Recent Trends in Cross-Border Banking in Europe

THE PALGRAVE HANDBOOK OF EUROPEAN BANKING: CHAPTER 18

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1. Introduction

The European banking landscape, and cross-border banking in particular, has gone through a process of deep transformation over the past decade. Two episodes of financial turmoil – the global financial crisis and the European sovereign debt crisis – occurred in rapid succession and put the model of European banking integration to the test. These crises have resulted in a more fragmented banking landscape that is characterized by new players, ongoing adjustments in banks' funding structures and a growing role for corporate bond markets.

This chapter identifies and describes a number of recent trends in European cross-border banking. To do so, we take a geographical perspective and divide Europe into three parts. We define Europe's *Core* as Austria, Belgium, Denmark, Finland, France, Germany, the Netherlands, Norway, Sweden and the United Kingdom. The European *Periphery* is made up of Cyprus, Greece, Ireland, Italy, Portugal and Spain. Finally, Europe's *East* comprises Eurozone countries (Estonia, Latvia, Lithuania, the Slovak Republic and Slovenia), other EU countries (Bulgaria, Croatia, the Czech Republic, Hungary, Poland and Romania) and Eastern neighbourhood countries (Armenia, Azerbaijan, Belarus, Georgia, Moldova and Ukraine).[1]

In most of our analysis, we contrast two points in time: 2007 and 2014. In 2007, a decade-long credit boom ended when French bank BNP Paribas on August 9th suspended three funds that invested in subprime mortgage debt, citing a "complete evaporation of liquidity". The year 2014 is the most recent point in time for which comprehensive data is available.

[1] While various other ways to group countries are of course possible, we follow a geographical approach for two reasons. First, geography is constant over time whereas institutional arrangements (such as EU membership) and currency regimes (euro versus a national currency) fluctuated during our sample period. Such time variance would have shifted country samples, impairing our ability to compare the same country groups over time. Second, international banks themselves consider our *East* region as one geographical region, largely ignoring institutional differences (see, for instance, http://www.bankaustria.at/en/about-us-our-cee-banking-network.jsp).

The chapter is structured as follows. We first distinguish between two main modes of international banking: cross-border versus multinational banking. Cross-border banking occurs when a bank in country A lends directly to a borrower in country B. Multinational banking instead takes place when a bank in country A lends to a borrower in country B via a local bank affiliate (a branch or a subsidiary) in country B. We describe which countries rely more on cross-border banking and which ones on multinational banking and assess how both forms of banking integration fared during the recent crises. The remainder of the chapter then focuses on trends in European banks' funding structures, the source countries of cross-border and multinational banking, and the recent growth of corporate bond markets in Europe as an alternative to bank credit.

2. International banking in Europe

2.1 Cross-border versus multinational banking at the onset of the global financial crisis

Countries that want to benefit from access to foreign financial services can either facilitate the cross-border trade in such services (cross-border banking) or allow foreign direct investment in their banking sector (multinational banking).[2] Different countries have taken different approaches in this regard, both with respect to their overall reliance on international bank credit and the relative importance of the two modalities.

Figure 18.1 shows the models of international banking integration that European countries had established before the crisis (2007). We contrast the share of banking assets owned by foreign banks (horizontal axis) with cross-border lending to the country as a share

[2] Lending by brick-and-mortar multinational bank affiliates tends to be less volatile than cross-border lending flows (Peek and Rosengren, 2000 and García Herrero and Martinez Peria, 2007).

of total credit to the private sector (vertical axis).[3] The horizontal axis hence measures the importance of multinational banking whereas the vertical axis indicates the level of cross-border banking. The figure reveals wide cross-country variation, both between and within the three European sub-regions, in the importance of both modalities of international banking integration.

Three patterns stand out. First, there is little correlation between the level of cross-border integration and the level of multinational bank integration of a country. Some countries rely heavily on cross-border credit while local foreign-bank activity is very low. Examples are Belgium, Cyprus and the Netherlands. Other countries have a banking system that is majority foreign owned while their reliance on cross-border credit is marginal. Examples include Armenia, Georgia, Macedonia and Ukraine. A third group of countries have both very high shares of foreign-owned bank assets as well as a high reliance on cross-border credit. Countries like Croatia, Estonia, Romania and Serbia are part of this group.

Second, there exists a clear east-west divide in the degree of multinational banking (measured on the horizontal axis). All but one country in the European *Periphery* and *Core* have relatively low foreign-bank shares (well below 25 percent in most cases).[4] Among other things, this reflects that many Western European countries have taken a cautious and sometimes protectionist attitude towards foreign take-overs in the financial sector.

[3] Cross-border lending refers to total international claims (cross-border lending plus local claims in foreign currency) as taken from the BIS consolidated banking statistics on an immediate borrower basis. The share of foreign-bank assets is based on the bank-ownership database of Claessens and Van Horen (2015). This database does not include foreign branches as balance-sheet data are not available for most countries. The foreign-assets share therefore reflects a lower bound.

[4] The exception is Finland where 85 percent of assets are foreign owned. Two of the largest banks in Finland are Danish Danske bank and Nordea. While Nordea regards itself as a 'Nordic' financial-services group, its headquarters is in Sweden. We therefore consider it a foreign bank from a Finnish perspective.

Countries in *East* on the other hand tend to have very high shares of foreign-owned bank assets. In countries such as Albania, Bosnia, Croatia, Estonia, Lithuania and the Slovak Republic even over 90 per cent of all bank assets are in foreign hands. Clear outliers are Belarus (only 21 percent of banking assets are foreign owned), Moldova (36 percent) and Slovenia (24 percent). These three countries kept their banking systems relatively closed to foreign investors.

The strong presence of foreign banks in most of the *East* region reflects that these countries were in dire need of both bank capital and banking expertise after the collapse of communism. On the 'sell side', many local politicians therefore took a liberal stance towards foreign strategic investors that wanted to invest in banks. On the 'buy side', numerous Western European banks with saturated home markets were attracted to the region because of its scope for financial deepening at high margins. These foreign banks either bought former state banks or opened new branches or subsidiaries across the region.[5]

Third, while there is a clear east-west divide in the degree of multinational banking, the data show more within-region variation in countries' reliance on cross-border borrowing (measured on the vertical axis). For instance, within the European *Periphery*, Spain displayed a ratio of cross-border borrowing to domestic credit of just 36 percent in 2007. This contrasts with another peripheral country, Ireland, where cross-border inflows were almost double the amount of domestic private sector credit.[6] Other countries with high pre-crisis cross-border borrowing include Belgium (*Core*), Croatia and Romania (both *East*). This again shows that trends in cross-border banking tend to be quite different from those in multinational banking.

[5] See also Haselmann, Wachtel and Sobott (this volume).

[6] Because cross-border lending (numerator) includes international claims on the public sector and on banks while the denominator only includes bank credit to the private non-financial sector, this ratio can exceed one.

< **Figure 18.1 about here**>

2.2 Recent adjustments in international banking models

Not surprisingly, many European countries had to adjust their banking models as a result of the global financial and European sovereign debt crises. Table 18.1 summarizes how the three different regions adjusted their reliance on international bank credit. A comparison of the years 2007 and 2013 shows, first of all, some downward adjustment in the amount of foreign direct investment in the banking sectors of the European *Periphery* and *East* (columns 1 and 2).[7] Yet, by and large, divestitures of foreign subsidiaries have been limited and in many cases involved sales from one foreign bank to another one (thus keeping the total involvement of foreign banks constant). For instance, Irish bank AIB sold its Polish subsidiary Bank Zachodni WBK SA to Spanish group Santander in 2011.

The strongest decline in foreign ownership took place in the *East*, the region where foreign-bank penetration had been the highest to begin with. Here foreign ownership declined from 76 to 68 per cent of all banking assets. Ukraine, where a number of foreign banks left the country, experienced the sharpest decline. Many Western European parent banks had to strengthen their balance sheets and needed to comply with stricter capital requirements in the wake of the crisis. One way of doing so was to reduce their international operations. Crisis-affected parent banks typically consolidated their foreign operations by selling smaller, more recent and more distant acquisitions (Claessens and Van Horen, 2015). Nevertheless, as many parent banks continued to see countries in the *East* region as strategic growth markets, most multinational banks decided to stay put. The successful implementation of the Vienna

[7] Calculation based on the bank ownership data of Claessens and Van Horen (2015) and Bankscope. As 2013 is the last year for which ownership data are available, we compare 2007 with 2013 rather than 2014.

Initiative also helped ensure that foreign banks continued their operations in those *East* countries that participated.[8]

The adjustment in cross-border banking activity has been much more severe, with cross-border lending declining on average from 66 to 43 percent of all domestic credit to the private sector (columns 3 and 4). The decline was particularly strong in the *Periphery* (62 to 32 percent) and the *East* (from 87 to 47 percent) and somewhat less steep in the European *Core* (67 to 47 percent). As many European banks were hit by unexpected losses, including on U.S. subprime investments, their capital base eroded. Refunding opportunities quickly dwindled as well. Banks consequently started to reduce their lending at home but in particular abroad (De Haas and Van Horen, 2012 and Giannetti and Laeven, 2012). This increase in 'home bias' was especially pronounced when protectionist regulators and politicians pressured banks to reduce foreign exposures (Rose and Wieladek, 2014).

Interestingly, the last two columns of Table 18.1 show that the sharp reduction in cross-border bank lending to the three European regions was not accompanied by a general shortening of loan maturities. If anything, maturities *increased*. This partly reflects that when short-term debt matured it was often not renewed, so that the remaining stock of outstanding debt saw a gradual increase in average maturity (World Bank, 2015).

< Table 18.1 about here>

[8] The Vienna Initiative was launched in January 2009 as a coordination platform for multinational banks, home and host country supervisors, fiscal authorities, the IMF and development institutions. The goal was to safeguard a continued commitment of parent banks to their subsidiaries. International financial institutions provided a €33 billion package in support of this objective while various multinational banks signed country-specific commitment letters in which they pledged to maintain exposures and to provide subsidiaries with funding. De Haas, Korniyenko, Pivovarsky and Tsankova (2015) show that foreign banks that took part in the Vienna Initiative were relatively stable lenders. See also Haselmann, Wachtel and Sobott in this volume.

Figure 18.2 visualizes in more detail how international banking adjusted very differently along the cross-border lending margin and the FDI margin (i.e. foreign-bank ownership). The left-hand panel shows how countries with a higher reliance on cross-border borrowing in 2007 saw a much sharper decline in cross-border borrowing over the subsequent 2007-14 period. This negative relationship is particularly pronounced for countries in Europe's *East* and *Periphery* (indicated by the white and grey dots, respectively).

In sharp contrast, the panel on the right shows no obvious relationship between foreign-bank penetration in 2007 and the change in banking FDI over 2007-13. Foreign bank penetration increased or decreased pretty much independent of countries' initial level of foreign-bank presence. Note, however, that a few countries with very low initial foreign-bank penetration showed relatively sharp declines as (some of) the foreign banks that were present left the country. Examples include the departure of French Crédit Agricole from Greece and the demise of Belgian Fortis which had a substantial presence in the Netherlands.

< Figure 18.2 about here>

Figure 18.3 shows that in all three sub-regions, lending by BIS-reporting banks to local banks came down much more than lending to non-financial corporates.[9] As a result of the Eurozone debt crisis, the cross-border adjustment was particularly strong for bank-to-bank lending to the European *Periphery*. Lending to peripheral banks peaked in 2007 at USD 2.6 trillion and

[9] Figure 18.3 is based on BIS locational statistics and capture outstanding claims of banks located in BIS reporting countries on banks and non-banks in the three different European regions. These claims include intra-group positions between offices of the same banking group (i.e. lending by parent banks to foreign affiliates through an internal capital market).

then declined to just 1 trillion in 2014 (-61 percent). In contrast, cross-border lending to corporates in peripheral Europe peaked only in 2009 and then declined from a high of USD 1.5 trillion to just over USD 1 trillion in 2014 (i.e. a decline of 'only' 31 percent).

A somewhat different pattern can be observed in the *East*. Cross-border lending to banks peaked in 2008 at USD 329 billion and then declined to USD 186 billion in 2014 (-43 percent). Lending to corporates in this region peaked a year later, in 2009, and declined from USD 253 billion to USD 151 billion in 2014 (-40 percent). In relative terms lending to the bank and non-bank sector where therefore hit similarly in the *East*.

In *Core* Europe, cross-border lending to banks peaked in 2007 at nearly USD 10 trillion, ending a long credit boom in the wake of the introduction of the euro. Lending to *Core* banks then declined to almost 7 trillion in 2014 (-32 percent). In contrast, lending to *Core* European corporates peaked at USD 3.3 trillion in 2007 and then stayed pretty much stable at that level until 2014. This relative and absolute stability in lending to European *Core* companies partly reflects that U.S. banks significantly increased their activities in *Core* Europe, by 58 percent, over this period.

Overall, these figures indicate a rapid decline in the share of cross-border lending absorbed by banks. In *Core* Europe this share declined from 65 percent in 2007 to 60 percent in 2014. In peripheral Europe this share declined from 62 to 48 percent and in the *East* from 25 to 15 percent.[10] The fact that bank-to-bank lending shrank considerably more (and earlier) than bank-to-firm lending, reflects that the banking system was at the core of the crisis and

[10] The relatively low bank-to-bank lending into the *East* reflects that many Western parent banks use their subsidiaries in this region to fund local companies. While parent banks provide these subsidiaries with cross-border intragroup funding (De Haas and Van Lelyveld, 2010), and these flows are included in the BIS locational statistics, these subsidiaries also attract significant local funding.

that banks find it particularly difficult to screen and monitor other lenders in times of uncertainty.[11]

< Figure 18.3 about here>

The combination of substantial negative adjustments in cross-border lending to the three European regions and limited reductions in bank FDI, implies a gradual shift from cross-border towards multinational banking. Figure 18.4 illustrates this trend by showing the ratio between foreign-bank assets and cross-border claims. This ratio is not only considerably higher in the *East* but it has also increased further over the last couple of years (to 1.84) as cross-border inflows dwindled rapidly. In the European *Core* and *Periphery* the ratio is much lower, indicating a stronger use of cross-border credit and less reliance on foreign-bank affiliates. Over time this ratio has nevertheless increased in both these regions as well, albeit less dramatically: to 0.73 in the *Core* and 0.47 in the *Periphery*

< Figure 18.4 about here>

3. Trends in the structure and sources of European bank funding

3.1 Adjustments in bank-funding structures

The global financial crisis has underlined the importance of bank-funding structures as a determinant of lending stability as it became clear that short-term wholesale funding in particular exposes banks to bouts of illiquidity. A prominent example is the failed UK bank Northern Rock, which saw its wholesale lenders run before retail depositors did.

[11] See De Haas and Van Horen (2013) for empirical evidence from the cross-border syndicated loan market.

Banks that are deeply integrated across national borders can access foreign wholesale funding by either financing themselves in international wholesale markets or by receiving funding from parent banks through their internal capital markets. It is therefore interesting to see how banks in the European regions adjusted their funding structures when access to both these funding sources became heavily curtailed.

Figure 18.5 compares the European regions in terms of their (weighted) loan-to-deposit ratios, an often-used proxy for banks' dependence on wholesale funding. The data show a rapidly increasing reliance on non-deposit funding in the run up to the crisis, in particular in the *East* where the ratio increased from 0.80 in 2005 to 1.16 in 2008. At the same time this ratio stood at 1.39 in Europe's *Core* and even at 1.51 in the *Periphery*. In the UK, many banks relied on secured funding, especially mortgage-backed securities and covered bonds whereas in the rest of Europe many banks also relied on unsecured wholesale funding.

Against the background of deteriorating U.S. liquidity due to the subprime meltdown, a sharp reversal of this trend takes place in 2007-08, which has since then continued. All regions have much lower loan-to-deposit ratios in 2013 compared to their peak levels.[12] Several factors can explain this reduction in banks' reliance on wholesale funding. First, a number of European banks, especially those that relied heavily on short-term wholesale funding, had to reduce new lending and dispose of non-core assets.[13] Second, partly due to regulatory pressure, some domestic and foreign-owned banks made efforts to increase their deposit base, thus further reducing the ratio between loans and deposits. Third, weaker

[12] Notwithstanding these adjustments, European banks remain relatively reliant on wholesale funding when compared to for instance the U.S. and other regions where loan-to-deposit ratios are typically far below 100 percent. In the U.S. this ratio stands at about 62 percent and in Japan at 78 percent (Le Leslé, 2012).

[13] See Yorulmazer and Goldsmith-Pinkham (2010) for the United Kingdom; Rocholl, Puri and Steffen (2011) for Germany; De Haas and Van Lelyveld (2014) for Emerging Europe; and Iyer, Peydro, da-Rocha-Lopes and Schoar (2014) for Portugal.

demand for loans due to recessions in many European countries also contributed to the downward trend in loan-to-deposit ratios. Finally, exposure to impaired sovereign debt made some banks reduce their (cross-border) lending (Popov and Van Horen, 2015) while a higher demand for sovereign debt – due to risk-shifting and carry trading – resulted in some crowding out of lending to the real sector (Acharya, Eisert, Eufinger and Hirsch, 2014).

Banks not only adjusted their loan-to-deposit ratios, and therefore the quantity of wholesale funding, many of them also changed the quality and type of the (remaining) wholesale funding they used. Many European banks started to shift towards covered bonds and official (ECB) funding sources. Especially banks in the *Periphery* have by now replaced much of their wholesale funding with central bank funding (Babihuga and Spaltro, 2014).

< Figure 18.5 about here>

3.2 Shifting sources of cross-border and multinational banking

The global financial crisis and the European sovereign debt crisis did not affect all banks equally. Internationally operating banks that were more exposed to the crisis faced a stronger need to reduce cross-border credit (Cetorelli and Goldberg, 2010; De Haas and Van Horen, 2012). Furthermore, the academic literature suggests that – contrary to a general "run for the exit" – there are clear patterns as to how banks readjusted their cross-border loan portfolio during and after a crisis. De Haas and Van Horen (2013) show that cross-border (syndicated) lending declined in particular to more distant countries, countries where banks were less experienced, and countries where banks were less integrated into a network of domestic co-lenders. How did these dynamics play out in Europe?

Figure 18.6 uses confidential bilateral consolidated data on international claims at the immediate borrower level from the Bank for International Settlements (BIS) to assess to what

extent the composition of total bank lending to the three European regions has changed in the wake of the global financial crisis.[14] The figure shows that in *Core* Europe, there has been a shift in source countries away from *Peripheral* Europe and other *Core* European countries towards more inflows from other OECD countries. Before the crisis, many European banks were heavily involved in cross-border dollar intermediation as they extended (relatively cheap) dollar credit to non-US borrowers (Shin, 2012 and McCauley, McGuire and Sushko, 2015). This role was quickly reduced during the crisis. In relative terms there was a particularly sharp decline in cross-border lending by Belgian and Dutch banks and by Spanish and Italian to (other) *Core* countries.[15]

At the same time, there was an increase (both in relative terms and in absolute volumes) in cross-border lending by American and Swedish banks. While US banks ranked number 8 in 2007 in terms of total cross-border lending volume into Europe's *Core*, they had become the second largest lender to *Core* Europe in 2014 (with German banks remaining in the top spot and French banks in the third position). Low U.S. interest rates and an international search for yield by American banks may partly explain their increased role as European financiers. In addition, U.S. banks also rebalanced their portfolios towards relatively risky European companies as these borrowers were most affected by the retrenchment of European banks. As U.S. banks were effectively still operating under the Basel I regime, this shift in risk did not affect their capital requirements (Bacchetta and Merrouche, 2015).

In peripheral Europe, lending by *Core* and other peripheral European countries more than halved in absolute terms, again highlighting the strong fragmentation in European cross-

[14] International claims include both cross-border claims and local lending by foreign subsidiaries and branches in foreign currency. As the data are on a consolidated basis, intra-office positions are netted out.

[15] Part of the decline in cross-border lending by Dutch banks is due to the sale and subsequent split of ABN Amro into RBS, Santander and Fortis.

border lending. Belgian, Dutch and especially Irish banks were among the lenders that most rapidly deleveraged. Here as well, US banks stepped in and quickly became the number 3 aggregate lender (from 9th position in 2007).

In the *East*, there has been a relative increase in lending by peripheral countries while the share of *Core* European lenders declined. Cross-border lending by Belgian, Swedish and Irish banks declined in particular and the literature has shown that this reduction in cross-border lending was an important channel through which the global financial crisis was propagated eastwards (Ongena, Peydró and Van Horen, 2015). American banks also expanded their activities in this region (both in absolute as in relative terms) as did Portuguese and Spanish banks (albeit in all three cases from a relatively low base level).[16]

< **Figure 18.6 about here**>

Figure 18.7 provides a similar analysis but now with a focus on shifts in the ownership structure of banking systems in the three European regions. It is immediately apparent that the composition of FDI has proven remarkable stable over the 2007-13 period, in particular in *Core* and *Peripheral* Europe. In *Core* Europe, most foreign-owned bank assets remained in the hands of banks that are based in other *Core* and/or OECD countries. In the *Periphery*, the local presence of foreign banks declined overall as banks from *Core* countries reduced their activities. This increased the relative market power of subsidiaries owned by banks headquartered in other peripheral countries.

[16] Note that the data compare the stock in outstanding claims between 2007 and 2014. Even though Spanish and Portuguese banks were heavily affected by the European sovereign debt crisis, which made them curtail new cross-border lending flows, the 2014 stock of cross-border loans also reflects pre-crisis commitments.

Finally, in the *East*, there was a limited reduction in the assets owned by foreign banks from the *Core* and other OCED countries, with an increase in asset ownership by banks from the *Periphery*, the *East* and – in particular – other emerging markets (which includes Russia). A good example of this trend is the purchase of the Central and Eastern European subsidiary network of Austria's Volksbank by Russia's Sberbank. Other examples include the sale of Denizbank in Turkey to, again, Sberbank and Optima Bank (formerly ATF Bank) in Kyrgyzstan which was Italian owned but became Kazakh owned. Finally, Chinese banks have also gradually become more active in Eastern Europe as they follow Chinese firms into this region. Major (state-owned) Chinese banks, such as Bank of China, ICBC and China Construction Bank have opened representative offices, subsidiaries or branches in countries like Hungary and Poland.

This trend of increased banking regionalization is by no means unique to the *East* region, but is prevalent in other parts of the world as well (Claessens and Van Horen, 2015). For instance, Chile's Corpbanca recently bought the Colombian operations of Santander while British HSBC sold its operations in Costa Rica, El Salvador and Honduras to Banco Davivienda of Colombia.

What are the possible consequences of this change in ownership patterns? The academic literature suggests that the benefits and risks posed by foreign banks can differ substantially depending on where the parent bank is based and what business model it employs. On the one hand, strategic investors from nearby countries may introduce technologies that are better adapted to the specific needs of the countries in which they invest. They may also be better placed to collect and process 'soft' information and hence to lend to more opaque borrowers. On the other hand, there may be less scope for the transfer of state-of-the art lending and risk-management technologies and know-how. How these effects will play out on aggregate remains unclear. What is evident, however, is that the increased prominence of "east-east"

banking is likely here to stay as it reflects the growing role of emerging markets in the global financial markets and economy more widely.

< Figure 18.7 about here>

4. Disintermediation: The increasing role of corporate bond markets

Before the global financial crisis, European banks with easy access to wholesale funding played an important role in intermediating abundant dollar liquidity to corporate borrowers in Europe and other non-US destinations (Rey, 2013). The previous section has shown how the subsequent rapid decline in cross-border lending by European banks has been partially counterbalanced by an expansion of cross-border lending by American banks into Europe.

A second 'safety valve' has been the fast expansion of bond issuance by large companies. An increasing number of firms outside the US have started to issue dollar bonds as demand from investors searching for yield was high. This demand was in turn boosted by the compressed bond term premiums as a consequence of the Federal Reserve's bond-buying programs (Ayala, Nedeljkovic and Saborowski, 2015). As a result, the stock of dollar bonds issued by corporate borrowers outside of the US has been growing faster and more steadily in recent years than the bank debt of these borrowers (Shin, 2013 and McCauley, McGuire and Sushko, 2015). Corporate bond funding has turned out to be a less procyclical source of finance than bank lending.

Also in Europe, corporate bond issuance has been growing in the wake of the global financial crisis. Figure 18.8 shows the increase in corporate bond funding for Europe's three regions. As a percentage of GDP, corporate bond issuance in the *Core* has increased from just below 1 per cent of GDP in 2007 to almost 4 percent in 2014. In the European *Periphery*, these numbers were 0.3 percent in 2007 and 1.6 percent in 2014. In the *East*, corporate bond

issuance was virtually absent in 2007 and amounted to 0.6 per cent of GDP in 2014.[17] Many of these bond issuances are international in nature and involve the raising of funds abroad (World Bank, 2015 and Gozzi, Martinez-Peria, Levine and Schmukler, 2015). The resulting bonds are typically not being held by banks but by other financial players, including mutual funds and pension funds. This means that the associated credit risk is now less concentrated in – relatively well-regulated – banks but has spread out through various other parts of the financial system.

< Figure 18.8 about here>

Figure 18.9 shows that over this period corporate bond issuance has increased from 15 to 21 percent of all corporate debt of the non-financial private sector in Europe's *Core*. In the *Periphery* and *East* the relative importance of corporate bonds has increased as well – from 7.1 to 10.3 percent in the *Periphery* and from 4.4 to 9.1 percent in the *East*. While (the largest) European corporates seem to have become less dependent on bank credit, the figure also suggests that there is still ample room for a further expansion of corporate bond funding in Europe, especially for smaller companies. In the U.S., bonds make up 68 percent of all debt to the non-financial corporate sector whereas this percentage is 42 percent in Latin America.

Building the Capital Markets Union, aimed at a deeper and more integrated European capital market, can be expected to help accelerate this trend.[18] It may ensure the availability of more diversified sources of finance available to corporates, including SMEs, by improving access to non-bank funding. Furthermore, the deepening integration of bond and equity

[17] The recent (2014) declines in the *Periphery* and the *East* are driven mostly by Italy and Ireland in the former region and Ukraine in the latter.

[18] See the Green Paper "Building a Capital Markets Union", European Commission, 18 February 2015.

markets will strengthen cross-border risk sharing and provide a buffer against shocks to the financial sector. The Capital Markets Union will also help to create a level-playing field as insolvency regimes are harmonized and the overall quality of rules and regulation converges towards international best practices.

< Figure 18.9 about here>

5. Conclusions

This chapter has provided a succinct overview of European banking trends during and in the immediate aftermath of the global financial and Eurozone debt crises. We first document a sharp retrenchment in cross-border bank lending. The growth losses due to this increased fragmentation of European banking markets are likely to be substantial (Schnabel and Seckinger, 2015). Cross-border bank deleveraging may undo some of the tangible benefits that banking integration has had in terms of speeding up the economic converge of Europe's *Periphery* and *East* with its *Core* (Friedrich, Schnabel and Zettelmeyer, 2013).

Second, the crisis-related reduction in cross-border lending was strongest in countries that had built up the largest cross-border exposures before the crisis. Moreover, reductions in bank-to-bank cross-border lending have turned out to be much more volatile than those in bank-to-corporate lending.

Third, we show that the decline in cross-border bank lending has partially been replaced by bank lending from other source countries – in particular the U.S. – and by an increase in corporate bond issuance. The funding of the European corporate sector has slowly shifted towards more bond and less bank funding.

Fourth, we document the relative stability of multinational banking across Europe. That is, little overall fragmentation has occurred in terms of foreign-bank ownership. In Europe's

East, there has been a gradual but notable expansion of the ownership of bank assets by banks headquartered in Eastern European or other emerging countries. At the same time, the role of Western-European (*Core*) banks as strategic owners of Eastern European subsidiaries has been somewhat reduced. It is possible that also in cross-border banking a shift has taken place towards more funding by banks from Europe's *East* and other emerging markets. However, as only a very small number of emerging markets report to the BIS it is currently not possible to capture these trends.

Fifth, we show that banks across all three European regions continue to adjust their funding structures. There has been a sharp reduction in banks' loan-to-deposit ratios since the start of the global financial crisis as banks were cut-off from wholesale funding and had to rely more on customer deposits to finance their loan portfolios.

For now, it remains an open question to what extent the abovementioned trends will continue in the future. With liquidity gradually restored in wholesale markets, European banks may regain some of their business in intermediating dollar liquidity. Furthermore, part of the reduction in cross-border lending is demand driven and cross-border credit flows are hence likely to pick up when growth in Europe accelerates further. Finally, a continued divergence of interest rates between the U.S. and the Eurozone may shift the attention of U.S. banks and investors back to their home country as their search for foreign yield becomes less pressing. This may in turn slow down the growth of European corporate bond markets.

Going forward, two other issues are likely to affect European cross-border banking. First, we expect that emerging-market banks continue to expand their role as cross-border lenders in Europe, reflecting their growing role in the global economy. This trend will likely involve banks from a variety of emerging markets, but Chinese banks may play a special role. Confronted with slowing economic and credit growth at home, Chinese banks have become more outward oriented. The Chinese government's Belt and Road Initiative – a huge drive to

increase Chinese foreign direct investment along the former Silk Road from Central Asia to Europe – has the potential to deepen Sino-European trade and investment links. This will present an opportunity for Chinese banks to follow their clients abroad and in the process they may also start servicing local companies. We therefore expect increased cross-border lending from China into Europe as well as an expansion of Chinese banks' presence on the ground. The recent acquisition of Turkey's Tekstilbank by the Industrial and Commercial Bank of China (ICBC) can be seen as a precursor to this trend.[19]

Second, future cross-border lending in Europe will also depend on how large European banks will deal with new total loss-absorption capacity (TLAC) regulations. This regulation aims to ensure that banks have sufficient access to loss-absorbing liabilities so that shareholders and creditors (and not the taxpayer) bear the brunt of any bank resolution. Subsidiaries of European G-SIBs – globally systemically important banks such as BNP Paribas, Nordea and Unicredit – as well as banks that are domestically systemically relevant (D-SIBs) may therefore be required to issue more liabilities with high loss-absorbing capacity. This will in particular be the case for subsidiaries of banks that decide to follow a so-called multiple point of entry approach. Such subsidiaries need to take care of their own external TLAC rather than get internal TLAC allocated to them by their parent banks (as would happen in a single point of entry approach where the parent is part of a global resolution plan). To the extent that European G-SIB subsidiaries will be part of multiple point

[19] The African experience suggests that increased ownership stakes of Chinese banks in Europe and rising cross-border lending flows from China to Europe may go hand-in-hand. For instance, in October 2007 ICBC acquired a 20 percent stake in South Africa's Standard Bank. About two years later, ICBC – together with Bank of China, China Development Bank, and China CITIC Bank – provided Standard Bank with a US$ 1 billion cross-border loan.

of entry regimes, they will thus face their own TLAC requirements as independent resolution entities. In particular in Europe's *East*, this could once more increase subsidiaries' dependence on (FX denominated) cross-border wholesale funding (Santiago Fernández de Lis, 2015). Such a development could then offset some of the gains these banks have made in recent years in terms of bringing down their loan-to-deposit ratios to more sustainable levels.

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Figure 18.1
Models of Banking Integration: Cross-Country Heterogeneity

This figure shows the share of banking assets owned by foreign banks in 2007 (horizontal axis) and the amount of cross-border lending to a country (as a share of total credit to the private sector) in 2007 (vertical axis). Numbers reflect end-year data. Data on cross-border lending refer to total international claims (cross-border lending plus local claims in foreign currency) as taken from the BIS consolidated banking statistics on an immediate borrower basis. Data on total lending to the private sector (*Private credit*) are from the World Bank. *Share foreign banks (assets)* is based on BankScope and ownership data from Claessens and Van Horen (2015).

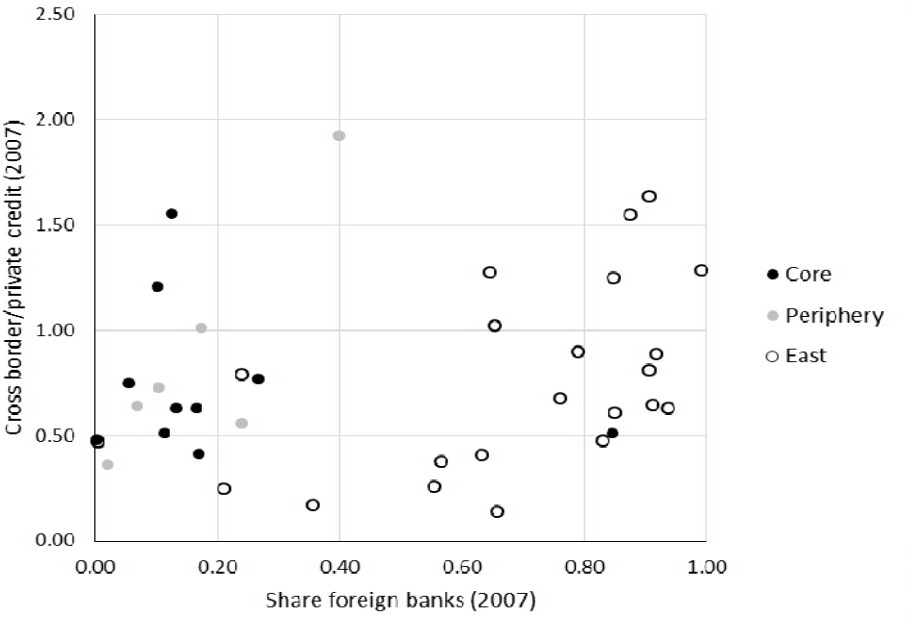

Table 18.1
Cross-border and Multinational Banking Across Europe

This table shows the share of bank assets in Europe's *Core*, *Periphery* and *East* owned by foreign-owned banks (columns 1-2), total cross-border lending to borrowers as a share of total private credit in those regions (columns 3-4) and the share of long-term lending (>2 years) in total cross-border lending (columns 5-6). Numbers reflect end-year data. Cross-border data refer to total international claims (cross-border lending plus local claims in foreign currency) as taken from the BIS consolidated banking statistics on an immediate borrower basis. Data on total lending to the private sector (*Private credit*) are from the World Bank. *Multinational banking (share of all banking assets)* is based on Bankscope and ownership data from

	Multinational banking (share of all banking assets)		**Cross-border banking (share of private credit)**		**Cross-border banking (share >2 years)**	
	2007	**2013**	**2007**	**2014**	**2007**	**2014**
	[1]	[2]	[3]	[4]	[5]	[6]
Core	0.11	0.12	0.67	0.47	0.22	0.31
Periphery	0.10	0.07	0.62	0.32	0.48	0.50
East	0.76	0.68	0.87	0.47	0.31	0.40
Europe (total)	*0.12*	*0.12*	*0.66*	*0.43*	*0.26*	*0.34*

Figure 18.2
Adjustments in Cross-Border and Multinational Banking Across Europe

This figure shows the relationship between countries' reliance on cross-border bank lending before the crisis (2007) and the change in their reliance on cross-border lending over the period 2007-2014 (left pane) and the relationship between the share of banking assets owned by foreign-bank subsidiaries before the crisis (2007) and the change in foreign ownership of bank assets over the period 2007-2014 (right pane, includes all countries with foreign-bank ownership >5 percent in 2007). Sources: BIS , World Bank, BankScope and Claessens and Van Horen (2015). Cross-border data refer to total international claims (cross-border lending plus local claims in foreign currency) as taken from the BIS consolidated banking statistics on an immediate borrower basis.

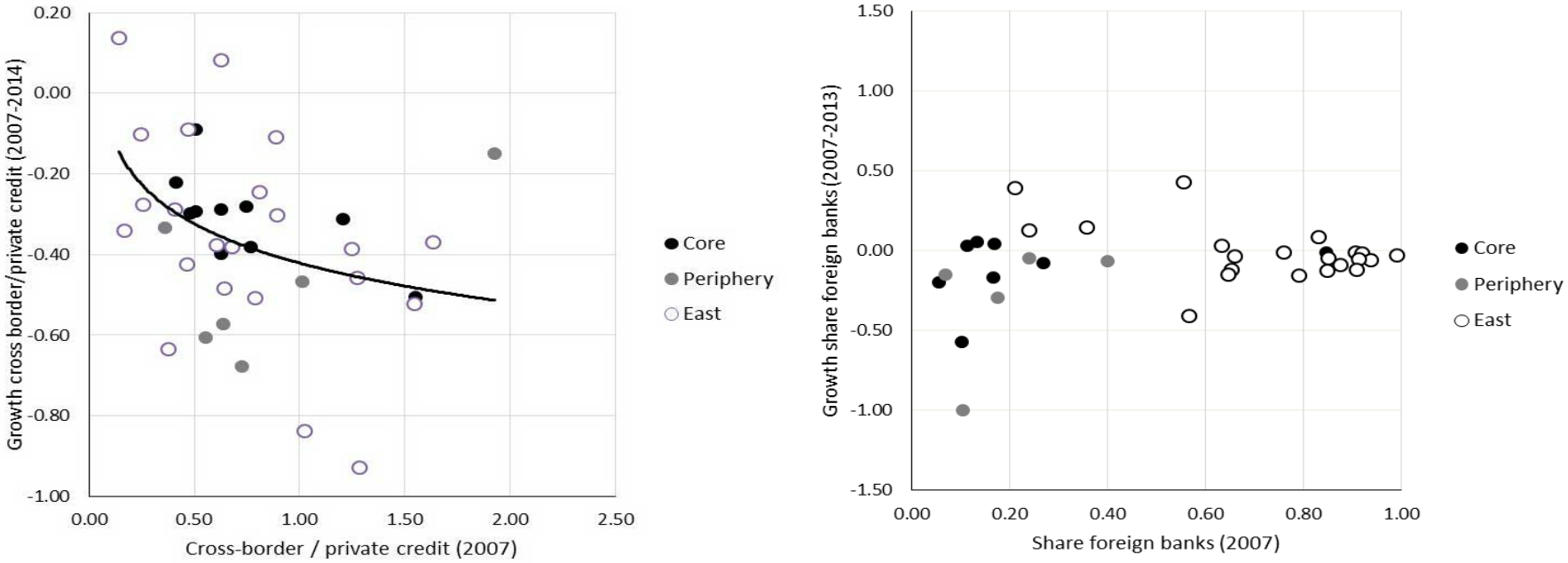

Figure 18.3
Cross-border Deleveraging: Banks versus Non-Banks

This figure shows the development over time of the external positions of reporting banks vis-a-vis banks and non-banks in all currencies (bil US$; adjusted). Source: BIS locational statistics.

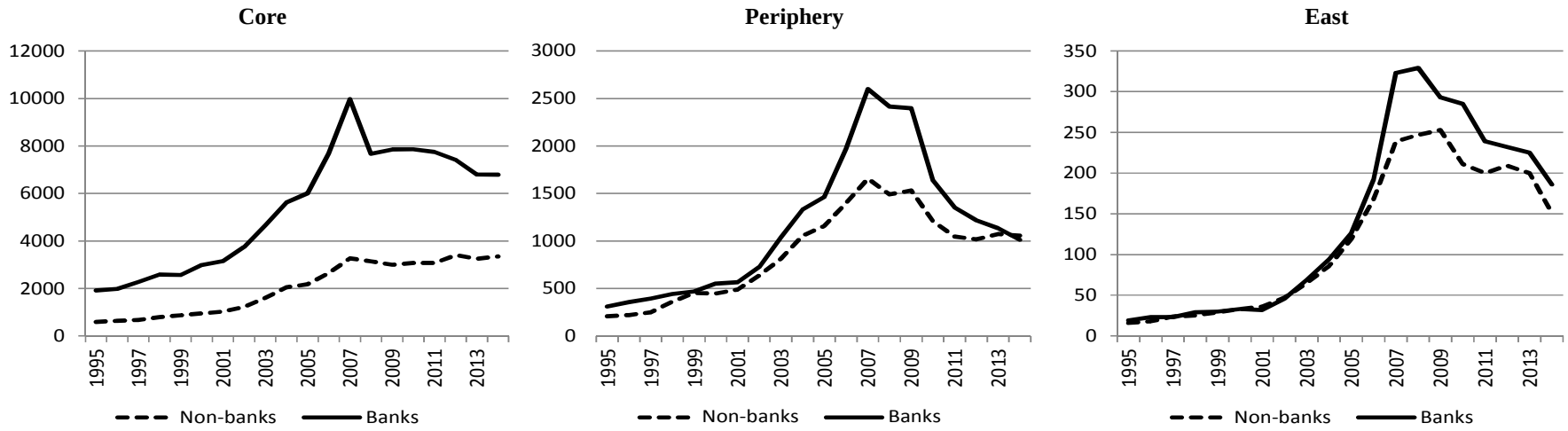

Figure 18.4
Banking Integration: From International to Multinational Banking

This figure shows the development over time of the ratio between total foreign bank assets and total cross-border claims. Source: BIS (consolidated banking statistics on an immediate borrower basis), Bankscope, Claessens and Van Horen (2015).

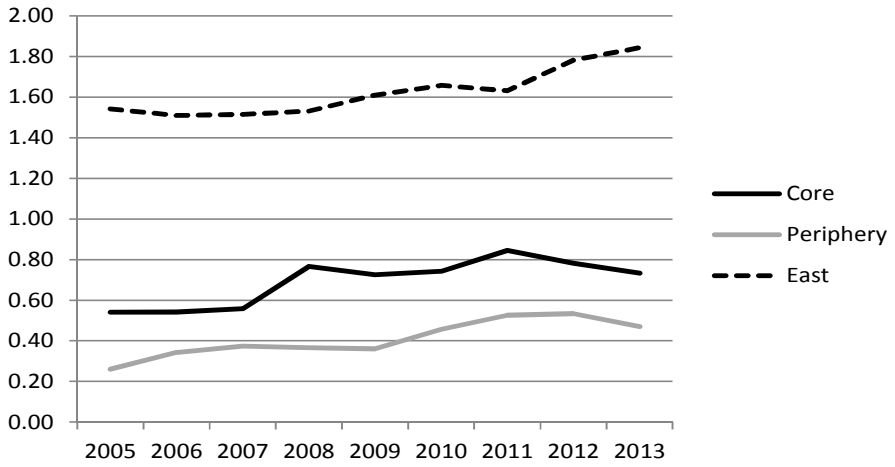

Figure 18.5
Loan-to-Deposit Ratios across Europe

This figure shows the development over time of the weighted average loan-to-deposit ratio in the banking sectors in the European *Core*, *Periphery* and *East* countries. Source: Bankscope.

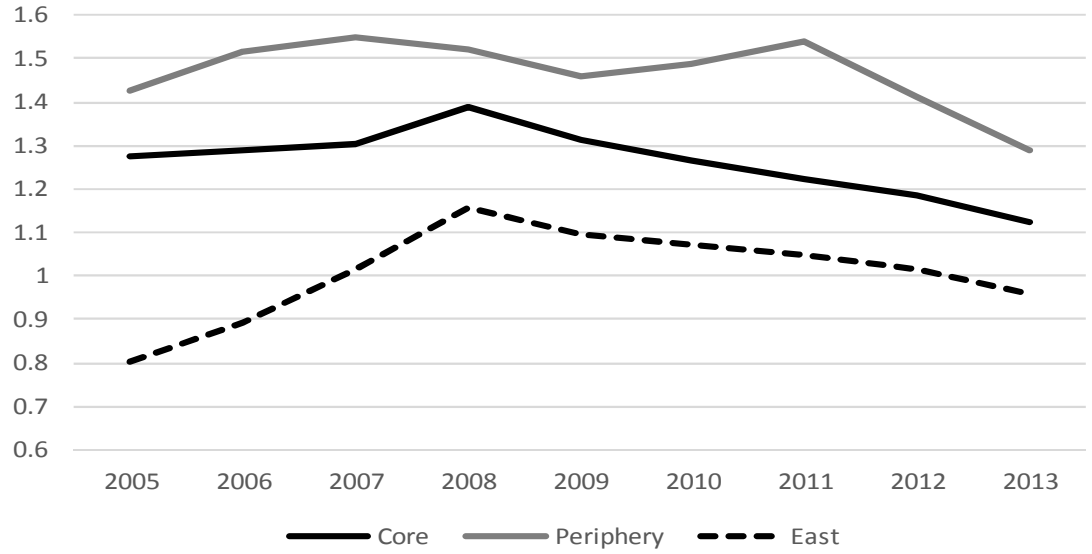

Figure 18.6
Cross-Border Bank Lending to Europe: Shifting Source Regions

This figure shows shifts in the relative importance of various source regions of cross-border lending into the European *Core*, *Periphery* and *East* in 2007 (left) and 2014 (right). Source: BIS bilateral bank lending statistics.

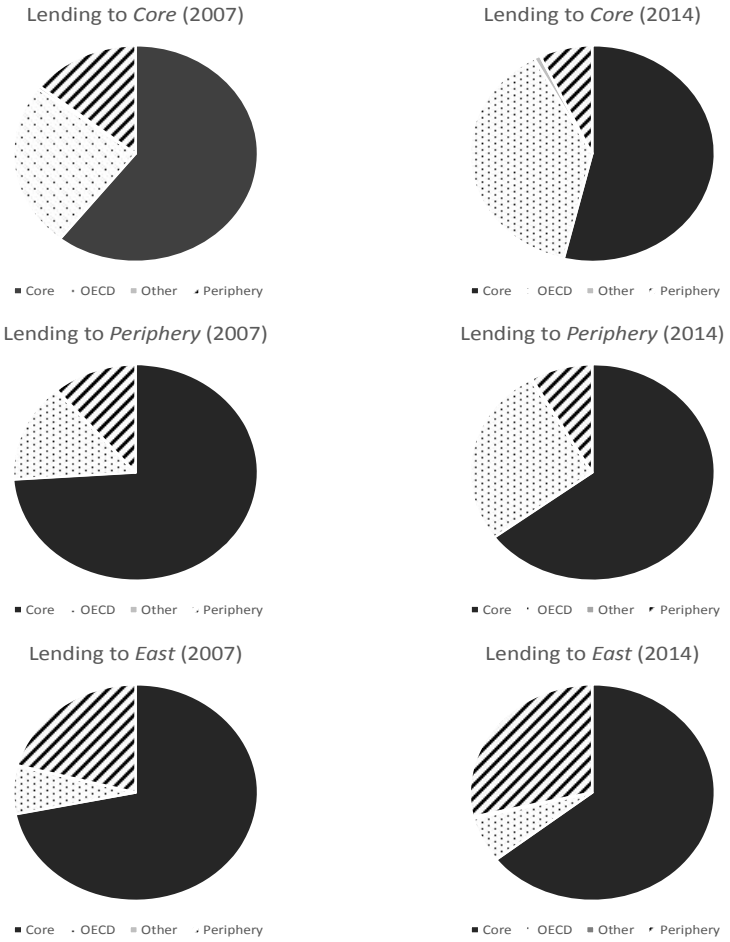

Figure 18.7
Foreign Bank Presence in Europe: Source Regions

This figure shows the home regions of foreign investors in European banking assets in 2007 (left) and 2013 (right). Each pie chart shows the distribution of foreign-owned bank assets in that destination region split by source region. Source: Bankscope and Claessens and Van Horen.

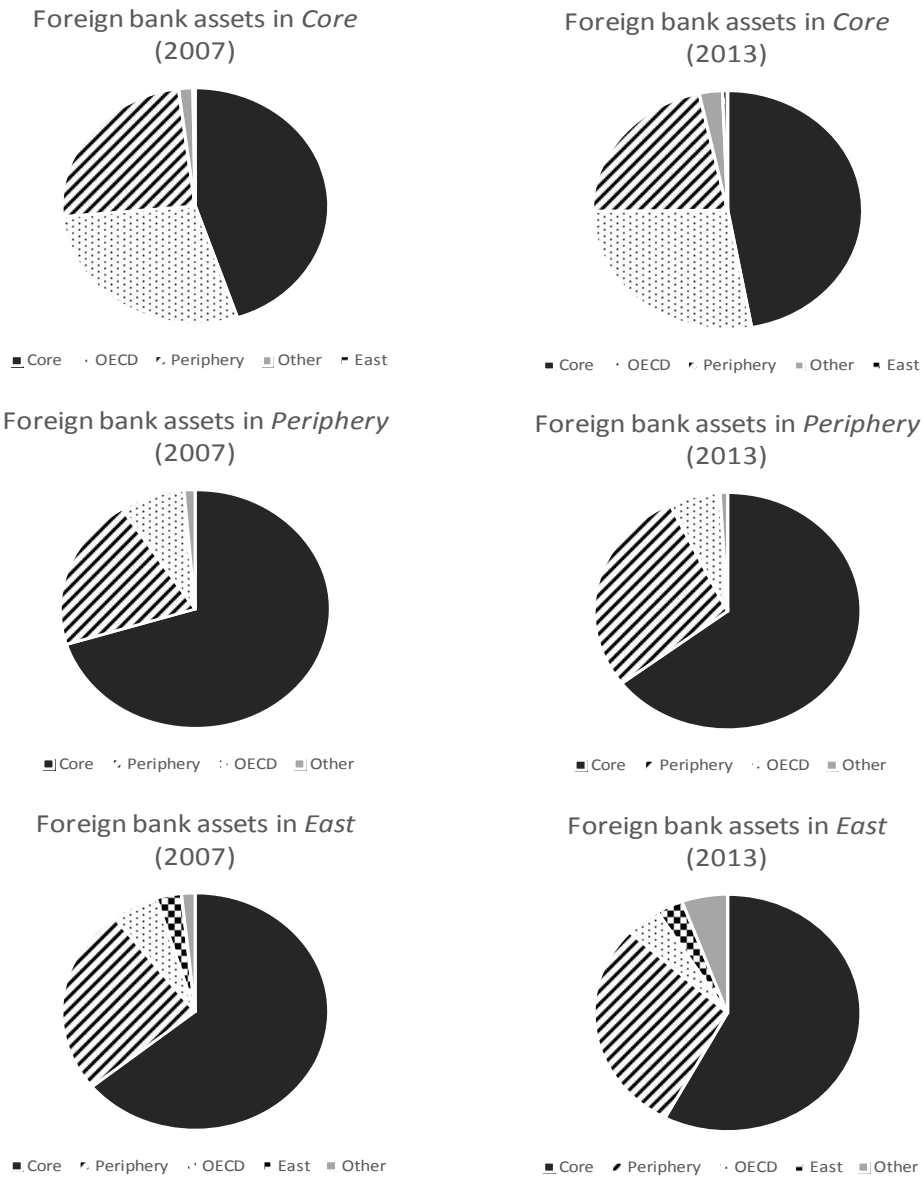

Figure 18.8
New Corporate Bond Issuance (% GDP)

This figure shows the development over time of bond issuance by non-financial companies in the European *Core*, *Periphery* and *East* (as a percentage of GDP). Source: Bloomberg and IMF.

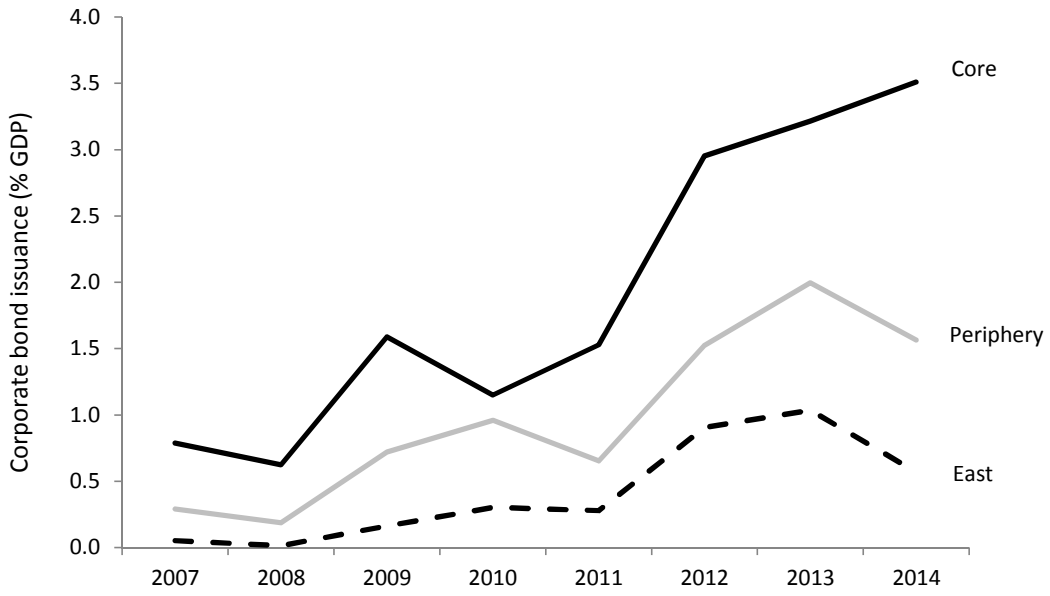

Figure 18.9
Outstanding Corporate Bonds (% Total Non-Financial Corporate Debt)

This figure shows for selected regions the GDP-weighted share of outstanding corporate bonds within the total non-financial corporate debt. *East* here includes Bulgaria, Croatia, Czech Republic, Estonia, Latvia, Lithuania, Hungary, Poland, Romania, Slovak Republic and Slovenia. *Latin America* includes Argentina, Brazil and Mexico. Source: Source: Fed; Eurostat, BIS, national sources and IIF.