Foreign bank presence and business regulations

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Abstract

We examine the impact of foreign bank presence on the host countries' business regulatory environment. We employ a panel dataset of 115 economies for the 1995-2011 period, and measure the efficiency of business regulations using the indices from the Heritage and the Fraser datasets. Our findings show that foreign bank presence exerts a positive impact on business regulations, while this effect is more pronounced when foreign banks come from the more efficient business regulation countries. Moreover, host countries' administrative requirements, and especially bureaucracy costs, benefit from foreign bank presence, but starting a business procedures does not.

Keywords: Foreign banks, business regulations, panel data

JEL classification codes: F21, G21, K20, O57

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Introduction

In many areas of economic life in many countries, regulatory standards have been in the midst of a deregulatory dynamic during recent years (Drahos and Braithwaite, 2001). However, business regulations, only a part of the wider regulatory spectrum, are of utmost important for entrepreneurs, policy makers and academics. This is because they touch upon aspects that governs firms' entry, activity, competition, and performance, and, by extension, economic activity and growth.

On the other hand, foreign bank presence soared during the last few decades in almost all countries, following the financial liberalization wave which, however, exhibited different pace/speeds worldwide, and in some cases reversals, and was bolstered by the increase in international trade. The geographic areas that exhibited a significant increase in foreign bank entry include Asia, Africa, Middle East and Eastern Europe (Clarke *et al*., 2001; Lehner and Schnitzer, 2008).

Most empirical research examines how business regulations and the institutional environment affect the establishment, behavior and operation of foreign banks and, more generally, of MNCs. In this paper we focus on a different aspect: whether foreign bank presence has had a regulatory impact in host countries during recent years. Specifically, we explore the impact of foreign bank presence on public business regulations in host countries, that is, regulations set and enforced by the sovereignty in which firms operate.

The remainder of the paper is organized into six sections. Following the introduction, the second section reviews the literature on business regulations and delineates the conceptual framework. The third section discusses the impact of financial and real sector foreign direct investment (FDI) on host countries and formulates the research questions. In the fourth section, we present the data used in the analysis. The fifth section presents the empirical methodology and the results. Finally, the sixth section concludes.

Literature review and conceptual framework

The literature on business regulations is large, touching upon themes such as management, political science, international production and trade, labour and growth. Indicatively, a stricter and non-competitive business regulatory environment - especially heavy regulations for firm entry - limits growth through the deterioration in FDI inflows (Busse and Groizard, 2008) and provides the seeds of corruption, as firms try to overcome the regulatory burden (Dreher and Gassebner, 2011; Shleifer and Vishny, 1993), while constitutes an important obstacle to economic growth (Djankov *et al*., 2006). Heavier firm entry regulations are also associated with less democratic governments operating for the benefit of politicians and bureaucrats, and are positively related to the size of the shadow economy, but not to the quality of goods produced (Djankov *et al*., 2002). Moreover, entry barriers provide obstacles to entrepreneurship, increase the size of new firms and reduce the growth rate of existing firms, irrespective of the level of external financing, property rights protection and labor market protection characteristics (Klapper *et al*., 2006).

However, business regulations are not rigid. They evolve over time, with forward and backward movement, as countries - especially emerging economies - strive to climb the ladder of international competitiveness and improve the business climate. International forces, comprising globalization and changes in international industrial organizations, where global value chains and production networks emerge as MNCs increasingly control the production of their suppliers located in developing countries, operate at full throttle and have profound implications for regulation and governance (Mayer and Gereffi, 2010).

International trade flows also contribute to the shaping of country regulations in a race to the top, rather than a race to the bottom procedure,[1] operating through the "California effect" (Vogel, 1995). This effect concerns regulatory upgrade in countries whose firms export to markets where stricter regulatory standards apply, regarding consumer and/or environmental issues. The mechanism proposed by Vogel (1995) works in tandem with trade liberalization through the pressure of exporting firms on their governmental agencies to raise production standards and other regulatory prerequisites. These firms strive to achieve higher economies of scale or to have a comparative advantage over their local competitors that do not have access to international markets and operate under less strict production codes. In contrast, domestic forces including incumbent firms, political concerns and bureaucratic rigidities may oppose the formation of a less regulated business environment. The final outcome, which however mutates constantly, depends on the relative strength of these forces in an economy at each point in time.

During recent years, international forces have proved more powerful than potentially opposing domestic ones. Indeed, the overall effect on business regulation resulted in the worldwide spread of a set of regulatory norms across countries, termed as "globalization of regulation" (Drahos and Braithwaite, 2001). Such globalization neither implies that business regulation has been harmonized across countries, nor that it moves monotonically. On the contrary, it implies that to some extent "principles, standards, rules, guidelines and models of regulation have converged", as Braithwaite and Drahos (2000) notably indicate. They propose a coherent conceptual framework to explain this regulatory globalization procedure, involving the "actors" (i.e., firms, organizations, states etc.) that strive to achieve their objectives emanating from "principles" (i.e., norms and values) and the "mechanisms" that the actors use to achieve these objectives, prominent among which are modeling (i.e., the matching of

[1] Levchenko (2007) also shows that countries improve institutions in a race to the top process as they try to benefit more from international trade, while institutional differences, related to the quality of contract enforcement and property rights, shape the trade flows among countries.

actions among actors, reciprocity, reciprocal adjustment, and non-reciprocal coordination). Thus, regulatory globalization results in a "contest of principles" among actors that are not equal and do not have the same power, but depend on their access and power on the "webs of influence" (Drahos and Braithwaite, 2001).

Real and financial sector FDI: Commons and differences regarding their impact in host countries

Real and financial sector FDI (i.e., foreign bank presence) have both commons and differences in their impact on host countries, as Goldberg (2004) notes. Both facilitate the integration of host economies into the international economy, the promotion of greater allocative efficiency and technology adoption, better wages and growth prospects. On the other hand, it is foreign bank presence that moderates the magnitude of business cycles and contributes to the development of the regulatory and banking supervision processes in host countries (Goldberg, 2004).

In addition, foreign bank presence helps improve the average bank efficiency in the host country, which in turn enhances the growth prospects of the economy through accelerating productivity (Levine, 2001; Claessens and van Horen, 2007), although it may cause destabilizing pressures on domestic banks (Claessens and van Horen, 2007). The comparative advantage of foreign banks relative to their domestic peers stems from their superiority in the screening process which overcomes their disadvantage in the possession of soft information for local borrowers.

Most importantly, foreign bank presence contributes to the host country's financial sector development through the increase in external financing and, consequently, to the export share and trade balance improvement of manufactured goods (Beck, 2002). The beneficial impact of foreign bank presence on access to credit of the host countries' firms is documented

in Giannetti and Ongena (2012) and Clarke *et al*. (2006), while foreign bank lending is mainly directed to higher quality borrowers, i.e., large firms, and is cheaper, due to these firms' increased availability of collateral which serves as a device for the screening process (Sengupta, 2007).

In turn, real sector FDI creates positive vertical, rather than horizontal, backward productivity spillovers in host countries' industrial sectors (Javorcik, 2004). These spillovers take the form of improvements in local firms' productivity and increased technology adoption, operating through observation and copying of production and management techniques of MNCs by their local partners, increase in competition in host markets, and higher requirements on product quality imposed by MNCs on their suppliers. More recently, Harding and Javorcik (2012) document the fact that real sector FDI has a positive impact on the host country's quality of exports from developing countries, through product upgrading and ascending the export value chain, but this effect is ambiguous for developed countries.

FDI in general also exerts a positive influence on the institutional quality of host countries in the long run, as Kwok and Tadesse (2006) illustrate for the case of corruption. They propose three effects for this influence: the regulatory pressure effect, the demonstration effect and the professionalization effect. Briefly, the regulatory pressure effect operates through an MNC's practices of doing business, its home country business ethics and the international business environment that are against corrupt behavior from the MNC's subsidiaries. The demonstration effect operates via the demonstration of a more ethical, transparent, efficient and effective way of doing business, which is gradually adopted by local firms and the host country's government officials. Lastly, the professionalization effect works through the development of professional business education and training, and the establishment of professional associations.

Formulation of the research hypotheses

Given the above, we build on the conceptual framework of Braithwaite and Drahos (2000) to theoretically delineate the impact of foreign bank presence on business regulations. In our setting, foreign banks, local firms and the host country's government are the main actors at play. Their main objectives and the mechanisms at their disposal which contribute to the formation of the country's business regulations are presented below.

Foreign banks have the objective of increasing their profits and market shares in the host country. Therefore, they are interested in attracting firms with increased collateral values, given their disadvantage in the possession of soft information for local borrowers, and better growth prospects. Moreover, foreign banks have increased expertise in the international business and markets, are more experienced in collaborating with more competitive clients, and through their global network and reputation at the service of the more extrovert local firms could serve as a wind of change in the way local markets operate and compete. In sum, it is in the foreign banks' interest to have a friendlier and more competitive business environment, that is more connected to the international environment, and improved growth opportunities for the country that would expand the banks' present and future profit opportunities.

Local firms that belong to the supply chain of MNCs and have benefited from increased technology adoption and advanced management strategies, i.e., mainly exporting firms, have the objective of raising regulatory production standards in order to push their local competitors that lack these capabilities out of the market. On the contrary, incumbent, less productive firms that may have large shares in the domestic market strive to prevent a more liberalized regulatory policy that would increase competition. These two groups of firms have in principle opposite regulatory objectives and their relative power depend on their access to and influence on the governmental policies and priorities.

Moreover, governments aim to increase social welfare and their country's competitiveness and position in the international economic landscape. In this effort they try to implement business regulatory policies, depending on their political orientation and attitude towards liberalization and globalization and on their country's economic and social characteristics. Such regulatory policies should strive, at least in principle, to tilt the balance towards a more dynamic, export oriented and technologically advanced share of firms in the economy, and away from a less productive one, while at the same time minimizing the potential social costs. However, apart from the government regulatory intentions and willingness, the structure of the economy at hand and the influence of the more powerful economic and political groups may advance, or put a burden on, the government's regulatory decisions and the pace of their implementation. For example, even a more liberal friendly government is likely to face delays in promoting business activity due to obstacles put forth during previous years.

Turning to the mechanisms these actors employ, i.e., foreign banks, the more productive local firms and market friendly governments have common objectives and thus may interact in a reciprocal manner, so that more efficient business regulations are adopted and implemented. Furthermore, the two groups of firms, i.e., the more and the less productive and technologically advanced ones, could either oppose each other or - through modeling and capacity building - the latter will follow the paradigm of the former. On the contrary, incumbent firms and non-liberal governments and bureaucratic structures may form, through modeling and reciprocity as cooperation, powerful opponent groups aimed at keeping the business climate more controlled, rent-seeking oriented and inimical to competition.

In light of the preceding discussion, the main research hypothesis that we examine in this paper can be formulated as follows:

H1a: The level of foreign bank presence in a country positively affects business regulations over time.

Thus, when foreign banks serve as actors of change for the business regulatory environment of the host country, then such an effect should be more pronounced, the bigger the gap in the efficiency of business regulations that foreign banks face in the local economy compared to that of the foreign bank's home country. The advantages of these foreign banks over the others that come from countries with a business environment closer to that of the host country may add more in their contacts with local firms. This intuition helps us to formulate more explicitly the following hypothesis:

H1b: The presence of foreign banks from countries with more efficient business regulation should have a more pronounced positive effect on the host country's business regulation over time.

Data description

We built a large unbalanced panel dataset with annual data for 115 advanced and emerging economies for the period 1995-2011. The data was retrieved from 7 large databases, namely, the Heritage Foundation dataset (Heritage Foundation, 2013); the Fraser Institute dataset (Gwartney *et al*., 2012); the Global Financial Development Database (Čihák *et al*., 2012); the Penn World Table Version 7.1 dataset (Heston *et al*., 2012); the World Development Indicators database; the United Nations Conference on Trade and Development statistics (henceforth, UNCTAD); and the Database of Political Institutions (Beck *et al*., 2001). Table 1 lists the variables employed, along with their definition and sources.

Insert Table 1 here

Dependent variables

We measure business regulations at the country level using two indices from two different international sources. Both indices are aggregate measures of the efficiency of government regulation of business, are suitable, by construction, for cross-country and time-series analyses and are widely used in the literature. The first is the business freedom index from the Heritage Foundation and is available annually from 1995 onward. It is constructed from an array of measurements of the difficulty of starting, operating, and closing a business and ranges from 0 to 100, with higher values indicating a freer business environment.

The second is the Fraser business regulations index that accounts for a number of regulatory obstacles in firm operation and activity. It is derived from an array of six sub-components based on Global Competitive Report questions and World Bank's Doing Business data that measure administrative requirements, bureaucracy costs, time and costs to start a business, bribes and favoritism, licensing restrictions and the cost of tax compliance. This index, as all Fraser Institute's indices, is available annually from 2000 to 2011, and at 5-year intervals before 2000. The scale of this index is from 0 to 10, with higher values indicating lower business regulatory burden.

Additionally, in order to get further insights from our analysis, we examine the impact of foreign bank presence on specific aspects of the regulatory environment firms face; we also use as dependent variables the first three of the six Fraser's business regulations index sub-components mentioned above, i.e., administrative requirements, bureaucracy costs, and time and costs to start a business. These are the most important aspects of business regulatory environment, and they are available from 2000 onward. These are also scaled from 0 to 10, with higher values indicating lower regulatory burden or higher product quality standards.

Table 2 presents summary statistics, i.e., the mean, standard deviation, and the minimum and maximum values for the dependent variables, along with the explanatory and

control variables employed in the analysis and presented below. Table 3 reports the pair-wise correlation matrix.

Insert Tables 2 and 3 here

As Table 3 indicates, although the Heritage business freedom index and the Fraser Institute business regulations index aim at capturing the same aspect, i.e., the efficiency of government regulation of business, possible methodological differences in their calculation result in a correlation coefficient amounting to 0.62 for our sample.

Explanatory variable

Our main explanatory variable is (log) foreign bank presence, i.e., the natural logarithm of the ratio of foreign banks over total commercial banks in a country, obtained from the Global Financial Development Database (Čihák *et al*., 2012). A bank is defined as foreign owned when 50% percent or more of its shares are owned by foreigners (Claessens and van Horen, 2014). [2] This data is available for the period 1995-2009 only, and naturally dictates the sample period of our analysis; however, since we use this measure with time lag in our analysis, we are able to examine business regulations over a more extended period. A higher value of this variable indicates a more internationalized banking system that is more efficient, with more sophisticated risk management techniques and more loanable funds available for domestic firms.

Moreover, a larger share of foreign banks in a country implies a greater dispersion of the available funds in the economy, thus increasing the share of the domestic firms that have to pass the foreign banks' more demanding screening process in order to obtain the applied loan

[2] Essentially, the Global Financial Development Database provides the data from Claessens and van Horen (2014) on a country-level basis.

amount. Also, greater foreign bank presence directly implies an increase in the number of contacts between foreign banks and domestic firms, which facilitates more potentially export oriented investment opportunities, increases competition, and facilitates the transfer of technological advances in the domestic economy. Additionally, increased foreign presence in the domestic banking system may render more power to foreign banks which could put more pressure on local governments for economic and regulatory reforms towards a more liberalized economy.

Empirical methodology and results

We estimate a dynamic panel model of the form:

$$y_{it} = a + \beta\, y_{it-1} + \gamma\, FB_{it-n} + \sum_{j} \delta_j X_{jit-1} + \varepsilon_t + u_{it} \qquad (1)$$

where y_{it} denotes the regulatory variable for country *i* at time *t*. The inclusion of the lagged dependent variable y_{it-1} captures possible institutional persistence. FB_{it-n} is (log) foreign bank presence at year $t-n$. We use three different time lags for foreign bank presence, i.e., *n* takes the values 1, 2 or 3, in order to examine how the potential impact of foreign bank presence on business regulations is related to the length of the time lag *n*. ε_t is a full set of time dummies to account for shocks common to all countries, while u_{it} is the residual term.

X_{jt-1} is a *j*-dimension array of control variables measured at year $t-1$ that may affect regulations at year *t,* and arise naturally from the conceptual framework discussed above. This array includes the Purchasing Power Parity (PPP) adjusted GDP per capita at 2005 constant prices (Chain Series) from the Penn World Table Version 7.1, which accounts for the standard of living in the domestic economy. A higher level of per capita income is usually

linked to a higher level of international competitiveness for a country and thus is, ceteris paribus, related to a more business friendly regulatory environment.

The GDP growth rate and the inflation rate, based on the GDP deflator, from the World Development Indicators are two variables that aim to capture the prevailing economic conditions during the business cycle. A higher growth rate is expected to be negatively related to the incentives of the government for regulatory reforms, while a higher inflation rate indicates tougher conditions for valuing and financing firms' investment projects, and thus we anticipate a negative relationship with business regulations. The ratio of bank credit to bank deposits from the Global Financial Development Database proxies for the availability of funds in each country. Higher values of this variable are expected to positively impact business regulations. The inward FDI flows to GDP from the UNCTAD database and the openness measure, i.e., the sum of the country's imports plus exports as a share of GDP, from the Penn World Table Version 7.1, are two variables used to control for the FDI attractiveness and the degree of integration of each country into international trade networks. The expected sign of these two measures is ambiguous since higher values could signal either a suspension of further business regulatory reforms on a "good as it is" rationale, or could provide the seeds of the implementation, or continuation, of more friendly regulatory policies.

Finally, the X_{jt-1} array also comprises the size of government index[3] from the Fraser Institute, and the chief executive party's orientation with respect to economic policy variable from the Database of Political Institutions. The former proxies for the size of government interference with the economy, such as the level of government consumption, transfers and subsidies, government enterprises and investment, and the top marginal tax rate, and is expected to have a negative sign. The latter is a cardinal variable that takes the value of 1 for conservative, Christian democratic, or right-wing executive parties, 2 for centrist parties and 3

[3] We linearly interpolate this index for the period 1996-1999 so as to employ the whole 1995-2011 period when the Heritage's business freedom index is used as dependent variable.

for communist, socialist, social democratic, or left-wing parties. So, larger values of this variable indicate a less liberal friendly government which presumably is less prone to undertake business friendly regulatory reforms.

The potential endogenous relationship between business regulations and the explanatory and control variables renders the OLS estimation method invalid and calls for a more suitable approach. For this reason, we use lagged values of the explanatory and control variables to mitigate endogeneity concerns and estimate equation (1) using the Arellano-Bover/Blundell-Bond GMM estimation technique (Arellano and Bover, 1995; Blundell and Bond, 1998). In this method, the first differences of endogenous variables are instrumented using lags of their own levels. Then, a system that includes both an equation in first differences and an equation in levels is estimated. By utilizing first differences, the Arellano-Bover/Blundell-Bond method implicitly controls for country fixed effects; such time-invariant effects are removed through the first differencing. Furthermore, by construction, this method mitigates the possible endogeneity problems. In addition, the Arellano-Bover/Blundell-Bond method is more appropriate for panels with a large number of cross-sections and a rather small number of time periods (Blundell and Bond, 1998), as is the case here. We use GMM instruments of the lagged dependent variable and the explanatory variable, i.e., foreign bank presence, while we use the second lag of the control variables as IV instruments.

The results from this analysis are reported in Table 4 which consists of two panels: Panel A reports the results when the Heritage business freedom index is employed as the dependent variable, while Panel B reports the relevant results with the Fraser Institute business regulation index. The Hansen test for over-identifying restrictions, reported along with the total number of instruments for each specification and the Arellano-Bond test for the specification AR(2) in first differences, verifies that the instruments are exogenous in all cases.

Insert Table 4 here

As Table 4 indicates, foreign bank presence at t-2 and t-3 positively impacts both business regulation indices at t (columns II, III, V and VI), with coefficients/t-statistic 1.324/2.116 and 1.460/2.181 for the Heritage business freedom index, and 0.219/2.267 and 0.202/1.990 for the Fraser business regulation index, respectively. Turning our attention to the 1-year horizon, foreign bank presence at t-1 is again positively related to the Fraser Institute business regulation index (column IV), albeit at a lower (10%) level of significance and with a lower coefficient (coefficient/t-statistic 0.184/1.781), while it does not have a statistically significant effect on the Heritage business freedom index (column I).

From the array of control variables included in the analysis, only GDP per capita exerts a strong and consistent positive impact on business regulation, while the availability of private credit is significant with a positive sign only in the case of the Heritage business freedom index for all three time horizons examined (columns I, II and III). All other lagged control variables are found to have no consistent significant effect on business regulation.

Therefore, the results overwhelmingly suggest that foreign bank presence indeed exerts a strong positive influence on the efficiency of business regulations, irrespectively of the measure employed, thus validating our research hypothesis H1a.

Sensitivity analysis

The next step in our exercise is to conduct a sensitivity analysis within the setting of equation (1). We experimented with other potential explanatory variables included in conjunction with or in place of some of those included in equation (1). Specifically, we used the FDI net inflow over GDP from the World Development Indicators database instead of the FDI inflow to GDP;

we included the consumption, government consumption and investment shares of PPP converted GDP per capita from the Penn World Tables 7.1 in order to control for the economic structure of the host countries; we replaced the openness variable with the overall globalization measure from the KOF institute; and finally we dropped GDP growth to address potential multicollinearity concerns stemming from the concurrent presence of GDP per capita in the estimated equation. In all cases, the results remain unaffected.

Additionally, to ensure that foreign bank presence impact on business regulations does not capture an effect related to FDI in general, we used the FDI inflow to GDP as our main explanatory variable, as in Kwok and Tadesse (2006), with 1-, 2-, and 3-lags, while controlling for the share of foreign banks to total banks in the economy. The results, available upon request due to space considerations, confirm that in contrast to foreign bank presence, FDI does not have an impact on business regulations.

Foreign bank presence and change in business regulations

To further ensure that causality runs from increased foreign bank presence to better business regulations and not vice versa, we use as the dependent variable the yearly change of our two regulatory measures. The results from this analysis, reported in Table 5, are remarkably similar to those in Table 4.

Insert Table 5 here

Table 5 shows that an increase in foreign bank presence causes a positive change in both business regulation indices on a 2 and 3 year horizon, while the effect is only marginally significant in the 1-year horizon for the Fraser index, much like the findings from Table 4. Moreover, these results reveal clearly the diminishing pace of this impact as time increases.

Indicatively, the coefficients of foreign bank presence at t-3 are slightly lower than those at t-2 for both regulatory measures (1.475 vs. 1.822 for the Heritage index, and 0.169 vs. 0.174 for the Fraser index, respectively). Yet, the cumulative effect on business regulations is quite large.

Foreign banks coming from the more efficiently regulated countries

Foreign banks coming from countries with more efficient business regulations may have superior experience and expertise and be more familiar with a more competent operation of firms. Subsequently, a rise in the presence of such foreign banks should have a more pronounced effect on the host countries' business regulations. To test this hypothesis, we first rank the countries according to the average efficiency, over the period 1995-2000, of their business regulatory environment using the Heritage business freedom index and the Fraser Institute business regulation index as measures.[4] We choose the earlier available period 1995-2000 for this averaging in order to focus on the countries that have a longer tradition in more efficient business regulations. Then, we take into account only the countries that belong in the top 10 percentile of the distribution for these two average measures, and end up with two lists of countries. With respect to the Heritage business freedom index, the list comprises the following 21 countries (from a total of 90 covered in 1995) which are (ranked from highest to lowest): Hong Kong, Singapore, Bahrain, Czech Republic, United Kingdom, Canada, Chile, Estonia, Malaysia, South Africa, New Zealand, Kuwait, United States, United Arab Emirates, Luxembourg, Cyprus, Ireland, Argentina, Japan, Israel and Denmark. With respect to the Fraser Institute business regulation index, the list includes 15 countries (from a total of 52 covered in 1995) which are (ranked from highest to lowest): Singapore, Finland, New

[4] Since the Fraser Institute's business regulation index is available at 5-year intervals before 2000, we average the relevant values of 1995 and 2000 for each country.

Zealand, Hong Kong, Iceland, United Kingdom, Estonia, United States, Denmark, Netherlands, Switzerland, Norway, Sweden, Canada and Ireland. [5]

Then, we utilize the Claessens and van Horen (2014) dataset and construct two new explanatory variables, i.e., the (log) of the ratio over total banks only of those foreign banks whose home country belongs in each of these two lists. Using these explanatory variables, we replicate the results of Table 4, and report the findings in Table 6.

Insert Table 6 here

Table 6 clearly shows that the impact of foreign bank presence on host countries' business regulation is much more pronounced, irrespective of the list of the more efficiently regulated home countries used or the dependent variable employed. Indeed, the coefficients of foreign bank presence are, on average over the two lists of more efficiently regulated countries and the two dependent variables, about 30% higher than the respective coefficients in Table 4. Certainly, the number of countries in this sample is smaller than the one used in the first part of the analysis with the full sample as reported in Table 4. To ensure that this more pronounced impact of foreign bank presence is not due to the smaller number of countries included in the analysis, we repeated the analysis reported in Table 4 with the sample of countries participating in Table 6. These results, available upon request, verify that this is not the case. Therefore, the overall evidence validates our research hypothesis H1b.

Foreign bank presence as an 'event'

To further enhance the validity of our results, we employ an alternative empirical approach based on the event study methodology. In this setting, we transform the continuous foreign

[5] The differences between the two measures of business regulations explain the differences in these two lists of countries.

bank presence variable into a dummy variable that takes the value of 1 if foreign bank presence exceeds a predefined threshold and 0 otherwise. In other words, we treat foreign bank presence above a threshold at a given country-year as an 'event'. Subsequently, we examine whether this 'event' exerts an impact on business regulations in the host country in the 1-, 2- and 3-year time horizons. We use four different thresholds for the construction of the relevant foreign bank presence dummy variables, namely the 10%, 20%, 30% and 40% share of total banks. In this way, we are able to explore more extensively whether increased foreign bank presence in the host country's banking system affects its business regulations.

The two-stage instrumental variables (IV) treatment effects model employed has the following form:

$$FBx_{it} = b_0 + b_1 z_{it} + e_{it} \qquad (2)$$

$$y_{it+n} = a_0 + a_1 y_{it} + a_2 \widehat{FBx}_{it} + \sum_j a_3 X_{jit} + \varepsilon_t + u_{it+n} \qquad (3)$$

where FBx_{it} is

$$FBx_{it} = \begin{cases} 0, & FB_{it} < x \\ 1, & FB_{it} \geq x \end{cases}$$

and $x \in \{10\%; 20\%; 30\%; 40\%\}$. Equation (2) is the treatment equation, i.e., a probit model, where z is an instrumental variable that affects the probability of the foreign bank presence being greater than the threshold x in country i, while for identification purposes z should not directly affect the response variable y, i.e., the business regulations in the country. For this, we use countries' (log) population as a proxy for potential market size, following Detragiache *et al*. (2008). The rationale is that foreign banks, operating in many countries, aim to diversify country risk, and thus the smaller the country, the larger the benefit for foreign banks in this diversification strategy and subsequently, the greater probability of increased foreign bank

presence. On the other hand, a country's potential market size, proxied by its population, should not, in principle, directly affect the business regulatory environment, thus satisfying the exclusion restriction criterion.

Equation (3) is the response equation where the dependent variable is the regulations index. This equation models the response of business regulations of country i at year $t+n$ when foreign bank presence at year t exceeds the threshold x. This group of country-years is the treatment group while the rest serve as a control group. Thus, the coefficient of interest is a_2, which captures the average effect on business regulations at year $t+n$ when foreign bank presence exceeds the threshold x at t.

The j-dimension vector X_j is the same one employed in equation (1) and controls for all other factors that may shape business regulations, thus making the treatment and control groups comparable. We also include the dependent variable at t to account for regulatory persistence and for possible differences in the trend of the variable between the treated and control groups before the treatment that might introduce a bias into the estimation of a_2. We simultaneously estimate equations (2) and (3) using a two-step consistent estimator of the parameters.

As before, we perform this analysis for n = 1, 2 and 3 years after the 'event' so as to explore the way and the time frame in which the impact of foreign bank presence on business regulations materializes. Furthermore, the use of the four distinct foreign bank presence dummies enables us to identify the level above which foreign bank presence exerts its influence on the host country's regulatory environment. The results are reported in Table 7. For brevity, we show only the coefficients of the four foreign bank presence dummies, along with the results from the first stage probit model. Panel A shows the results for the Heritage business freedom index, and Panel B for the Fraser Institute business regulation index.

Insert Table 7 here

The results in this table verify once more the positive impact of foreign bank presence on business regulations, while the instrument is quite strong in the first stage probit, with a negative coefficient as in Detragiache *et al*. (2008). Turning to the second stage results, foreign bank presence positively affects business regulations in the 1-, 2- and 3- year horizons after the 'event' for both regulatory indices, while for each time horizon the coefficients of foreign bank presence gradually drop, in general, as we move towards larger shares of foreign banks in the domestic banking system. Moreover, as we move towards bigger time horizons, the share of foreign banks in the domestic economy continues to affect, albeit at a slower pace, the business regulatory environment.

Sub-components of business regulations index

Finally, we investigate specific aspects of business regulations and how they are affected by foreign bank presence. To this end, we rely on the first three sub-components of the Fraser Institute business regulation index, namely the administrative requirements, bureaucracy costs and starting a business indices and perform the 'event' analysis described in the previous section. The results, reported in Table 8, reveal that foreign bank presence exerts a positive impact on administrative requirements and bureaucracy costs, greater in the latter case than in the former, but not on starting a business procedures. Moreover, and consistent with our findings with the overall business regulation indices, increasing foreign bank presence exerts a diminishing impact on these two aspects of business regulations within a specific time

horizon, while as we move towards bigger time horizons, the share of foreign banks in the domestic economy continues to affect them positively, albeit at a slower pace.

Insert Table 8 here

These results may be related to the specific nature of the business regulations. Administrative requirements account for measures that reflect general regulations that affect horizontally domestic and foreign businesses in the country. Bureaucratic costs mainly reflect the country's product/service quality, which could be improved through the presence of foreign banks. Export oriented firms tend to produce products and/or services of high quality since they are faced with fierce competition in international markets. These firms are among the actors who benefit most from the presence of foreign banks which provide additional channels of funding to these types of firms. Furthermore, this evidence may reflect an attempt by host governments for enhancement and dispersion within the domestic markets of the foreign banks' superior expertise through more stringent product quality standards.

Summary and conclusions

The entry of foreign banks into local banking markets has attracted much attention in the literature. Most empirical research so far has examined how the institutional environment in a country provides the framework for the establishment and strategy of foreign banks. In this study, we highlight the other side of the picture: we examine whether the presence of foreign banks positively affects business regulations in host countries.

We formulate two research propositions which provide the framework of our analysis. The first hypothesis seeks to provide evidence that the level of foreign bank presence in a

country positively affects business regulations over time. Under the second hypothesis we examine whether foreign bank presence from countries with more efficient business regulation has a more pronounced positive effect on the host country's business regulations over time. We empirically examine our propositions with the construction of a large unbalanced panel dataset for 115 advanced and emerging economies and for the 1995-2011 period. We use two different dependent variables: The first is the Heritage business freedom index constructed by the Heritage Foundation which is an overall indicator of the efficiency of government regulation of business. The second is the Fraser business regulations index that measures a number of regulatory obstacles in firm operation, such as administrative requirements, bureaucracy costs, and starting a business procedures.

Our results provide substantial support in favor of the positive effects on domestic business regulations that can be attributed to the presence of foreign banks. Specifically, it is shown that foreign bank presence positively impacts both business regulation indices, a finding consistent with our first proposition. To alleviate the potential concerns of reverse causality, we regress the yearly change of the two regulatory measures on the same set of independent and control variables and obtain results very similar to those obtained from the original formulation. These robust results provide fairly strong evidence for a causal effect flowing from foreign bank presence to domestic business regulations.

The second proposition is also verified by our empirical analysis. Thus, it is shown that foreign banks coming from the more efficient business regulation countries exert a considerably stronger influence on host countries' business regulation. The empirical support for our two hypotheses is further enhanced by the estimate of a model in which the foreign bank presence is treated as an 'event'. The estimated equations provide confirmation of the above findings with respect to overall business regulation indices, while revealing that host

countries' administrative requirements, and especially bureaucracy costs, benefit from foreign bank presence, but starting a business costs and time procedures does not.

References

Arellano, M., and Bover, O. (1995). Another Look at the Instrumental-Variable Estimation of Error-Component Models, Journal of Econometrics 68, 29-52.

Beck, T., Clarke, G., Groff, A., Keefer, P., and Walsh, P. (2001). New tools in comparative political economy: The Database of Political Institutions, World Bank Economic Review 15(1), 165-176.

Beck, T. (2002). Financial development and international trade: Is there a link?, Journal of International Economics 57, 107–131.

Blundell, R. and Bond, S. (1998). Initial conditions and moment restrictions in dynamic panel data models, Journal of Econometrics 87, 115-143.

Braithwaite, J., and Drahos, P. (2000). *Global business regulation*, Cambridge University Press.

Busse, M. and Groizard, J.L. (2008). Foreign direct investment, regulation, and growth, The World Economy, 31, 569–592.

Čihák, M., Demirgüç-Kunt, A., Feyen, E., and Levine, R. (2012). Benchmarking Financial Systems Around the World, World Bank Policy Research Working Paper 6175, World Bank, Washington, D.C.

Claessens, S., and Van Horen, N. (2007). Location decisions of foreign banks and competitive advantage, World Bank Policy Research Working Paper 4113.

Claessens, S. and van Horen, N. (2014). Foreign banks: Trends and impact, Journal of Money, Credit and Banking 46, 295-326.

Clarke, G., R.G., Cull, R., and Pería, M.S. (2006). Foreign bank participation and access to credit across firms in developing countries, Journal of Comparative Economics, 34, 774–795.

Clarke, G., R.G., Cull, R., Pería, M.S., and Sánchez, S.M. (2001). Foreign bank entry: Experience, implications for developing countries and agenda for further research, World Bank Research Observer 18(1), 25–59.

Detragiache, E., Tressel, T., and Gupta, P. (2008). Foreign banks in poor countries: Theory and evidence, Journal of Finance, 63(5), 2123-2160.

Djankov, S., McLiesh, C., and Ramalho, R.M. (2006). Regulation and growth, Economics Letters, 92(3), 395–401.

Djankov, S., La Porta, R., Lopes-de-Silanes, F., and Shleifer, A. (2002). The regulation of entry, Quarterly Journal of Economics, 117(1), 1–37.

Drahos, P., and, Braithwaite, J. (2001). The globalization of business regulation, Journal of Political Philosophy 9(1), 103-128.

Dreher, A. and Gassebner, M. (2013). Greasing the wheels? The impact of regulations and corruption on firm entry, Public Choice, 155, 413–432.

Giannetti, M., and Ongena, S. (2012). "Lending by example": Direct and indirect effects of foreign banks in emerging markets, Journal of International Economics, 86, 167–180.

Goldberg, L.S. (2004). Financial sector FDI and host countries: New and old lessons, NBER Working Paper No. 10441.

Gwartney J.D., Hall, J.C., and Lawson, R. (2012). *Economic Freedom of the World: 2012 Annual Report*. Vancouver, BC: The Fraser Institute, 2012.

Harding, T., and Javorcik, B.S. (2012). FDI and export upgrading, Review of Economics and Statistics 94(4), 964-980.

Heritage Foundation. Economic Opportunity and Prosperity: The 2013 Index of Economic Freedom, www.heritage.org/index.

Heston, A., Summers, R., and Aten, B. (2012). Penn World Table Version 7.1, Center for International Comparisons of Production, Income and Prices at the University of Pennsylvania, November.

Javorcik, B.S. (2004). Does foreign direct investment increase the productivity of domestic firms? In search of spillovers through backward linkages, American Economic Review 94(3), 605-627.

Keefer, P. (2012). DPI 2012, Database of Political Institutions: Changes and Variable Definitions. The World Bank.

Klapper, L., Laeven, L., and Rajan, R. (2006). Entry regulation as a barrier to entrepreneurship, Journal of Financial Economics, 82, 591–629.

Kwok, C.C.Y., and Tadesse, S., (2006). The MNC as an Agent of Change for Host-Country Institutions: FDI and Corruption, Journal of International Business Studies 37(6), 767-785.

Lehner, M., and Schnitzer, M. (2008). Entry of foreign banks and their impact on host countries, Journal of Comparative Economics, 36, 430–452.

Levchenko, A.A. (2007). Institutional quality and international trade, Review of Economic Studies 74(3), 791-819.

Levine, R. 2001. International financial liberalization and economic growth, Review of International Economics 9(4), 688-702.

Mayer, F. and Gereffi, G. (2010). Regulation and economic globalization: Prospects and limits of private governance, Business and Politics 12(3), Article 11.

Sengupta, R. (2007). Foreign entry and bank competition, Journal of Financial Economics, 84, 502–528.

Shleifer, A., and Vishny, W. (1993). Corruption. Quarterly Journal of Economics, 108(3), 599–617.

Vogel, D. (1995). *Trading up: Consumer and environmental regulation in a global economy.* Cambridge: Harvard University Press.

Table 1 Definitions and sources of variables

Variable	Definition	Source
Dependent variables		
Business freedom	Measures the efficiency of government regulation of business, and is derived from an array of measurements of the difficulty of starting, operating, and closing a business. Higher values indicate higher freedom.	Heritage Foundation
Business regulations	Measures the efficiency of government regulation of business. Higher values indicate higher efficiency.	Fraser Institute
Business regulations sub-components		
Administrative requirements	Measures the extent to which compliance of firms to administrative requirements (permits, regulations and reporting) is burdensome (lower values) or not burdensome (higher values).	Fraser Institute
Bureaucracy costs	Measures the stringency of the country's product/service quality, energy and other regulations (except environmental). Higher values indicate greater stringency.	
Starting a business	Measures the time and cost of starting a limited-liability business. It is the average of three indices that measure the time (in days) required to starting a new business, the fee costs to be paid to regulatory authorities, and the minimum capital requirements (as a share of per-capita income). A higher value indicates that is takes less time or is less costly to start a new business.	
Explanatory variables		
(log) Foreign bank presence	Natural logarithm of the ratio of foreign banks to total commercial banks. A foreign bank is a bank where 50% percent or more of its shares are owned by foreigners. (Claessens and van Horen, 2014).	Global Financial Development database
Foreign bank presence dummy 10;20;30;40	Dummy variable that equals 1 for foreign bank presence equal or greater than 10%; 20%; 30% or 40% of total commercial banks, respectively, and 0 otherwise	Global Financial Development database and authors' calculations
(log) GDP per capita	(log) Purchasing Power Parity (PPP) adjusted Gross Domestic Product (GDP) per capita at 2005 constant international $ prices (Chain Series).	Penn World Tables 7.1
GDP growth	GDP growth (%)	World Development Indicators
Inflation	Inflation, based on the GDP deflator (%)	
Bank credit to bank deposits	Bank credit to bank deposits (%)	Global Financial Development database
Inward FDI flow	Inward direct investment flows, as a share of GDP	United Nations Conference on Trade and Development (UNCTAD) statistics
Openness	Openness at 2005 constant prices, as a share of GDP (%)	Penn World Tables 7.1
Size of government	Measures the size of government interference with the economy (government consumption, transfers and subsidies, government enterprises and investment, top marginal tax rate).	Fraser Institute
Chief executive party orientation	Measures the chief executive party's orientation with respect to economic policy. Values assigned are: 1 for rightist parties (conservative, Christian democratic, or right-wing); 2 for centrist parties (e.g. party advocates strengthening private enterprise in a social-liberal context); 3 for leftist parties (communist, socialist, social democratic, or left-wing); 0 for cases which do not fit into the	Database of Political Institutions

	above-mentioned category (i.e. party's platform does not focus on economic issues, or there are competing wings) or there is no information (Keefer, 2012).	
Instrument		
(log) population	Natural logarithm of a country's population	World Development Indicators

Table 2 Summary Statistics

Variable	Obs.	Mean	St. Dev.	Min.	Max.
Dependent variables					
Business freedom	2,115	66.38	14.41	26.8	100
Business regulations	1,340	5.95	1.12	2.8	9
Business regulations sub-components					
Administrative requirements	1,280	3.81	1.41	0.9	8.5
Bureaucracy costs	1,273	5.11	1.72	0.4	10
Starting a business	1,369	7.99	1.76	0.2	10
Explanatory variables					
(log) Foreign bank presence	1,759	3.37	0.93	0	4.61
Foreign bank presence dummy 10	1,759	0.89	0.32	0	1
Foreign bank presence dummy 20	1,759	0.72	0.45	0	1
Foreign bank presence dummy 30	1,759	0.60	0.49	0	1
Foreign bank presence dummy 40	1,759	0.47	0.50	0	1
Control variables					
(log) GDP per capita	2,048	8.71	1.33	5.62	11.82
GDP growth	2,165	0.04	0.05	-0.18	0.89
Inflation	2,164	0.13	1.27	-0.28	54.00
Bank credit to bank deposits	2,099	100.93	64.45	8.61	898.05
Inward FDI flow	2,152	0.04	0.06	-0.55	0.75
Openness	2,048	0.83	0.52	0.14	4.33
Size of government	2,193	6.35	2.11	-11.12	27.04
Chief executive party orientation	2,154	1.32	1.26	0	3
Instrument					
(log) population	2,193	16.28	1.53	12.48	21.02

Table 3 Pairwise correlation matrix

	Business freedom	Business regulations	Administrative requirements	Bureaucracy costs	Starting a business	Foreign bank presence	GDP per capita	GDP growth	Inflation	Bank credit to bank deposits	Inward FDI flows	Openness	Size of government	Chief executive party orientation
Business freedom	1													
Business regulations	0.62	1												
Administrative requirements	0.31	0.60	1											
Bureaucracy costs	0.03	0.33	0.15	1										
Starting a business	0.42	0.58	0.07	-0.10	1									
Foreign bank presence	0.00	-0.03	-0.02	0.03	0.06	1								
GDP per capita	0.67	0.60	0.22	0.02	0.41	-0.18	1							
GDP growth	-0.19	-0.01	0.11	0.04	0.01	0.02	-0.11	1						
Inflation	-0.08	-0.25	-0.08	-0.05	-0.19	0.01	-0.04	0.02	1					
Bank credit to bank deposits	0.10	0.16	0.09	0.01	0.17	-0.26	0.17	0.02	-0.05	1				
Inward FDI flows	0.13	0.18	0.24	0.01	0.08	0.17	0.14	0.09	0.01	0.01	1			
Openness	0.33	0.32	0.32	-0.05	0.22	0.24	0.33	0.04	0.01	0.05	0.45	1		
Size of government	-0.13	-0.14	0.00	-0.09	0.00	0.19	-0.21	-0.02	0.09	-0.26	0.04	0.02	1	
Chief executive party orientation	0.11	0.07	-0.06	0.07	0.03	-0.02	0.15	-0.04	0.04	0.13	0.02	-0.07	-0.11	1
(log) population	-0.22	-0.32	-0.21	-0.10	-0.11	-0.35	-0.23	0.01	0.01	0.06	-0.22	-0.40	-0.03	0.08

Table 4 Foreign bank presence and business regulations

Dependent variable:	Heritage's business freedom			Fraser's business regulations		
	I	II	III	IV	V	VI
Lagged dependent	0.934***	0.930***	0.932***	0.692***	0.753***	0.745***
	(31.702)	(31.850)	(31.314)	(12.731)	(18.498)	(15.688)
Foreign bank presence$_{t-1}$	0.850			0.184*		
	(1.329)			(1.781)		
Foreign bank presence$_{t-2}$		1.324**			0.219**	
		(2.116)			(2.267)	
Foreign bank presence$_{t-3}$			1.460**			0.202**
			(2.181)			(1.990)
GDP per capita $_{t-1}$	0.622***	0.789***	0.824***	0.174***	0.146***	0.147***
	(2.691)	(2.660)	(2.628)	(4.489)	(4.577)	(4.241)
GDP growth $_{t-1}$	-20.756**	-16.120	-15.587	0.466	-0.586	-0.030
	(-2.035)	(-1.338)	(-1.432)	(0.501)	(-0.639)	(-0.033)
Inflation $_{t-1}$	-0.005	-0.009	-0.144	-0.106	-0.170	-0.181
	(-0.239)	(-0.507)	(-1.024)	(-0.463)	(-0.797)	(-0.804)
Bank credit/Deposits $_{t-1}$	0.006*	0.008**	0.008**	0.001	0.001	0.001
	(1.788)	(2.122)	(2.055)	(0.777)	(1.131)	(1.001)
Inward FDI flow $_{t-1}$	-6.262	-3.456	-1.608	-1.276	-0.653	-1.307
	(-0.682)	(-0.285)	(-0.212)	(-0.913)	(-0.584)	(-0.967)
Openness $_{t-1}$	-0.324	-0.674	-0.893	0.078	0.018	0.076
	(-0.441)	(-0.753)	(-1.154)	(0.890)	(0.206)	(1.048)
Size of government $_{t-1}$	-0.041	-0.114	-0.127	-0.001	-0.009	-0.006
	(-0.523)	(-1.186)	(-1.036)	(-0.031)	(-0.423)	(-0.271)
Government party orientation $_{t-1}$	-0.212	-0.217	-0.296*	-0.026	-0.026	-0.027
	(-1.585)	(-1.344)	(-1.840)	(-1.124)	(-1.156)	(-1.333)
Diagnostics						
Obs.	1,522	1,550	1,455	974	1,071	1,067
No. of countries	115	115	115	112	115	114
No. of GMM instr.	74	74	72	109	124	124
Hansen J-stat.	41.56	50.23	52.06	98.67	102.66	99.62
[p-value]	[0.76]	[0.42]	[0.32]	[0.18]	[0.43]	[0.52]
AR2	0.24	0.18	0.44	-0.55	-0.70	-0.26
[p-value]	[0.81]	[0.86]	[0.66]	[0.58]	[0.48]	[0.79]

(*), (**) and (***) denote significance at the 10%, 5% and 1% level, respectively.
z-statistics are reported in parentheses.

Table 5 Foreign bank presence and change in business regulations

Dependent variable:	**Δ(Heritage's business freedom)**			**Δ(Fraser's business regulations)**		
	I	**II**	**III**	**IV**	**V**	**VI**
Regulation index$_{t-1}$	-0.067**	-0.104***	-0.096***	-0.246***	-0.250***	-0.242***
	(-2.146)	(-3.698)	(-3.079)	(-4.398)	(-4.015)	(-4.569)
Foreign bank presence$_{t-1}$	0.810			0.172*		
	(1.231)			(1.945)		
Foreign bank presence$_{t-2}$		1.822**			0.174**	
		(2.006)			(2.253)	
Foreign bank presence$_{t-3}$			1.475**			0.169**
			(2.005)			(2.114)
GDP per capita $_{t-1}$	0.597**	0.980***	0.957***	0.153***	0.138***	0.150***
	(1.964)	(3.308)	(2.802)	(4.384)	(3.186)	(3.670)
GDP growth $_{t-1}$	-29.734**	-24.864*	-15.886	1.609	0.599	1.288
	(-2.292)	(-1.861)	(-1.579)	(1.115)	(0.409)	(1.024)
Inflation $_{t-1}$	0.011	-0.007	-0.159	-0.101	-0.266**	-0.241
	(0.376)	(-0.258)	(-0.755)	(-1.134)	(-2.180)	(-1.323)
Bank credit/Deposits $_{t-1}$	0.005	0.011***	0.010**	0.000	0.000	0.000
	(1.154)	(2.608)	(2.173)	(0.605)	(0.879)	(0.716)
Inward FDI flow $_{t-1}$	-14.583	3.888	-2.764	-2.286	-1.482	-2.097
	(-0.976)	(0.532)	(-0.401)	(-1.430)	(-1.124)	(-1.477)
Openness $_{t-1}$	0.048	-1.356	-0.754	0.090	0.067	0.102
	(0.052)	(-1.554)	(-0.960)	(0.964)	(0.975)	(1.318)
Size of government $_{t-1}$	-0.081	-0.097	-0.077	-0.012	-0.013	-0.004
	(-0.960)	(-0.945)	(-0.708)	(-0.617)	(-0.754)	(-0.198)
Government party orientation $_{t-1}$	-0.118	-0.265*	-0.342**	-0.016	-0.010	-0.024
	(-0.812)	(-1.653)	(-2.312)	(-0.811)	(-0.550)	(-1.118)
Diagnostics						
Obs.	1,522	1,550	1,455	1,128	1,186	1,143
No. of countries	115	115	115	112	115	114
No. of GMM instr.	72	74	83	111	121	117
Hansen J-stat.	42.26	52.38	64.45	92.79	91.76	100.56
[p-value]	[0.67]	[0.34]	[0.29]	[0.29]	[0.60]	[0.28]
AR2	0.40	0.03	0.43	-0.31	-0.56	-0.11
[p-value]	[0.69]	[0.98]	[0.67]	[0.75]	[0.58]	[0.91]

(*), (**) and (***) denote significance at the 10%, 5% and 1% level, respectively.
z-statistics are reported in parentheses.

Table 6 Foreign banks from the more efficiently regulated countries during the 1995-2000 period

	Panel A: Top countries according to Heritage business freedom						Panel B: Top countries according to Fraser business regulations					
Dependent variable:	**Heritage's business freedom**			**Fraser's business regulations**			**Heritage's business freedom**			**Fraser's business regulations**		
	I	**II**	**III**	**IV**	**V**	**VI**	**VII**	**VIII**	**IX**	**X**	**XI**	**XII**
Lagged dependent	0.958***	0.922***	0.928***	0.651***	0.708***	0.729***	0.937***	0.931***	0.939***	0.624***	0.722***	0.684***
	(31.638)	(34.037)	(32.565)	(9.134)	(12.309)	(13.597)	(30.446)	(25.343)	(27.415)	(8.076)	(11.734)	(9.179)
Foreign bank presence$_{t-1}$	0.363			0.293***			0.091			0.424**		
	(0.453)			(2.823)			(0.097)			(2.396)		
Foreign bank presence$_{t-2}$		2.043**			0.237**			1.676**			0.283***	
		(2.032)			(2.572)			(2.203)			(2.758)	
Foreign bank presence$_{t-3}$			1.928**			0.213**			1.714**			0.331***
			(2.119)			(2.033)			(2.187)			(2.909)
GDP per capita $_{t-1}$	0.500	0.829*	0.918**	0.208***	0.162***	0.149***	0.841**	0.898**	0.907**	0.259***	0.177***	0.210***
	(1.609)	(1.822)	(2.082)	(3.834)	(3.599)	(3.385)	(1.979)	(2.266)	(2.397)	(2.848)	(2.687)	(3.108)
GDP growth $_{t-1}$	-7.653	-30.190	-22.126	-0.328	-0.725	-1.582	-20.600	-51.292***	-47.784***	-0.353	-0.978	-0.870
	(-0.464)	(-1.342)	(-0.942)	(-0.236)	(-0.635)	(-1.186)	(-1.595)	(-3.356)	(-3.349)	(-0.207)	(-0.610)	(-0.562)
Inflation $_{t-1}$	-0.017	-0.084	0.054	-0.106	-0.317	-0.241	-0.321	-0.437*	-0.952	-0.124	-0.211	-0.227
	(-0.103)	(-0.394)	(0.130)	(-0.390)	(-1.267)	(-0.942)	(-0.830)	(-1.725)	(-0.379)	(-0.336)	(-0.768)	(-0.742)
Bank credit/Deposits $_{t-1}$	0.008*	0.014***	0.014***	0.001	0.001	0.001	0.004	0.009	0.009	0.002*	0.001	0.001*
	(1.825)	(2.665)	(2.651)	(1.432)	(1.250)	(1.118)	(0.839)	(1.618)	(1.223)	(1.762)	(1.302)	(1.801)
Inward FDI flow $_{t-1}$	4.372	10.622	12.506	-1.226	-0.082	-0.798	-7.461	-4.065	-1.119	-0.676	-0.613	-0.305
	(0.782)	(0.607)	(0.600)	(-1.122)	(-0.103)	(-0.813)	(-0.519)	(-0.321)	(-0.245)	(-0.664)	(-0.632)	(-0.399)
Openness $_{t-1}$	-0.518	-1.021	-1.235	0.067	0.056	0.079	0.046	-0.034	-0.334	0.075	0.084	0.072
	(-1.023)	(-1.516)	(-1.621)	(0.891)	(0.919)	(1.212)	(0.065)	(-0.044)	(-0.570)	(0.842)	(1.133)	(0.910)
Size of government $_{t-1}$	0.009	-0.148	-0.087	-0.038	-0.044*	-0.031	0.006	-0.101	-0.111	-0.046	-0.028	-0.020
	(0.073)	(-0.954)	(-0.555)	(-1.232)	(-1.738)	(-1.163)	(0.043)	(-0.554)	(-0.580)	(-1.184)	(-0.891)	(-0.703)
Government party orientation $_{t-1}$	-0.303**	-0.372***	-0.434***	-0.019	-0.017	-0.011	-0.292**	-0.277**	-0.322**	-0.010	-0.009	-0.007
	(-2.202)	(-2.731)	(-3.168)	(-0.666)	(-0.680)	(-0.478)	(-2.173)	(-2.013)	(-2.102)	(-0.339)	(-0.333)	(-0.260)
Diagnostics												
Obs.	1,161	1,170	1,091	767	837	828	1,009	1,014	943	691	750	738
No. of countries	95	95	94	92	95	94	83	83	82	80	82	81
No. of GMM instr.	74	74	72	109	124	124	74	74	72	109	124	124
Hansen J-stat.	50.76	54.94	53.17	77.75	82.69	79.98	43.51	47.28	43.00	67.98	72.41	68.05
[p-value]	[0.40]	[0.26]	[0.28]	[0.75]	[0.91]	[0.94]	[0.69]	[0.54]	[0.68]	[0.93]	[0.98]	[0.98]
AR2	-0.58	-0.45	0.14	-0.19	-0.69	-0.47	-0.08	-0.24	0.38	-0.69	-0.91	-0.70
[p-value]	[0.56]	[0.65]	[0.89]	[0.85]	[0.49]	[0.64]	[0.93]	[0.80]	[0.70]	[0.49]	[0.36]	[0.48]

(*), (**) and (***) denote significance at the 10%, 5% and 1% level, respectively.
z-statistics are reported in parentheses.

Table 7 Foreign bank presence as an 'event': Impact on business regulations

Panel A: Heritage's business freedom

	1 year ahead				2 years ahead				3 years ahead			
	I	**II**	**III**	**IV**	**V**	**VI**	**VII**	**VIII**	**IX**	**X**	**XI**	**XII**
Foreign bank presence dummy 10	2.99** (2.53)				4.53*** (2.88)				5.99*** (3.21)			
Foreign bank presence dummy 20		1.79** (2.29)				2.62** (2.54)				3.57*** (2.85)		
Foreign bank presence dummy 30			1.64** (2.28)				2.35** (2.48)				3.16*** (2.75)	
Foreign bank presence dummy 40				1.60** (2.14)				2.25** (2.30)				2.97** (2.51)
First stage probit												
(log) population	-0.33*** (-10.94)	-0.34*** (-13.36)	-0.36*** (-14.03)	-0.35*** (-13.52)	-0.33*** (-10.93)	-0.34*** (-13.36)	-0.36*** (-14.04)	-0.35*** (-13.54)	-0.33*** (-10.73)	-0.34*** (-12.90)	-0.36*** (-13.64)	-0.35*** (-13.14)
Obs.	1,542	1,542	1,542	1,542	1,540	1,540	1,540	1,540	1,437	1,437	1,437	1,437
Pseudo-Rsq.	0.12	0.11	0.11	0.10	0.12	0.11	0.11	0.10	0.12	0.11	0.11	0.10

Panel B: Fraser's business regulations

	1 year ahead				2 years ahead				3 years ahead			
	I	**II**	**III**	**IV**	**V**	**VI**	**VII**	**VIII**	**IX**	**X**	**XI**	**XII**
Foreign bank presence dummy 10	0.36** (2.50)				0.57*** (3.18)				0.80*** (3.85)			
Foreign bank presence dummy 20		0.25*** (2.91)				0.37*** (3.53)				0.53*** (4.29)		
Foreign bank presence dummy 30			0.24*** (3.09)				0.38*** (3.88)				0.54*** (4.76)	
Foreign bank presence dummy 40				0.24*** (3.05)				0.38*** (3.88)				0.54*** (4.81)
First stage probit												
(log) population	-0.27*** (-8.51)	-0.35*** (-11.91)	-0.36*** (-12.47)	-0.37*** (-12.43)	-0.27*** (-8.51)	-0.35*** (-11.91)	-0.36*** (-12.47)	-0.37*** (-12.43)	-0.27*** (-8.21)	-0.34*** (-11.35)	-0.36*** (-11.97)	-0.38*** (-11.92)
Obs.	1,139	1,139	1,139	1,139	1,139	1,139	1,139	1,139	1,040	1,040	1,040	1,040
Pseudo-Rsq.	0.09	0.11	0.12	0.12	0.09	0.11	0.12	0.12	0.09	0.11	0.12	0.12

(*), (**) and (***) denote significance at the 10%, 5% and 1% level, respectively.
z-statistics are reported in parentheses.

Table 8 Foreign bank presence as an 'event': Impact on business regulations' sub-components

Panel A: Administrative requirements												
	1 year ahead				**2 years ahead**				**3 years ahead**			
	I	**II**	**III**	**IV**	**V**	**VI**	**VII**	**VIII**	**IX**	**X**	**XI**	**XII**
Foreign bank presence dummy 10	0.39** (2.00)				0.58** (2.54)				0.69*** (2.76)			
Foreign bank presence dummy 20		0.27** (2.26)				0.44*** (3.13)				0.59*** (3.61)		
Foreign bank presence dummy 30			0.27** (2.40)				0.44*** (3.34)				0.60*** (3.97)	
Foreign bank presence dummy 40				0.27** (2.45)				0.45*** (3.52)				0.62*** (4.30)
First stage probit												
(log) population	-0.31*** (-8.09)	-0.36*** (-10.80)	-0.36*** (-11.10)	-0.37*** (-11.30)	-0.31*** (-8.09)	-0.36*** (-10.80)	-0.36*** (-11.10)	-0.37*** (-11.31)	-0.31*** (-7.81)	-0.36*** (-10.23)	-0.36*** (-10.60)	-0.38*** (-10.79)
Obs.	905	905	905	905	904	904	904	904	808	808	808	808
Pseudo-Rsq.	0.11	0.13	0.12	0.12	0.11	0.13	0.12	0.12	0.11	0.13	0.12	0.12
Panel B: Bureaucracy costs												
	1 year ahead				**2 years ahead**				**3 years ahead**			
	I	**II**	**III**	**IV**	**V**	**VI**	**VII**	**VIII**	**IX**	**X**	**XI**	**XII**
Foreign bank presence dummy 10	1.52*** (2.96)				2.14*** (3.65)				2.52*** (4.08)			
Foreign bank presence dummy 20		0.96*** (3.11)				1.33*** (3.80)				1.56*** (4.13)		
Foreign bank presence dummy 30			0.89*** (3.08)				1.26*** (3.82)				1.45*** (4.14)	
Foreign bank presence dummy 40				0.84*** (3.02)				1.18*** (3.72)				1.35*** (4.02)
First stage probit												
(log) population	-0.31*** (-8.05)	-0.36*** (-10.76)	-0.36*** (-11.06)	-0.37*** (-11.32)	-0.31*** (-8.05)	-0.36*** (-10.76)	-0.36*** (-11.06)	-0.37*** (-11.32)	-0.31*** (-7.78)	-0.36*** (-10.20)	-0.36*** (-10.57)	-0.38*** (-10.81)
Obs.	897	897	897	897	895	895	895	895	801	801	801	801
Pseudo-Rsq.	0.11	0.13	0.12	0.12	0.11	0.13	0.12	0.12	0.11	0.13	0.12	0.12
Panel C: Starting a business												
	1 year ahead				**2 years ahead**				**3 years ahead**			
	I	**II**	**III**	**IV**	**V**	**VI**	**VII**	**VIII**	**IX**	**X**	**XI**	**XII**
Foreign bank presence dummy 10	0.12 (0.60)				0.35 (1.37)				0.28 (1.07)			
Foreign bank presence		-0.03				0.04				0.03		

dummy 20		(-0.25)				(0.24)				(0.18)		
Foreign bank presence			-0.02				0.06				0.05	
dummy 30			(-0.15)				(0.38)				(0.32)	
Foreign bank presence				-0.05				-0.01				-0.04
dummy 40				(-0.43)				(-0.10)				(-0.23)
First stage probit												
(log) population	-0.32***	-0.37***	-0.35***	-0.35***	-0.32***	-0.37***	-0.35***	-0.35***	-0.33***	-0.37***	-0.36***	-0.36***
	(-8.38)	(-10.91)	(-10.94)	(-10.63)	(-8.37)	(-10.90)	(-10.91)	(-10.59)	(-8.12)	(-10.36)	(-10.45)	(-10.14)
Obs.	961	961	961	961	960	960	960	960	864	864	864	864
Pseudo-Rsq.	0.12	0.12	0.11	0.10	0.12	0.12	0.11	0.10	0.12	0.12	0.11	0.10

(*), (**) and (***) denote at respectively the 10%, 5% and 1% level, respectively.
z-statistics are reported in parentheses.