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ABSTRACT

The Flight Home Effect: Evidence from the Syndicated Loan Market During Financial Crises*

In the context of the global market for syndicated bank loans, we provide evidence that the collapse of international markets during financial crises can in part be explained by a flight home effect. We show that the home bias of lenders' loan origination increases by approximately 20 percent if the bank's country of origin experiences a banking crisis. Banks with less stable funding sources, being more vulnerable to liquidity shocks, exhibit a stronger flight home effect. This flight home effect is distinct from a flight to quality effect because borrowers in emerging markets and advanced economies are similarly affected by the lenders' portfolio rebalancing in favor of domestic borrowers. Similarly, the flight home of international lenders does not appear to be exclusively away from countries with weak investor protection or from borrowers with lower credit ratings. Overall, the results indicate that the home bias of international capital allocation tends to increase in the presence of adverse economic shocks affecting the net wealth of international investors.

JEL Classification: F4 and G2
Keywords: home bias, financial crisis, flight to quality and syndicated loans

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1. Introduction

During financial crises, international markets often collapse. For instance, during the Japanese banking crisis of the nineties, Japanese banks and firms retracted from international financial and good markets, including the United States (Peek and Rosengren, 1997 and 2000; Klein, Peek, and Rosengren, 2002; Amiti and Weinstein, 2009). The recent global financial crisis that started in the summer of 2007 in the United States was no different. It was accompanied by a collapse of global trade (Levchenko, Lewis and Tesar, 2010), a reduction in gross capital flows (Broner et al., 2010), a reversal of capital flows from advanced economies to emerging markets (Tong and Wei, 2010; Milesi-Ferretti and Tille, 2010), and a decline in international bank lending (Cetorelli and Goldberg, 2010).

Existing research has shown that banks transmit negative shocks to their capital both domestically (Kashyap and Stein, 2000) and internationally (Peek and Rosengren, 2000; Cetorelli and Goldberg, 2009 and 2011; Popov and Udell, 2009; Schnabl, 2010), and some contraction in international bank lending following the global financial crisis was therefore to be expected. This research focuses on the transmission of domestic shocks to foreign markets and views the reduction in international activity during financial crises as mostly a reflection of a reduction in economic activity. The dramatic collapse of international lending markets during 2008, however, raises the question whether lenders retract disproportionally from international markets to the advantage of domestic markets at times of crises, when uncertainty and risks increase and capital constraints become binding for many lenders.

In this paper, we study whether lenders, when hit by shocks that negatively affect bank wealth in their home market, have a tendency to rebalance their portfolio away from international markets to their domestic market. We explore this *flight home* effect in the context of the syndicated loan market, a highly internationalized market, in which it is common for large banks to offer loans to a variety of borrowers in a broad set of countries.

After carefully controlling for the effect of contemporaneous demand shocks in host countries, we explore whether foreign lenders not only transmit shocks to host markets, as highlighted in previous literature, but also whether they further amplify these effects by rebalancing their portfolio away from foreign to domestic markets.

Our results are consistent with the existence of a *flight home* effect. We show that the syndicated loan market exhibits a home bias, similar to the home bias identified in other asset markets (e.g., Lewis, 1999), with lenders extending more loans to domestic borrowers and thus biasing their portfolios towards domestic borrowers. More novel is our result that the proportion of loans granted to domestic borrowers increases by approximately 20 percent if the country of origin of the bank experiences a banking crisis or, more generally, if the stock prices of banks in the home country show a large decline, suggesting that the home bias becomes more accentuated when lenders experience negative shocks to their wealth in their home country. Lenders with less stable funding sources, being more vulnerable to negative liquidity shocks (Demirgüç-Kunt and Huizinga, 2010), are found to exhibit a stronger flight home effect. Overall, the results indicate that the home bias of international capital allocation tends to increase in the presence of adverse economic shocks affecting the net wealth of international lenders.

The flight home effect coexists with, but is distinct from the *flight to quality* effect highlighted in previous literature. Bernanke, Gertler and Gilchrist (1996) and Lang and Nakamura (1995) argue that during recessions the share of credit flowing to borrowers with more severe asymmetric information and agency problems, such as small firms, decreases. The flight home effect we focus on does not appear to be driven by international banks' desire to rebalance their portfolios towards higher quality borrowers when faced with negative shocks. Instead, it clearly emerges from our analysis that, after experiencing shocks, lenders tend to decrease their international exposures and extend proportionally more

domestic loans, independently from the credit quality of borrowers. Banks rebalance their portfolio away from foreign borrowers, irrespective of whether these borrowers are affected by a banking crisis in their home country or not. Furthermore, banks from advanced economies do not rebalance their portfolios away from riskier loans in emerging markets during periods of financial turmoil. In fact, we find that when their country of origin experiences a banking crisis, lenders grant fewer loans to foreign borrowers in advanced economies and emerging markets alike. Similarly, the flight home of international lenders does not appear to be limited to borrowers with lower credit ratings or to countries with weak creditor protection. Also, the institutional environment in the origin countries of the lenders appears not to influence our findings: Banks rebalance their portfolios towards domestic borrowers independently from whether their country of origin has weak or strong institutions. All these results strongly suggest that the flight home effect arising from negative shocks to bank capital is distinct from a flight to quality effect.

Our work is related to a vast literature on the home bias in the global allocation of capital (Lewis, 1999). The presence of home bias has been documented across countries with diverse institutional environments (Chan, Covrig and Ng, 2005), within countries because investors exhibit a preference for geographically proximate (domestic) assets (Coval and Moskovitz, 1999, 2001; Grinblatt and Keloharju, 2001), and for different assets including bonds (Butler, 2008). While the presence of home bias in international capital allocation has been well documented in the literature, we are the first to show that home biases vary over time depending on variation in the net wealth of investors. Specifically, we show that home bias becomes more severe when investors experience negative shocks. We refer to such an increase in home bias as the flight home effect.

Existing explanations for the home bias, which could be relevant for the syndicated loan market, include information asymmetries and behavioral biases.[1] Some argue that domestic investors are better informed than foreign investors (Brennan and Cao, 1997; Ahearne et al., 2004; Bae et al., 2008; Van Nieuwerburgh and Veldkamp, 2009; and Andrade and Chhaochharia, 2010). For example, Portes and Rey (2005) find that global equity flows are in large part determined by geographical distance and telephone traffic, a proxy for informational asymmetry. However, others suggest that foreign investors are often more sophisticated in collecting information and outperform domestic investors (Grinblatt and Keloharju, 2000), thus indicating that they are not at an informational disadvantage. For this reason, it is often argued that the home bias is better explained by a behavioral bias towards familiar assets rather than by information asymmetries (Huberman, 2001; Grinblatt and Keloharju, 2001; and Seashole and Zhu, 2010).

None of the existing explanations can directly rationalize why the home bias increases when lenders experience negative shocks. One view is that, when hit by negative shocks, international lenders refrain from making loans in environments in which they may have an informational disadvantage. However, the empirical evidence we present indicates that international banks extend fewer loans to foreign borrowers independently from their level of opacity, credit risk, and institutional environment, suggesting that information asymmetries alone cannot explain our findings.

After experiencing negative shocks international lenders revert to their core business in the domestic market because the domestic borders may affect their perceived risk and expected returns for several reasons. First, the cost of negotiating and monitoring syndicated loans may be higher for foreign loans. Therefore, when reducing exposure in response to

[1] There are other possible explanations for the home bias that appear less relevant in our context. For instance, while transaction costs could in theory explain a home bias in investments, actual transaction costs are insufficiently high to warrant such an explanation (French and Poterba, 1991).

negative shocks, banks may revert to more profitable domestic markets. Second, in response to negative shocks, banks may want to decrease their exposure to exchange rate risk, especially if loans are extended in currencies other than their domestic currency. Finally, behavioral biases may also play a role in explaining the flight home effect. As argued by Barberis (2010), investors prefer familiar economic environments when they are hit by negative shocks. Thus, if lenders in some countries are hit by economic shocks to their bank capital to a larger extent than others, the home bias in these lenders' credit allocation may increase, although the level of uncertainty and risk of foreign borrowers may have remained unchanged or even improved in comparison to domestic borrowers.

Several other papers have explored how the behavior of international investors changes over time and depending on economic conditions. For instance, Bohn and Tesar (1996) and Kim and Wei (2002) show that U.S. investors chase returns when they allocate their international equity portfolio. Gelos and Wei (2005) find that global emerging market funds have a greater propensity to exit nontransparent countries during crises affecting those countries. Instead of highlighting economic conditions in host countries or differences across host countries, our paper stresses economic conditions in the home country of the investors and indicates that the home bias in their portfolio increases following negative external shocks to their wealth.

Our application to the syndicated loan market has two major advantages compared to these related papers for studying the response of international investors to external shocks. First, the syndicated loan market is a highly internationalized market in which international banks serve domestic borrowers as well as a variety of borrowers from around the world. Second, our micro-level dataset on syndicated loans has information about multi-country bank-borrower relationships, allowing us to disentangle the effects of domestic and foreign shocks on the lending behavior of banks in their home market relative to their foreign

markets, and to distinguish effects across lenders within the same country. Having access to micro level data at origination, we are able to evaluate how banks' economic conditions affect their behavior in more detail than existing papers studying international capital flows. Specifically, our regression model effectively controls for demand shocks in the market for syndicated loans by including time and deal nationality fixed effects, and for demand shocks in the borrower's country by including the fraction of total loans issued by domestic banks in a given period or, alternatively, the interaction of time and deal nationality fixed effects (more details on the identification strategy can be found in Section 2).

In two recent papers, Ivashina and Scharfstein (2010a and b) also concentrate on the syndicated loan market. They explore the effect of the 2008 crisis on the syndicated loan market in the U.S. to show that this market experienced a sharp decline in loan supply. Their work focuses on the effects of the financial crisis on the domestic syndicated loan market, while we consider the effects of the financial crisis on banks' international exposure. In a related paper, Santos (2011) studies pricing in the U.S. syndicated loan market to show that firms paid higher loan spreads on syndicated loans during the 2008 crisis, especially from banks that incurred large losses on subprime losses, consistent with a negative shock to the supply of credit. Like Ivashina and Scharfstein (2010a and b) and Santos (2011) we also use data from the syndicated loan market, but in contrast to these other papers we study not only the U.S. syndicated loan market but also foreign syndicated loan markets. Moreover, unlike these other papers we incorporate both global and domestic shocks to bank capital into our multi-country analysis to isolate supply effects from demand-drive effects. Our paper therefore complements those of Ivashina and Scharfstein (2010a and b) and Santos (2011) by showing that banks cut their supply of syndicated loans during periods of financial turmoil both globally and domestically and, while doing so, they rebalance their portfolios to their home market.

Other studies of the syndicated loan market include Giannetti and Yafeh (2011) who provide empirical evidence that familiarity, measured as cultural similarity between borrowers and lenders, positively affects contract terms and indicate that familiarity biases are relevant in the international syndicated loan market as well. Moreover, De Haas, Van Horen and Zettelmeyer (2011) find that lending to relationship borrowers was less affected during the 2008 financial crisis.

Finally, our distinction between shocks affecting the banks' country of origin (and ultimately banks' net wealth) and shocks affecting the banks' host countries (and therefore borrowers' net wealth) is similar to the approach taken in Morgan, Rime and Strahan (2004) who explore how banking system integration affects the evolution of business cycles, without considering the effects on bank loans. Their conclusion that banking system integration mitigates the effect of home-grown shocks on business cycles fluctuations but contributes to the transmission of foreign shocks on domestic business cycles is consistent with our findings on how external shocks differentially impact the foreign and domestic lending of international banks.

The rest of the paper is organized as follows. Section 2 introduces the empirical strategy we employ to test our hypothesis of the presence of a flight home effect. Section 3 describes the data we use to estimate the empirical model, and introduces some stylized facts based on the syndicated loan dataset. Section 4 describes the main results. Section 5 considers alternative explanations and robustness tests. Section 6 concludes.

2. Empirical Methodology

During banking crises, banks experience negative shocks to their net wealth due to actual or anticipated losses and liquidity problems. Our goal is to explore how these negative shocks to bank net wealth affect bank lending and in particular whether the lending behavior

of foreign banks during banking crises differs from that of domestic banks. Thus, we investigate whether the allocation of banks' loan portfolios during those periods favors domestic borrowers. In particular, we model the portfolio share of syndicated loans issued by bank *i* to borrowers in country *j* during month *t* as follows:

$$Loanshare_{ijt} = \alpha_1 Foreign\ Bank_i + \alpha_2 Foreign\ Bank_i * Shock\ Bank\ Country_{it} + \\ + \alpha_3 Foreign\ Bank_i * Shock\ Borrower\ Country_{jt} + \Gamma X_{ijt} + \varepsilon_{ijt} \qquad (1)$$

It is important to note that our dependent variable captures the geographical distribution of new loans (with respect to the total amount of loans issued by a given bank) rather than the total amount of loans in the bank's portfolio. Since by definition the portfolio share is standardized by the bank's supply of loans during month *t*, our analysis abstracts from changes in the bank's supply of loans, which has been the focus of a large literature on the transmission mechanism of shocks to monetary policy and bank capital, and concentrates on how the bank's supply of loans is allocated, given the economic conditions. Precisely for this reason, we do not analyze the effect of the shocks per se, but only differences in the effect of the shocks across banks using interaction terms.[2]

A negative coefficient α_1 implies that banks systematically issue fewer loans to foreign countries, indicating that there is a home bias in banks' loan portfolios. Our main coefficient of interest is α_2: A negative sign here implies that banks reallocate the supply of loans towards domestic borrowers when their home country experiences a negative shock, and thus borrowers experience negative balance sheet effects. In the empirical analysis, we operationalize $Shock\ Bank\ Country_{it}$ using different proxies capturing not only the cross-sectional differences in the intensity of the shock to bank net wealth in different countries of origin, but also distinguish across banks depending on their exposure to the shock within a given country (in that case, $Shock\ Bank_{jit}$ would be a more accurate notation).

[2] In other words, since not all loan shares of bank *i* can drop at time *t*, the direct effect of the shock is zero by construction.

The interaction term $Foreign_i * Shock\ Borrower\ Country_{jt}$ allows us to capture any differential behavior of foreign banks when negative shocks hit the host countries, increasing the risk of the borrowers located in these countries; α_3 is expected to be positive if, as argued in previous literature (Goldberg, 2009), foreign banks provide insurance against home-grown shocks. Importantly, this term also captures the possibility that uncertainty regarding these borrowers' creditworthiness may increase during banking crises, leading foreign banks to withdraw from the country, as implied by a flight to quality effect. In contrast, a negative coefficient for our variable of interest, α_2, would indicate that banks issue more loans to domestic borrowers precisely when their risk is higher, namely during a banking crisis.

The matrix of controls, X_{ijt}, includes year*month fixed effects capturing time-specific changes in the syndicated loan market. Also, in some specifications, we include deal nationality fixed effects to control for time-invariant differences in the demand for syndicated loans. Crucially, we control for demand shocks in the borrower's country by including the proportion of loans issued by the domestic banks to that country with respect to the total loans issued in the syndicated loan market in that period. To further address any concerns that our results may be driven by differences in demand for loans from borrowers in different countries, we make sure that our estimates are invariant when we use a within-country estimator, and fully control for time-varying differences in the demand for loans across countries, by including interactions of month and destination country fixed effects.

Since banks' portfolio allocation exhibits geographical specialization and is therefore correlated over time, we cluster standard errors at the bank level. Importantly, the heterogeneity in the shocks experienced by different banks that may affect the level of the supply of loans is already taken into account in the way we define the dependent variable: As noted before, since we standardize the amount of the loans extended by bank *i* to country *j*

during month *t* by the total amount of loans extended by bank *i* during month *t*, our dependent variable is not affected by changes in the bank's overall supply of loans. Thus, our results cannot be driven by an overall shrinkage of the bank's supply of loans.

We also consider an alternative dependent variable as a measure of home bias. Following Ahearne, Griever and Warnock (2004), we define the home bias of bank *i* with respect to country *j* as, where $Bias_{ijt} = 1 - \left(\frac{Loanshare_{ijt}}{Sharecountry_{jt}}\right)$, where $Loanshare_{ijt}$ is as defined in equation (1) and $Sharecountry_{jt}$ is the proportion of the loans issued in country *j* at time *t* with respect to the total amount of loans issued in the syndicated loan market at time *t*. In these specifications, the flight home effect would imply a positive and significant coefficient for the interaction term $Foreign_i * Shock\ Bank\ Country_{jt}$.

While a negative coefficient (positive coefficient in the specifications using $Bias_{ijt}$ as dependent variable) on our variable of interest, α_2, is consistent with a flight home effect, it could also be driven by other forces. An obvious alternative explanation is that a negative α_2 signifies a *flight to quality* effect. For example, it could be that most lenders are from advanced economies and retract from emerging markets that are perceived to be riskier in the event of adverse economic shocks. The difference between the flight home effect and the flight to quality effect is that a flight home effect arises from banks' rebalancing of their loan portfolios towards domestic borrowers, while the flight to quality effect arises from banks' rebalancing of their portfolios towards higher quality borrowers. The latter would imply a larger bias towards advanced countries from countries with weaker institutional environments or riskier economies, rather than an increase in the home country bias. In other words, a flight to quality would imply an accentuation of the "high-quality" country bias that Forbes (2010) and Giannetti and Koskinen (2010) find exists for some portfolio investors in the equity and bond markets in normal times.

We adapt our empirical strategy to disentangle the flight home effect from a potential flight to quality effect. Besides analyzing the response of syndicated bank lending to adverse shocks while distinguishing between shocks that affect the bank's country of origin and shocks that affect the borrowers' country, as we explain in more detail in Section 4, we also distinguish how the foreign banks' response to negative shocks varies across countries and borrowers using a variety of measures of perceived risk (including proxies for their creditworthiness, opacity and institutional environment). If we found that lenders that experience a banking crisis in their countries of origin retract to their home markets independently from the perceived risk of their own countries and the perceived risk of the countries of the borrowers they retract from, then the results would be unlikely to be driven by a flight to quality effect alone and would support the existence of a flight home effect.

3. Data and Descriptive Statistics

3.1. Data

A syndicated loan is jointly extended by a group of banks, including one or sometimes a couple of lead banks and many participant banks. Prior to signing the loan contract, lead banks assess the quality of the borrowers and negotiate terms and conditions. Once the main terms are in place, lead banks invite participant banks to acquire a stake of the loan.

Data on syndicated loans are from Dealogic's Loan Analytics Database (previously named Loanware), which provides information on borrowers, lenders, and loan price and non-pricing terms at origination. This database is widely used for studying the international syndicated loan market (see, e.g., Esty and Megginson, 2003; and Carey and Nini, 2007). We extract information on loan contracts from the period 1997 to 2009, which covers the recent

global financial crisis as well as a number of banking crises in a variety of countries around the world.

While the dataset provides loan level information, similarly to Ivashina and Scharfstein (2010a), we aggregate loans extended by a given bank during a month at the country level. The main reason for aggregating the loan level information is that, as we show, any collapse of the loan supply is mostly driven by the fact that fewer loans are issued. Thus, changes in the total amount of loans that are extended give us a better picture of changes in the supply of credit than changes in the amount of each loan that has been granted.

As is common in the literature, we consider loans to be issued by the lead banks. If a given loan is extended by more than one lead bank, then we assume that each lead bank extends the loan pro rata. We construct banks' portfolio shares as follows: We first compute the total amount of loans that a bank issues during a month. Next, we compute the share of loans that bank i issues to country *j* as the proportion of all loans issued by bank *i* during month *t*. We similarly compute the proportion of loans issued to investment grade borrowers or unrated borrowers in different countries.

We attribute to each bank (including subsidiaries) the nationality of its parent bank, as is standard in the literature (e.g., Mian, 2006). A bank is considered foreign if the nationality of the borrower is different from the nationality of the (parent) bank. Our sample includes 256 (parent) banks from 55 countries, extending loans to borrowers in 192 countries. Together, these banks extended nearly 250,000 loans over the period 1997-2009, with a median loan value of US$ 200 million. Clearly, banks exhibit geographical specialization and not all banks are active in all markets. We exclude observations that refer to countries in which a bank has never lent during the sample period. Also, our sample of 256 banks includes only banks that have extended at least one foreign loan during the sample period.

Our main control variable for demand conditions in the host country is the total amount of loans issued by domestic banks during a month, standardized by the total amount of loans issued in the syndicated loan market during the same period.

Since our objective is to study bank behavior during banking crises in home and host countries, we obtain start and ending dates of systemically important banking crises from Laeven and Valencia (2010). They consider a banking crisis to be systemic if there are strong signs of financial distress in the banking system (as indicated by major bank runs, losses in the banking system, and bank liquidations) and there are significant government intervention measures in response to such financial distress in the banking system.[3] They use the first year that both conditions are met as the starting year of the banking crisis. The end of the crisis is defined as the year before both real GDP growth and real credit growth are positive for at least two consecutive years, truncating the maximum end year of a crisis at 5 years from the start of the crisis. In case the first two years record growth in real GDP and real credit, the crisis is dated to end the same year it starts.

For the purpose of the empirical analysis, we distinguish between crises that affect the bank's home country and crises that affect the borrower's country of origin. When hit by a banking crisis in their home country, banks are likely to experience or anticipate negative shocks to their net wealth, while banking crises in host countries impair the ability of host country borrowers to access credit from domestic banks. Furthermore, negative shocks from banking crises in a borrower's home country may have stronger negative consequences for such a borrower's investment opportunities and demand for credit. Starting from 1997, our sample includes 43 episodes of banking crises that occur in banks' home countries and 44 crisis episodes in bank's host countries. Besides the countries affected by the 2007-2008

[3] Policy interventions in the banking sector are considered to be significant if at least three out of the following six measures have been used 1) extensive liquidity support (5 percent of deposits and liabilities to nonresidents); 2) bank restructuring costs (at least 3 percent of GDP); 3) significant bank nationalizations; 4) significant guarantees put in place; 5) significant asset purchases (at least 5 percent of GDP); and 6) deposit freezes and bank holidays.

financial crisis, these episodes include mostly banking crises associated with the Asian financial crisis in 1997, the Russian default crisis in 1998, and the Japanese financial crisis of the 1990's.

From Laeven and Valencia (2010), we also obtain information on which banks benefitted from government intervention during the financial crisis period 2007-2008. We use this information to construct a dummy variable, Government intervention, that takes a value of one for banks that were nationalized or received government support in the form of capital injections or asset guarantees, and zero otherwise. We define this variable only for the 2006-2008 period during which we observe all government interventions.

As an alternative measure of the economic conditions in which the bank operates, we use stock market returns that we obtain from Datastream. In particular, to capture shocks to the banking system in the country of origin of the bank on a monthly frequency, we use contemporaneous monthly stock returns of the banking industry (specifically, stock returns on an index of banking stocks) in that country. Similarly, we capture shocks to general economic conditions in the host country using the monthly return on the country's stock market index, which we also obtain from Datastream.

The banking crisis dummy variable and the banking stock returns variable are measures of a bank's exposure to banking crises in their own country that we use to capture the intensity of the negative shock to a bank's net wealth.

We merge the Loan Analytics database with Bankscope to obtain information on bank characteristics, including the bank's total assets, which proxies for bank size, and the proportion of bank liabilities not funded by deposits. Deposits, being implicitly or explicitly protected by deposit insurance, are a source of funding that is generally considered more stable than other sources of debt (Demirgüç-Kunt and Huizinga, 2010). Moreover, as Ivashina and Scharfstein (2010a) argue, during periods of financial turmoil, banks may

experience difficulty rolling over their non-deposit debt because of concerns about their solvency and liquidity. Using information on these and other bank characteristics, we can explore how the flight home effect depends on bank specific conditions.

Finally, we obtain data on a host of country characteristics from a variety of sources. These include annual data on GDP per capita, trade openness, and financial and institutional development from the World Bank's World Development Indicators; information on country level creditor rights from Djankov et al. (2007); data on law and order tradition in the country from the ICRG database maintained by Political Risk Services; and data on a country's sovereign credit ratings from Standard and Poor's. The latter refer to the sovereign's long-term credit rating for external debt. We also obtain data on the distance between the capital cities in each pair of countries in our dataset from Rose (2004) and data on the exports and import volumes (in US dollars) between countries from the IMF's Direction of Trade Statistics database. Finally, we collect information on each country's capital account restrictions from the IMF's Annual Report on Exchange Arrangements and Exchange Restrictions database. Table 1 describes the main variables we employ in the empirical analysis.

3.2. Stylized Facts

While the size of the global syndicated loan market was more or less constant during the period 1997 to 2001, it grew rapidly over the period 2002 to 2006, increasing from a total amount of loan issuances of slightly less than US$ 2 trillion in 2002 to US$ 5 trillion in 2006 (Figure 1).[4] During 2007, this growth came at a halt as the ensuing financial crisis in the U.S. deteriorated global lending conditions. Starting in 2008, the global syndicated loan market collapsed and reached a volume of US$ 2.25 trillion in 2009, a decline of 50% from its peak.

[4] According to Dealogic, the sample covers over 90% of the volume of syndicated loans worldwide and over 95% of the volume of cross-border syndicated loans.

These patterns over time at a global level are similar to those found by Ivashina and Scharfstein (2010a) for the United States. The aggregate effect on the syndicated loan market of the 2008 global financial crisis is therefore evident in the data.

During this decline, foreign lenders rebalanced their portfolio away from international markets, and as a result, the yearly fraction of syndicated loan volume issued by foreign lenders decreased by almost 5 percentage points from 48.3% of the total volume in 2007 to 43.5% in 2009 (Figure 2). In other words, while lending collapsed in both foreign and domestic markets, the collapse was more pronounced in foreign markets than in domestic markets.

In the aggregate, these findings are consistent with a *flight home* effect, though from this descriptive evidence one cannot rule out that this effect is driven by a flight to quality. For example, it could be that most lenders are from advanced economies and retract from emerging markets that are perceived to be riskier in the event of adverse economic shocks. In the empirical analysis, we will distinguish the flight home effect from such a flight to quality effect 1) by differentiating between destination countries (borrowers) that owing to their institutional environment (characteristics) are expected to be more or less affected by flight to quality; and 2) by incorporating local shocks that affected banks and borrowers in a subset of countries into our analysis of the response of syndicated bank lending to adverse shocks.

4. Main Results

The estimates in Table 2 clearly show that there exists a home bias in bank loan portfolios because foreign banks are found to lend systematically less to foreign borrowers. The effect is economically significant. Based on the estimates in column 1, being a foreign bank decreases the share of the bank's loans extended to the country by 0.51, which is economically sizeable compared to a standard deviation of the loan share variable of 0.38.

More interestingly, it emerges from the analysis that when the bank's country of origin experiences a banking crisis, the home bias increases by nearly 20 percent. This is unlikely to be explained by demand effects, not only because we control for this possibility using the amount of loans extended by domestic banks as control variable, but also because negative demand shocks should be more likely in the bank's country of origin, which is experiencing a banking crisis, than in foreign unaffected countries. Similarly, one would expect that the credit risk of borrowers in countries directly affected by the banking crisis increases to a larger extent than for borrowers in countries that are not directly affected.

The effect is robust when we use alternative estimation methods, when we use alternative control variables, or when we estimate the regression model over different subsamples. For instance, although the portfolio shares vary between 0 and 1, we estimate the regression model using ordinary least squares because the high number of dummy variables we progressively include as control variables may create problems with maximum likelihood estimation. Nevertheless, in column 2, we include a minimum set of controls (as in column 1) and take into account that the dependent variable is truncated using a tobit model. The estimates are similar to the ones we obtain using ordinary least squares.

The estimates are also qualitatively similar when we include deal nationality fixed effects (column 3) and control for differences in foreign banks' lending policies when shocks affect the host countries (column 4). The coefficient of the new interaction term indicates that foreign banks indeed provide insurance against home-grown negative shocks, consistent with findings in the existing literature (see Goldberg, 2009). The increase in the proportion of loans extended by foreign banks when the host country experiences a banking crisis also indicates that foreign banks are scarcely concerned of being treated unfavorably in comparison to domestic claimants in case of defaults. Thus, these concerns are unlikely to explain the flight home effect.

In column 5, we consider that our results may be driven by the fact that foreign banks retract from countries that are marginal for their activities when they are hit by a crisis in their home countries. While this would be consistent with a flight home effect, the result would be less striking. We thus include only observations from countries in which banks have been the lead bank for a total of at least 10 syndicated loans. Our results remain qualitatively similar, suggesting that our finding is more general and foreign banks do not retract only from marginal foreign markets.

In column 6, we focus on the last crisis by restricting the sample to bank loan portfolio shares starting from 2006 and continue to find strong evidence in favor of the flight home effect. Our results are similarly unaltered when we exclude loans issued in 2008 and 2009, in other words, the time-period surrounding the Lehman Brothers' bankruptcy, indicating that our results are not driven by unusually large negative shocks. We then ask whether our finding depends on the behavior of the US and the UK banks that may have retracted to the domestic credit market during the last financial crisis. The estimates in column 7, where we exclude US and UK banks, indicate that the flight home effect is a far more general feature of bank lending policies.[5]

So far, we have identified banking shocks using dichotomic variables for whether a given country has experienced a banking crisis. However, the intensity of banking crises and their negative impact on bank net wealth may vary. Moreover, negative shocks to the banking system may affect bank behavior even when a country does not experience a systemic banking crisis. For this reason, in column 1 of Table 3, we measure shocks to bank's health using the contemporaneous stock returns in the banking industry in the country of origin of the bank and economic conditions in the host country using stock market returns in that country. The estimates fully support our previous findings: The home bias in bank portfolios

[5] The results are similarly unchanged if we also drop banks from other financial center countries, such as Switzerland and Luxembourg.

appears to decrease when the return of the banking industry in the country of origin of the bank is higher, suggesting that bank health is associated to more international investment. Also, foreign banks seem to lend more when the stock market of the host countries experiences lower returns.

Not only may the intensity of banking crises vary across countries, but the exposure of banks within a country to a crisis may differ. If negative shocks to bank net wealth are indeed at the origin of the flight home effect, we would expect that the increase in home bias is larger for banks that are more exposed to the banking crisis. For this reason, we interact our dummies for banking crises in the bank's and the borrowers' home countries, respectively, with the proportion of non-deposit liabilities in total liabilities. Since non-deposit liabilities (especially wholesale funding) are a less stable source of funding for banks than traditional deposits, this proxy captures the possibility that a bank may experience liquidity pressures during a banking crisis. Our estimates confirm that the flight home effect is related to each bank's exposure to the negative shock. In column 2, we find that the flight home effect is more pronounced for banks with a larger proportion of non-deposit liabilities. This indicates that the flight home effect is related to the intensity of the shock experienced by the bank. Banks with more non-deposit liabilities are found to provide more insurance when banking crises affect the host country. These results are confirmed in column 3 of Table 3, where we use the proportion of bank losses in terms of loan charge-off rates as a proxy for the bank-specific exposure to the crisis.

In column 4 of Table 3, we reformulate the problem in a way that is commonly used in the literature on the home equity bias (Ahearne, Griever and Warnock, 2004). A bank without home bias would be expected to extend loans to borrowers in a country in proportion to the importance of this country in the international syndicated loan market. To take this into account, we redefine our dependent variable as $Bias_{ijt} = 1 - \left(\frac{Loanshare_{ijt}}{Sharecountry_{jt}}\right)$, where

$Sharecountry_{jt}$ is the proportion of the loans issued in country *j* at time *t* with respect to the total amount of loans issued in the syndicated loan market at time *t*. The estimates continue to be fully consistent with the flight home effect and indicate that the home bias increases by over 75 percent when the bank experiences a banking crisis. We find no changes in home bias when host countries experience banking crises.

To provide further evidence on the flight home, we turn to explore how other measures of familiarity affect lending policies during periods of financial turmoil. Consistently with a flight home effect, we find that foreign banks decrease their loans to distant borrowers to a larger extent when they experience banking crises in their domestic country (column 5). We also find, not surprisingly, that foreign banks tend to extend fewer loans to remote borrowers. Column 6 shows that the flight home is not mitigated if the foreign bank has a subsidiary in the host country, although ex ante the home bias towards such countries is lower.

A possible concern regarding our estimates so far is that we have captured changes in the demand for loans using changes in the volume of domestic loans. To eliminate any concern that the flight home effect is due to unobserved changes in the demand for loans across countries, we use a within-country estimator. In practice, we include interactions of deal country and month of the year fixed effects. We can then ask whether foreign banks experiencing a banking crisis decrease the proportion of loans to a given country more than other banks. The estimates in column 7 of Table 3 are virtually unaltered and fully support our previous results.

5. What Explains the Flight Home Effect?

In this section, we consider potential explanations for the increase in home bias in loan origination, including flight to quality effects, the importance of bank relationships, the

effects of government interventions, borrower and loan heterogeneity, syndicate composition, and financial and trade integration. We find that our flight home effect is not accounted for by any of these other explanations. We end this section with a discussion of the possible mechanisms driving the flight home effect and interpret it as an increase in home bias associated with changes in banks' perceived risk and returns from foreign and domestic activity. We provide evidence that the desire to limit the amount of loans issued in foreign currencies can help explain the flight home effect, following negative shocks to banks' net wealth and discuss other potential mechanisms including differences in operating costs and familiarity biases.

5.1. Flight to Quality

Previous literature highlights that during financial crises investors, and banks in particular, tend to rebalance their portfolios in favor of safer and less opaque assets, a phenomenon that is generally referred to as flight to quality. We now explore to what extent our findings (that we have interpreted as a flight home effect) may be an artifact of such a flight to quality effect.

A possibility could be that in periods of market turmoil banks from advanced economies retract from emerging markets, which are considered riskier or less transparent. We could then erroneously interpret the desire to hold safer and more transparent assets as a desire to hold domestic assets. This is unlikely to be the case because in column 7 of Table 2 we have already shown that the flight home effect arises even if we exclude banks from the U.S. and the U.K., whose home countries are arguably the two countries in our sample with the strongest and most transparent institutional environments to which investors revert during periods of financial turmoil. We also test whether our results hold if we include only observations from borrowers in countries that are not directly affected by a banking crisis in

their home country and that are consequently unlikely to have become less creditworthy than borrowers in the bank's country of origin. The estimates which we omit for brevity are fully consistent with our previous results.

To further mitigate concerns that our results are due to a flight to quality effect, in column 1 of Table 4, we include a dummy that takes a value of one for emerging markets[6] and interact it with our main variables of interest capturing the reaction of banks to banking crises in the country of origin and in the host country. Our premise is that if a flight to quality effect dominates, then the withdrawal from foreign lending markets following a banking crisis should be more pronounced for emerging markets where on average borrowers tend to have lower credit quality than borrowers in advanced economies. Instead, we find that, while foreign banks tend to decrease the amount of loans they allocate to foreign borrowers when they experience a crisis in their country of origin, this effect is not more pronounced for foreign loans to emerging markets. This suggests that the flight home effect is not a consequence of flight to quality.

We do find evidence of flight to quality when host countries experience banking crises. When the banking crisis occurs in a host country that is an advanced economy, foreign banks appear to provide insurance by increasing the share of loans that they allocate. This is no longer the case if an emerging market experiences a banking crisis as the coefficient of Shock Borrower Country*Emerging Market Loans*Foreign Bank is negative, significant and (statistically) equal in absolute value to the positive coefficient of Shock Borrower Country*Foreign Bank.

The distinction between emerging markets and advanced economies is a crude proxy for the risk of extending credit to borrowers in a country. For this reason, we consider different country level proxies for institutional development and risk and explore whether the

[6] Since the World Bank classification of emerging markets varies over time depending on economic development of the country, this dummy variable varies over time for some emerging markets.

flight home effect is driven by the fact that banks retract from countries with weak institutions and higher risk. Consistent with our previous results, we find that having strong institutions helps mitigate the effects of home-grown shocks, as foreign banks are more inclined to provide insurance, while having strong institutions appears to be irrelevant or even counterproductive for shocks affecting foreign banks. In columns 2 and 3 of Table 4, we interact our proxies for shocks in the bank's and the borrower's countries with an index of protection of creditor rights from Djankov, McLiesh and Shleifer (2007) and an indicator of law and order. While the latter seems to leave the flight home effect unaffected, it appears that the flight home is more pronounced from countries with stronger creditor protection, possibly because credit expansion is larger in these countries during good times.

In column 4 of Table 4, we interact our banking crises dummies with the difference between the S&P sovereign credit ratings of the bank's and the borrower's home country, respectively. Once again it appears that when their country of origin experiences financial turmoil, foreign banks distinguish only between domestic and foreign borrowers; foreign borrowers are granted less credit independently from their country's credit rating. Foreign banks appear to increase the proportion of loans they extend to countries that experience banking crises to a larger extent if these countries have higher sovereign credit ratings than their own country. This confirms that foreign banks tend to insure host countries against negative shocks to their banking systems, but only if these countries have stronger institutions and relatively lower risk. Interestingly, banks extend a larger proportion of loans to borrowers in countries with lower credit ratings, possibly suggesting that a higher level of debt decreases these countries' credit ratings.

Finally, we test whether the flight home is more pronounced for banks from strong institutional environments, which would suggest that flight home and flight to quality are closely intertwined. Estimates in column 5 of Table 4 suggest that the flight home is slightly

less pronounced for banks from stronger institutional environments, thus confirming that the flight home effect we uncover is distinct from a flight to quality effect. Importantly, these banks may have easier access to funding which helps mitigate negative shocks to their net wealth.

A possible limitation of the results presented in Table 4 is that country risk and institutional development may not fully capture the quality of bank loans. For instance, the quality of the clients with access to foreign banks may be lower in riskier and less developed economies. This is unlikely because existing literature suggests that if anything foreign banks extend credit to more creditworthy and more transparent borrowers. Nevertheless, to the extent that our country level proxies fail to capture the quality of bank loans, the results we have presented so far may still be driven by a flight to quality. For example, information asymmetries and agency problems between banks and their borrowers may well vary across different segments of the syndicated loan markets, and this could drive our results.

To address these concerns, we investigate how the flight home effect is related to borrower characteristics that capture the quality of bank loans, and consider how results vary across different segments of the syndicated loan market within the same country that vary in terms of average loan quality. The results are presented in Table 5.

First, we consider the credit rating of the borrower to explore how banks allocate their portfolios across different loan ratings. Specifically, we split the sample in loans depending on whether the borrower is rated or not. As rated borrowers tend to be investment grade, and borrowers without rating are more subject of asymmetric information, the existence of a credit rating is a proxy for loan quality. The estimates in column 1 reveal that the home equity bias is economically smaller for rated loans (i.e., higher quality loans). While on average foreign banks' loan portfolio shares are 50 percentage points smaller than those of domestic banks, we find that for rated borrowers, the portfolio shares are only 7 percentage

points smaller. However, when the bank's country of origin experiences a banking crisis, the home bias in banks' portfolios increases by 15 percent, an increase that is only slightly smaller than the one we obtain for the whole sample. For unrated loans (column 2), which are the most frequent in the syndicated loan market, the magnitude of the effects is similar to what we obtain for the whole sample.

Since borrowers with no credit ratings are more subject to information asymmetries, these results indicate that the home bias in the syndicated loan market is in part driven by asymmetric information. However, the comparable magnitude of the increase in the home bias when banks experience a banking crisis in their country of origin across the two subsamples suggests that information asymmetries are unlikely to be the main factor driving the flight home effect.

5.2. Bank Relationships

If banks had close relationships with domestic borrowers but not with foreign borrowers, their favorable treatment of relationship borrowers could explain why the home bias in their loan portfolios increases in periods of financial turmoil. For example, Bae, Kang and Lim (2002) show that firms with closer relationships to their banks benefited from easier access to credit during the Korean financial crisis of 1998. Thus, we explore to what extent foreign banks refrain from extending loans to borrowers with which they have no established relationship following a financial crisis, but continue to extend loans to relationship borrowers independently from whether they are domestic or foreign.

We consider loans to borrowers that did not receive a loan from a particular bank before as loans to first time borrowers and loans to borrowers that have received previous loans from this bank as relationship loans (to define previous loans we consider loans extended since 1990). In columns 3 and 4 of Table 5, we present estimates for first time

borrowers and relationship borrowers, respectively. The magnitude of the coefficient is similar in the two samples, indicating that a different treatment of relationship borrowers cannot explain the flight home effect. In unreported specifications, we also find that results are invariant if we increase the number of loans that a borrower must have received from a given bank for the borrower to be considered a relationship borrower.

To the extent that banks should have better information on repeated borrowers, these results also suggest that information asymmetries are unlikely to be at the origin of the flight home effect.

5.3. Government Interventions

Banks that benefit from government interventions during banking crises may be subject to conditions or moral suasion by politicians or the government to lend to domestic borrowers, possibly at the expense of foreign borrowers, to sustain employment in the country of origin. Such pressures may be particularly pronounced when government interventions take place in the form of capital injections or outright bank nationalizations. These political influences associated with government bailouts of banks could drive the portfolio rebalancing of banks towards domestic loans.

To test this hypothesis, we obtain data from Laeven and Valencia (2010) on the list of intervened banks benefiting from government bailouts during the 2007-2008 financial crisis. We define a dummy variable that takes value equal to 1 for banks that were nationalized or received government support in the form of capital injections or asset guarantees, and consider the period surrounding the latest banking crisis (2006-2009) to test whether government intervened banks drive our results. Column 1 in Table 6 presents the results. We find no evidence that these banks rebalance their portfolio towards domestic borrowers to a larger extent than other banks. Interestingly, banks that are intervened by the

government have a higher proportion of foreign loans prior to the banking crisis, suggesting that they may have taken more risks. Overall, it appears that political factors related to government interventions cannot drive the flight home effect, as is also consistent with the findings of Rose and Wieladek (2011), who show that the response of bank lending policies to government interventions varies not only across different types of government interventions, but also across different countries for similar measures.

Interestingly, column 2 shows that the flight home effect exists but is somewhat less pronounced for large banks. To the extent that large banks are too big to fail, they are more likely to be bailed out. This insurance appears to be associated to a lower decrease in the amount of loans that banks extend to foreign borrowers. Overall, it appears that, if anything, the anticipation of a bailout weakens, instead of driving, the flight home effect.

5.4. Loan and Borrower Heterogeneity

Syndicated loans are extended not only for real investment, but also for highly cyclical restructuring activities, such as leverage buyouts, merger and acquisitions and stock repurchases. The demand for the latter type of loans may be lower during periods of financial turmoil, even if the borrower's country does not experience a banking crisis. If foreign banks extended more of these cyclical loans than domestic banks, a drop in the demand of the more cyclical loans could explain the flight home effect, which would then be unrelated to negative shocks to the bank's net wealth.

Loan analytics provides information on the purpose of the syndicated loan. We can thus perform our analysis focusing on loans that are intended for real investment (i.e., loans whose use is general corporate purposes or working capital). Results in column 1 of Table 7 show clear evidence of a flight home effect even if we restrict our attention to less cyclical loans. The estimates are not only statistically, but also economically invariant.

Another possibility is that the clients of domestic and foreign banks within a country differ. Any ex ante differences in the clients of domestic and foreign banks within a country should be reflected in the loan contracts they were offered. For instance, riskier borrowers with more cyclical demand presumably paid a higher interest rate on their loans. In column 2 and 3, we include controls for the average contract terms offered by each bank to borrowers in each country during the prior 12 months. Although our sample is reduced because of missing observations on contracts terms for loans in some countries, we continue to find clear evidence of a flight home effect. Like our previous results which distinguish among loans with different credit ratings, these findings indicate that the flight home effect is not due to ex ante differences between the clients of domestic and foreign banks.

5.5. Trade Openness and Financial Integration

In Table 8, we ask to what extent the flight home effect is related to alternative measures of economic integration. For instance, international trade is known to drop during financial crises, largely because the demand for investment goods—which are often sourced internationally—decreases. Although syndicated loans are rarely used to fund exports, it could be that international loans closely follow the pattern of real transactions. The flight home of international banks could then depend on a decline in the real integration. The estimates in column 1 indicate that there is strong evidence of a flight home effect even after controlling for the evolution of trade flows between the country of the bank and the country of the borrower. Since we can relate trade flows only to observations that include loans to foreign countries, we omit the share of loans to domestic borrowers from this specification. Thus, a negative effect of the dummy Shock Bank Country indicates that the share of loans extended to each of the foreign countries in the bank's portfolio decreases. The effect is quantitatively similar to the regression specifications in which we do not control for trade

flows. This suggests that the flight home effect is not driven by changes in the degree of real economic integration.

In column 2 and 3, we consider whether fears that host countries may place restrictions on capital outflows during periods of financial turmoil abroad determines the behavior of our sample of internationally active banks. We conjecture that these concerns may be more relevant for countries that are less integrated with the rest of the world and use measures of *de jure* and *de facto* financial integration (notably an index of capital account restrictions and the ratio of foreign bank claims per capita) to capture the degree of financial integration of host countries. Unsurprisingly, the home bias in banks' portfolios is more pronounced towards countries with less open capital accounts and less pronounced in countries with more foreign bank claims per capita. The flight home effect, however, does not depend on the extent of financial integration of the host country with the rest of the world.

5.6. Syndicate Composition

So far, as is customary in previous literature, we have assumed that the lead bank is the lending bank. This measures the extent to which a bank is involved in originating new loans. However, after negotiating the loan with the borrower, the lead bank retains a fraction of the loan (generally 1/3) and sells the remaining part to participant banks and other investors. A larger share of the loan retained by the lead bank is expected to reinforce this bank's incentives to screen and monitor the borrower. If during a downturn the share of the loan retained by the lead bank increases, as the findings of Ivashina and Scharfstein (2010b) suggest, then we could observe that the lead bank originates less credit in terms of overall lending volume, while the amount of loans the lead bank offers to each borrower need not decrease.

This compositional effect would affect our results only if the syndicate composition varies differently for domestic and foreign loans. To the extent that this were the case, one would expect that information asymmetry between lead banks and other participants in the syndicate is higher for domestic borrowers, because domestic banks tend to have privileged access to information. In this case, if the bank preferred not to change the geographical distribution of its loan exposure, we should observe that it originates a smaller amount of loans to the domestic country. In fact, we find the contrary.

Nevertheless, to mitigate concerns that our results may be affected by the syndicate composition, we evaluate whether our estimates are robust if we focus on loan origination, abstracting from quantity, and consider the fraction of the number (as opposed to the amount) of new loans that the bank originates in different countries. Column 1 of Table 9 shows that our results remain unaltered when we consider the number of loans: the proportion of new loans granted in foreign countries decreases when banks experience banking crises in their country of origin.

The regressions in Columns 2 and 3 of Table 9 focus more directly on the syndicate composition that we observe for slightly less than half of the loans in our sample. We explore whether the average number of participants and the average share of the loan retained by the bank for loans issued by bank *i* in country *j* at time *t* vary differently between foreign and domestic banks especially during banking crises. We find no evidence that the composition of the syndicates led by foreign banks is affected differently when the banks experience banking crises in their country of origin; foreign banks retain a larger share of the loan in countries that are experiencing banking crises, supporting our earlier finding that in these situations unaffected foreign banks are inclined to provide insurance and consistent with the notion that information asymmetries and agency problems become more severe when borrowers incur negative shocks.

Overall, the fact that the structure of the syndicate is unaffected when banking crises affect the country of origin of the banks fully supports our interpretation of the empirical evidence that banks hit by negative shocks have a tendency to concentrate on the domestic market, resulting in a flight home effect.

5.7. Explaining the Flight Home Effect

If none of the above factors explains the flight home effect, then what causes it? Theory offers alternative explanations for the existence of a home bias, including informational advantages, transaction costs, and investor preferences based on familiarity considerations (Huberman, 2001) and aversion to ambiguity or uncertainty (Epstein, 2001). The observed increase in the home bias should come from a change in any of these underlying factors. Transaction costs have been shown to be small and are unlikely to change much; therefore, they cannot explain the observed flight home effect. Informational advantages could change at time of financial crisis, but it is unclear why it should become costlier to screen foreign borrowers than domestic borrowers, especially if foreign borrowers are less affected by negative shocks because they did not directly experience a banking crisis. Furthermore, we find that the flight home effect does not depend on borrower credit ratings or institutional environment, suggesting that informational advantages do not explain our findings.

Familiarity considerations, such as those based on borders, physical proximity or cultural affinity, also do not change much over time. However, their relevance may increase when investors experience negative shocks both for economic and behavioral reasons. While it is beyond the scope of this paper to disentangle the underlying mechanisms that explain the flight home effect, below we discuss some plausible explanations and provide evidence in favor of one of these mechanisms.

After experiencing negative shocks, banks may revert to their core business in the domestic market because they may perceive lending within their domestic borders as enjoying lower risks and/or higher expected returns for reasons related to the relative costs of doing business abroad, including the management of exchange rate risks and operational costs. For instance, after experiencing negative shocks to their net wealth, foreign banks may want to decrease their exposure to exchange rate risk, especially if loans are extended in currencies other than the domestic currency.

Table 10 provides some evidence in favor of this exchange rate risk-based explanation of the flight home effect, using data on the currency denomination of the loan. In particular, estimates in column 1 show that banks that have experienced a banking crisis in their country of origin decrease their loan exposure to a lesser extent to countries where they tend to extend loans in their domestic currency, as measured by the fraction of loans extended in the bank's home country currency during the prior 12 months. In particular, the flight home effect decreases by 30 percent if the proportion of loans extended by a bank in its home currency increases by a one standard deviation.

In column 2, we also find that borrowers in countries with a higher volatility of exchange rate movements with respect to the dollar during the prior 12 months receive fewer loans from foreign banks. However, it does not appear that this disproportionately affects the lending of banks when they experience negative shocks. It is rather the currency of denomination of loans to borrowers in a given country that can help explain the flight home effect.

There may be other mechanisms that can help explain why banks prefer to lend within their domestic borders after experiencing negative shocks. For instance, as Giannetti and Yafeh (2011) suggest that the cost of negotiating and monitoring syndicated loans may be higher for foreign loans due to institutional and informational constraints. Thus, when

reducing exposure, international banks may favor borrowers in their relatively more profitable domestic market. Our findings could also be consistent with explanations of financial crises and their consequences based on behavioral amplification mechanisms. For example, Barberis (2010) suggests that after suffering losses in their risky asset holdings, even professional decision makers employed by institutional investors and international banks may prefer to operate in more familiar environments.[7]

Overall, it appears that banking system integration amplifies the impact of negative shocks to banks' wealth, such as those from banking crises originating in the banks' home country, on their foreign lending activity and thus on the supply of credit in the banks' host countries.

6. Conclusions

In the context of the international syndicated loan market, we provide evidence that the collapse of international markets during financial crises can be explained by a flight home effect. We show that the home bias of lenders' loan portfolios increases by approximately 20% if the country of origin of the bank experiences a banking crisis. The flight home effect is distinct from a flight to quality effect because borrowers in emerging markets and advanced economies are similarly affected by banks' portfolio rebalancing in favor of domestic lenders. Similarly, the flight home of international lenders does not appear to be limited to countries with weak investor protection or to borrowers with lower credit ratings. Moreover, banks with a smaller fraction of deposit-based funding, and that are therefore more vulnerable to negative liquidity shocks, exhibit a stronger flight home effect when faced with a negative shock. Overall, the results suggest that the home bias increases when investors

[7] Behavioral studies support this mechanism. Heath and Tversky (1991) present a theory in which the extent of familiarity biases varies depending on how competent an individual feels about the decision that needs to be taken. After good performance, agents who feel competent at analyzing the situation at hand may venture in unfamiliar environments, but they revert to the most familiar domestic market when negative shocks to their portfolio undermine their confidence.

experience negative shocks to their net wealth. While the presence of home bias in international capital allocation has been well documented in the literature, our results indicate that home biases vary over time depending on the net wealth of investors.

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Figure 1. Total amount of syndicated loans issued (US$ billions), 1997-2009

Figure displays total gross amount of syndicated loans issued worldwide in US$ billions in a given year over the period 1997-2009. Authors' calculations based on data from Dealogic's Loan Analytics Database.

Figure 2. Syndicated loan volume issued by foreign lenders, fraction of total, 1997-2009

Figure displays the yearly amount of syndicated loans issued by foreign lenders as a fraction of the yearly total amount of syndicated loans issued over the period 1997-2009. Authors' calculations based on data from Dealogic's Loan Analytics Database.

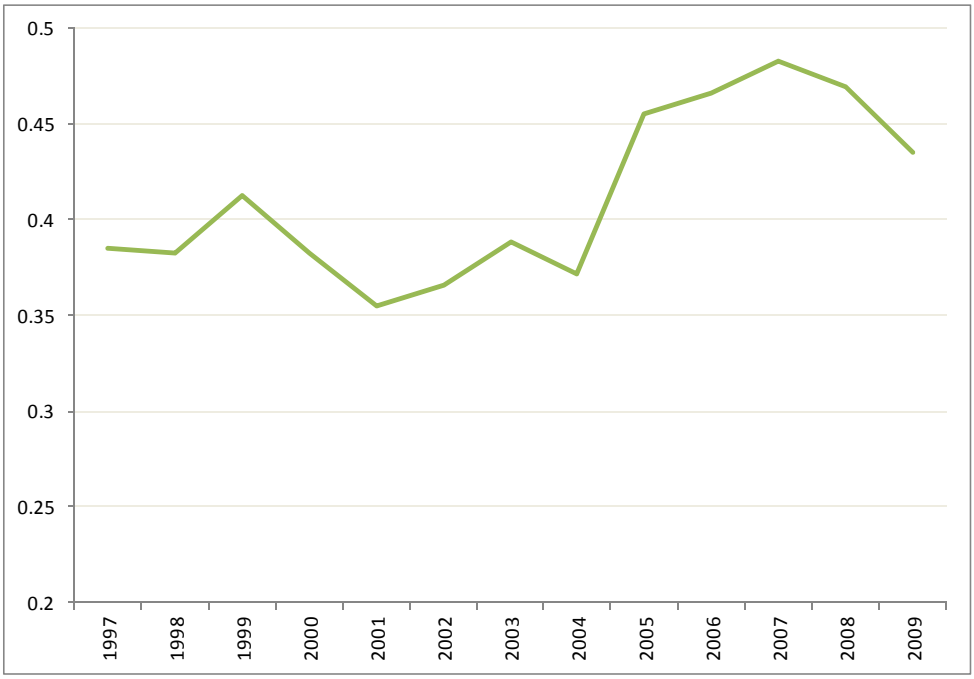

Table 1. Descriptive Statistics

This table displays summary statistics of the main regression variables. Syndicated loan variables are computed by the authors using data from Dealogic's Loan Analytics Database. Bank specific variables are computed using Bankscope, unless indicated otherwise. Country variables are from the World Bank's World Development Indicators database, unless indicated otherwise.

Variable	Definition	Mean	St. Dev.	Median	N
Bank-country-time specific variables					
Loan Share	Loans extended by bank i to borrowers in country j at time t/Total loans issued by bank i at time t	0.30	0.38	0.08	50710
Bias	$Bias_{ijt} = 1 - \left(\frac{Loanshare_{ijt}}{Sharecountry_{jt}}\right)$, where the $Sharecountry_{jt}$ is the proportion of the loans issued in country j at time t with respect to the total amount of loans issued in the syndicated loan market at time t.	203.79	3,903.91	-5.44	50704
Loan A&B Share	Loans extended by bank i to A & B borrowers in country j at time t/Total loans issued by bank i at time t	0.06	0.17	0.00	50710
Loan Unrated Share	Loans extended by bank i to unrated borrowers in country j at time t/Total loans issued by bank i at time t	0.25	0.36	0.04	50710
Loan First-Time Share	Loans extended by bank i to first time borrowers in country j at time t/Total loans issued by bank i at time t	0.15	0.27	0.02	50710
Loan Relation Share	Loans extended by bank i to previous clients in country j at time t/Total loans issued by bank i at time t	0.15	0.26	0.01	50710
Loan Share Real Investment	Loans whose purpose is working capital or general corporate purposes issued by bank i to borrowers in country j at time t/Total loans whose purpose is working capital or general corporate purposes issued by bank i at time t	0.23	0.38	0	41,172
Loan Share-Number of Loans	Number of loans extended by bank i to clients in country j at time t/Total number of loans extended by bank i at time t	0.3	0.35	0.12	50720
Average Lead Bank Share	Average share of the loan retained by bank i for loans to borrowers of country j at time t	0.23	0.2	0.17	18068
Average Number of Participants	Average number of participants for syndicates led by bank i in country j at time t	9.17	8.4	7	43656
Average Loan Amount	Average amount of the loans extended by bank i to borrowers in country j at t-12	226.1	634.48	87.06	34,581
Average Interest Rate	Average interest rate of the loans extended by bank i to borrowers in country j at t-12	134.21	112.53	102.28	26,037
Average Maturity	Average maturity of the loans extended by bank i to borrowers in country j at t-12	1,248.90	1,435.03	793	9,772

Variable	Definition	Mean	St. Dev.	Median	N
Foreign Bank	Dummy variable that takes value 1 if bank i nationality is different from the nationality of the borrower; the variable equals zero otherwise	0.79	0.41	1.00	50725
Subsidiary	Dummy variable that takes value 1 if the bank has a subsidiary in the borrower's country; the variable takes value zero otherwise	0.05	0.22	0	50725
Proportion Loans in the Bank's Currency	Proportion of loans that bank i extends in country j at t-12 denominated in the domestic currency of the bank	0.1	0.29	0	50732
Bank specific variables					
Large Bank	Dummy variable that takes value equal 1 if the bank's total assets are above the mean and 0 otherwise	0.27	0.44	0	50732
Proportion of non-deposit liabilities	Ratio of non-deposit liabilities to total liabilities in a given year	0.92	1.92	0.35	26373
Bank's charge off	Proportion of non performing loans in the bank's assets in a given year	0.01	0.01	0.01	45412
Government Intervention	Dummy variable that takes value equal to 1 if the bank was nationalized or received government support in the form of capital or asset guarantees between 2006 and 2009, and zero otherwise. Source: Laeven and Valencia (2010).	0.30	0.46	0	21694
Country-time specific variables					
Domestic Loans	Domestic loans in country j at time t/Total loans at time t	0.05	0.14	0.00	50732
Domestic A&B Loans	Domestic loans to A& B borrowers in country j at time t/Total loans at time t	0.02	0.07	0.00	48488
Domestic Unrated Loans	Domestic loans to unrated borrowers in country j at time t/Total loans at time t	0.03	0.08	0.00	50732
Domestic First-Time Loans	Domestic loans to first time borrowers in country j at time t/Total loans at time t	0.02	0.03	0.00	34729
Domestic Relationship Loans	Domestic loans to previous clients in country j at time t/Total loans at time t	0.06	0.13	0.00	34729
Domestic Loans Real Investment	Domestic loans whose purpose is working capital or general corporate purposes issued by bank i to borrowers in country j at time t/Total loans whose purpose is working capital or general corporate purposes issued at time t				
Domestic Loans-Number of Loans	Number of loans in country j at time t/Total loans at time t	0	0	0	50732
Average Lead Bank Share	Average share of the loan retained by domestic lead banks in country j at time t	0.34	0.24	0.28	27044
Average Number of Participants	Average number of participants for syndicates led by domestic lead banks in country j at time t	7.45	5.17	6.08	29973
Shock Bank Country	Dummy variable that equals 1 if the country of origin of the bank experiences a banking crisis and equals zero otherwise	0.19	0.39	0.00	50732
Shock Borrower Country	Dummy variable that equals 1 if the country of origin of the borrower experiences a banking crisis and equals zero otherwise	0.14	0.34	0.00	50732

Variable	Definition	Mean	St. Dev.	Median	N
Banking Return in Bank's Country	Monthly return of the banking sector in the bank's country of origin from Datastream	-0.01	0.08	0.00	32768
Host Country's Mkt Return	Monthly market return in the country of the borrower from Datastream	0.00	0.06	0.01	28577
Emerging Market	Dummy variable that takes value 1 if the borrower's country has GDP per capita below USD 10000 and takes value zero otherwise	0.15	0.36	0.00	50732
Creditor rights	Index of creditor rights in the host country from Djankov et al. (2007)	2.05	1.12	2	29435
Law and Order	Index of law and order in the host country from ICRG	4.77	0.98	5	30018
Law and Order-Bank	Index of law and order in the origin country of the bank from ICRG	5.16	0.60	5	33202
S&P Rating Borrower	S&P rating of the borrower country's government debt; lowest number denotes highest rating; data from Standard and Poor's	7.75	3.99	7	48148
S&P Rating Bank- S&P Rating Borrower	S&P rating of the bank country's government debt minus S&P rating of the borrower country's government debt; data from Standard and Poor's	1.06	4.05	0.00	47991
Capital Account restrictions	Index of capital account restrictions in the host country from IMF's AEREAR database	0.23	0.31	0.08	28235
Foreign Claims Per Capita	Foreign claims per capita in the host country	23020.33	69467.11	12716.54	30018
Exchange Rate Volatility	Absolute value of the change in the exchange rate of the currency of the borrower's country with respect to the USD during the year	434.29	1,561.32	10.18	38081
Distance	Log of physical distance in miles between the capital city of the bank's country and the borrower's country	5.93	3.44	7.33	45349
Trade/Bank Country GDP	Exports to host country plus imports to home country of bank divided by GDP of home country of bank; data on bilateral exports and imports from IMF's Direction of Trade Statistics	1.77	5.50	0.25	38609

Table 2. Cross-Border Lending and the Flight Home effect: Main Results

The dependent variable is Loan share. Column 2 is estimated using a Tobit regression. Column 3 includes deal nationality fixed effects. Column 4 controls for differences in foreign banks' lending policies, when shocks affect the host countries. Column 5 only includes observations from countries in which banks have been the lead bank for a total of at least 10 syndicated loans. Column 6 limits thee sample to bank loan portfolio shares starting from the year 2006. Column 7 excludes observations from US and UK banks from the sample. Standard errors in parenthesis are corrected for heteroskedasticity and are clustered at the bank parent level. *, **, and *** indicate significant at 10 percent, 5 percent and 1 percent level.

VARIABLES	(1)	(2) Tobit	(3)	(4)	(5) Important Markets only	(6) Latest Crisis Only	(7) No US and UK banks
Foreign Bank	-0.507***	-0.600***	-0.506***	-0.511***	-0.497***	-0.523***	-0.523***
	(0.0218)	(0.0292)	(0.0224)	(0.0224)	(0.0342)	(0.0252)	(0.0271)
Shock Bank Country* Foreign Bank	-0.0896***	-0.0952***	-0.0764***	-0.0816***	-0.0549**	-0.0942***	-0.0629**
	(0.0210)	(0.0234)	(0.0207)	(0.0214)	(0.0212)	(0.0270)	(0.0307)
Shock Borrower Country* Foreign Bank				0.0355***	0.0303*	0.0758***	0.0339***
				(0.0106)	(0.0171)	(0.0162)	(0.0127)
Domestic Loans	0.501***	0.580***	0.499***	0.533***	0.549***	0.629***	0.693***
	(0.0609)	(0.0715)	(0.0674)	(0.0688)	(0.0890)	(0.0848)	(0.0815)
Deal Country FE	No	No	Yes	Yes	Yes	Yes	Yes
Month of the Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	50710	50710	50710	50710	18717	21684	34316
R-squared	0.404	--	0.429	0.429	0.566	0.482	0.370

Table 3. Other Measures of Shocks and Home Bias

The dependent variable is loan share with the exception of column 4 where the dependent variable, Bias, is a measurement of home bias in the portfolio of bank i respect to country j, defined as in Ahearne, Griever and Warnock (2004). Column 2 includes interactions with the bank's proportion of non-deposit liabilities. Column 3 controls for the proportion of bank losses in terms of loan charge-off rates to proxy for bank-specific exposure to the crisis. Column 5 controls for the distance between the bank and its borrowers. Column 6 controls for whether or not the bank has a subsidiary in the host country. Column 7 includes deal country and month of the year fixed effects to control for unobserved changes in the demand for loans across countries. Standard errors in parenthesis are corrected for heteroskedasticity and are clustered at the bank parent level. *, **, and *** indicate significant at 10 percent, 5 percent and 1 percent level.

	(1) Loan share	(2) Loan share	(3) Loan Share	(4) Bias	(5) Loan share	(6) Loan share	(7) Loan share
Foreign Bank	-0.545***	-0.533***	-0.534***	248.3***	0.128	-0.516***	-0.509***
	(0.0226)	(0.0306)	(0.0279)	(84.30)	(0.0797)	(0.0223)	(0.0233)
Banking Return in Bank's Country*Foreign Bank	0.0988***						
	(0.0377)						
Host Country's Mkt Return	0.210**						
	(0.0819)						
Host Country's Mkt Return*Foreign Bank	-0.239***						
	(0.0756)						
Domestic Loans	0.483***	0.00272	0.00574		0.464***	0.00514	
	(0.0688)	(0.00342)	(0.00358)		(0.0664)	(0.00316)	
Shock Bank Country* Foreign Bank				192.2**		-0.0765***	-0.0909***
				(95.99)		(0.0208)	(0.0259)
Shock Borrower Country* Foreign Bank				-43.46	0.0111	0.0235**	0.0699***
				(36.50)	(0.0102)	(0.0106)	(0.0230)
Shock Bank Country* Foreign Bank*Distance					-0.00726***		
					(0.00220)		
Foreign Bank*Distance					-0.0805***		
					(0.0102)		
Shock Bank Country*Foreign bank* Bank's proportion non deposit debt		-0.0201***					
		(0.00670)					
Shock Borrower Country* Foreign Bank* Bank's proportion non deposit debt		0.0155**					
		(0.00655)					
Bank's proportion of non-deposit liabilities* Foreign Bank		0.0279**					

	(1) Loan share	(2) Loan share	(3) Loan Share	(4) Bias	(5) Loan share	(6) Loan share	(7) Loan share
		(0.0117)					
Bank's proportion of non-deposit liabilities		-0.00453					
		(0.00787)					
Shock Bank Country*Foreign bank*Subsidiary						0.0131	
						(0.0458)	
Shock Bank Country*Foreign bank* Bank's charge off			-4.413**				
			(1.858)				
Shock Borrower Country* Foreign Bank*Bank's charge off			0.680				
			(1.132)				
Bank's charge off * Foreign Bank			3.386***				
			(1.009)				
Bank's charge off			0.382				
			(1.114)				
Shock Borrower Country*Foreign bank*Subsidiary						-0.0308	
						(0.0437)	
Foreign bank*Subsidiary						0.0590*	
						(0.0358)	
Month of the Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Deal Country* Month of the Year FE	No	No	No	No	No	No	Yes
Observations	28485	26370	45398	50704	45338	50710	50710
R-squared	0.440	0.498	0.425	0.033	0.475	0.427	0.508

Table 4. Flight Home vs. Flight to Quality: Borrower's Country Characteristics

The dependent variable is Loan share. Column 1 estimates differential effects for emerging markets and other markets. Column 2 controls for differential impact of the protection of creditor rights in the host country. Column 3 controls for differential impact of law and order tradition in the host country. Column 4 controls for the difference between the S&P sovereign credit ratings of the bank's and the borrower's home country, respectively. Column 5 controls for the law and order tradition in the home country of the bank. Standard errors in parenthesis are corrected for heteroskedasticity and are clustered at the bank parent level. *, **, and *** indicate significant at 10 percent, 5 percent and 1 percent level.

VARIABLES	(1)	(2)	(3)	(4)	(5)
Foreign Bank	-0.505***	-0.586***	-0.899***	-0.511***	-0.520***
	(0.0229)	(0.0562)	(0.0737)	(0.0225)	(0.0239)
Shock Bank Country* Foreign Bank	-0.0842***	-0.0172	-0.0710**	-0.0763***	-0.0787***
	(0.0216)	(0.0246)	(0.0339)	(0.0207)	(0.0220)
Emerging Market Loans	0.180***				
	(0.0455)				
Shock Bank Country* Emerging Market Loans	0.0611				
	(0.0775)				
Emerging Market Loans* Foreign Bank	-0.211***				
	(0.0471)				
Shock Bank Country* Emerging Market Loans*Foreign Bank	-0.0395				
	(0.0795)				
Shock Borrower Country* Foreign Bank	0.0363***	-0.0180	-0.0511	0.0451***	0.0349***
	(0.0111)	(0.0207)	(0.0579)	(0.0116)	(0.0104)
Shock Borrower Country*Emerging Market Loans*Foreign Bank	-0.0540*				
	(0.0285)				
Domestic Loans	0.537***	0.469***	0.430***	0.548***	0.543***
	(0.0687)	(0.0695)	(0.0681)	(0.0685)	(0.0711)
Creditor Rights*Foreign Bank		0.0324			
		(0.0285)			
Shock Bank Country*Foreign Bank* Creditor Rights		-0.0317***			
		(0.00779)			
Shock Borrower Country*Foreign Bank* Creditor Rights		0.0333***			
		(0.00913)			
Law & Order*Foreign Bank			0.0742***		
			(0.0146)		
Shock Bank Country*Foreign Bank* Law & Order			-0.00286		

VARIABLES	(1)	(2)	(3)	(4)	(5)
			(0.00628)		
Shock Borrower Country*Foreign Bank* Law & Order			0.0207*		
			(0.0123)		
Shock Bank Country*(S&P Rating Bank- S&P Rating Borrower)*Foreign Bank				-0.00211	
				(0.00136)	
Shock Borrower Country*(S&P Rating Bank- S&P Rating Borrower)*Foreign Bank				0.00528***	
				(0.00192)	
S&P Rating Borrower				0.00152*	
				(0.000860)	
Shock Bank Country* Foreign Bank*Bank from High Law & Order Country					0.0285
					(0.0434)
Bank from High Law & Order Country *Foreign Bank					0.0567*
					(0.0340)
Deal Country FE	Yes	Yes	Yes	Yes	Yes
Month of the Year FE	Yes	Yes	Yes	Yes	Yes
Observations	50710	29433	30016	47982	50710
R-squared	0.430	0.461	0.461	0.438	0.431

Table 5. Flight Home vs. Flight to Quality: Borrower's Characteristics

The dependent variable is Loan share. Column 1 limits the sample to rated borrowers. Column 2 limits the sample to unrated borrowers. Column 3 limits the sample to first time borrowers – borrowers that did not receive a loan from the bank before. Column 4 limits the sample to borrowers that have received previous loans from the banks. Standard errors in parenthesis are corrected for heteroskedasticity and are clustered at the bank parent level. *, **, and *** indicate significant at 10 percent, 5 percent and 1 percent level.

VARIABLES	(1) Rated Loans	(2) Unrated Loans	(3) First time Loans	(4) Relationship Loans
Foreign Bank	-0.0691***	-0.442***	-0.248***	-0.261***
	(0.00900)	(0.0194)	(0.0122)	(0.0153)
Shock Bank Country* Foreign Bank	-0.0106*	-0.0649***	-0.0452***	-0.0385***
	(0.00596)	(0.0177)	(0.0146)	(0.00999)
Shock Borrower Country* Foreign Bank	0.00650	0.0204**	0.0438***	0.00915
	(0.00419)	(0.0101)	(0.00995)	(0.00825)
Domestic Loans			-0.0744	0.120
			(0.0473)	(0.110)
Domestic Rated Loans	0.756***			
	(0.0667)			
Domestic Unrated Loans		0.187***		
		(0.016)		
Domestic First-Time Loans			0.715***	
			(0.120)	
Domestic Relationship Loans				0.509***
				(0.133)
Deal Country FE	Yes	Yes	Yes	Yes
Month of the Year FE	Yes	Yes	Yes	Yes
Observations	48477	48477	34722	34722
R-squared	0.128	0.368	0.215	0.316

Table 6. Flight Home and Bank Bailouts

The dependent variable is Loan share. Column 1 controls for the differential impact of bank support from government interventions during the period 2006-2009. Column2 controls for the differential effect of large banks as measured by the time-specific sample mean of total assets. Standard errors in parenthesis are corrected for heteroskedasticity and are clustered at the bank parent level. *, **, and *** indicate significant at 10 percent, 5 percent and 1 percent level.

	(1)	(2)
Foreign Bank	-0.507***	-0.462***
	(0.0302)	(0.0239)
Shock Bank Country* Foreign Bank	-0.0830**	-0.103***
	(0.0378)	(0.0242)
Shock Bank Country* Foreign Bank*Government Intervention	0.0214	
	(0.0391)	
Shock Bank Country* Foreign Bank*Large bank		0.0686***
		(0.0217)
Shock Borrower Country* Foreign Bank	0.0793***	0.0370***
	(0.0161)	(0.0124)
Shock Borrower Country* Foreign Bank*Large Bank		-0.00757
		(0.0161)
Domestic Loans	0.636***	0.541***
	(0.0848)	(0.0661)
Foreign Bank*Government Intervention	-0.0814**	
	(0.0386)	
Large Bank*Foreign Bank		-0.159***
		(0.0300)
Observations	21684	50710
R-squared	0.486	0.451

Table 7. Loan and Borrower Heterogeneity

The dependent variable is Loan share. In column 1, we only consider loans whose purpose is general corporate purposes or working capital to construct the loan specific variables based on data from Loan Analytics. In column 2, we control for the average loan amount offered by each bank to borrowers in each country during the prior year. In column 3, we control for the average contracts terms (loan amount, interest rate, and loan maturity) offered by each bank to borrowers in each country during the prior year. Standard errors in parenthesis are corrected for heteroskedasticity and are clustered at the bank parent level. *, **, and *** indicate significant at 10 percent, 5 percent and 1 percent level.

	(1) Only Loans for Real Investment	(2)	(3)
Foreign Bank	-0.495***	-0.536***	-0.498***
	(0.0296)	(0.0261)	(0.0345)
Shock Bank Country* Foreign Bank	-0.0528***	-0.0435**	-0.0503**
	(0.0173)	(0.0192)	(0.0243)
Shock Borrower Country* Foreign Bank	-0.0152	0.00404	0.0449**
	(0.00964)	(0.0163)	(0.0207)
Domestic Loans	0.0129*	0.618***	0.655***
	(0.00754)	(0.0694)	(0.0948)
Average Loan Amount		-1.98e-06	-2.80e-05**
		(6.75e-06)	(1.13e-05)
Average Interest Rate			0.000189***
			(5.58e-05)
Average Maturity			-4.60e-08
			(2.67e-06)
Observations	27536	24021	6422
R-squared	0.402	0.562	0.622

Table 8. Flight Home and Openness

The dependent variable is Loan share. Column 1 controls for trade flows between the home country of the bank and the home country of the borrower. Column 2 controls for de jure capital account restrictions in the host country using IMF AEREAR data. Column 3 controls for the ratio of foreign bank claims per capita in the host country using BIS data. Standard errors in parenthesis are corrected for heteroskedasticity and are clustered at the bank parent level. *, **, and *** indicate significant at 10 percent, 5 percent and 1 percent level.

	(1) Foreign Banks only	(2)	(3)
Shock Bank Country	-0.0664**		
	(0.0264)		
Shock Borrower Country	0.00691		
	(0.00811)		
Trade/Bank Country GDP	0.00925***		
	(0.00156)		
Foreign Bank		-0.443***	-0.599***
		(0.0281)	(0.0345)
Shock Bank Country* Foreign Bank		-0.0886***	-0.0793***
		(0.0236)	(0.0222)
Shock Borrower Country* Foreign Bank		0.0456**	0.0392**
		(0.0193)	(0.0153)
Domestic Loans	0.439***	0.472***	0.481***
	(0.0806)	(0.0691)	(0.0689)
Capital Restrictions Index*Foreign Bank		-0.380***	
		(0.0693)	
Shock Bank Country* Capital Restrictions Index*Foreign Bank		0.0173	
		(0.0194)	
Shock Borrower Country* Capital Restrictions Index*Foreign Bank		-0.0459	
		(0.0332)	
Share Foreign Claims*Foreign Bank			0.408***
			(0.153)
Shock Bank Country*Share Foreign Claims *Foreign Bank			-0.007
			(0.005)
Shock Borrower Country*Share Foreign Claims*Foreign Bank			0.010
			(0.007)
Deal Country FE	Yes	Yes	Yes
Month of the Year FE	Yes	Yes	Yes
Observations	38606	28233	30016
R-squared	0.126	0.420	0.464

Table 9. Syndicate Composition

In column 1, the dependent variable is the number of loans that bank i issues to country j at time t with respect to the total number of loans that bank i issues at time t. In column 2, the dependent variable is the average loan share of the loan that lead bank i extends for loans issued in country j at time t. In column 3, the dependent variable is the average number of participants for loans that lead bank i extends for loans issued in country j at time t. The regression in column 1 controls for the number of domestic loans issued in country j at time t relative to the total number of loans issued in the syndicated loan market at time t. The regression in column 2 controls for the lead bank's share in domestic loans in the country. The regression in column 3 controls for the number of participants in domestic loans in the country. Standard errors in parenthesis are corrected for heteroskedasticity and are clustered at the bank parent level. *, **, and *** indicate significant at 10 percent, 5 percent and 1 percent level.

	(1) Loan Share - Number of Loans	(2) Average Lead Bank Share	(3) Number of Participants
Foreign Bank	-0.479***	-0.0709***	1.549***
	(0.0217)	(0.00872)	(0.201)
Shock Bank Country* Foreign Bank	-0.0817***	0.00353	0.00990
	(0.0222)	(0.00889)	(0.256)
Shock Borrower Country* Foreign Bank	0.0313***	0.0152*	-0.160
	(0.0108)	(0.00883)	(0.278)
Number of Domestic Loans	4.761***		
	(0.848)		
Lead Bank Share in Domestic Loans		0.415***	
		(0.0245)	
Number of Participants in Domestic Loans			0.593***
			(0.0245)
Deal Country FE	Yes	Yes	Yes
Month of the Year FE	Yes	Yes	Yes
Observations	50720	12365	29791
R-squared	0.455	0.279	0.257

Table 10. Exchange Rate Risk and the Flight Home effect

The dependent variable is Loan share. Column 1 controls for the proportion of loans that bank i extended in domestic currency to borrowers in country j during the prior 12 months. Column 2 controls for exchange rate volatility of the borrower's home currency during the prior 12 months. Standard errors in parenthesis are corrected for heteroskedasticity and are clustered at the bank parent level. *, **, and *** indicate significant at 10 percent, 5 percent and 1 percent level.

	(1)	(2)
Foreign Bank	-0.511***	-0.544***
	(0.0219)	(0.0267)
Shock Bank Country* Foreign Bank	-0.0878***	-0.0800***
	(0.0214)	(0.0214)
Shock Bank Country* Foreign Bank* Proportion Loans in Domestic Currency	0.0911**	
	(0.0429)	
Foreign Bank* Proportion Loans in the Bank's Currency	-0.00724	
	(0.0491)	
Shock Borrower Country* Foreign Bank	0.0371***	0.0410***
	(0.0107)	(0.0118)
Shock Borrower Country* Foreign Bank* Proportion Loans in Domestic Currency	-0.00647	
	(0.0522)	
Shock Bank Country* Foreign Bank* Exchange Rate Volatility		1.36e-06
		(2.67e-06)
Shock Borrower Country* Foreign Bank* Exchange Rate Volatility		-8.18e-06
		(5.82e-06)
Exchange Rate Volatility*Foreign Bank		-.00003*
		(0.095)
Exchange Rate Volatility		2.29e-06
		(0.161)
Domestic Loans	0.531***	0.506***
	(0.0684)	(0.0728)
Deal Country FE	Yes	Yes
Month of the Year FE	Yes	Yes
Observations	50710	38071
R-squared	0.430	0.483