepreneurship and Capital Mobility (OLS)
Dependent Variable: Entrepreneurship—Skewness

| | Capital Mobility measured as | | | | | | | |
| | IMF Index | | | | Capital Inflows/GDP | | | |
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Capital Mobility	-20.553	-9.185	-10.16	-8.816	0.472	0.219	0.209	0.234
	[5.356]***	[3.267]***	[3.047]***	[2.823]***	[0.192]**	[0.067]***	[0.068]***	[0.063]***
Log GDP		5.803	6.025	6.272		5.861	5.921	6.269
		[0.997]***	[0.993]***	[1.035]***		[1.005]***	[1.004]***	[1.026]***
Log GDP per capita		1.123	0.019	-0.618		1.92	1.48	0.902
		[0.800]	[0.908]	[0.944]		[0.782]**	[0.872]*	[1.146]
GDP Growth		-1.358	-1.419	-1.463		-1.294	-1.263	-1.229
		[0.276]***	[0.300]***	[0.293]***		[0.328]***	[0.378]***	[0.380]***
Days to Start Business			-0.077	-0.064			-0.04	-0.04
			[0.028]***	[0.030]**			[0.027]	[0.030]
Bureaucratic Quality				-2.389				-3.439
				[1.194]**				[1.575]**
Non-Corruption				2.999				3.54
				[0.804]***				[1.008]***
Law and Order				0.531				0.017
				[0.699]				[0.858]
R^2	0.13	0.36	0.37	0.38	0.13	0.37	0.37	0.38
# Observations	4806	4731	4677	4597	4359	4293	4286	4238

Notes: All regressions include industry dummies and are estimated by OLS with White's correction of heteroskedasticity and corrected at the country level (clustering). Robust standard errors are in parentheses denoting *** 1%, **5%, and *10% significance. Regressions are weighted by the number of firms in each industry used to calculate the entrepreneurship measure. The dependent variable corresponds to the skewness of the employment distribution. The capital mobility variable corresponds to IMF index in (1)-(4) and Capital Inflows/GDP in (5)-(8). GDP data and Days to Start a Business come from WB, WDI. Bureaucratic Quality, Non-corruption and Law and Order from ICRG. See Appendix A for detailed description of the data.

Table B2: Robustness II—Entrepreneurship and Capital Mobility (OLS)
Dependent Variable: Entrepreneurship—Various Measures

Dependent Variable	Entry Tobit	Size OLS	Skewness OLS	Skewness OLS	Skewness OLS	Skewness OLS	Skewness OLS	Skewness OLS
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
IMF Index	-1.264	0.567	-4.673	-9.049	-8.422	-8.294	-11.014	-9.496
	[0.620]**	[0.287]*	[2.117]**	[2.953]***	[2.792]***	[3.285]**	[2.668]***	[2.993]***
Log GDP	0.394	0.050	4.790	6.386	6.300	5.978	5.698	6.596
	[0.121]***	[0.063]	[0.436]***	[1.052]***	[1.038]***	[0.745]***	[0.754]***	[1.052]***
Log GDP per capita	1.400	-0.272	0.265	-0.865	-0.610	-0.780	-0.937	-0.862
	[0.263]***	[0.135]**	[0.894]	[1.038]	[0.939]	[1.110]	[0.888]	[1.038]
GDP Growth	0.168	0.132	-1.247	-1.462	-1.491	-1.722	-1.455	-1.643
	[0.067]**	[0.033]***	[0.263]***	[0.352]***	[0.276]***	[0.381]***	[0.297]***	[0.287]***
Days to Start Business	-0.011	-0.001	-0.019	-0.067	-0.066	-0.064	-0.047	-0.082
	[0.006]**	[0.003]	[0.015]	[0.029]**	[0.030]**	[0.028]**	[0.025]*	[0.031]**
Bureaucratic Quality	-1.233	0.123	-3.826	-2.390	-2.257	-3.402	-2.388	-2.278
	[0.379]***	[0.179]	[1.132]***	[1.261]*	[1.178]*	[1.281]***	[1.251]*	[1.165]*
Non-Corruption	0.443	-0.377	2.417	3.227	2.959	2.873	3.145	2.807
	[0.197]**	[0.108]***	[0.634]***	[0.860]***	[0.804]***	[0.858]***	[0.737]***	[0.823]***
Law and Order	0.615	0.033	0.386	0.622	0.442	-0.374	0.898	0.563
	[0.150]***	[0.080]	[0.509]	[0.720]	[0.703]	[0.962]	[0.603]	[0.740]
Rights Borrowers/Lenders	-0.220	0.021	0.886					
	[0.079]***	[0.042]	[0.276]***					
Business Disclosure Index	-0.072	-0.046	-0.001					
	[0.110]	[0.056]	[0.350]					
Domestic Credit/GDP	-0.004	-0.003	0.023					
	[0.004]	[0.002]	[0.013]*					
Market Capitalization/GDP	0.005	-0.001	0.015					
	[0.003]	[0.002]	[0.012]					
Inflation				0.071				
				[0.129]				
Volatility GDP					-0.163			
					[0.070]**			
GDP Forecasts						0.102		
						[0.822]		
Trade							0.005	
							[0.014]	
Informal Sector								0.015
								[0.059]
R^2		0.54	0.55	0.38	0.38	0.40	0.38	0.38
# Observations	4519	4449	3758	4423	4597	3833	4128	4314

Notes: All regressions include industry dummies and are estimated by OLS with White's correction for heteroskedasticity and corrected at the country level (clustering) except for entry regressions estimated by Tobit, which are not clustered. Robust standard errors are in parentheses denoting *** 1%, **5%, and *10% significance. Regressions are weighted by the number of firms in each industry used to calculate the entrepreneurship measure. The dependent variable is entry in (1); log of employment in (2); and skewness of employment in (3)-(8). GDP data, Days to Start a Business, financial market indicators, and trade are from WB, WDI; Bureaucratic Quality, Non-corruption and Law and Order from ICRG' GDP Forecasts from EIU, informal sector from Schneider (2002). See Appendix A for a detailed description of the data.

Table B3: Robustness III—Entrepreneurship and Capital Mobility (OLS)
Dependent Variable: Entrepreneurship—Various Measures

Dependent Variable	Age	Vintage	Skewness (Non Weighted)	Skewness- Wholly Owned Firms	Skewness	Skewness	Skewness
	OLS	OLS	OLS	OLS	OLS	OLS	IV
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
IMF Index	1.045	0.104	-7.638	-10.419			-5.481
	[0.496]**	[0.709]	[3.053]**	[3.169]***			[2.632]**
Log GDP	0.359	0.980	5.645	6.742	6.209	17.072	4.298
	[0.094]***	[0.134]***	[1.185]***	[1.118]***	[0.249]***	[3.023]***	[0.836]***
Log GDP per capita	-0.887	-1.170	-0.184	-0.703	1.955	12.484	-0.437
	[0.182]***	[0.261]***	[1.257]	[1.027]	[0.515]***	[16.344]	[0.816]
GDP Growth	-0.383	-0.456	-1.068	-1.455	-1.080	-4.461	-1.164
	[0.053]***	[0.076]***	[0.320]***	[0.316]***	[0.135]***	[2.613]*	[0.241]***
Days to Start Business	0.000	0.023	-0.047	-0.085	-0.044	-0.304	-0.032
	[0.004]	[0.006]***	[0.031]	[0.031]***	[0.012]***	[0.252]	[0.022]
Bureaucratic Quality	0.572	1.922	-1.390	-2.894	-3.621	-36.216	-1.349
	[0.239]**	[0.342]***	[1.465]	[1.471]*	[0.722]***	[9.434]***	[1.028]
Non-Corruption	0.194	0.944	3.139	2.279	3.872	11.683	3.182
	[0.160]	[0.228]***	[1.018]***	[0.939]**	[0.478]***	[9.529]	[0.659]***
Law and Order	-0.418	-0.324	0.365	0.480	0.247	1.033	0.467
	[0.121]***	[0.173]*	[0.784]	[0.720]	[0.333]	[5.106]	[0.579]
Net Flows/GDP					0.146		
					[0.029]***		
Equity Flows/GDP						2.972	
						[1.567]*	
R^2	0.13	0.14	0.43	0.34	0.38	0.41	0.26
# Observations	5736	5736	4597	4728	4240	4157	2390

Notes: All regressions include industry dummies and are estimated by OLS with White's correction for heteroskedasticity and corrected at the country level (clustering), except for entry regressions, which are estimated by Tobit and are not clustered. Robust standard errors are in parentheses denoting *** 1%, **5%, and *10% significance. Regressions are weighted by the number of firms in each industry used to calculate the entrepreneurship measure except in column (3) which presents non-weighted results. The dependent variable is age in (1); vintage in (2); skewness of employment in (3), (5)-(7);skewness of employment of wholly owned firms in (4). Column (7) reports the two-stage least square estimates, instrumenting the international financial integration measure with LLSV variables. GDP data and Days to Start a Business come from WB, WDI, Bureaucratic Quality, Non-corruption, and Law and Order from ICRG. See Appendix A for a detailed description of the data.

Table B4: Robustness IV—Entrepreneurship and Capital Mobility (OLS)
Dependent Variable: Entrepreneurship -- Skewness of Employment

	All	Only Manufacturing	Only Rich Countries	Non-U.S.	Regional Dummies
	(1)	(2)	(3)	(4)	(5)
IMF Index	-3.910	-5.161	-12.045	-8.046	-6.693
	[2.204]*	[1.726]***	[3.424]***	[2.940]***	[2.881]**
Log GDP	1.559	4.039	6.773	5.294	5.789
	[1.295]	[0.645]***	[1.063]***	[0.704]***	[0.736]***
Log GDP per capita	-0.928	-0.804	1.146	-0.436	0.260
	[0.878]	[0.522]	[1.281]	[0.931]	[1.100]
GDP Growth	-0.805	-0.623	-1.405	-1.518	-1.298
	[0.299]***	[0.175]***	[0.317]***	[0.276]***	[0.271]***
Days to Start Business	-0.057	-0.036	-0.094	-0.046	-0.046
	[0.026]**	[0.018]**	[0.029]***	[0.025]*	[0.023]*
Bureaucratic Quality	-3.470	-0.615	-3.098	-2.074	-2.937
	[1.105]***	[0.712]	[1.337]**	[1.225]*	[1.281]**
Non-Corruption	0.013	1.571	2.284	2.967	2.834
	[1.396]	[0.467]***	[1.016]**	[0.741]***	[0.818]***
Law and Order	0.178	0.228	0.189	0.775	-0.085
	[0.675]	[0.413]	[0.710]	[0.625]	[0.673]
Sampling Intensity	0.001				
	[0.001]***				
Asia					-1.435
					[2.910]
Europe					1.892
					[2.165]
Middle East North Africa					-3.877
					[2.196]*
South America					-4.088
					[2.219]*
North America					13.266
					[15.419]
R^2	0.50	0.42	0.39	0.39	0.39
# Observations	4597	1479	3894	4529	4596

Notes: All regressions include industry dummies and are estimated by OLS with White's correction for heteroskedasticity and corrected at the country level (clustering). Robust standard errors are in parentheses denoting *** 1%, **5%, and *10% significance. Regressions are weighted by the number of firms in each industry used to calculate the entrepreneurship measure. The dependent variable corresponds to the skewness of the employment distribution. The capital mobility variable corresponds to the IMF index. Regression (1) controls for sampling intensity; (2) is for the manufacturing sector only, (3) is for industralized countries only, (4) excludes the United States from the sample, (5) includes regional dummies. See Appendix A for a detailed description of the data.

Table B5: Robustness V—Differences in Differences, 2004-1999 (OLS)
Dependent Variable: Entrepreneurship—Skewness

	Capital Mobility measured as					
	IMF Index			Capital Inflows/GDP		
	(1)	(2)	(3)	(4)	(5)	(6)
D Capital Mobility	7.578	7.360	7.039	0.179	0.339	0.661
	[3.025]**	[3.743]*	[3.786]*	[0.103]*	[0.154]**	[0.346]*
D Log GDP		-47.858	-55.415		-305.396	-432.685
		[70.552]	[72.300]		[186.472]	[216.790]*
D Log GDP per capita		28.816	44.663		435.295	453.169
		[75.748]	[76.852]		[173.912]**	[173.589]**
D GDP Growth		-0.139	-1.044		-5.337	-1.574
		[1.506]	[1.333]		[3.079]*	[2.923]
D Bureaucratic Quality			9.329			8.108
			[5.810]			[8.577]
D Law and Order			-3.176			17.567
			[1.542]**			[4.824]***
D Non-Corruption			0.352			2.619
			[2.034]			[4.853]
R²	0.03	0.34	0.36	0.04	0.38	0.42
# Observations	2104	2104	2104	1834	1927	1927

Notes: All regressions include industry dummies and are estimated by OLS with White's correction of heteroskedasticity and corrected at the country level (clustering). Robust standard errors are in parentheses denoting *** 1%, **5%, and *10% significance. Regressions are weighted by the number of firms in each industry used to calculate the entrepreneurship measure. The dependent variable corresponds to the skewness of the employment distribution. The coefficient on the capital mobility variable indicates whether the country experienced liberalization as measured by a change in the IMF index in (1)-(3) and Capital Inflows/GDP in (4)-(6). See Appendix A for detailed description of the data.

Table B6: Robustness VI—Differences in Differences, 2004-1999 (OLS)
Dependent Variable: Entrepreneurship—Various Measures

| | Entry (Tobit) | Skewness (OLS) | | | |
| | All | All | Only Manufacturing | Only Rich countries | Non-U.S. |
	(1)	(2)	(3)	(4)	(5)
D IMF Index	2.075	9.019	8.210	13.684	12.319
	[0.651]***	[3.899]**	[3.583]**	[5.115]**	[5.105]**
D Log GDP	-18.707	-64.368	-84.230	-146.338	-164.495
	[15.470]	[67.283]	[36.147]**	[52.955]***	[48.770]***
D Log GDP per capita	6.636	57.688	68.042	110.122	126.826
	[17.288]	[72.858]	[33.052]**	[48.696]**	[45.035]***
D GDP Growth	0.283	-1.322	-0.876	-1.140	-1.156
	[0.229]	[1.298]	[0.330]**	[0.468]**	[0.430]***
D Bureaucratic Quality	0.469	11.377	1.971	1.370	1.680
	[0.772]	[5.224]**	[1.330]	[2.849]	[2.658]
D Law and Order	0.343	-3.256	-1.715	-1.077	-0.605
	[0.243]	[1.410]**	[1.067]	[1.529]	[1.446]
D Non-Corruption	-0.237	-0.672	1.858	1.853	1.874
	[0.569]	[2.022]	[1.060]*	[1.419]	[1.338]
D Sampling Intensity	-0.0001	-0.002			
	[0.0001]*	[0.001]**			
R^2	0.28	0.36	0.20	0.29	0.31
Observations	2510	2104	649	1919	1893

Notes: All regressions include industry dummies and are estimated by OLS with White's correction of heteroskedasticity and corrected at the country level (clustering). Robust standard errors are in parentheses denoting *** 1%, **5%, and *10% significance. Regressions are weighted by the number of firms in each industry used to calculate the entrepreneurship measure. The dependent variable corresponds to the skewness of the employment distribution. The coefficient on the capital mobility variable indicates whether the country experienced liberalization as measured by a change in the IMF index. Regression (1) is for the manufacturing sector only, (2) only industralized countries, (3) the U.S. is excluded from the sample, (4) includes regional dummies. See Appendix A for detailed description of the data.

Table C1: Entrepreneurship and Capital Mobility—Benchmark - U.S. 2004 (Rajan and Zingales Methodology)
Dependent Variable: Entrepreneurship—Various Measures

Dependent Variable	Entry Tobit (1)	Skew. OLS (2)	Entry Tobit (3)	Skew. OLS (4)	Entry Tobit (5)	Skew. OLS (6)	Entry Tobit (7)	Skew. OLS (8)	Entry Tobit (9)	Skew. OLS (10)
New Firms in US x IMF Index	-0.183 [0.042]***									
Skewness Firms in US x IMF Index		-0.149 [0.011]***								
New Firms in US x Inflows/GDP			0.006 [0.003]**							
Skewness Firms in US x Inflows/GDP				0.001 [0.000]***						
New Firms in US x FDI Inflows/GDP					0.019 [0.011]*					
Skewness Firms in US x FDI Inflows/GDP						0.002 [0.001]**				
New Firms in US x Foreign Liabilities/GDP							0.065 [0.014]***			
Skewness Firms in US x Foreign Liabilities/GDP								0.091 [0.009]***		
New Firms in US x Gross Flows/GDP									0.006 [0.001]***	
Skewness Firms in US x Gross Flows/GDP										0.003 [0.000]***
R^2	0.09	0.23	0.26	0.38	0.19	0.40	0.26	0.47	0.24	0.40
# Observations	6091	4774	4737	4029	5728	4564	4054	2723	4852	3911

Notes: All regressions include country and industry dummies and are estimated by OLS with White's correction of heteroskedasticity. Robust standard errors are in parentheses denoting *** 1%, **5%, and *10% significance. In (1), (3), (5), (7) the dependent variable is entry of new firms; in (2), (4), (6), (8) the skewness of the employment distribution. See Appendix A for detailed description of the data.
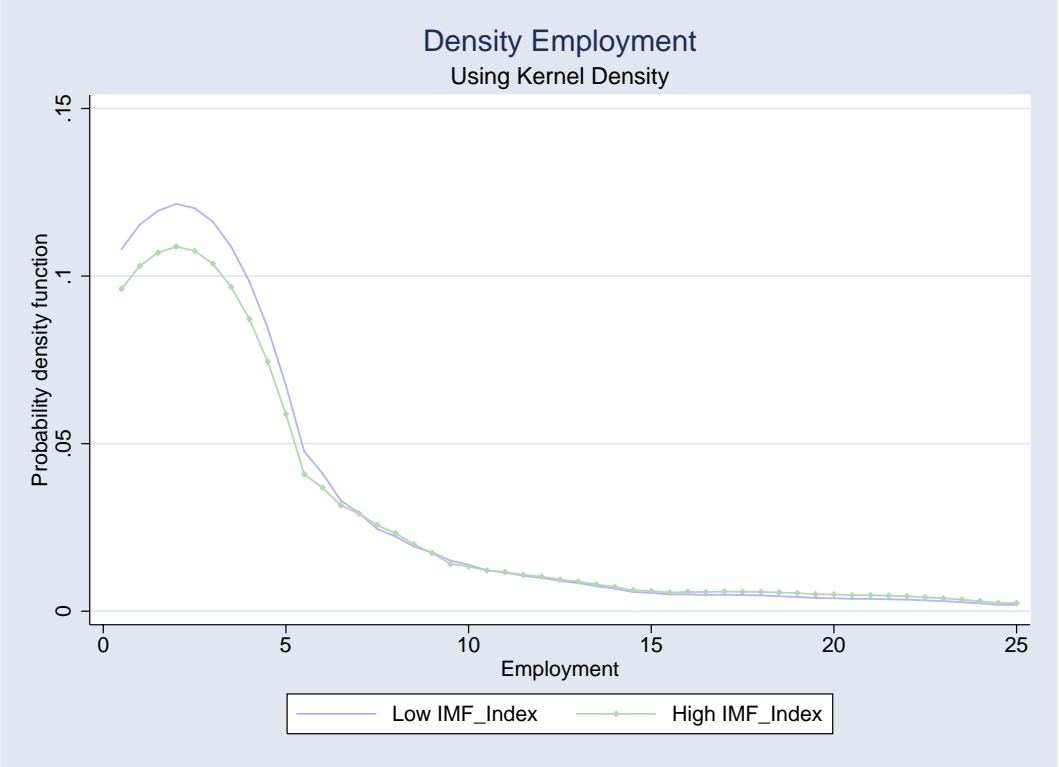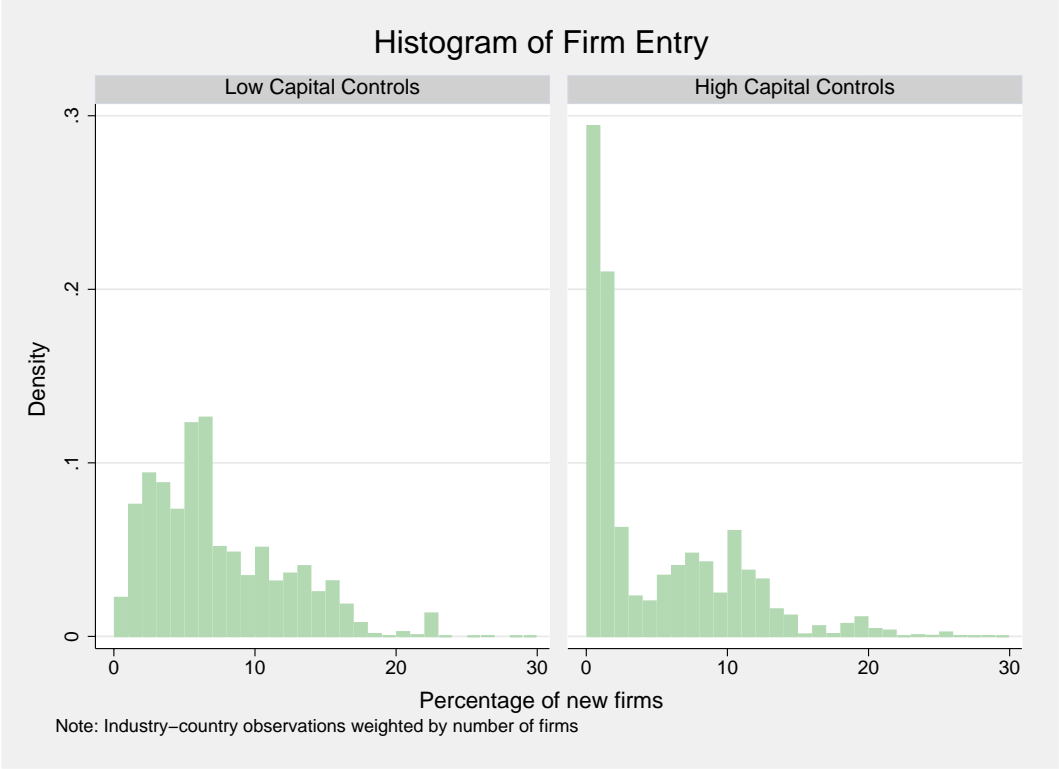
Figure 1

Histogram of Firm Entry

Note: Industry–country observations weighted by number of firms

Figure 2