

The Real Effect of Foreign Banks*

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Abstract

Although foreign banks can act as catalysts for financial and economic development their role remains controversial because they might simply displace local lenders, thereby tightening firms' overall access to credit. To settle this issue, we study their effect on economic activity in a large cross-section of developing and advanced countries, whose industrial sectors differ in their external financing needs. We find that foreign banks alleviate the consequences of financial constraints for firm performance and increase real growth net of the competitive reaction of local lenders. They also mitigate the adverse consequences of banking crises on firms but do not significantly affect real economic activity in advanced countries with well-functioning financial markets. Our results also suggest that foreign banks help to overcome informational and legal obstacles to lending, especially in developing countries, whose companies often lack access to alternative sources of finance.

1 Introduction

Access to finance and, by extension, a well functioning financial sector are of central importance for firm performance and economic growth.¹ In particular, inefficient banking systems often constrain economic activity because firms with external financing needs lack access to credit. In this context, the role of foreign direct investment by banks in mitigating financial inefficiencies is ambiguous.² On the one hand, foreign entry can act as a catalyst for financial development by providing superior expertise (Claessens *et al.*, 2001) or new sources of financing (BIS, 2001 and 2006) and might induce consolidation in fragmented banking systems (Gelos and Roldos, 2004), which all can improve the efficiency of local intermediation and availability of credit (Beck *et al.*, 2004). On the other hand, foreign-owned lenders might exert competitive pressures on domestic banks which, in response, cut back their own lending activities (Giannetti and Ongena, 2007) to such a degree that the overall availability of credit decreases (Gormley, 2008). Hence, the effect of foreign banks on domestic economic activity is both an important empirical and policy question all the more that existing work offers conflicting predictions and contradictory empirical evidence.

To fill this gap in the literature, we investigate the role of foreign banks in improving firm performance and the economic channels through which their presence affects real economic activity in a panel of 87 developed and developing countries. We conjecture that outside entry stimulates industrial growth by relaxing external-financing constraints on firms' activities. Our primary variable of interest is an interaction term between an index of financial dependence by industry and the share of total domestic banking assets held by foreign-owned lenders. By interacting country attributes (presence of foreign banks) and an exogenous industry benchmark (external financial dependence) in a difference-in-difference framework we isolate the independent impact of foreign banks on real growth across countries and industries while avoiding simultaneity and reverse-causality concerns. A plethora of time, country, and industry fixed effects address potential omitted-variable bias.

Our results provide strong evidence that foreign banks consistently and significantly alleviate financial constraints and improve firm performance. The greater an industry's dependence on external finance, the more their presence increases real growth, especially in developing countries,

¹Since King and Levine (1993) and Rajan and Zingales (1998) a growing body of literature has shown that a country's level of financial development has a direct bearing on its economic prospects (see, e.g., Beck *et al.*, 2000).

²See Goldberg (2007) for a survey on the effects of foreign direct investment in banking.

whose firms often lack access to alternative sources of funds. When we relate the impact of foreign banks on firm performance to the occurrence of local banking crises we find that nonlocal lenders mitigate their severe consequences on growth (see Kroszner et al., 2007 or Dell’Ariccia et al., 2008) to the point of insignificance. In a similar vein, first-time foreign entry, which has a much greater impact than later incremental entry, unambiguously and immediately lessens the negative effects of financial dependence on real economic activity, especially in developing countries. Taken together, our findings suggest that foreign banks as marginal suppliers of credit relax financial constraints on firms when they bind the most.

The mode of foreign entry also matters. Only institutions entering through acquisitions significantly improve the performance of more financially dependent industries. Since foreign entrants face considerable informational and contracting obstacles acquisitions provide access to local lending expertise, which helps in establishing lending relationships. The fact that this acquisition-entry effect is significantly larger for developing countries, where informational and legal problems loom larger than in advanced economies, lends further credence to our interpretation. Indeed, the inclusion of proxies for the institutional foundations of credit markets such as the existence of local credit bureaus and registries or of well-defined creditor rights and their enforcement does not affect the relation between foreign banks and firm performance. Since the institutional proxies are only statistically significant for advanced economies we interpret these results as evidence that foreign banks also lessen firms’ financial dependence by overcoming informational and legal inefficiencies in emerging credit markets.

We also carry out a host of tests for residual joint endogeneity and alternative variable definitions and assess the robustness of our results to country attributes and industry characteristics. In particular, the inclusion of various interaction terms between financial dependence and measures of economic and financial openness or financial, legal, and political development do not change our conclusions. Decomposing such country effects by level of economic development reveals the following symmetry: foreign banks continue to relax the financing constraints and improve firm performance in developing but not advanced countries whereas financial and legal development only contributes to real economic activity in developed but not emerging economies. We also find no evidence that foreign banks displace domestic lending although they have a seven times larger impact on growth than their local competitors, which provides further evidence that they lessen

financial dependence at the margin.

Our main contribution consists in isolating the direct impact of foreign banks' local lending on real economic activity net of the reaction of the domestic banking sector for a large cross-section of countries and industries over time. In particular, we identify the lessening of external financial constraints on firm growth and the overcoming of informational and legal obstacles to financial intermediation as three major economic channels through which foreign banks improve firm performance in their host countries. Furthermore, we establish that foreign banks counteract the negative impact of local banking and credit crises on growth. Since we carefully control for omitted variables and test extensively for residual joint endogeneity our results reflect the independent, exogenous direct effect of foreign banks on domestic firm performance, which also holds important policy implications for their entry and operation in host countries.

In terms of related empirical evidence, Berger, Klapper, and Udell (2001), Haber and Musacchio (2004), and Mian (2006) provide evidence that foreign banks tend to finance only larger, more established firms. Similarly, Giannetti and Ongena (2007) find for a sample of Eastern European countries that firm-level sales and asset growth are positively related to the share of foreign lending, particularly for larger companies in their sample of young unlisted firms. However, all these studies focus on lending by nonlocal institutions so that our work provides a complementary perspective, which takes into account the response by the domestic banking sector, identifies the economic forces underlying the foreign-bank effects, and derives policy implication on the basis of a large cross-section of countries.

The one exception is Gormley (2008) who on the basis of Indian data finds that firms are less likely to obtain credit after foreign entry because of a systematic drop in domestic lending. However, it is unclear what the net impact on economic activity might be and whether the findings generalize to other countries, which is central to our analysis. Focusing on financial development in poor countries rather than growth, Detragiache *et al.* (2008) argue that foreign banks benefit high-end customers but may hurt other borrowers, thereby worsening overall welfare, and find empirical support for their predictions. They report that credit growth is slower and credit less readily available in developing countries with higher foreign-bank penetration, but not in more advanced economies. However, they do not address the consequences of foreign banks for firm performance or real economic activity.

From a methodological perspective, our work is closest related to Rajan and Zingales (1998), who first studied the relation between financial development and real growth, as well as Kroszner *et al.* (2007) and Dell’Ariccia *et al.* (2008) who analyze the impact of banking crises on firm performance in a difference-in-difference framework. Similarly, Cetorelli and Gambera (2001), Cetorelli and Strahan (2006), and Bonaccorsi di Patti and Dell’Ariccia (2004) use this approach to assess the effects of market structure or bank competition on, respectively, access to credit by young firms and firm creation whereas Bertrand *et al.* (2007) apply it to banking deregulation.

The paper is organized as follows. The next sections review the theoretical literature and describe our data and estimation strategy. In Section 4, we study how foreign banks affect local firm performance. Sections 5 and 6 analyze their role during local banking crises, pure entry effects, and obstacles to lending. In Sections 7 and 8, we examine how the presence of foreign banks interacts with country and industry attributes and carry out various robustness tests. The last section discusses further implications and concludes. We relegate all tables to the Appendix.

2 Foreign-Bank Entry and Firm Performance

There is a common perception that foreign banks alleviate financial constraints, improve access to credit, and lower borrowing costs, thereby improving firm performance in host countries.³ Entering institutions often have access to a larger pool of capital, which potentially increases the supply of loanable funds to domestic firms. The resulting increase in local lending should relax financial constraints on firms’ activities, which would then translate into higher real growth, the greater the foreign-bank presence. During local banking crises, this “loan-supply” effect should be particularly valuable because foreign-owned lenders, which fund themselves through their parent companies, can continue to extend credit to firms, which otherwise face a credit crunch. Similarly, entry into countries without any prior foreign-bank presence allows us to further test this hypothesis.

However, foreign institutions with superior lending expertise can also exert competitive pressures on local banks, which might cut back their lending activities to an extent that the overall supply of credit falls. Dell’Ariccia and Marquez (2004) or Sengupta (2007) show that the high cost of

³For instance, Japan, the US, and EU argue in a joint memo to the World Trade Organization that “[p]olicies that impede competition, such as entry restrictions and restrictions on foreign banks, have been shown to raise the cost of financial services and hurt economic performance” (WTO Document 05-2335, June 2005).

acquiring borrower-specific information might induce entrants to only lend to the best credit risks (“cream-skimming”), which is consistent with empirical evidence in Berger, Klapper, and Udell (2001), Haber and Musacchio (2004), and Mian (2006). Local banks facing a deteriorating borrower pool reduce their lending activities so that greater competition might worsen firms’ access to credit (Petersen and Rajan, 1995 or Gormley, 2008). Whether foreign entry improves the availability of credit and lowers borrowing costs therefore depends on the competitive reaction of the local banking sector. If foreign banks exacerbate financial constraints on firm performance due to a retrenchment by domestic lenders a larger outside presence should lead to slower industrial growth.

At the same time, entrants can suffer from adverse selection if local credit markets are informationally opaque and the domestic banking sector holds the informational advantage (Dell’Ariccia and Marquez, 2004). Foreign banks’ success now critically depends on their ability to screen borrowers (Broecker, 1990) and attract good credit risks (Gehrig, 1998). In this context, the mode of entry becomes important. Entry through acquisitions as opposed to greenfield investments provides access to local lending expertise which allows foreign banks to overcome asymmetric-information problems and lend more efficiently.⁴ Hence, acquisitions should have a larger immediate effect on real economic activity the greater the informational obstacles are, e.g., in developing countries.

Dell’Ariccia *et al.* (1999) show that incumbent banks can use informational asymmetries to block entry by less informed outsiders.⁵ The mere fact that we observe entry in 69 of the 87 countries in our sample suggests that it occurs when borrower-specific information is available through means such as credit bureaus, well developed financial markets, foreign borrowing by firms, etc., which all level the informational playing field. Similarly, the lack of well defined creditor rights or their enforcement might discourage bank lending, thereby exacerbating financial constraints on firm performance. Sengupta (2007) predicts that both better information *ex ante*, e.g., through acquisitions or information-sharing mechanisms, and stronger legal protection *ex post* can facilitate the entry of low-cost outside competitors. These results suggest linkages between foreign entry, financial development, and the legal and informational environment, which could create joint-endogeneity problems unless properly controlled for. At the same time, they point to the overcoming of informational and legal obstacles to financial intermediation as further mechanisms by which

⁴In contrast, Claeyns and Hainz (2006) argue that greenfield investments force entrants to use their superior credit-screening expertise to overcome informational barriers and find empirical evidence to this effect.

⁵See Buch (2003) for evidence that large information barriers discourage entry by foreign banks.

foreign entrants might lessen local firm’s dependence on external financing and spur growth.

3 Data Description and Methodology

The analysis draws on two principal data sources: the UN Industrial Statistics compiled by the UN Industrial Development Organization (UNIDO) and the World Bank’s database on foreign banks described in Claessens *et al.* (2008). We start with a total of 91 countries for which we have both bank-ownership and value-added data from 1995 to 2003 when UNIDO country coverage becomes unreliable. To maximize sample size we construct an unbalanced panel of country-industry observations at the three- and four-digit ISIC level. We exclude the US, whose data serve to construct an index of external financial dependence, to avoid endogeneity problems. Furthermore, we drop three countries with less than 10 industry-year observations⁶ (Algeria, Swaziland, Uganda) and sometimes lose six countries (Barbados, Finland, Greece, Italy, Jamaica, Macedonia) with insufficient balance-sheet data, leaving a core sample of 22 advanced and 59 developing countries.

3.1 Data Description

Our sample comprises 3,111 financial institutions in 1995 (3,137 in 2003) including 673 foreign owned ones (1,008 in 2003), which have been operating for at least one year in a host country with at least five active intermediaries.⁷ Although its primary source is BankScope the World Bank’s database also draws on banks’ annual and corporate-governance reports, central banks, regulatory agencies, local stock exchanges, SEC form F-20, parent company’s reports, The Economist Intelligence Unit, Factiva, The Banker, etc. (see Claessens *et al.*, 2008 for details). Following the literature (see, e.g., Claessens *et al.*, 2001 or Detragiache *et al.*, 2008), the data consider a lender foreign-owned if nonlocal parent firms directly hold 50% or more of its shares, i.e., indirect ownership is not taken into account except through shell-corporations established for tax reasons. The database also traces ownership in special cases involving M&A, relocation of the owner, changes in ownership during financial crises, and other extraordinary corporate events.

⁶Countries with only 10 industry-year observations do not offer sufficient information to estimate differential effects across time and space. However, all our results are robust to their inclusion.

⁷The World Bank data provide year-by-year information on ownership structure and financial data for over 5,000 banks. Together with the ownership information on domestic institutions they cover 94% of all banks in BankScope, which itself comprises more than 95% of banking assets worldwide.

The dependent variable measures firm performance as real growth in manufacturing value added (*Growth*), which we compute as the yearly difference in the logarithm of value added for 36 manufacturing industries from the UNIDO statistics adjusted for inflation using CPI data from the IMF's International Financial Statistics. We focus on manufacturing for two reasons. On the one hand, the chosen industries exist in a wide cross-section of countries despite significant differences in income and development level so that they represent a useful benchmark for economic activity. On the other hand, their poor performance rules out that banks entered into new markets for these basic industries, which allows us to sidestep potential simultaneity issues. Although important for economic activity (up to 34% of GDP), Table 1 shows that growth across industries and countries averages -0.44% over the sample period. We winsorize the growth data at the 1st and 99th percentile to avoid outlier problems; however our estimations are robust to the inclusion of such observations (results not reported).

We capture foreign-bank penetration primarily in terms of the share of domestic banking assets held by foreign-owned local institutions (*ForBkAS*) and their share in total loans outstanding (*ForBkLS*). Table 2 tabulates the number of foreign-owned institutions active in each country in our sample and their asset share. We see that, on average, the presence of foreign banks has grown from 6 to about 8.5 institutions (developing countries: from 7.2 to 10; advanced countries: 2.5 to 3.9) over the sample period with an overall mean of 7.6. During the same time, their share of domestic banking assets (*ForBkAS*), our key explanatory variables, has doubled from 18% to 36.15% (developing countries: from 19.84% to 38%, advanced countries: 12% to 29.24%). Our data also contain information on the foreign institutions' mode of entry after 1995 so that we can decompose the foreign-owned share of domestic banking assets in terms of greenfield investment (*ForBkAS_{Green}*) or merger and acquisition (*ForBkAS_{M&A}*).

In line with our conjecture that foreign banks affect firm performance by relaxing financial constraints, we construct an index of external financial dependence (*FinDep*) based on US firm-level data to avoid joint-endogeneity and simultaneity-bias problems. We take the data from Rajan and Zingales (1998) as updated by Kroszner *et al.* (2007), who compute financial dependence as the share of capital expenditure not financed with cash flow from operations. The index is then simply the median for US manufacturing firms during the 1980s in Compustat (see Table 1).

3.2 Methodology

To assess the impact of foreign banks on firm performance, we examine whether local industries which depend more heavily on external finance grow faster as a result of their presence. One methodological problem, which typically arises in such a study, is the joint endogeneity of entry and growth and the resulting causality problem: the faster an economy and its firms grow, the more likely banks might be to enter. To sidestep such issues, we estimate difference-in-difference specifications with our exogenous index of financial dependence drawn from US firm’s financial constraints. Under the assumption that financial dependence varies more by industry than country for technological reasons (see, e.g., Rajan and Zingales, 1998 or Kroszner *et al.*, 2007) the US represent a natural benchmark for the relative ranking of each industry’s external-financing needs given that it has one of the most advanced and frictionless financial sectors by almost any measure (e.g., Demirguc-Kunt and Levine, 2001).⁸ To the extent that firms in industries, which are more dependent on external finance, grow faster in the presence of foreign banks, it is more likely that outside entry has an independent beneficial effect on real economic activity regardless of the competitive reaction by the domestic banking sector.

We test this hypothesis by estimating variations of the following linear model of industry i ’s growth defined as the first difference in the logarithm of its real value added in country j in year t :

$$Growth_{ijt} = \alpha_0 + \gamma FinDep_i \cdot ForBkAS_{jt} + \delta Share_{ijt-1} + \sum_{it} \alpha_{it} 1_i \cdot 1_t + \sum_{jt} \beta_{jt} 1_j \cdot 1_t + \varepsilon_{ijt} \quad (1)$$

Our key variable interacts the financial dependence of industry i ($FinDep_i$) with the share of domestic banking assets in country j held by foreign institutions in year t ($ForBkAS_{jt}$). If foreign banks relax external-financing constraints for local firms the interaction-term coefficient γ should be positive and statistically significant. If, however, outside entry exacerbates financial dependence by displacing local banks, which cut back their own lending activities, the coefficient γ will be negative. Hence, the sign and statistical significance of the $FinDep_i \cdot ForBkAS_{jt}$ coefficient allow us to unambiguously assess the aggregate effect of foreign banks on firm performance including the

⁸In light of the wide availability of external finance of all sources to US public firms over the sample period, this benchmark represents a lower bound on industries’ financing needs. Furthermore, to the extent that this measure might not be representative for a particular country or industry, its use biases the test against the null hypothesis (foreign banks do not affect industry growth by lessening financial dependence), if at all. Relying on country-specific financial-dependence measures would simply reintroduce endogeneity problems.

domestic lenders' reaction.

To account for the tendency of larger industries to grow more slowly, we include the lagged share of industry i in country j 's value added ($Share_{ijt-1}$), which corrects for such base effects. In the interest of parsimonious specification, we control for potential omitted variables with time, country, and industry fixed effects by interacting industry-year ($1_i \cdot 1_t$) and country-year ($1_j \cdot 1_t$) binary variables, which take values of 1 for country i , industry j , and year t , and 0 otherwise. We estimate all specifications by OLS and report P -values based on standard errors clustered at the country-industry level which are adjusted for heteroscedasticity within countries and industries and for first-order autocorrelation across time. As robustness tests, we vary the country selection and estimate key specifications with and without the African countries which often exhibit a negligible foreign-bank presence and suffer from dysfunctional local banking systems.

4 Foreign Banks and Real Growth

Table 3 shows that local lending by foreign banks is unambiguously beneficial for real economic activity: the coefficient of the interaction term $FinDep \cdot ForBkAS$ is consistently positive and statistically significant at the 5% level. Dropping the African countries, whose dysfunctional banking systems might bias the results, doubles the coefficient of the interaction term and, thus, the differential real-growth effect (Specifications 2 and 4). When we measure the presence of foreign banks by their share of loans outstanding ($ForBkLS$) we obtain virtually identical results (not reported). We continue to work with foreign-bank assets, which more accurately reflect the commitment of nonlocal institutions to their host countries.⁹

Lending by nonlocal banks relaxes external financing constraints and allows financially more dependent firms to grow faster taking into account the reaction of the domestic banking sector. To put this effect into perspective, an industry in the 75th percentile of $FinDep$ in a country in the 75th percentile of $ForBkAS$ would grow 1.17 percentage points faster than those located at the corresponding 25th percentiles.¹⁰ The effect is even more pronounced for firms in developing countries, whose real growth at the 75th percentiles would exceed that of firms at the 25th one by 2.12 percentage points (Specification 3). This finding also identifies the economic channel -

⁹The correlation between the shares of foreign banks in domestic assets and loans is 0.9864.

¹⁰We compute the differential growth effects as $\hat{\gamma} \cdot (FinDep_{75} \cdot \overline{ForBkAS}_{75} - FinDep_{25} \cdot \overline{ForBkAS}_{25})$.

lessening firms' external financial dependence - through which foreign banks can stimulate local economic activity. It is consistent with Beck *et al.* (2004) who find that a greater foreign-bank presence in developing countries leads to more readily available credit to small and medium-sized companies.

To decompose the impact of foreign banks by level of economic development and income, we interact our key $FinDep \cdot ForBkAS$ term with appropriate binary variables drawn from the IMF country classification (Specifications 5 and 6). The results confirm that nonlocal lenders affect real economic activity more in developing countries than in advanced ones. However, the coefficient is not statistically significant for low-income countries. Repeating this estimation without the 18 African countries, which rank among the world's poorest, shows that the income effects do not depend on sample selection (Specification 7). Our results agree with findings based on survey data (Clarke *et al.*, 2006 and de Haas and Naaborg, 2005) that foreign banks benefit not only large but also small and medium-sized enterprises, which dominate the mid-income economies, primarily through increased domestic lending.

These results are consistent with the notion that foreign banks independently spur firm growth rather than displacing domestic lending. To directly test this interpretation, we split the ratio of local banking assets to GDP, which is an indicator of banking-system development, into its foreign-held and domestic components and interact them with the financial-dependence variable. Specifications 8 and 9 show that both foreign-bank penetration and local-bank development relax external financing constraints and contribute to firm performance. However, the foreign-bank effect is almost seven times larger and more important for developing than advanced economies, which suggests that outsiders are particularly important for lessening financial dependence at the margin. This finding also provides further evidence on the importance of local financial development for growth (see Beck *et al.*, 2000 and the references therein).

We next investigate simultaneity concerns arising from bank entry due to firms' growth prospects and countries' openness. A simple counterfactual test consists in separately estimating the effect of foreign banks on high-growth and low-growth industries (above and below the median). Although it is unlikely that outside banks enter a foreign market to lend to local manufacturing industries, whose mean growth rates are negative for both advanced and developing countries, it is even more unlikely that they did so for the worst performing ones. To the extent that even those industries

benefit from the presence of foreign banks other factors than the prospects of local manufacturing industries must have induced foreign-bank entry, which we then can take as exogenous.

Specification 1 in Table 4 reveals that the effect of foreign banks is much more pronounced for low- than high-growth industries in terms of economic and statistical significance. This finding argues against potential simultaneity biases arising from growth opportunities, which we further test in Section 8. Similarly, our key interaction variable retains its statistical significance when we only include observations with foreign-bank penetration in the first and fourth quartile (Specification 2). These two findings show again how important foreign banks are for relaxing financing constraints at the margin: the effect for countries in the first quartile is almost 30 times larger than for those in the fourth one.

Since foreign banks might only enter open economies, whose industries correspondingly have better growth prospects, we next interact the financial-dependence variable with the share of foreign trade (exports + imports) in GDP for each country and add the term to our main model (Specification 3).¹¹ We repeat this exercise with indices measuring restrictions on cross-border financial transactions (Specification 4: see Schindler, 2009) and openness to (i.e., the lack of restrictions on) the movement of goods, services and capital (Specification 5: see Dreher *et al.*, 2008), which also proxy for the ease of entry. We see that our main interaction term retains both its statistical significance and magnitude whereas the additional terms are statistically or economically insignificant, which again argues against simultaneity biases arising from foreign banks only entering open countries.

Finally, we assess the robustness of our results to sample selection and alternative variable definitions. Restricting our sample to countries with at least 50 industry-year observations or only those with active foreign banks (Specifications 6 and 7, Table 4) leaves the results virtually unchanged in comparison to Specification 1 in Table 3. In Specification 8, we use the cumulative average growth rate over the sample period as the dependent variable. Estimating our main model in a pure cross-section changes the estimates' magnitudes but neither their statistical significance nor interpretation. Replacing the financial-dependence variable with an updated version provided in Kroszner *et al.* (2007) in Specification 9 yields very similar results so that we continue to work

¹¹We drop the African countries from this estimation due to data issues; when we include them the trade interaction term is not statistically significant but our foreign-bank one is marginally so.

with the original *FinDep* variable. Measuring the degree of foreign-bank penetration alternatively by the number of foreign institutions (Specification 10) or their share in terms of numbers of local banks (results not reported) yields almost identical results to our original ones.

Our findings suggest that, instead of displacing domestic credit, foreign banks unambiguously stimulate the growth of financially constrained firms. Since we do not distinguish between firms borrowing from domestic and foreign banks and measure the importance of outside lenders relative to the local ones our results provide strong support for the overall beneficial impact of foreign banks on real economic activity. Even after controlling for credit to the industrial sector by domestic banks we find that local lending by foreign banks lessens firms' financial dependence and improves their performance. These results are consistent with Clarke, Cull, and Martinez-Peria (2006) who report that entrepreneurs in countries with high levels of foreign-bank ownership perceive interest rates and access to loans as smaller constraints to their operations. Studying foreign entry in Latin-American countries Martinez-Peria and Mody (2004) find that a higher presence of foreign banks leads to lower costs for all intermediaries operating in the market so that the improved efficiency of the domestic banking sector might similarly benefit borrowers.

5 Banking Crises and Foreign Presence

Domestic banking crises unambiguously exacerbate firms' financial dependence and thus hurt economic activity (Kroszner *et al.*, 2007 and Dell'Araccia *et al.*, 2008). To the extent that their local occurrence represents an exogenous event, they permit us to directly test our hypothesis that foreign banks contribute to firm performance by relaxing financing constraints. Since foreign-owned institutions typically fund themselves abroad through their parent companies they are less exposed to local economic conditions and can continue to lend even when the domestic banking sector has become unable to do so. Hence, we would expect growth in financially dependent industries to be less affected by domestic banking crises the greater the foreign-bank presence.

The World Bank's database on banking crises (see Caprio and Klingebiel, 2003) identifies 31 countries in our sample which experienced systemic problems during the sample period. Accordingly, we define a binary variable *Crisis*, which takes the value 1 in the year of the crisis' inception and the two subsequent years and 0 otherwise. We first replicate the results in Kroszner *et al.*

(2007) and Dell’Ariccia *et al.* (2008), who have shown that banking crises hurt real economic activity by exacerbating the negative consequences of financial dependence on firm growth, for our sample. In Specification 1 of Table 5, we estimate our main model in Equation (1) with an interaction term between financial dependence and banking crises ($FinDep \cdot Crisis$) instead of our usual $FinDep \cdot ForBkAS$ one. Consistent with the previous literature, we also find that, during crisis periods, the growth rate declines relatively more, the more financially dependent industries are.

Next, we add back our key financial-dependence and foreign-bank variable $FinDep \cdot ForBkAS$. Specification 2 shows that the banking-crisis interaction term now becomes statistically insignificant. The result is even more pronounced once we drop the African countries (Specification 3). In contrast, the foreign-bank interaction term retains its customary magnitude and statistical significance at 1%. Specification 4 shows that this finding holds regardless of a country’s level of development but that, once again, the impact of foreign banks in developing economies is almost double that in advanced ones. These results establish that foreign banks truly improve firm performance by lessening their external financial dependence.

Decomposing the foreign-bank and crisis effects for Africa, developing countries outside Africa, and advanced economies (Specification 5) or by income level (Specification 6) reveals that nonlocal lenders neutralize the impact of banking crises outside Africa or for mid- and high-income countries but exacerbate it in African or low-income economies. Hence, we interact $FinDep \cdot ForBkAS$ with the $Crisis$ variable to directly test whether nonlocal lenders alleviate or worsen the negative consequences of financial turmoil for firm performance. Specification 7 seems to suggest that foreign institutions aggravate the effect of banking crises on real economic activity (large, negative statistically coefficient of $FinDep \cdot ForBkAS \cdot Crisis$). However, Specifications 8 (Africa dropped from the sample) and 9 (decomposed effects) reveal that the previous result is again entirely due to the African countries whose large, negative $FinDep \cdot ForBkAS \cdot Crisis$ coefficient is the only statistically significant one.

Our results indicate that foreign banks counteract the impact of a domestic credit crunch on financially dependent firms during a banking crisis. They mirror the finding in Dell’Ariccia *et al.* (2008) that banking crises have a smaller impact in countries whose private sector has more access to foreign capital markets. Nevertheless, foreign banks can have an additional destabilizing impact in low-income countries, especially in Africa. In these economies, dysfunctional regulatory, legal,

and financial structures do not permit local banks to effectively compete with foreign entrants, which might call in loans or engage in cream-skimming. Such actions, which presumably deepen the effect of banking crises on firms, further destabilize the host economy and local intermediaries.

However, once countries attain a certain level of economic and, hence, institutional development, i.e., mid-income and developing economies outside Africa, foreign banks actually mitigate the adverse consequences of banking crises on firm performance. Sheltered from local financial turmoil through their affiliation with foreign parent companies they continue to lend to firms with promising investment opportunities even after the domestic banking sector has stopped to do so in response to systemic problems. As a result, far from playing a destabilizing role foreign institutions actually relax financial constraints on firms precisely during times when such impediments to growth are particularly damaging to real economic activity.

6 Entry, Information, and Creditor Rights

Having established that foreign banks improve growth prospects by alleviating financial constraints on firm performance through additional lending, we now turn to their role in overcoming informational and legal obstacles to financial intermediation. To this end, we investigate entry effects and the interaction of foreign lenders with local arrangements underpinning credit markets.

6.1 Foreign Entry

To capture the long-term effects of entry, we define a binary variable *Entry* which takes the value 1 from the year onwards an outside institution becomes active and 0 otherwise. We also split *Entry* into first-time (*DeNovo*: 6 out of 18 countries) and additional (*Add*: 63 out of 69 countries) entry. To properly account for the importance of entering lenders, we compute their asset shares $ForBkAS_{Entry}$, which we also split into $ForBkAS_{DeNovo}$ and $ForBkAS_{Add}$, and trace them through the sample period. As robustness tests, we define corresponding binary variables which take the value 1 in the year of entry and 0 otherwise, interact all binary entry variables with $ForBkAS$, and restrict our sample to countries with entry but do not report any results, which are similar to the tabulated long-run effects.

We first investigate pure entry effects by interacting our entry variables with *FinDep*. Speci-

fication 1 in Table 6 shows that all entry confounded exacerbates financial dependence and hurts real economic activity: the coefficient of the $FinDep \cdot Entry$ interaction term is negative and statistically significant. However, this result is due to the negative impact of additional entry by foreign banks (Specification 2). Further decomposing each entry effect by level of economic development (Specification 3) shows that incremental entry into emerging economies drives the aggregate negative-coefficient estimate. Additional entry into such markets is more likely to eventually crowd out local lending and ultimately aggravate financial constraints than *de-novo* entry, which actually lessens firms' financial dependence.

However, entry effects might vary with foreign-bank penetration. Specifically, it should have a much more beneficial impact in countries with a small rather than large outside presence, where additional foreign banks might displace local lending and thus tighten access to credit. Testing this hypothesis with the $ForBkAS_{Entry}$ variables, Specification 4 shows that, compared to our main model (Specification 1, Table 3), the effect is indeed twice as large. Both *de-novo* and additional entry benefit economic growth but the former is much more important (Specifications 5 to 7, Table 6). Specifications 8 and 9, which further decompose entry effects, indicate that these results primarily stem from developing countries. These findings provide additional evidence that foreign entry relaxes external financing constraints by increasing the net supply of loans rather than displacing local lending.

6.2 Mode of Entry

Given that local incumbents are thought to initially hold an informational advantage entering institutions might face significant information costs.¹² Hence, entry through greenfield investments (building up local lending expertise from scratch) or acquisitions (buying existing lending expertise) holds very different implications for both the entrant's success and its impact on firm performance. Acquisitions allow entrants to combine superior foreign credit-assessment expertise with access to local information,¹³ which should therefore have a more beneficial impact on economic growth than greenfield investments. To investigate this hypothesis, we determine the nature of all entry in our

¹²See, e.g., Dell'Araccia and Marquez (2006) or Sengupta (2007) for theoretical arguments and Buch (2003) for empirical evidence.

¹³Bouckaert and Degryse (2006) distinguish between information about repayment behavior and borrower type; although public information might be available about the former only an acquisition would grant entrants access to the latter.

sample and decompose $ForBkAS$ into the asset shares of greenfield ($ForBkAS_{Green}$), acquisition ($ForBkAS_{M\&A}$), and pre-1995 ($ForBkAS_{1995}$) investments because our data does not allow us to trace the entry mode prior to 1995.

Specification 1 in Table 7 reveals that entry by M&A has a highly significant statistical and economic effect on local economic activity whereas greenfield investments appear irrelevant. Combining both modes whenever known (Specification 2) or distinguishing between greenfield, M&A, or unknown entry prior to 1995 (Specifications 3 and 4) confirms these findings both in terms of the statistical significance and economic magnitude. Acquisitions also affect firm performance much more in developing countries, where borrower information is typically less readily available and proprietary lending expertise therefore more important, than advanced ones (Specifications 4 to 6). The results strongly suggest that informational considerations matter for the overall impact of foreign banks on their host economies so that we now examine the role of local sources for borrower information and of legal arrangements in the presence of foreign-bank activity.

6.3 Borrower Information and Creditor Rights

Credit markets rely on significant institutional infrastructure to fulfill their function of steering capital toward its most productive uses. In particular, they require mechanisms to collect and disseminate borrower information such as credit registries or bureaus¹⁴ and to enforce debt contracts, i.e., well defined creditor rights and their efficient enforcement. Hence, we add interaction terms between financial dependence and variables indicating the existence of credit registries or bureaus (binary variables $CredReg$ or $CredBur$), an index of creditor rights ($CredRts$), a measure of the quality of debt-contract enforcement ($DebtEnf$), and an index of legal (procedural) formalism ($Form$), all taken from Djankov *et al.* (2003, 2006 or 2007), to our main model.

We pursue two objectives with this line of investigation. On the one hand, the contribution of institutions facilitating financial intermediation to real economic activity is of interest in its own right. For instance, Jappelli and Pagano (2002) report that more information sharing is associated with a higher ratio of private credit to GNP and less default. Similarly, Miller (2003) finds that

¹⁴Credit bureaus and registries improve banks' applicant-specific information thereby easing adverse selection problems (Jappelli and Pagano, 2002), level the informational playing field, which improves borrowers' incentives to perform (Padilla and Pagano, 1997), and act as a disciplining device reducing moral hazard in repayment (Padilla and Pagano, 2000). By contrast, Bouckaert and Degryse (2006) argue that partial information sharing through credit bureaus or registries can deter entry.

information from credit registries significantly augments banks performance in Latin America. On the other hand, the additional interaction terms allow us to assess the presence of residual joint endogeneity, i.e., the danger that foreign banks only enter into countries with sufficiently developed ambient institutions, which contribute to economic growth in their own right. Starting with the latter, the results in Table 8 suggest that residual endogeneity is not an issue. Comparing the results across all specifications with our main Specification 1 in Table 3 we see that the economic and statistical significance of $FinDep \cdot ForBkAS$ barely change.

The lack of statistical significance of public credit registries (Specification 1) and private credit bureaus (Specification 3) might indicate that mechanisms which alleviate informational asymmetries do not contribute to real economic activity. However, decomposing the effects by level of economic development reveals that information-collection and -sharing devices have a significant impact on growth only in advanced countries whereas foreign-banks significantly affect growth only in developing economies (Specifications 2 and 4). Given the generally poor quality of credit information in such countries, potential users prefer to collect or acquire their own intelligence. This finding suggests that foreign banks act as substitutes for information-sharing mechanisms in emerging markets and is consistent with our earlier results on acquisitions in Table 7.

Although the enforcement of debt contracts appears more important for firm performance than creditor rights *per se* neither variable changes the importance of foreign banks (Specifications 5 and 7). Once again, institutional development only matters in advanced economies, where contractual rights and their enforcement help to relax external financing constraints, but do not affect growth in developing ones presumably due to their uncertain nature (Specifications 6 and 8). Including an interaction term with legal formalism, which measure substantive and procedural statutory intervention in judicial cases (the higher the index, the more interventionist and typically inefficient the judicial process), confirms this interpretation. Although the interaction term is not statistically significant on its own (Specification 9) it negatively affects real economic activity in developing countries but not in advanced ones (Specification 10). These findings contrast with the results in Haselmann *et al.* (2009) and Giannetti and Ongena (2007) who report that lenders' and, especially, foreign banks' willingness to provide credit is positively related to creditor protection and their ability to enforce their claims (collateral law).

7 Host-Country Institutions and Growth

Although our approach addresses potential simultaneity issues we now relate firm performance to country characteristics to assess residual joint endogeneities in foreign-bank entry and growth.

7.1 Financial Development

We begin our robustness tests by adding interaction terms between financial dependence and measures of a host country's financial development, i.e., $FinDep \cdot FinDev$, to our main model in Equation (1). Well-developed financial markets allow firms easier access to funding, thereby diminishing their dependence on both domestic and foreign lenders. At the same time, a country's level of financial development might also affect an institution's entry decision, thereby causing simultaneity problems. We measure financial development $FinDev$ in terms of local credit to the private sector ($PrivCredit$), local stock market capitalization ($StMktCap$), local stock value traded ($StValTrad$), and local bonds outstanding issued by private firms ($PrivBond$), all as fractions of GDP, and local stock market turnover as a fraction of market capitalization ($StMktTurn$).¹⁵

When we estimate our main model with only a $FinDep \cdot PrivCredit$ interaction term as in Rajan and Zingales (1998) our sample yields very comparable results (coefficient estimate of 0.0327 with a P -value of 2.90%, results not reported). Comparing the estimates in Tables 9 and 3 shows that our results are robust to the inclusion of financial-development interaction terms because the coefficient and statistical significance of our key variable $FinDep \cdot ForBkAS$ remain virtually unchanged. Measuring financial development in terms of private credit as a fraction of GDP ($PrivCredit$) reveals an interesting symmetry across levels of economic development. In developing countries, foreign-bank lending is crucial in mitigating the consequences of financial dependence for firm performance but not aggregate private credit, which is not statistically significant. In contrast, the statistical and economic significance is reversed for advanced economies where the extent of private credit but not the presence of foreign lenders matters for real economic activity.

This pattern also holds for alternative measures of financial development with two exceptions. Stock-market capitalization does not seem to contribute to firm growth *per se* (Specifications 3 and 4, Table 9), which is probably a reflection of the variable's poor performance as a measure of

¹⁵All data come from the World Bank's Financial Development and Structure Database; see Beck *et al.* (1999) for a detailed description of the data and variable definitions.

financial-market development.¹⁶ Indeed, turnover measures (Specifications 5 and 6), which are a better measure of market depth and, hence, financial development, are not only statistically significant but their decomposition by economic-development level conforms to the previously identified pattern. Similarly, the existence of a well established corporate bond market lessens firms' external financial dependence and increases their performance on its own (Specifications 9 and 10).

Taken together, we interpret these results as evidence that the previously identified beneficial effects of foreign banks on firm performance are robust to various measures of financial development. However, alternative means to alleviate external financial constraints on firm growth exist in advanced economies, where they reduce the importance of foreign banks for real economic activity. Several conclusions follow. First, foreign banks as a source of funds and intermediation expertise are much less important in the presence of well established local financial markets and institutions. Second, they are only one mechanism to improve economic performance through a reduction in firms' external financing needs. These findings suggest that developing countries might want to invest in financial and, especially, institutional infrastructure to further real economic activity, a topic we turn to next.

7.2 Institutional Development

The general level of institutional development of a country and its economic, financial, and political stability are often key factors in foreign-direct investment decisions. To ascertain whether the resulting potential joint endogeneity is of concern we proceed as before and add an interaction term of financial dependence with various measures of the host country's level of institutional development, i.e., $FinDep \cdot InstDev$, to our main model in Equation (1). We measure the latter with the International Country Risk Guide (ICRG) index family. $ICRGFin$ and $ICRGPol$ are the financial and political stability indices, respectively, whereas $ICRGLaw$, $ICRGGov$, and $ICRGBur$ measure a host country's quality of law enforcement, government effectiveness, and quality of bureaucracy.¹⁷

The virtually unchanged magnitude and statistical significance of the $FinDep \cdot ForBkAS$ co-

¹⁶High ratios of stock-market capitalization to GDP are often due to developing countries' small GDP and the presence of a few large firms typically concentrated in the commodities sector. Similarly, stock-market capitalization might not be representative of market depth because the free-float is often small in emerging economies. In advanced economies, firms have alternative means to raise funds so that stock-market capitalization alone might not satisfactorily measure financial development, either.

¹⁷The higher the index the greater a country's stability or its institutional development; see www.prsgroup.com for more details on the indices and their composition.

efficients in Table 10 indicate that our methodology successfully addresses joint-endogeneity and simultaneity concerns. The decomposition into developing- and advanced-economy effects reveals that the previously noted financial-development pattern continues to hold (Specification 2). Foreign banks only matter for real growth in developing but not advanced countries. Conversely, financial development and stability lessen the external financial dependence of firms and improves their performance in developed but not emerging economies. Specifications 3 and 4 show that political stability and reliable law enforcement both spur real economic activity by relaxing financing constraints and that the latter exhibits the usual country-decomposition pattern (Specifications 5).

Both government efficiency and bureaucratic quality contribute to higher growth of financially more dependent firms even in the presence of foreign banks (Specifications 6 and 7). To the extent that both variables are correlated with the efficiency of regulatory institutions we can also view them as instruments for the quality of banking regulation all the more that *ICRGBur* specifically includes regulatory quality as one of the index' components. When we decompose the variable by host-country level of economic development (Specification 8) we see that the foreign-bank-country effect is unchanged, i.e., foreign banks only relax financial constraints in developing countries. However, regulatory quality as an instrument for banking regulation spurs real economic activity both in advanced and emerging economies. Hence, good banking regulation and supervision independently matter in developing countries, too presumably because they facilitate efficient intermediation and remove obstacles to domestic lending and firms' access to credit.

8 Joint Endogeneity and Industry Characteristics

We now address joint-endogeneity concerns directly through instrumental-variable estimation by TSLS. We first regress the share of domestic banking assets held by nonlocal institutions (*ForBkAS*) on a constant and The Heritage Foundation's Banking Freedom Index. This index measures, among other things, restrictions on foreign banks to open branches or subsidiaries and, therefore, represents a natural instrument.¹⁸ The first-stage F statistic of 69.59 resoundingly rejects the null hypothesis of the weak-instrument test in TSLS whose critical value is 16.38 (see Stock and Yogo, 2004). We then replace *ForBkAS* in our main specification with the fitted values from the first-stage regres-

¹⁸See Jayaratne and Strahan (1996) for an application of a similar identification strategy to US data, and Giannetti and Ongena (2007) to foreign-bank entry.

sion. Specification 1 in Table 11 shows that the magnitude and statistical significance of our key interaction term remain very comparable to the baseline results in Table 3.

To assess the robustness of our financial-dependence variable, we next compute the benchmark for young (only firms public for less than 10 years) and mature (only firms public for at least 10 years) companies and separately interact it with foreign-bank penetration. Specifications 2 and 3 show that foreign banks significantly lessen the adverse effect of financial dependence on the performance of mature firms only and that the results are very comparable to our main specification in Table 3. The finding that mature rather than young firms, which typically have greater financing needs, benefit most from the presence of foreign lenders is consistent with previous results that foreign banks tend to lend to more established firms (see, e.g., Haber and Musacchio, 2004, or Mian, 2006).

To further test whether our financial-dependence benchmark really captures financing constraints, we next add interaction terms of *ForBkAS* with industry characteristics, which might affect the firms' access to credit, to our main model. We consider the median ratio of intangible (*Intang*) to fixed or tangible (*Tang*) to total assets for US firms in Compustat from 1980 to 1999, an indicator variable for industries primarily manufacturing durable goods (*Dur*), R&D intensity (*R&D* : median ratio of R&D expenditure to sales for US firms in Compustat 1980 to 1999), and capital intensity (*CapInt* : median ratio of fixed assets to employees for US firms in Compustat 1980 to 1999). Specifications 4 to 8 in Table 11 indicate that once again both the magnitude and statistical significance of the *FinDep* · *ForBkAS* coefficients remain very comparable to the original estimates with the exception of Specification 7 in which our key variable loses its statistical significance. However, in this case the industry interaction term is not statistically significant, either.

Finally, we assess whether the presence of foreign banks might be related to firm's growth opportunities either because of an industry's "technological" firm size or economic prospects. Following Beck *et al.* (2008), we measure the former by an industry's share of employment in companies with less than 20 employees in the US obtained from the 1992 Census as a representative benchmark of its natural share of small firms (*SmallFirmS*), which typically offer the best growth prospects and could therefore attract foreign-bank entry. For the latter, we follow Fisman and Love (2007), who argue that the financial-dependence variable really proxies for differential growth opportunities,

and measure industry prospects by the median of real sales growth by industry (*GrowthOpp*) for the same time period and sample of US firms used for the financial-dependence variable. Specifications 9 and 10 show that our foreign-bank interaction term retains its economic and statistical significance despite the inclusion of the additional growth interaction terms.

Taken together, these results provide strong evidence that our financial-dependence variable indeed captures external financing constraints rather than general industry or firm characteristics and that residual joint endogeneity with growth prospects is not a problem.

9 Discussion

This paper examines the overall consequences of foreign-bank entry for real economic activity including the competitive reaction of local lenders. If foreign entry displaced domestic lending to a degree that the overall access to credit falls the performance of firms more heavily dependent on external finance should suffer disproportionately more. When we apply this insight to a wide cross-section of developing and advanced economies we find that more financially dependent industries perform significantly better in the presence of foreign banks. The outside supply of new loanable funds net of the domestic banks' reaction lessens the financial dependence of local companies, thereby allowing them to grow faster, especially in developing countries where financial constraints limit firm growth even more severely (see Demirguc-Kunt and Maksimovic, 2002).

Such an exogenous source of funding is particularly valuable during domestic banking crises. Foreign banks provide a safety net to local firms which greatly mitigates the consequences of a domestic credit crunch. However, in countries with dysfunctional banking systems foreign lenders seem to aggravate the crisis-induced contraction in real economic activity. In addition to relaxing external-financing constraints our analysis identifies means to overcome informational asymmetries as a second channel through which foreign banks improve the growth prospects of financially dependent firms. This channel is particularly important in developing countries where ill-functioning legal institutions and corporate opaqueness exacerbate informational problems. Finally, foreign banks also seem to mitigate the consequences of legal obstacles to lending, which represents yet another economic mechanism for their impact on firm performance.

Our findings hold several policy implications. First and foremost, foreign banks stimulate real

economic activity and stabilize firm performance in times of crisis. Fears that their presence might destabilize the local economy appear misplaced. At the same time, countries must have attained a certain level of institutional maturity for foreign banks to significantly improve growth prospects. Hence, investment in legal and financial infrastructure should contribute to higher real economic activity through more efficient financial intermediation and, especially, foreign banks. Our findings also suggest that legal and political institutions and, in particular, financial regulation and oversight can independently alleviate financial constraints on firm performance. We leave this question for future research.

Appendix

Table 1: **Summary Statistics**

Variable	Description	Obs	Mean	Std Dev	Min	Max	1 Quart	Median	3 Quart
	Manufacturing/GDP	683	17.00%	6.52%	2.27%	34.30%	13.28%	17.65%	21.38%
	Manufacturing/GDP - dev	171	19.50%	6.13%	3.73%	34.30%	15.80%	19.34%	24.14%
	Manufacturing/GDP - adv.	512	16.16%	6.44%	2.27%	30.94%	11.42%	16.89%	20.45%
<i>Growth</i>	Ind. real VA growth all (87)	11042	-0.44%	29.00%	-116.48%	102.97%	-9.99%	0.76%	10.17%
<i>Growth · 1_{Dev}</i>	Ind. real VA growth - dev. (62)	6960	-0.48%	33.61%	-116.48%	102.97%	-13.33%	1.10%	13.37%
<i>Growth · 1_{Adv}</i>	Ind. real VA growth - adv. (25)	4082	-0.37%	18.70%	-116.48%	102.97%	-6.59%	0.35%	6.70%
<i>FinDep</i>	Financial dependence 1980-1989	36	0.3190	0.4000	-0.4500	1.4900	0.0700	0.2300	0.4500
<i>FinDep1999</i>	Financial dependence 1980-1999	36	-0.0144	0.5666	-1.1400	2.4300	-0.2800	-0.0300	0.0575
<i>ForBkAS</i>	Foreign-bank asset share	705	27.52%	30.57%	0.00%	100.00%	1.42%	14.70%	47.13%
<i>ForBkAS · 1_{Dev}</i>	Foreign-bank asset share - adv.	524	29.27%	29.30%	0.00%	100.00%	2.82%	18.66%	49.92%
<i>ForBkAS · 1_{Adv}</i>	Foreign-bank asset share - dev.	181	22.44%	33.56%	0.00%	100.00%	0.00%	3.61%	33.32%
<i>ForBkLS</i>	Foreign-bank loan share	705	27.43%	30.81%	0.00%	100.00%	1.01%	14.34%	47.84%
<i>ForBkNum</i>	Number of foreign banks	783	7.5977	10.1763	0	57	1	4	9
<i>ForBkNumS</i>	Foreign bank number share	783	27.80%	24.03%	0.00%	100.00%	7.69%	23.08%	43.48%
<i>Entry</i>	Foreign entry dummy	783	0.5275	0.4996	0.0000	1.0000	0.0000	1.0000	1.0000
<i>ForBkAS_{DeNovo}</i>	<i>De-novo</i> For-Bank asset share	681	9.17%	17.96%	0	87.17%	0	0	8.57%
<i>ForBkAS_{Add}</i>	Additional For-Bank asset share	773	0.32%	2.95%	0	44.43%	0	0	0
<i>ForBkAS_{Green}</i>	Greenfield foreign-bank asset sh.	684	2.02%	6.62%	0.00%	76.59%	0.00%	0.00%	1.12%
<i>ForBkAS_{M&A}</i>	M&A foreign-bank asset share	732	6.99%	16.08%	0.00%	91.95%	0.00%	0.00%	2.75%
<i>Share</i>	Share of industry in VA	11042	0.0404	0.0572	<0.0001	0.7646	0.0081	0.0217	0.0506
<i>Trade</i>	Share of trade in GDP	602	82.02	48.72	14.93	397.44	51.64	72.57	99.47
<i>CapCtrol</i>	Index of capital controls	715	0.32	0.35	0	1.00	0	0.15	0.67
<i>Openness</i>	Index of economic openness	738	63.75	20.63	9.73	96.85	48.45	64.16	81.44
<i>CredReg</i>	Public credit registries	729	0.4897	0.5002	0	1	0	0	1
<i>CredBur</i>	Private credit bureaus	729	0.4938	0.5003	0	1	0	0	1
<i>CredRts</i>	Creditor rights index	647	1.8686	1.1894	0	4	1	2	3
<i>DebtEnf</i>	Debt enforcement index	62	54.73	25.21	6.06	96.01	37.08	52.09	78.00
<i>From</i>	Legal formalism index	72	3.65	1.09	0.73	6.01	2.98	3.66	4.34
<i>Crisis</i>	Banking crisis indicator	783	11.62%	32.07%	0	1	0	0	0
<i>PrivCred</i>	Private credit/GDP	746	0.5151	0.4249	0.0308	2.0068	0.1799	0.3699	0.7441
<i>StMktCap</i>	Stock-market capitalization/GDP	676	45.67%	55.03%	0.04%	373.62%	12.34%	26.76%	57.86%
<i>StMktTurn</i>	Stock-market turnover/cap.	669	45.67%	88.29%	0.08%	1601.71%	7.92%	26.86%	59.23%
<i>StValtrad</i>	Stock value traded/GDP	685	23.90%	41.50%	0.00%	277.56%	1.08%	4.99%	29.03%
<i>PrivBond</i>	Private bonds outstanding/GDP	321	21.21%	19.70%	0.00%	129.58%	3.39%	16.45%	34.98%
<i>ICRG_{Fin}</i>	ICRG Financial Stability Index	735	36.43	6.05	15.63	50.00	33.13	36.79	40.08
<i>ICRG_{Pol}</i>	ICRG Political Stability Index	735	70.58	11.96	34.29	94.63	62.13	71.33	79.75
<i>ICRG_{Law}</i>	ICRG Law&Order Index	735	4.20	1.37	0.50	6.00	3.00	4.00	5.00
<i>ICRG_{Gov}</i>	ICRG Government Eff. Index	735	8.85	1.62	3.00	11.58	7.83	9.17	10.00
<i>ICRG_{Bur}</i>	ICRG Bureaucracy Quality Ind.	735	2.55	1.03	0.00	4.00	2.00	2.33	3.29
<i>Intang</i>	Intangible asset fraction	36	8.83%	9.06%	0.00%	43.00%	2.50%	7.00%	11.50%
<i>Tang</i>	Tangible asset fraction	36	30.61%	12.96%	12.00%	62.00%	20.00%	28.00%	40.00%
<i>Dur</i>	Durable goods	36	47.22%	50.63%	0.00%	100.00%	0.00%	0.00%	100.00%
<i>R&D_{Int}</i>	R&D intensity	36	0.0372	0.0964	0.0000	0.5800	0.0100	0.0100	0.0200
<i>CapInt</i>	Capital intensity	36	36.2217	42.3206	7.1200	244.6300	16.8200	21.6550	39.3850

This table summarizes our key variables in terms of their mean, standard deviation (“Std Dev”), minimum (“Min”), maximum (“Max”), and their 25th (“1 Quart”), 50th (Median), and 75th (“3 Quart”) percentiles. To provide a sense of the economic importance of manufacturing industries, we first report descriptive statistics for their share in GDP over the sample period drawn from the World Bank’s World Development Indicators. We winsorize the dependent variable (real growth in value added by industry and country) at the 1st and 99th growth percentile to address potential outlier problems across the 36 manufacturing industries and all 87 (62 developing and 25 advanced) countries. See Section 3 for a description of the variables.

Table 2: **Foreign-Bank Presence 1995 to 2003**

Panel A: Advanced Countries

Country	Foreign Banks			Fraction of Foreign Banks			Asset Share of Foreign Banks		
	1995	2003	Average	1995	2003	Average	1995	2003	Average
Australia	0	2	0.78	0.00%	20.00%	7.90%	0.00%		0.00%
Austria	0	1	0.44	0.00%	4.00%	1.76%	0.00%	29.77%	16.48%
Belgium	4	5	4.44	17.39%	26.32%	20.55%	1.14%	79.92%	46.58%
Canada	13	14	14.56	59.09%	60.87%	61.71%	4.17%	3.61%	3.64%
Cyprus	3	4	3.22	25.00%	28.57%	24.73%	7.13%	9.52%	7.16%
France	2	3	2.44	5.71%	10.00%	7.46%	3.83%	4.00%	3.83%
Finland	1	1	1.00	12.50%	10.00%	11.79%			
Germany	2	3	2.44	6.67%	11.11%	8.36%	0.05%	0.37%	0.47%
Greece	2	2	1.44	16.67%	12.50%	10.77%			
Hong Kong	7	10	8.33	30.43%	45.45%	36.67%	43.67%	58.61%	48.36%
Iceland	0	0	0.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Ireland	11	15	13.00	78.57%	83.33%	80.03%	100.00%	100.00%	100.00%
Israel	1	1	1.00	8.33%	8.33%	8.33%	0.38%	0.75%	0.64%
Italy	1	2	1.67	3.85%	6.67%	6.05%			
Japan	0	0	0.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Korea	0	4	1.22	0.00%	28.57%	8.24%	0.00%	47.06%	14.00%
New Zealand	1	3	2.78	16.67%	33.33%	33.80%		94.10%	96.21%
Norway	0	0	0.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Portugal	1	4	2.00	6.67%	25.00%	12.82%		0.68%	1.19%
Singapore	2	3	2.89	22.22%	30.00%	29.88%	6.75%	41.93%	39.04%
Slovenia	1	5	2.22	7.69%	38.46%	17.31%	3.53%	23.17%	10.22%
Spain	4	3	3.67	12.50%	10.71%	11.91%	33.32%	82.12%	59.49%
Sweden	0	1	0.44	0.00%	11.11%	5.09%	0.00%		0.00%
Switzerland	9	10	10.00	39.13%	40.00%	40.13%	1.25%	1.63%	1.94%
United Kingdom	1	2	2.00	4.35%	7.69%	7.65%		15.52%	17.53%
Mean Advanced	2.55	3.86	3.22	14.44%	21.76%	17.67%	12.00%	29.24%	21.13%

Panel B: Developing Countries - Africa

Country	Foreign Banks			Fraction of Foreign Banks			Asset Share of Foreign Banks		
	1995	2003	Average	1995	2003	Average	1995	2003	Average
Benin	3	5	4.33	60.00%	71.43%	67.83%	52.76%	48.83%	50.73%
Botswana	3	4	3.44	75.00%	57.14%	63.73%	61.91%	69.65%	59.66%
Cameroon	3	5	3.89	50.00%	55.56%	49.49%	82.42%	77.84%	78.94%
Egypt	2	6	4.33	6.25%	18.75%	13.54%	0.76%	9.35%	4.97%
Ethiopia	1	3	2.00	9.09%	50.00%	28.56%	24.34%	98.27%	64.86%
Ghana	5	9	6.78	50.00%	60.00%	49.89%	33.71%	62.23%	54.95%
Ivory Coast	4	8	5.67	66.67%	80.00%	69.29%	66.94%	92.41%	77.61%
Kenya	11	11	10.78	23.91%	26.83%	24.55%	36.69%	45.66%	40.26%
Malawi	2	4	2.44	33.33%	50.00%	36.77%		48.99%	23.90%
Mauritius	6	10	8.22	60.00%	71.43%	69.08%	11.93%	38.77%	42.20%
Morocco	5	5	5.00	35.71%	38.46%	37.55%	14.43%	17.91%	16.08%
Niger	3	5	4.11	75.00%	83.33%	79.63%	100.00%	67.54%	83.29%
Nigeria	3	6	4.44	4.92%	8.82%	6.85%	3.31%	5.99%	5.29%
Senegal	4	7	5.44	50.00%	63.64%	56.77%	92.47%	59.57%	71.02%
South Africa	7	6	6.89	16.28%	15.00%	14.88%	1.13%	1.48%	2.28%
Tanzania	5	11	8.56	55.56%	57.89%	55.28%		96.28%	63.51%
Tunisia	5	7	5.67	35.71%	43.75%	37.10%	6.37%	18.31%	11.28%
Zimbabwe	3	3	3.00	21.43%	15.79%	17.65%	35.12%	40.27%	31.29%

Panel C: Developing Countries ex Africa

Country	Foreign Banks			Fraction of Foreign Banks			Asset Share of Foreign Banks		
	1995	2003	Average	1995	2003	Average	1995	2003	Average
Argentina	26	26	32.44	22.03%	34.21%	32.05%	22.51%	33.56%	38.43%
Bangladesh	0	0	0.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Barbados	2	4	2.22	50.00%	100.00%	55.56%		100.00%	93.51%
Bolivia	5	7	6.00	29.41%	53.85%	42.24%	8.34%	34.98%	28.80%
Brazil	37	52	50.44	22.70%	34.44%	30.58%	4.80%	21.25%	15.57%
Bulgaria	5	16	10.89	18.52%	57.14%	38.65%	0.70%	74.81%	33.98%
Chile	16	13	15.44	50.00%	48.15%	51.69%	5.58%	35.68%	22.27%
Colombia	8	7	9.44	19.05%	24.14%	24.92%	10.21%	12.29%	19.89%
Costa Rica	8	10	9.56	14.81%	20.83%	18.40%	24.82%	23.93%	32.58%
Czech Republic	14	14	14.89	41.18%	53.85%	48.17%	48.92%	86.26%	66.17%
Ecuador	7	5	6.78	17.95%	22.73%	21.58%		12.28%	7.92%
El Salvador	2	8	5.11	16.67%	57.14%	35.01%		65.06%	22.46%
Haiti	0	0	0.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Honduras	4	5	4.78	19.05%	25.00%	21.30%	2.91%	9.92%	5.28%
Hungary	20	25	24.56	60.61%	89.29%	76.67%	29.20%	94.17%	79.52%
India	5	7	5.89	6.41%	9.09%	7.60%	0.36%	5.01%	3.52%
Indonesia	26	26	26.33	25.74%	37.14%	30.53%	3.51%	20.90%	8.46%
Iran	0	0	0.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Jamaica	2	3	2.33	20.00%	33.33%	24.69%		51.25%	49.46%
Jordan	1	1	1.00	11.11%	10.00%	10.12%	1.50%	1.51%	1.43%
Kuwait	0	0	0.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Latvia	2	6	5.22	8.70%	28.57%	23.48%	17.45%	43.48%	47.77%
Lithuania	0	6	2.67	0.00%	66.67%	27.19%	0.00%	91.95%	46.07%
Macedonia	2	8	4.00	16.67%	47.06%	26.89%		49.43%	31.74%
Malaysia	15	13	14.11	30.61%	28.26%	28.59%	19.15%	15.69%	17.13%
Mexico	13	21	19.11	29.55%	53.85%	43.17%	15.13%	81.76%	34.26%
Moldova	1	6	4.00	9.09%	42.86%	29.65%	18.82%	36.20%	45.88%
Mongolia	0	1	0.11	0.00%	14.29%	1.59%	0.00%	20.32%	2.26%
Oman	0	0	0.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Panama	54	49	52.22	70.13%	67.12%	67.89%	79.08%	61.26%	65.29%
Peru	10	12	12.44	45.45%	80.00%	62.92%	31.10%	94.88%	69.37%
Philippines	2	4	5.00	5.41%	10.81%	12.08%		15.54%	10.77%
Poland	14	34	26.89	29.17%	69.39%	53.32%	10.21%	73.99%	47.11%
Qatar	0	0	0.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Romania	4	19	12.67	20.00%	70.37%	44.30%	46.18%	50.43%	33.34%
Russia	20	36	27.11	9.09%	16.82%	12.28%	14.22%	10.62%	16.15%
Slovakia	9	16	11.22	42.86%	94.12%	57.18%	1.18%	97.43%	40.41%
Sri Lanka	0	0	0.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Trinidad and Tobago	2	3	2.67	25.00%	30.00%	28.33%	14.23%	11.69%	14.38%
Turkey	6	9	8.11	11.11%	21.95%	14.81%		2.55%	2.45%
Uruguay	34	30	33.78	79.07%	81.08%	78.80%	31.79%	52.52%	43.68%
Venezuela	6	13	11.78	11.54%	28.26%	21.85%	8.17%	37.76%	27.65%
Yemen	0	0	0.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Yugoslavia	1	14	4.78	3.23%	31.11%	12.12%		40.09%	21.20%
Mean Developing	7.18	10.06	9.10	25.65%	38.22%	31.38%	19.84%	37.96%	29.32%
Mean All	6.01	8.49	7.60	22.82%	34.05%	27.80%	17.96%	36.15%	27.52%

This table provides information on the number of local banks controlled by foreign owners (“Foreign Banks:” *ForBkNum*), their share in terms of institutions (“Fraction of Foreign Banks”), and the share of domestic banking assets held by foreign-controlled institutions (“Asset Share of Foreign Banks:” *ForBkAS*) in 1995, 2003, and the average over the sample period by country. Using geographical location and the IMF’s classification into advanced and emerging economies we divide the countries into three subsamples which we report in separate panels (Advanced, Developing - Africa, and Developing ex Africa). Panel C contains the means for all developing countries and the overall sample.

Table 3: **Foreign Banks, Financial Dependence, and Growth**

Specification	1	2	3	4	5	6	7	8	9
Constant	-0.1206 (0.0277)	-0.1205 (0.0291)	-0.0159 (0.7479)	-0.0166 (0.7402)	-0.1209 (0.0289)	-0.1215 (0.0275)	-0.1209 (0.0290)	-0.1184 (0.0280)	-0.1159 (0.0307)
<i>FinDep · ForBkAS</i>	0.0556 (0.0450)	0.0676 (0.0094)	0.1006 (0.0208)	0.1307 (0.0018)					
<i>FinDep · ForBkAS · Dev</i>					0.0778 (0.0284)				
<i>FinDep · ForBkAS · Adv</i>					0.0564 (0.0535)				
<i>FinDep · ForBkAS · Low</i>						-0.0096 (0.8820)	0.5572 (0.1731)		
<i>FinDep · ForBkAS · Mid</i>						0.0787 (0.0291)	0.0763 (0.0322)		
<i>FinDep · ForBkAS · High</i>						0.0635 (0.0340)	0.0575 (0.0477)		
<i>FinDep · ForBkGDP</i>								1.0946 (0.0368)	
<i>FinDep · DomBkGDP</i>								0.1697 (0.0884)	
<i>FinDep · ForBkGDP · Dev</i>									1.2385 (0.0661)
<i>FinDep · DomBkGDP · Dev</i>									0.0012 (0.9926)
<i>FinDep · ForBkGDP · Adv</i>									0.7261 (0.0956)
<i>FinDep · DomBkGDP · Adv</i>									0.3060 (0.0163)
Share	-0.2824 (0.0000)	-0.2223 (0.0010)	-0.3829 (0.0000)	-0.3478 (0.0006)	-0.2202 (0.0012)	-0.2853 (0.0000)	-0.2202 (0.0012)	-0.2942 (0.0000)	-0.3016 (0.0000)
Industry-Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country-Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	9,738	8,304	6,464	5,030	8,304	9,738	8,304	9,599	9,599
Adjusted R^2	23.20%	26.41%	24.85%	29.05%	26.41%	23.21%	26.43%	23.37%	23.39%
Sample Countries	All	Ex Afr.	Developing	Dev. ex Afr.	Ex Afr.	All	Ex Afr.	All	All
Number of Countries	81	63	59	41	63	81	63	79	79

The above table reports coefficient estimates by OLS and their P -values in parentheses, which we compute on the basis of standard errors clustered at the industry-country level and which are adjusted for heteroskedasticity across industries and countries and correlation within, for our main model in Equation (1)

$$Growth_{ijt} = \alpha_0 + \gamma FinDep_i \cdot ForBkAS_{jt} + \delta Share_{ijt-1} + \sum_{it} \alpha_{it} 1_i \cdot 1_t + \sum_{jt} \beta_{jt} 1_j \cdot 1_t + \varepsilon_{ijt}$$

We also provide the number of country-year-industry observations, the adjusted R^2 , details on the sample selection, and the number of countries for each specification. Since African countries typically have few active foreign institutions and often dysfunctional local banking systems we report most estimations also without the African subsample (“Ex Afr.”) as a first robustness check.

The dependent variable is industry i 's growth in country j and year t ($Growth_{ijt}$), which is defined as the first difference in the logarithm of the industry's annual real value added. The key explanatory variable interacts an index of financial dependence $FinDep_i$ of industry i , which we measure as the median of the average fraction of investment not financed through retained earnings for US firms from 1980 to 1989 (see Rajan and Zingales, 1998), with $ForBkAS_{jt}$, the share of local banking assets in country j held by foreign institutions in year t . The control variables are the lagged share of industry i 's value added in country j ($Share_{ijt-1}$), which corrects for base effects in industry growth, and industry-year ($1_i \cdot 1_t$) and country-year ($1_j \cdot 1_t$) binary variables, which take values of 1 for industry j in country i and year t and 0 otherwise, to control for time, country, and industry fixed effects. In Specifications 5 to 7 we further decompose foreign-bank effects by interacting $ForBkAS_{jt}$ with binary variables indicating the host countries' level of economic development (“Developing” Dev or “Advanced” Adv) or their income levels (Low , Mid , and $High$), respectively, using the IMF's country classification. Specifications 8 and 9 replace $ForBkAS$ with the ratio of local banking assets to GDP which we decompose into its foreign-held ($ForBkGDP$) and domestic ($DomBkGDP$) components.

Table 4: **Entry Conditions, Sample Selection, and Variable Definitions**

Specification	1	2	3	4	5	6	7	8	9	10
Constant	-0.1211 (0.0279)	0.2617 (0.5636)	-0.1191 (0.0305)	-0.1192 (0.0372)	-0.1138 (0.0345)	-0.1210 (0.0284)	-0.0154 (0.7438)	-0.0853 (0.0000)	-0.1171 (0.0307)	-0.0789 (0.0336)
<i>FinDep</i> · <i>ForBkAS</i> · <i>LowG</i>	0.1169 (0.0203)									
<i>FinDep</i> · <i>ForBkAS</i> · <i>HighG</i>	0.0444 (0.1104)									
<i>FinDep</i> · <i>ForBkAS</i> · 1_{25}		2.8313 (0.0936)								
<i>FinDep</i> · <i>ForBkAS</i> · 1_{75}		0.1012 (0.0013)								
<i>FinDep</i> · <i>ForBkAS</i>			0.0657 (0.0175)	0.0693 (0.0147)	0.0548 (0.0501)	0.0523 (0.0594)	0.0507 (0.0922)	0.1516 (0.0299)		
<i>FinDep</i> · <i>Trade</i>			0.0112 (0.4714)							
<i>FinDep</i> · <i>CapCtrl</i>				0.0248 (0.2258)						
<i>FinDep</i> · <i>Openness</i>					0.0007 (0.0414)					
<i>FinDep</i> 1999 · <i>ForBkAS</i>									0.0491 (0.0391)	
<i>FinDep</i> · <i>ForBkNum</i>										0.0530 (0.0087)
Share	-0.2846 (0.0000)	-0.3578 (0.0000)	-0.2269 (0.0017)	-0.1954 (0.0014)	-0.2848 (0.0000)	-0.2562 (0.0001)	-0.3931 (0.0000)	-0.2517 (0.0403)	-0.2837 (0.0000)	-0.1254 (0.0051)
Industry-Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Country-Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	9,738	4,063	7,957	7,904	9,352	9,238	7,826	1,685	9,738	11,042
Adjusted R^2	23.21%	21.82%	26.52%	25.79%	23.23%	24.20%	25.68%	32.73%	23.20%	18.87%
Sample Countries	All	<i>ForBk</i>	Ex Afr.	All	All	$N > 50$	<i>ForBk</i> > 0	All	All	All
Number of Countries	81	53	62	61	76	61	66	81	81	87

This table summarizes the results for various robustness checks. Specification 1 presents a counterfactual test for the joint endogeneity of outside entry and firm growth by decomposing the foreign-bank effect into its impact on high-growth and low-growth industries through the definition of two binary variables *HighG* and *LowG*, which respectively take the value 1 if the industry growth rate is above (below) the median and 0 otherwise. Specification 2 assesses the differential impact of low and high foreign-bank penetration by including only country-year observations in the first and fourth quartiles of *ForBkAS* (*ForBkAS*· 1_{25} and *ForBkAS*· 1_{75} , respectively). Similarly, we test for the joint endogeneity of foreign banks and trade (Specification 3: *Trade* is the ratio of exports + imports to GDP; World Bank and OECD national accounts data, African countries excluded due to data issues), ease of entry (Specification 4: *CapCtrl* is a new IMF index of capital controls; see Schindler, 2009), and openness (Specification 5: *Openness* measures the lack of restrictions on the trade and financial transactions; see Dreher *et al.*, 2008) by adding corresponding interaction terms to the baseline model in Equation (1).

Next, we restrict our sample to countries with more than 50 industry-year observations ($N > 50$) or only those with active foreign banks (*ForBkAS* > 0). Specification 8 reestimates our main model with the long-term average industry growth from 1995 to 2003 as the dependent variable, average foreign-bank penetration, and initial industry shares in total value added. In Specification 9, we rely on an updated version of the financial-dependence variable *FinDep*1999_{*i*}, which measures financial dependence as the fraction of investment not financed through retained earnings for US firm from 1980 to 1999 (Kroszner *et al.*, 2007). To assess the robustness of our variable measuring the degree of foreign-bank penetration, we alternatively use the number of foreign institutions (Specification 10: *ForBkNum*) dropping the industry-year fixed effects to avoid collinearity problems due to lack of variation in the number of foreign banks. For further details, see the notes to Table 3.

Table 5: Foreign Banks and Banking Crises

Specification	1	2	3	4	5	6	7	8	9
Constant	-0.1208 (0.0105)	-0.1148 (0.0255)	-0.1182 (0.0283)	-0.1163 (0.0270)	-0.1169 (0.0258)	-0.1154 (0.0252)	-0.1124 (0.0310)	-0.1172 (0.0303)	-0.1137 (0.0306)
<i>FinDep · Crisis</i>	-0.0473 (0.0655)	-0.0437 (0.1081)	-0.0168 (0.5580)						
<i>FinDep · Crisis · Africa</i>					-0.1462 (0.0320)				
<i>FinDep · Crisis · Dev</i>				-0.0359 (0.2732)	-0.0362 (0.2684)				
<i>FinDep · Crisis · Adv</i>				0.0672 (0.1585)	0.0729 (0.1335)				
<i>FinDep · ForBkAS</i>		0.0557 (0.0429)	0.0666 (0.0109)				0.0725 (0.0058)	0.0699 (0.0077)	
<i>FinDep · ForBkAS · Africa</i>					0.0439 (0.4991)				0.0628 (0.3427)
<i>FinDep · ForBkAS · Dev</i>				0.0824 (0.0207)	0.0872 (0.0164)				0.0958 (0.0089)
<i>FinDep · ForBkAS · Adv</i>				0.0485 (0.0995)	0.0549 (0.0716)				0.0574 (0.0557)
<i>FinDep · Crisis · Low</i>						-0.1294 (0.0979)			
<i>FinDep · Crisis · Mid</i>						-0.0464 (0.1390)			
<i>FinDep · Crisis · High</i>						0.0727 (0.1347)			
<i>FinDep · ForBkAS · Low</i>						0.0379 (0.5708)			
<i>FinDep · ForBkAS · Mid</i>						0.0836 (0.0212)			
<i>FinDep · ForBkAS · High</i>						0.0533 (0.0771)			
<i>FinDep · ForBkAS · Crisis</i>							-0.2334 (0.0469)	-0.0875 (0.4920)	
<i>FinDep · ForBkAS · Crisis · Africa</i>									-0.3393 (0.0478)
<i>FinDep · ForBkAS · Crisis · Dev</i>									-0.2229 (0.1576)
<i>FinDep · ForBkAS · Crisis · Adv</i>									0.2122 (0.3538)
Share	-0.3199 (0.0000)	-0.2841 (0.0000)	-0.2229 (0.0010)	-0.2245 (0.0010)	-0.2916 (0.0000)	-0.2897 (0.0000)	-0.2849 (0.0000)	-0.2226 (0.0010)	-0.2868 (0.0000)
Industry-Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country-Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	11,042	9,738	8,304	8,304	9,738	9,738	9,738	8,304	9,738
Adjusted R^2	22.67%	23.23%	26.41%	26.44%	23.32%	23.30%	23.26%	26.41%	23.31%
Africa	Yes	Yes	No	No	Yes	Yes	Yes	No	Yes
Number of Countries	87	81	63	63	81	81	81	63	81

This table reports the results from analyzing the effect of local banking crises on domestic growth in the presence of foreign banks. Using the list of banking crises compiled in Caprio and Klingebiel (2003) we define a binary variable *Crisis* which takes the value 1 in the year of the crisis' inception and the two subsequent years. We again decompose the effects by using binary variables for the host countries' level of economic development ("Developing" *Dev* or "Advanced" *Adv*) or their income levels (*Low*, *Mid*, and *High*), respectively, according to the IMF's country classification. Sometimes we also distinguish between developing countries in Africa (*Africa*) and the rest of the world (*Dev* with slight abuse of notation). See the notes to Table 3 for further methodological details.

Table 6: Foreign-Bank Entry

Specification	1	2	3	4	5	6	7	8	9
Constant	-0.1184 (0.0124)	-0.1178 (0.0126)	-0.1161 (0.0131)	-0.1327 (0.0060)	-0.1327 (0.0060)	-0.2063 (0.0025)	-0.0754 (0.1742)	-0.1328 (0.0060)	-0.1328 (0.0060)
<i>FinDep</i> · <i>Entry</i>	-0.0347 (0.0206)								
<i>FinDep</i> · <i>DeNovo</i>		0.0438 (0.1008)							
<i>FinDep</i> · <i>Add</i>		-0.0380 (0.0118)							
<i>FinDep</i> · <i>DeNovo</i> · <i>Dev</i>			0.0730 (0.1437)						
<i>FinDep</i> · <i>DeNovo</i> · <i>Adv</i>			0.0415 (0.1623)						
<i>FinDep</i> · <i>Add</i> · <i>Dev</i>			-0.046 (0.0051)						
<i>FinDep</i> · <i>Add</i> · <i>Adv</i>			-0.004 (0.8374)						
<i>FinDep</i> · <i>ForBkAS</i> _{Entry}				0.1256 (0.0018)					
<i>FinDep</i> · <i>ForBkAS</i> _{DeNovo}					0.1822 (0.0878)	0.4077 (0.0226)			
<i>FinDep</i> · <i>ForBkAS</i> _{Add}					0.1229 (0.0031)		0.0978 (0.0485)		
<i>FinDep</i> · <i>ForBkAS</i> _{Entry} · <i>Dev</i>								0.1311 (0.0042)	
<i>FinDep</i> · <i>ForBkAS</i> _{Entry} · <i>Adv</i>								0.1010 (0.0347)	
<i>FinDep</i> · <i>ForBkAS</i> _{DeNovo} · <i>Dev</i>									0.1176 (0.8862)
<i>FinDep</i> · <i>ForBkAS</i> _{DeNovo} · <i>Adv</i>									0.1863 (0.0858)
<i>FinDep</i> · <i>ForBkAS</i> _{Add} · <i>Dev</i>									0.1324 (0.0187)
<i>FinDep</i> · <i>ForBkAS</i> _{Add} · <i>Adv</i>									0.0816 (0.0770)
Share	-0.3182 (0.0000)	-0.3207 (0.0000)	-0.3288 (0.0000)	-0.3481 (0.0000)	-0.3485 (0.0000)	-0.0264 (0.7680)	-0.5446 (0.0000)	-0.3475 (0.0000)	-0.3478 (0.0000)
Industry-Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country-Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	11,042	11,042	11,042	9,295	9,295	2,163	7,132	9,295	9,295
Adjusted R^2	22.67%	22.69%	22.71%	21.71%	21.71%	27.13%	24.10%	21.71%	21.71%
Africa	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of Countries	87	87	87	85	85	18	67	85	85

This table reports the results from estimating the direct impact of foreign-bank entry on local economic growth. Three binary variables capture different aspects of foreign entry: *DeNovo* which takes the value 1 from the year onwards the first foreign bank moves into one of the 18 countries without an international-banking presence in 1995 and 0 otherwise, *Add* which takes the value 1 from the year onwards at least one additional foreign bank enters a given country with an outside presence and 0 otherwise, and *Entry* which combines the previous two variables. We first interact the entry variables with *FinDep* to assess pure entry effects. To properly account for the importance of entering banks, we next decompose their asset share $ForBkAS_{Entry}$ by entry type into $ForBkAS_{DeNovo}$ and $ForBkAS_{Add}$ for, respectively, first-time (*de novo*) and additional entry. Note that $ForBkAS_{Entry} = ForBkAS_{DeNovo} + ForBkAS_{Add}$. We also restrict the sample to countries without (Specification 6) and with (Specification 7) a prior foreign-bank presence. All estimations are by OLS with country-year and industry-year fixed effects; the reported *P*-values are computed from clustered standard errors that are adjusted for heteroscedasticity across and correlation within countries and industries. See Section 6 for a description of the variables and the notes to Table 3 for further methodological details.

Table 7: **The Mode of Entry**

Specification	1	2	3	4	5	6
Constant	-0.1324 (0.0060)	-0.1327 (0.0060)	-0.1264 (0.0180)	-0.1269 (0.0172)	-0.1247 (0.0186)	-0.1269 (0.0192)
<i>FinDep</i> · <i>ForBkAS</i> ₁₉₉₅			-0.0475 (0.4043)	-0.0333 (0.5092)		
<i>FinDep</i> · <i>ForBkAS</i> _{M&A}	0.1316 (0.0028)		0.1284 (0.0041)			
<i>FinDep</i> · <i>ForBkAS</i> _{Green}	-0.0008 (0.9976)		0.2642 (0.2482)			
<i>FinDep</i> · <i>ForBkAS</i> _{Green+M&A}		0.1256 (0.0018)		0.1504 (0.0004)		
<i>FinDep</i> · <i>ForBkAS</i> ₁₉₉₅ · <i>Dev</i>					-0.0916 (0.2563)	-0.0274 (0.7748)
<i>FinDep</i> · <i>ForBkAS</i> ₁₉₉₅ · <i>Adv</i>					0.0263 (0.5608)	0.0127 (0.7688)
<i>FinDep</i> · <i>ForBkAS</i> _{M&A} · <i>Dev</i>					0.1639 (0.0037)	0.1402 (0.0186)
<i>FinDep</i> · <i>ForBkAS</i> _{M&A} · <i>Adv</i>					0.0999 (0.0532)	0.0861 (0.0722)
<i>FinDep</i> · <i>ForBkAS</i> _{Green} · <i>Dev</i>					0.2629 (0.2817)	0.3117 (0.1815)
<i>FinDep</i> · <i>ForBkAS</i> _{Green} · <i>Adv</i>					6.8507 (0.1135)	6.5527 (0.1351)
Share	-0.3533 (0.0000)	-0.3481 (0.0000)	-0.3356 (0.0000)	-0.3351 (0.0000)	-0.3379 (0.0000)	-0.2214 (0.0032)
Industry-Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes
Country-Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes
Observations	8,787	9,295	7,570	7,905	7,570	6,441
Adjusted R^2	19.89%	21.71%	18.50%	19.65%	18.54%	21.13%
Africa	Yes	Yes	Yes	Yes	Yes	No
Number of Countries	84	85	73	73	73	54

This table summarizes the results from estimating the effects of foreign banks' mode of entry on real economic activity. We decompose *ForBkAS* by entry mode into *ForBkAS*_{Green} and *ForBkAS*_{M&A} for, respectively, greenfield investments or acquisitions and *ForBkAS*₁₉₉₅ for all active foreign banks in 1995. Note that $ForBkAS_{jt} = ForBkAS_{1995,jt} + ForBkAS_{Green,jt} + ForBkAS_{M\&A,jt}$. All estimations are by OLS with country-year and industry-year fixed effects; the reported *P*-values are computed from clustered standard errors that are adjusted for heteroscedasticity across and correlation within countries and industries. See Section 6 for a description of the variables and the notes to Table 3 for further methodological details.

Table 8: Local Credit-Market Institutions

Specification	1	2	3	4	5	6	7	8	9	10
Constant	-0.0782 (0.0354)	-0.0798 (0.0321)	-0.0821 (0.0280)	-0.0804 (0.0312)	-0.0794 (0.0328)	-0.0838 (0.0251)	-0.1073 (0.0497)	-0.1049 (0.0518)	-0.119 (0.0240)	-0.1079 (0.0297)
<i>FinDep · ForBkAS</i>	0.0688 (0.0114)		0.0478 (0.0713)		0.0539 (0.0523)		0.0643 (0.0151)		0.0623 (0.0267)	
<i>FinDep · ForBkAS · Dev</i>		0.1280 (0.0024)		0.1278 (0.0010)		0.1171 (0.0087)		0.1197 (0.0058)		0.1730 (0.0003)
<i>FinDep · ForBkAS · Adv</i>		0.0389 (0.2859)		0.0080 (0.8262)		0.0106 (0.7287)		0.0130 (0.6551)		0.0056 (0.8570)
<i>FinDep · CredReg</i>	-0.0061 (0.6249)									
<i>FinDep · CredReg · Dev</i>		-0.0246 (0.1777)								
<i>FinDep · CredReg · Adv</i>		0.0285 (0.0644)								
<i>FinDep · CredBur</i>			0.0146 (0.1489)							
<i>FinDep · CredBur · Dev</i>				-0.0216 (0.2588)						
<i>FinDep · CredBur · Adv</i>				0.0356 (0.0003)						
<i>FinDep · CredRts</i>					0.0049 (0.2465)					
<i>FinDep · CredRts · Dev</i>						-0.0016 (0.8302)				
<i>FinDep · CredRts · Adv</i>						0.0151 (0.0003)				
<i>FinDep · DebtEnf</i>							0.0006 (0.0251)			
<i>FinDep · DebtEnf · Dev</i>								0.0005 (0.3431)		
<i>FinDep · DebtEnf · Adv</i>								0.0008 (0.0108)		
<i>FinDep · Form</i>									-0.0112 (0.1609)	
<i>FinDep · Form · Dev</i>										-0.0174 (0.0425)
<i>FinDep · Form · Adv</i>										0.0023 (0.8218)
Share	-0.1285 (0.0070)	-0.0489 (0.3387)	-0.1296 (0.0069)	-0.052 (0.3105)	-0.1482 (0.0026)	-0.0783 (0.1396)	-0.2352 (0.0006)	-0.2636 (0.0007)	-0.264 (0.0001)	-0.2795 (0.0001)
Industry-Year Dummies	No	No	No	No	No	No	Yes	Yes	Yes	Yes
Country-Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	9,278	7,933	9,278	7,933	8,779	7,456	7,906	7,445	8,650	7,642
Adjusted R^2	19.50%	22.12%	19.51%	22.15%	19.59%	22.37%	27.55%	28.63%	23.96%	26.52%
Africa	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Number of Countries	76	59	76	59	76	59	57	52	67	54

This table reports the results from interacting financial dependence with local institutions contributing to well-functioning credit markets in addition to *ForBkAS*. Such institutions include the existence of public credit registries (binary variable *CredReg*) or private credit bureaus (binary variable *CredBur*) taken from Djankov *et al.* (2007), an index of creditor rights (*CredRts*, also from Djankov *et al.*, 2007), a measure of the quality of debt-contract enforcement (*DebtEnf* from Djankov *et al.*, 2006), and an index of the degree of legal (procedural) formalism (*Form*) derived in Djankov *et al.* (2003). As before, we distinguish between developing (*Dev*) and advanced (*Adv*) host countries according to the IMF's country classification but exclude Africa from the decomposition because none of the effects are statistically significant for this country group. See Section 6 for a description of the variables and the notes to Table 3 for further methodological details.

Table 9: Foreign Banks and Financial Development

Specification	1	2	3	4	5	6	7	8	9	10
Constant	-0.11 (0.0389)	-0.1091 (0.0414)	-0.1202 (0.0299)	-0.1198 (0.0317)	-0.1176 (0.0323)	-0.1179 (0.0328)	-0.1192 (0.0305)	-0.1197 (0.0319)	-0.1138 (0.0394)	-0.115 (0.0386)
<i>FinDep · ForBkAS</i>	0.0656 (0.0259)		0.0628 (0.0150)		0.0675 (0.0102)		0.0561 (0.0269)		0.0668 (0.0391)	
<i>FinDep · PrivCredit</i>	0.0365 (0.0195)									
<i>FinDep · ForBkAS · Dev</i>		0.1268 (0.0019)		0.0883 (0.0196)		0.1053 (0.0051)		0.0907 (0.0154)		0.0954 (0.1317)
<i>FinDep · ForBkAS · Adv</i>		0.0223 (0.4475)		0.0453 (0.1244)		0.0408 (0.2220)		0.0315 (0.2529)		0.0519 (0.0899)
<i>FinDep · PrivCredit · Dev</i>		0.0240 (0.5373)								
<i>FinDep · PrivCredit · Adv</i>		0.0448 (0.0124)								
<i>FinDep · StMktCap</i>			0.0032 (0.8220)							
<i>FinDep · StMktCap · Dev</i>				0.0041 (0.8365)						
<i>FinDep · StMktCap · Adv</i>				0.0110 (0.5400)						
<i>FinDep · StMktTurn</i>					0.0257 (0.0215)					
<i>FinDep · StMktTurn · Dev</i>						0.0145 (0.4969)				
<i>FinDep · StMktTurn · Adv</i>						0.0327 (0.0066)				
<i>FinDep · StValTrad</i>							0.0245 (0.1266)			
<i>FinDep · StValTrad · Dev</i>								0.0440 (0.1844)		
<i>FinDep · StValTrad · Adv</i>								0.0327 (0.0683)		
<i>FinDep · PrivBond</i>									0.0973 (0.0293)	
<i>FinDep · PrivBond · Dev</i>										0.1192 (0.2838)
<i>FinDep · PrivBond · Adv</i>										0.1016 (0.0357)
Share	-0.305 (0.0000)	-0.2481 (0.0006)	-0.2205 (0.0003)	-0.2369 (0.0006)	-0.2382 (0.0001)	-0.258 (0.0002)	-0.2448 (0.0002)	-0.2647 (0.0003)	-0.288 (0.0045)	-0.2726 (0.0067)
Industry-Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country-Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	9,400	7,966	8,892	7,971	8,764	7,843	8,980	8,038	4,693	4,671
Adjusted R^2	23.20%	26.54%	24.48%	26.73%	24.81%	27.13%	24.84%	27.07%	27.13%	27.30%
Africa	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Number of Countries	79	61	70	58	69	57	71	59	33	32

This table reports the results from including an interaction term of financial dependence with the host country's level of financial development, i.e., $FinDep_i \cdot FinDev_{jt}$, to our main model in Table 3 in addition to the key variable $FinDep \cdot ForBkAS$. We measure the financial development $FinDev_{jt}$ of country j in year t in terms of local credit to the private sector as a fraction of GDP (*PrivCredit*), local stock market capitalization as a fraction of GDP (*StMktCap*), local stock market turnover as a fraction of market capitalization (*StMktTurn*), local stock value traded as a fraction of GDP (*StValTrad*), and local bonds outstanding issued by private firms as a fraction of GDP (*PrivBond*). As before, we distinguish between developing (*Dev*) and advanced (*Adv*) host countries according to the IMF's country classification and drop the African countries, which often have dysfunctional financial systems, from the sample in the corresponding estimations. See Section 7 for a description of the variables and the notes to Table 3 for further methodological details.

Table 10: Financial Stability, Legal Institutions, and Government Effectiveness

Specification	1	2	3	4	5	6	7	8
Constant	-0.0938 (0.0750)	-0.0986 (0.0582)	-0.1074 (0.0438)	-0.1112 (0.0291)	-0.1073 (0.0347)	-0.1134 (0.0321)	-0.1031 (0.0441)	-0.1017 (0.0473)
<i>FinDep · ForBkAS</i>	0.0592 (0.0318)		0.0442 (0.1097)	0.0594 (0.0308)		0.0564 (0.0382)	0.0489 (0.0771)	
<i>FinDep · ForBkAS · Dev</i>		0.1271 (0.0026)			0.1227 (0.0036)			0.1099 (0.0137)
<i>FinDep · ForBkAS · Adv</i>		0.0112 (0.7042)			0.0118 (0.6861)			0.0101 (0.7318)
<i>FinDep · ICRGFin</i>	0.0045 (0.0034)							
<i>FinDep · ICRGFin · Dev</i>		0.0022 (0.2667)						
<i>FinDep · ICRGFin · Adv</i>		0.0032 (0.0554)						
<i>FinDep · ICRGPol</i>			0.0016 (0.0094)					
<i>FinDep · ICRGLaw</i>				0.0206 (0.0004)				
<i>FinDep · ICRGLaw · Dev</i>					0.0131 (0.1530)			
<i>FinDep · ICRGLaw · Adv</i>					0.0198 (0.0033)			
<i>FinDep · ICRGGov</i>						0.0218 (0.0113)		
<i>FinDep · ICRGBur</i>							0.0263 (0.0004)	
<i>FinDep · ICRGBur · Dev</i>								0.0261 (0.0676)
<i>FinDep · ICRGBur · Adv</i>								0.0303 (0.0008)
Share	-0.306 (0.0000)	-0.2417 (0.0006)	-0.3003 (0.0000)	-0.3012 (0.0000)	-0.2427 (0.0005)	-0.3877 (0.0000)	-0.3142 (0.0000)	-0.2493 (0.0004)
Industry-Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country-Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	9,533	8,209	9533	9533	8209	7879	9533	8209
Adjusted R^2	23.59%	26.81%	0.2355	0.2359	0.2682	0.2393	0.236	0.2684
Africa	Yes	No	Yes	Yes	No	Yes	Yes	No
Number of Countries	79	63	79	79	63	59	79	63

This table reports the results from including an interaction term of financial dependence with various measures of the host country's level of institutional development, i.e., $FinDep_i \cdot InstDev_{jt}$, to our main model (see Table 3). We measure the institutional development $InstDev_{jt}$ of country j in year t with the ICRG index family of financial, economic, and political stability and various subindices. $ICRGFin$ and $ICRGPol$ are the financial and political stability indices, respectively, whereas $ICRGLaw$, $ICRGGov$, and $ICRGBur$ measure a host country's quality of law enforcement, government effectiveness, and quality of bureaucracy. The higher the indices the greater a country's stability or its institutional development. See Section 7 for a description of the variables and the notes to Table 3 for further methodological details.

Table 11: Instrumental-Variable Estimation and Industry Characteristics

Specification	1	2	3	4	5	6	7	8	9	10
Constant	-0.1159 (0.0305)	0.1835 (0.2334)	-0.1174 (0.0339)	-0.1198 (0.0285)	-0.1192 (0.0312)	-0.1227 (0.0260)	-0.1211 (0.0271)	-0.1195 (0.0293)	-0.1250 (0.0236)	-0.1206 (0.0293)
$FinDep \cdot \widehat{ForBkAS}$	0.1470 (0.0768)									
$FinDepYng \cdot ForBkAS$		0.0091 (0.6342)								
$FinDepMat \cdot ForBkAS$			0.0908 (0.0142)							
$FinDep \cdot ForBkAS$				0.0548 (0.0484)	0.0554 (0.0451)	0.0449 (0.0971)	0.0423 (0.1632)	0.0548 (0.0474)	0.0531 (0.0574)	0.0666 (0.0462)
$Intang \cdot ForBkAS$				-0.0453 (0.5991)						
$Tang \cdot ForBkAS$					-0.0195 (0.8422)					
$Dur \cdot ForBkAS$						0.0301 (0.0710)				
$R\&DInt \cdot ForBkAS$							0.2201 (0.2054)			
$CapInt \cdot ForBkAS$								-0.0002 (0.7505)		
$SmallFirmS \cdot ForBkAS$									0.0036 (0.0100)	
$GrowthOpp \cdot ForBkAS$										0.0224 (0.9687)
Share	-0.2425 (0.0010)	-0.2710 (0.0000)	-0.2700 (0.0000)	-0.2824 (0.0000)	-0.2825 (0.0000)	-0.2798 (0.0000)	-0.2829 (0.0000)	-0.2836 (0.0000)	-0.2857 (0.0000)	-0.2224 (0.0010)
Industry-Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country-Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	8,193	9,389	9,347	9,738	9,738	9,738	9,738	9,738	9,738	8,304
Adjusted R^2	24.54%	23.91%	22.95%	23.20%	23.20%	23.22%	23.20%	23.20%	23.23%	26.41%
Africa	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Number of Countries	69	81	81	81	81	81	81	81	81	63

This table summarizes further robustness tests. To assess potential joint-endogeneity problems, Specification 1 reports the results for an instrumental-variable (IV) estimation of our main model in Table 3 by TSLS. We first regress $ForBkAS$ on a constant and The Heritage Foundation's Banking Freedom Index (measuring the degree of bank ownership by local governments; restrictions on the ability of foreign banks to open branches and subsidiaries; government influence over the allocation of bank credit; government regulations of banking; and the freedom of banks to offer different types of financial services, securities, and insurance policies) by OLS. The Index enters the first-stage regression significantly at the 1% level and the χ^2 -statistic of its F-test is 69.59 which comfortably exceeds the critical value of 16.38 for the weak-instrument test in TSLS tabulated by Stock and Yogo (2004). We then use the fitted values $\widehat{ForBkAS}$ from the first-stage regression in lieu of $ForBkAS$ in our main specification.

The other estimations assess the robustness of our financial-dependence variable $FinDep$ by separately computing the benchmark for young ($FinDepYng$: only firms public for less than 10 years) and mature ($FinDepYg$: only firms public for at least 10 years) companies and by adding interaction terms of $ForBkAS$ with industry characteristics such as intangible ($Intang$) or tangible ($Tang$) asset dominance, an indicator variable for durable goods (Dur), R&D intensity ($R\&D$), and capital intensity ($CapInt$) to our main specification (see Kroszner *et al.*, 2007). Specifications 9 and 10 include an interaction term between foreign-bank presence and each industry's "natural" or technological share of small US firms defined as having under 20 employees ($SmallFirmS$ as in Beck *et al.*, 2008) or growth opportunities ($GrowthOpp$: see Fisman and Love, 2007) as defined as the US median real sales growth from 1980 to 1989 by industry for the same sample of firms used for the computation of the financial-dependence measure $FinDep$ to our main model. See Section 8 for a description of the variables and the notes to Table 3 for further methodological details.

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