Domestic bank intermediation in emerging market economies during the crisis: locally owned versus foreign-owned banks

Dubravko Mihaljek[1]

1. Introduction

This paper discusses how the global financial crisis of 2008–09 affected banks operating in emerging market economies (EMEs) and how far it led them to change key aspects of their business models. Aspects of particular interest include: changes in bank funding (maturity and sources of funding); changes in bank lending (in terms of loan maturities; required collateral; types of borrowers; etc); and changes in liquidity management (evidence of a build-up of liquid assets; shortening of lending maturities, etc). The paper also looks at evidence of different response patterns between foreign and local banks in EMEs during the crisis. The analysis is based almost entirely on central bank responses to a BIS questionnaire prepared for the BIS meeting of Deputy Governors of emerging market economies (28–29 January 2010, Basel). The aim is to provide an up-to-date assessment of key changes in domestic bank intermediation in EMEs resulting from the spillovers of the global financial crisis of 2008–09.

The main finding is that, despite the great variety of financial intermediation and bank ownership structures in EMEs, by and large, banks adjusted to the crisis as in a textbook scenario. On the funding side, they reduced their reliance on wholesale markets and increased their efforts to attract retail deposits. On the lending side, they reduced the growth of new loans to firms and households, shifted towards less risky types of loans and increased their holdings of government bonds. On the liquidity side, banks shortened the maturity of their assets, relied less on the interbank market and started doing more business with central banks.

Foreign and domestic banks broadly adjusted to the crisis in the same way. Initially, there were some differences in the speed of adjustment, but eventually, both domestic and foreign banks moved in the same direction and adjusted their funding, lending and liquidity operations to a similar extent. The funding model seems to have mattered more for adjustment than bank ownership.

This paper is divided into four sections. Section 2 reviews the structure of financial intermediation in EMEs. Section 3 analyses the structure of bank funding before and during the 2008–09 crisis, and section 4 looks at changes in bank lending patterns. Section 5 evaluates the responses to the crisis by the domestic and foreign-owned banks and discusses the incentives for establishing subsidiaries versus branches after the crisis.

[1] The author thanks Agne Subelyte for research assistance and Stephen Cecchetti, Ramon Moreno, Haibin Zhu and participants of the BIS meeting of Deputy Governors of emerging market economies for comments on an earlier draft of this paper.

2. Structure of financial intermediation in EMEs

To understand how banks in different EMEs reacted to the crisis, it is useful to start by analysing the structure of domestic financial intermediation. The relative importance of banks differs greatly both within and among emerging market regions. This section looks at: the relative size of banks, non-bank financial institutions (NBFIs), equity markets and bond markets in EMEs; the ownership structure of domestic banking systems; and the legal form of incorporation of foreign banks' affiliates (ie subsidiaries vs branches). Each of these elements is potentially relevant for explaining the observed trends in financial intermediation during the crisis.

For instance, banks were generally more affected than NBFIs by the crisis so, other things equal, one would expect countries with larger non-bank financial sectors to have experienced fewer disruptions in domestic financial intermediation. Similarly, one would expect countries with more developed domestic bond markets to have experienced less financial market upheaval than those relying mostly on international bond markets.

Regarding the ownership structure, one view is that problems in international banks' domestic markets inevitably led banks to withdraw from emerging markets. A classic example is the large-scale withdrawal of Japanese banks from emerging Asia during the 1997–98 crisis. When Japanese banks experienced problems in their domestic market as a result of declines in equity and real estate prices, they had to shrink their balance sheets to maintain their capital adequacy requirements. The resulting pullback provided a major impetus to the crisis that was unfolding in emerging Asia at the time.

A competing view is that international banks consider some emerging markets of strategic importance for their overall business strategy. Therefore, it is in their vital interest to support operations in these markets during the crisis (de Haas and Lelyveld (2004), EBRD (2009)). The case in point is banks from smaller western European countries (eg Austria, Belgium) that established a dense network of subsidiaries in central and eastern Europe (CEE). These subsidiaries generated the lion's share of profits at the group level in the second half of the 2000s, and were therefore vitally important for the financial performance of parent banks.

Yet another view is that, during periods of crisis, lending by state-owned banks tends to be less procyclical than lending by foreign and private domestic banks. For instance, during the crises in emerging Asia and Latin America in the 1990s, state-owned banks expanded credit faster (or cut credit to a smaller extent) than domestic and foreign-owned private banks (Hawkins and Mihaljek (2001)). A similar experience was reported in some EMEs during the current crisis.

Finally, the legal form of incorporation of foreign banks' affiliates may matter during a crisis. Foreign bank affiliates are often of small importance from the parent banks' perspective, but systemically important for the host country. One issue that arises in this context is how the host country authorities might deal with the loss of liquidity and disruptions in the domestic payment system if the parent institution decides to cut back support for such an affiliate. Other things equal, one would expect the authorities in countries where foreign banks are present as subsidiaries to be better able to preserve liquidity and stability, because subsidiaries are standalone entities with their own capital and are supervised by both host country supervisor and, on a consolidated basis, by the parent's supervisory authority.

Banks versus other financial intermediaries

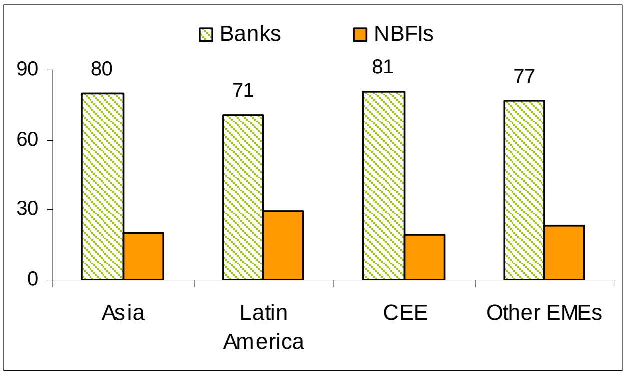
Banks in EMEs remain much larger than NBFIs and account, on average, for 70–80% of total financial sector assets (Graph 1).[2] However, there are large differences across countries. In Latin America, for instance, the share of banks in combined assets of banks and NBFIs ranged from around 50% (Chile and Colombia) to 98% (Argentina), while in other EMEs it ranged from 65% (Israel, Korea, Malaysia) to 95% or higher (Hong Kong SAR, the Philippines, South Africa).

The relative shares of banks and NBFIs were stable throughout the latest crisis. However, there were some exceptions: banks in India and Peru increased their relative share of total assets by 7 percentage points (pp) between 2006 and 2009; and in Hungary and Poland by 3–4 pp. Banks "retreated" compared to NBFIs on a larger scale only in Israel (by 5 pp), Colombia (3 pp) and Mexico (2 pp).

Graph 1

Banks vs NBFIs

As a percentage of total financial sector assets, 2007



Source: Central bank questionnaires.

Differences in the structure of financial intermediation are even larger when stock and bond markets are considered. At end-2007, when EMEs were still unaffected by the crisis, stock market capitalisation was close to or higher than the local GDP in more than half of EMEs in our sample of 22 countries (Graph 2). Stock markets were also larger than the local banking system – in some cases two–three times so – in Chile, Colombia, Hong Kong SAR, India, Peru, Saudi Arabia, Singapore and South Africa. Many countries, especially in emerging Asia, Brazil, the Czech Republic and Hungary, also had fairly large local bond markets, ranging in size from 50% to over 100% of local GDP. Overall, countries in emerging Asia stood out in terms of the size and diversity of their financial systems, followed by Israel, Chile, South Africa, Brazil, central European countries and Saudi Arabia (Graph 2).

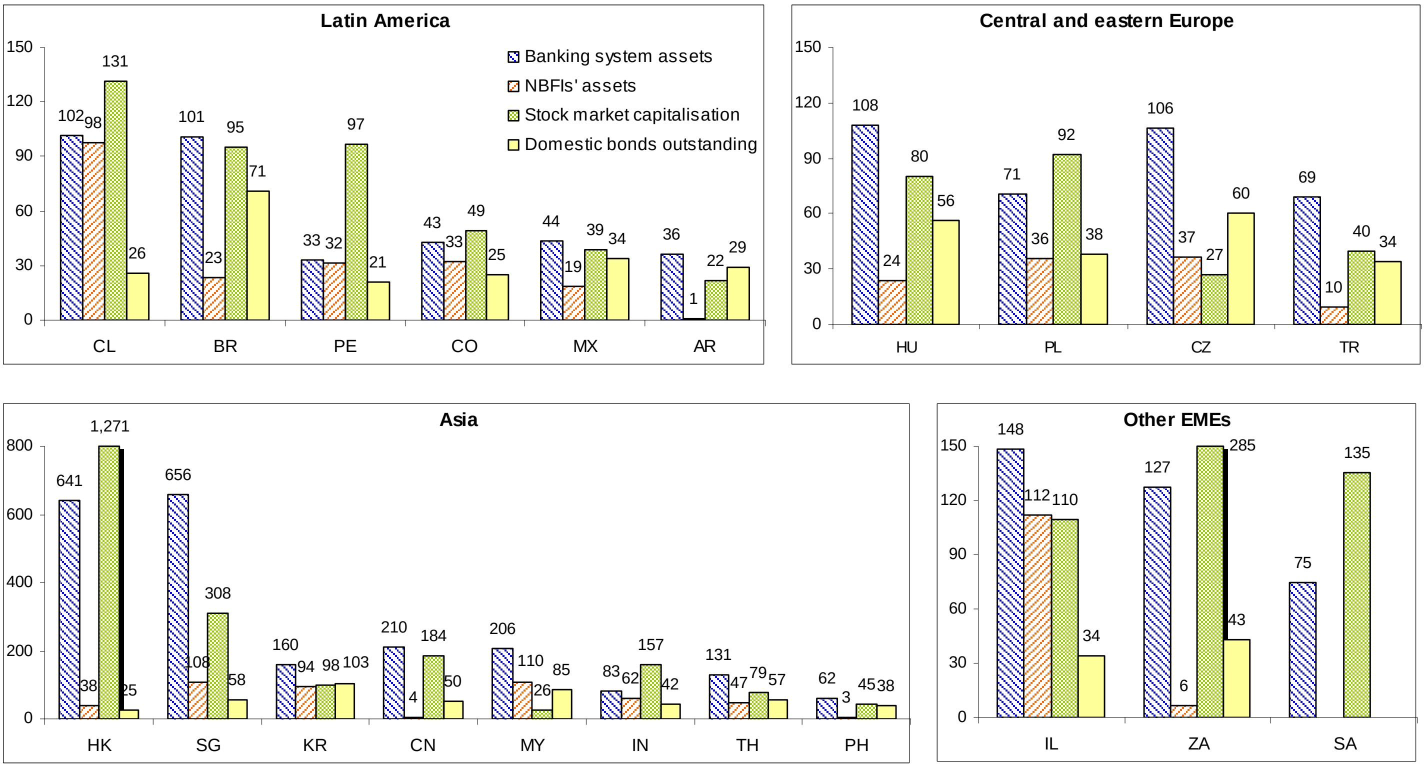
---

[2] Unless otherwise noted, regional figures in the text, graphs and tables refer to simple averages of countries in a region. These are: China, Hong Kong SAR, India, Korea, Malaysia, the Philippines, Singapore and Thailand (emerging Asia); Argentina, Brazil, Chile, Colombia, Mexico and Peru (Latin America); the Czech Republic, Hungary, Poland and Turkey (CEE); and Israel, Saudi Arabia and South Africa (other EMEs).

Graph 2

Structure of financial intermediation, 2007

As a percentage of GDP



Note: AR = Argentina; BR = Brazil; CL = Chile; CN = China; CO = Colombia; CZ = Czech Republic; HK = Hong Kong SAR; HU = Hungary; IL = Israel; IN = India; KR = Korea; MX = Mexico; MY = Malaysia; PE = Peru; PH = Philippines; PL = Poland; SA = Saudi Arabia; SG = Singapore; TR = Turkey; TH = Thailand; ZA = South Africa.

Source: Central bank questionnaires.

These data suggest that many EMEs are no longer quite "emerging" in terms of the size and diversity of their financial sectors. Although the crisis had a huge impact on stock markets in many EMEs – equity prices fell by 20–40% between end-2007 and end-2009 – other segments of EMEs' financial sectors were unaffected or expanded.

The data in Graph 2 also show that the financial sectors of the majority of emerging market countries can no longer be characterised as bank-centred: NBFIs, equity and bond markets match or exceed the size of the local banking sector in many EMEs. A comprehensive assessment of the impact of the crisis on financial intermediation in EMEs would therefore need to go beyond the narrow banking sector, on which the rest of this paper will focus.

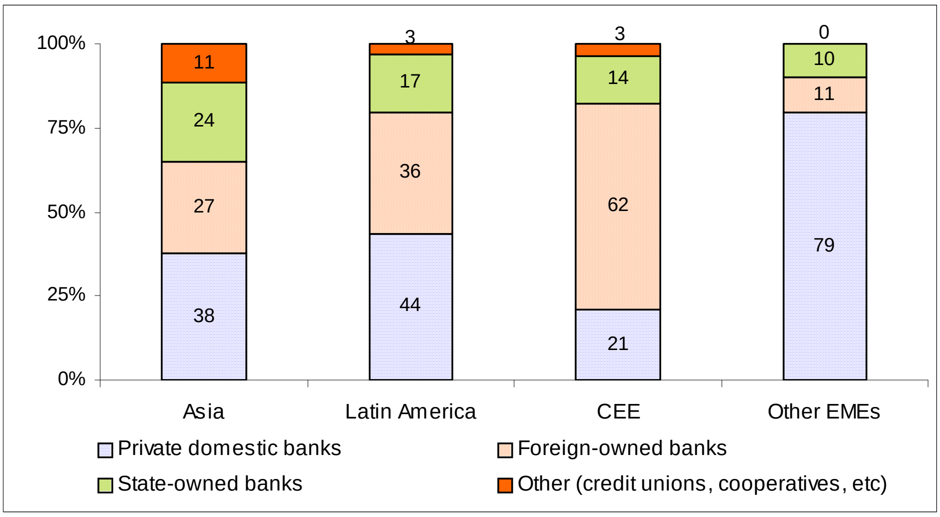
Ownership structure of banks

EMEs also differ considerably in terms of the ownership structure of their banks. Banking systems in Asia have, on average, a fairly balanced ownership structure (Graph 3). Compared to other emerging market regions, Asia also stands out in terms of the relative importance of state-owned banks and other banking institutions (cooperative banks, credit unions, etc). However, this is mainly due to the large size of the state and cooperative sectors in China and India. In Latin America, foreign and private domestic banks each account for about 40% of banking system assets, and state-owned banks account for the remaining 20%. In CEE, foreign-owned banks dominate, accounting for over 60% of total banking system assets on average, and often much more in individual countries. In other EMEs – Israel, Saudi Arabia and South Africa – private domestic banks are dominant, accounting for 80% of total assets, with the remainder split between foreign and state-owned banks.

Graph 3

Ownership structure of emerging market banks, 2009

As a percentage of total banking system assets



Source: Central bank questionnaires.

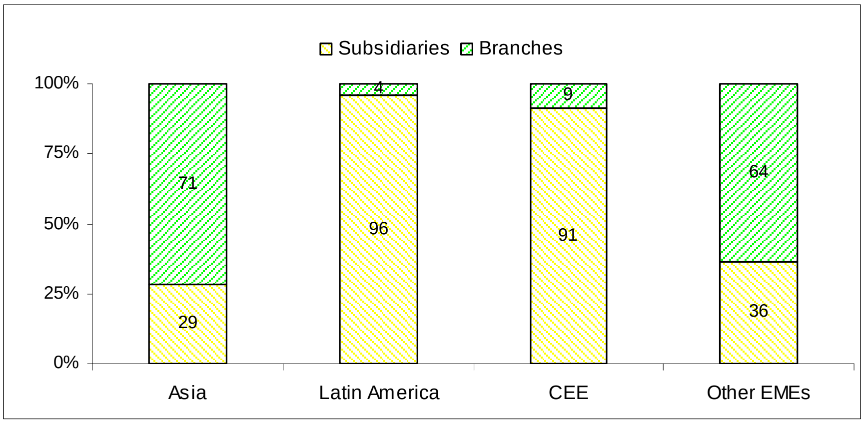
Again, regional averages mask considerable country differences. What is striking when one looks at country detail is how diverse bank ownership in EMEs has become. With the exception of the Czech Republic and Saudi Arabia, where foreign and private domestic banks account for, respectively, 96% and 98% of total banking system assets, different forms of ownership are well represented in almost all EMEs. For instance, private domestic banks account for more than 50% of total assets in Brazil, Colombia, Israel, Malaysia, Peru, the Philippines, South Africa, Thailand and Turkey, and foreign-owned banks account for more than 50% of total assets in Hong Kong SAR, Hungary, Mexico, Peru, Poland and Singapore (Appendix Graph A1). State-owned banks have a strong presence (more than 30% of total assets) in Argentina, Brazil, China, India and Korea. The ownership structure of banks in EMEs has been fairly stable since 2006. This contrasts with developments in the 1990s and the first half of the 2000s, when major changes were taking place in the structure of the banking industry in EMEs (see Mihaljek (2006), Turner (2008)).

Regarding the legal form of foreign banks' presence in EMEs, subsidiaries are dominant in Latin America and CEE, while branches account for about two thirds of foreign banks' assets in Asia and other EMEs (Graph 4). In Colombia, Malaysia, Mexico and Peru, foreign banks operate only as subsidiaries, while in China, India, Saudi Arabia and South Africa they operate only as branches. Unlike the overall ownership structure, the legal form of foreign banks' operations has changed in several EMEs since 2006: the relative share of branches increased by 15 pp in Korea, 8 pp in Hungary, 4 pp in Israel and 3 pp in Poland. On the other hand, in Chile and South Africa, the subsidiaries' shares increased by over 6 pp.

Graph 4

Foreign bank subsidiaries and branches, 2009

As a percentage of total assets of foreign banks' affiliates



Source: Central bank questionnaires.

3. Bank funding

In the run-up to the latest crisis, the funding of banks in EMEs was characterised by two main trends: first, domestic deposits were generally growing more slowly than bank lending, resulting in rising loan to deposit ratios; and second, banks in EMEs were increasingly relying on foreign sources in order to fund the rapid expansion of credit. These trends were particularly pronounced in CEE, parts of Latin America, South Africa and Korea.

With the onset of the crisis in October 2008, both domestic and foreign sources of bank funding in EMEs largely evaporated. Growth rates of domestic funding plunged from 15–25% year-on-year in 2007–08, to 0–7% in 2009 (Graph 5, left-hand panel). The retrenchment in foreign funding was even more dramatic, especially in Latin America and CEE (right-hand panel). The banking systems in virtually all EMEs recorded negative growth of foreign funding for the full year 2009.

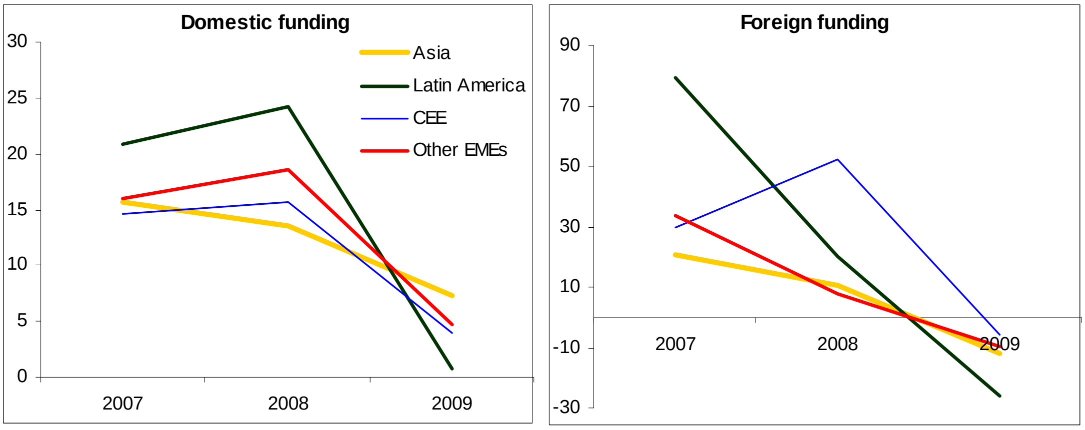
Among domestic sources of funding, both deposit growth and market-based funding slowed sharply in 2009 (Graph 6).[3] This is not surprising in view of the severity of the real and financial shocks that hit the EMEs in the first half of 2009: the collapse in exports depressed the growth of customer deposits (left-hand panel), while disruptions in local interbank and securities markets led to the sharp fall in domestic market funding (right-hand panel). During the second half of 2009, as global and local financial markets gradually recovered, banks in several Asian countries, including China, India, the Philippines and Thailand, started again to issue securities in domestic markets, mostly short-term money market instruments.

[3] Domestic market-based funding includes here borrowing from other domestic financial institutions and bonds and money market instruments issued by banks in domestic markets.

Graph 5

Funding of emerging market banks

Year-on-year growth rates, in per cent

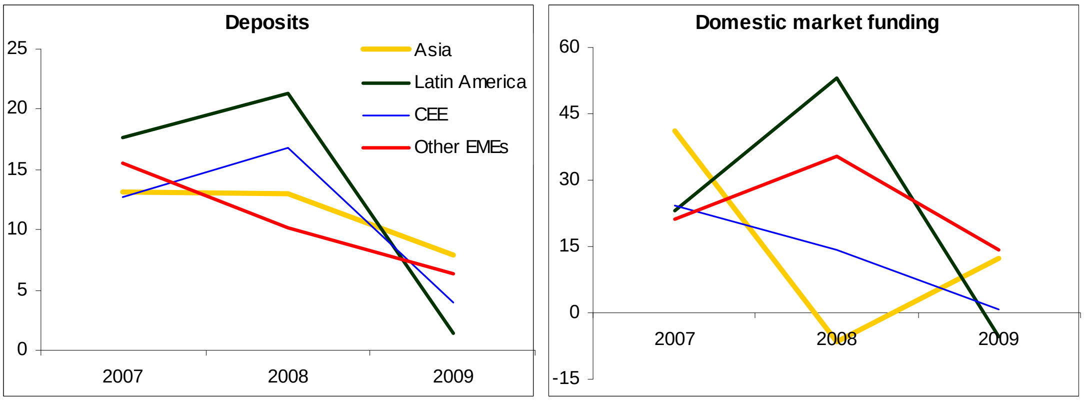


Source: Central bank questionnaires.

Graph 6

Domestic funding

Year-on-year growth rates, in per cent



Source: Central bank questionnaires.

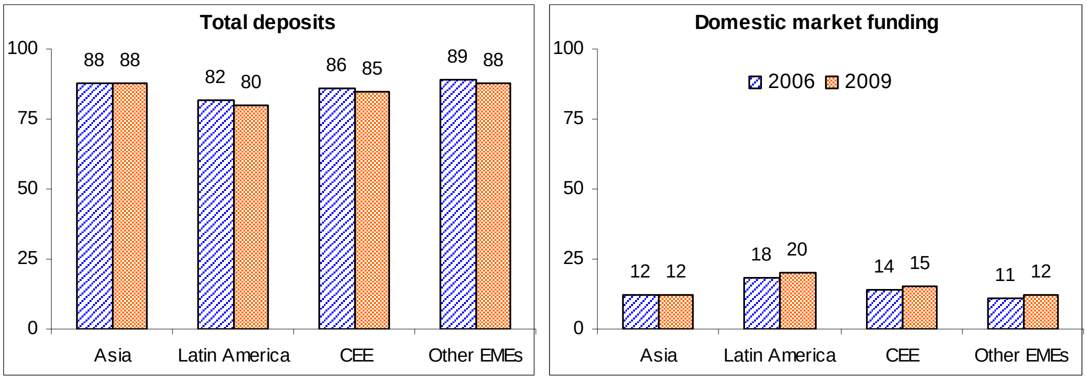
In relative terms, the shock to deposits was generally stronger than the one to domestic funding. As indicated in Graph 7, the share of deposits in domestic liabilities decreased in all emerging market regions with the exception of Asia, while the share of domestic money and bond market funding increased slightly in three out of four regions in 2009 compared to 2006.

The situation with foreign funding was similar. Short-term liabilities plunged everywhere in 2009, recording average growth rates from –10% to –40% year-on-year (Graph 8, left-hand panel). Long-term liabilities dropped precipitously in CEE, where banks had for years relied on longer-term funding provided by international banks, and in Latin America, especially Brazil and Chile (right-hand panel). Long-term liabilities increased modestly only in emerging Asia. These developments reflected disruptions in global money markets on the one hand, and a temporary halt in cross-border credit flows to EMEs on the other.

Graph 7

Composition of domestic funding

As a percentage of domestic liabilities

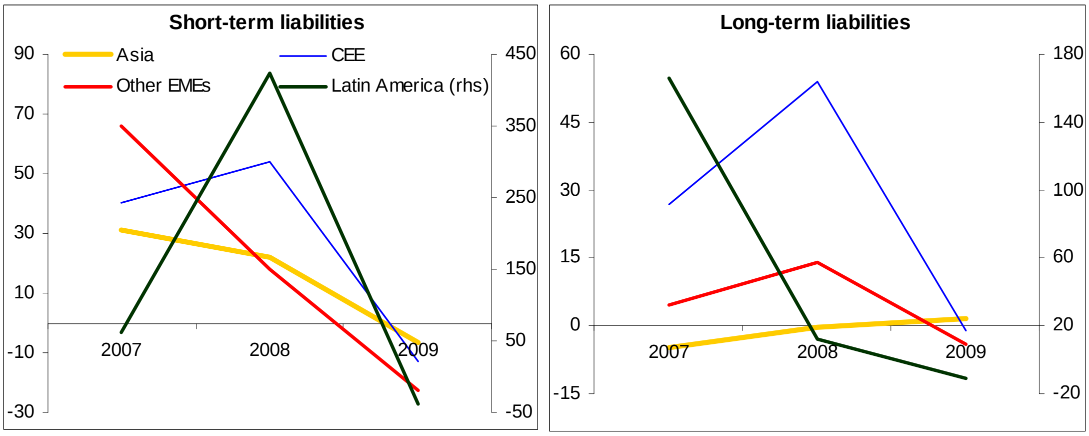


Source: Central bank questionnaires.

Graph 8

Foreign funding

Year-on-year growth rates, in per cent



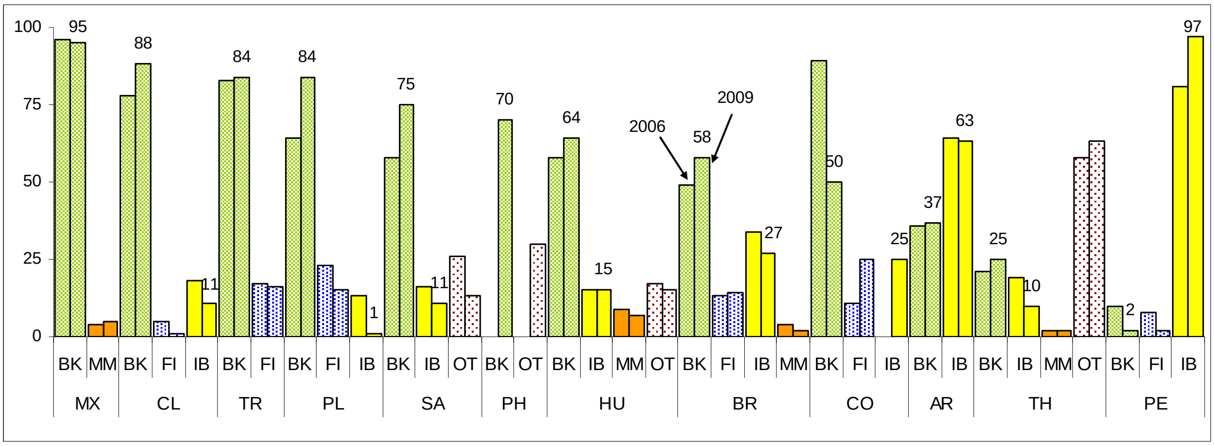
Source: Central bank questionnaires.

Disturbances in the international money and bond markets seem to have had a bigger impact on the composition of foreign funding than disruptions in cross-border bank flows. As indicated in Graph 9, with the exception of Colombia, Mexico and Peru, the share of cross-border bank funding in total foreign liabilities was still higher in 2009 than in 2006, while the share of international money market instruments and bonds issued by emerging market banks was generally lower (Peru was a notable exception in bond issuance). The funding of emerging market banks by other foreign financial institutions – as well as from other foreign sources – was lower as a percentage of foreign liabilities in almost all the countries in 2009 compared with 2006.

Graph 9

Composition of foreign funding

As a percentage of foreign liabilities



Note: BK = cross-border loans provided by foreign banks; FI = loans provided by other foreign financial institutions; MM = international money market instruments issued by emerging market banks; IB = international bonds issued by emerging market banks; OT = other sources of foreign funding.

Source: Central bank questionnaires.

Central banks clearly identified problems in domestic and foreign funding in their papers and questionnaire responses prepared for the BIS meeting of Deputy Governors of emerging market economies. For instance, although Brazilian banks do not rely on foreign deposits for funding, they usually turn to international banks for credit lines for exporters. Their access to export credit lines was significantly restrained for some time during the crisis, prompting the central bank to provide a trade credit facility to banks until the access to foreign sources of credit gradually resumed.

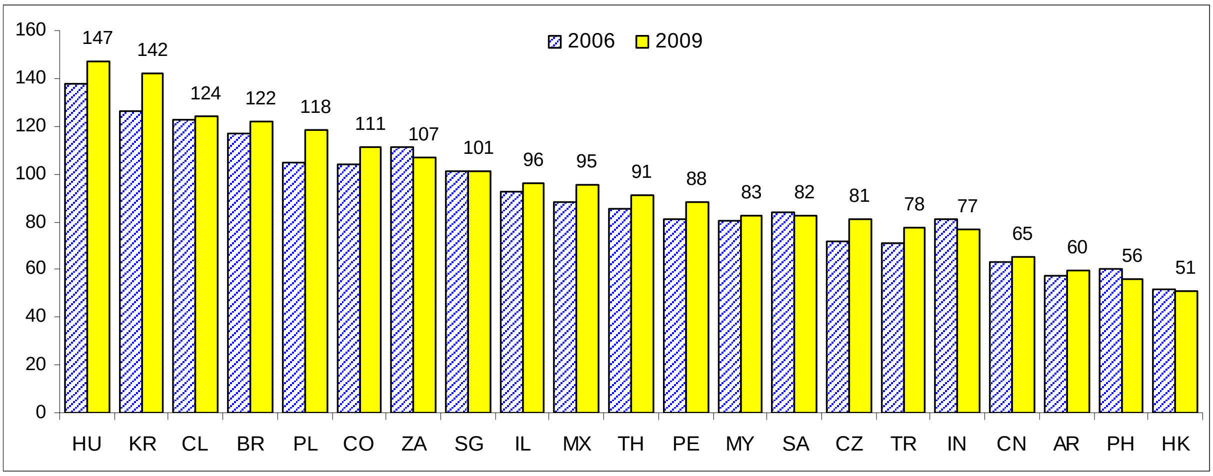
In Mexico, some smaller- and medium-sized banks launched aggressive campaigns to increase funding from retail depositors by offering very attractive interest rates, while others expanded their branch network. Some Mexican banks also increased the proportion of liabilities held as liquid assets, while others called back some assets and reduced their lending commitments as a temporary measure to get through the crisis. Competition for deposits also strengthened in Hong Kong SAR, Korea and Hungary. In Poland, banks replaced maturing domestic interbank exposures with borrowing from foreign banks (mainly parent companies), and made efforts to raise more stable domestic sources such as deposits from non-financial clients (mainly households). This was, however, accompanied by a "deposit price war" that negatively affected banks' financing costs and increased pressure on their interest margins.

Despite evidence of funding pressures in a large number of EMEs, many central banks felt that the financial crisis had no major impact on the funding strategies of banks operating in their domestic market. The main reason for this is that many emerging market banks do not rely extensively on either domestic or foreign market funding – they generally had a sufficient pool of local deposits to fund loans to their clients. As shown in Graph 10, roughly two thirds of EMEs in our sample had loan to deposit ratios below 100% in 2009, despite a widespread increase in these ratios since 2006. Another reason is that local interbank markets by and large continued to function normally through the crisis – although, admittedly, these markets are not as important a source of liquidity in EMEs as in advanced economies.

Graph 10

Loan to deposit ratios[1]

In per cent



[1] Total loans as a percentage of total deposits. For Singapore, domestic banks only.

Sources: Central bank questionnaires; BIS calculations.

Another source of funding – the securitisation of bank loans – was also affected by the crisis. In most EMEs, securitisation was not widespread, but plans for its development were well-advanced in some countries prior to the crisis. In India, securitisation was mostly based on retail loans and was not too complex. With the crisis, securitisation decreased in volume, but was expected to resume in the future. In China, there were several pilot programmes for the securitisation of bank loans. However, with loan to deposit ratios of around 60%, the motivation for securitisation was relatively low. The central bank nevertheless promoted the development of a legal infrastructure and regulatory framework for securitisation because of concerns that banks might start moving riskier loans off their balance sheets by selling them to trust companies; these had already been in trouble several times in the past decade because of investments that were too risky. In Saudi Arabia, the authorities were approached by the banking industry on the issue of securitisation prior to the crisis. However, with bank loans already growing at annual rates of more than 25%, the Saudi Arabian Monetary Authority decided that it was not in the interest of financial stability to provide a further boost to credit growth by developing a framework for securitisation. By contrast, the authorities in South Africa gave a push to securitisation by lowering the loan to value ratio for mortgage loans during the crisis.

4. Bank lending

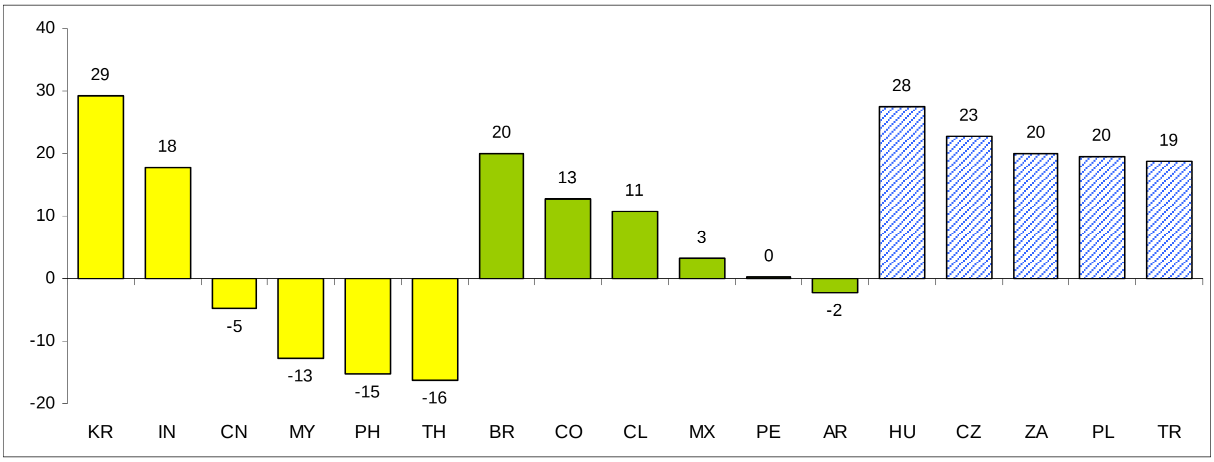
Before the crisis spread from advanced to emerging market economies in October 2008, private sector credit had expanded rapidly in most EMEs. The expansion was particularly pronounced in CEE, Brazil, Chile, Korea and South Africa. Credit stagnated or decreased as a percentage of GDP only in a few Asian and Latin American economies (Graph 11).

The great credit expansion resulted from a combination of cyclical, structural and policy factors that were in place from 2002 onwards. Low real interest rates and the strong growth of the global economy were the key cyclical factors. Rapid financial sector development and growing economic and financial integration of EMEs with advanced economies were the major structural forces. More disciplined macroeconomic policies and greater emphasis on financial stability in EMEs were also contributing elements. Together, these factors provided incentives for portfolio diversification by global investors and led to a surge in capital flows to EMEs, which funded much of the credit expansion (Mihaljek (2009)). In addition, the balance sheets of commercial banks in some EMEs with fixed exchange rates expanded as a result of prolonged foreign exchange (FX) intervention by central banks resisting currency appreciation.

Graph 11

Domestic bank credit to the private sector, end-2002 to August 2008

Cumulative change in end-period stocks, as a percentage of GDP



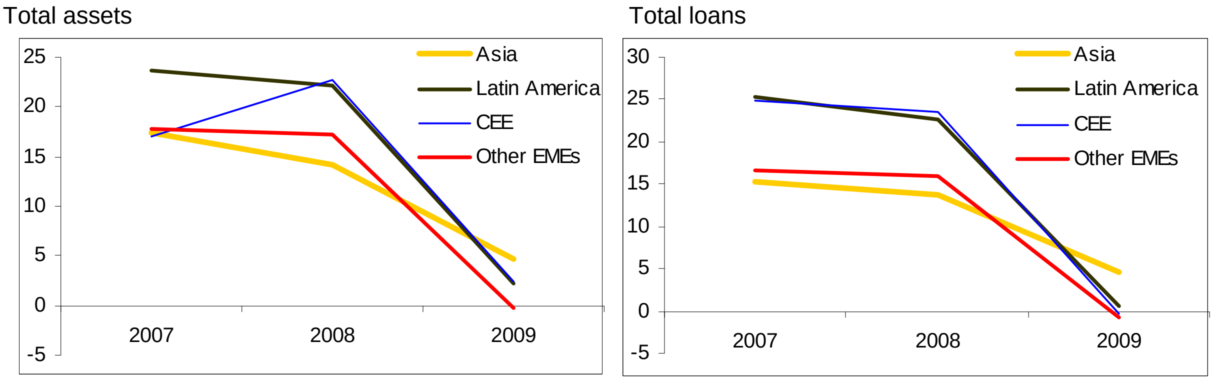
Source: IMF, *International Financial Statistics*.

Following the onset of the crisis in the main financial centres in August 2007, total assets and loans of banks in most EMEs began to slow down (Graph 12). As the crisis spread in October 2008, credit growth decelerated sharply. Apart from some Asian and Latin American countries, most EMEs recorded negative credit growth rates in 2009. It is striking, for instance, how similar the average rate of decline was in CEE and Latin America (right-hand panel).

Graph 12

Total assets and loans of banks in EMEs

Year-on-year growth rates, in per cent



Source: Central bank questionnaires.

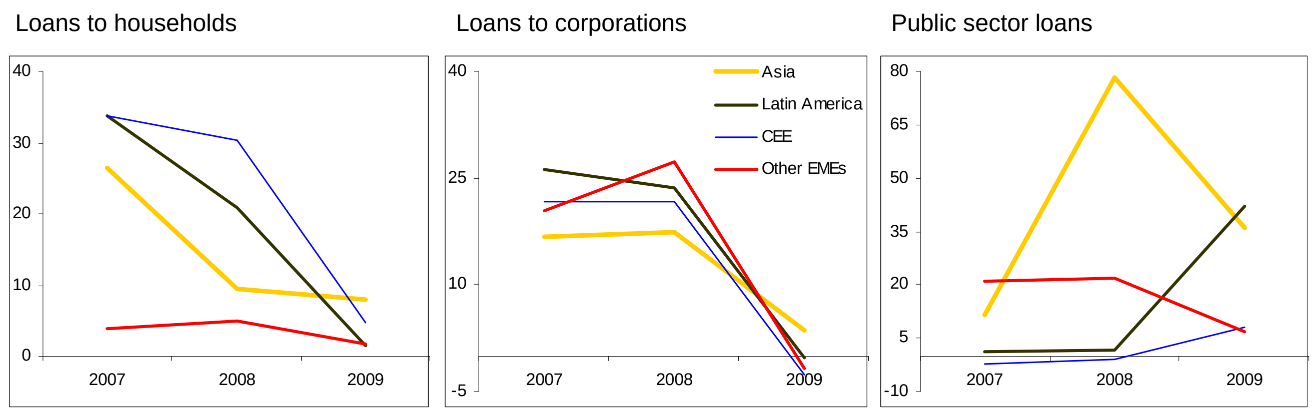
Corporate credit growth decelerated sharply in all emerging market regions in 2009 (Graph 13, centre panel). The slowdown in household lending was pronounced in CEE and Latin America, and more moderate in Asia and other EMEs (left-hand panel). Lending to the public sector increased in CEE, and in particular in Latin America, while in Asia and other EMEs, public sector lending decreased (right-hand panel).

In terms of the currency composition of loans, foreign currency loans decreased much faster than domestic currency loans in 2009 (Graph 14). While the rates of decrease across regions were quite similar in 2009, it is interesting to note that foreign currency lending in CEE *increased* during 2008, despite the ongoing crisis in many western European countries, where most banks operating in CEE have headquarters. As a result, foreign currency loans accounted for about 35% of total outstanding domestic bank credit in CEE in 2009, compared with 15–18% in other emerging market regions. This was a major source of vulnerability during the crisis, especially since a quarter of foreign currency loans were taken by households, which in most cases do not have foreign currency income and cannot hedge exchange rate risk due to the lack of hedging instruments. One should note, however, that foreign currency lending was more a question of banking product development than a problem of currency substitution induced by macroeconomic instability, although some macroeconomic developments did play a role in the spread of foreign currency lending, including fiscal deficits in Hungary, which kept domestic interest rates high.

Graph 13

Domestic credit growth

Year-on-year growth rates, in per cent



Source: Central bank questionnaires.

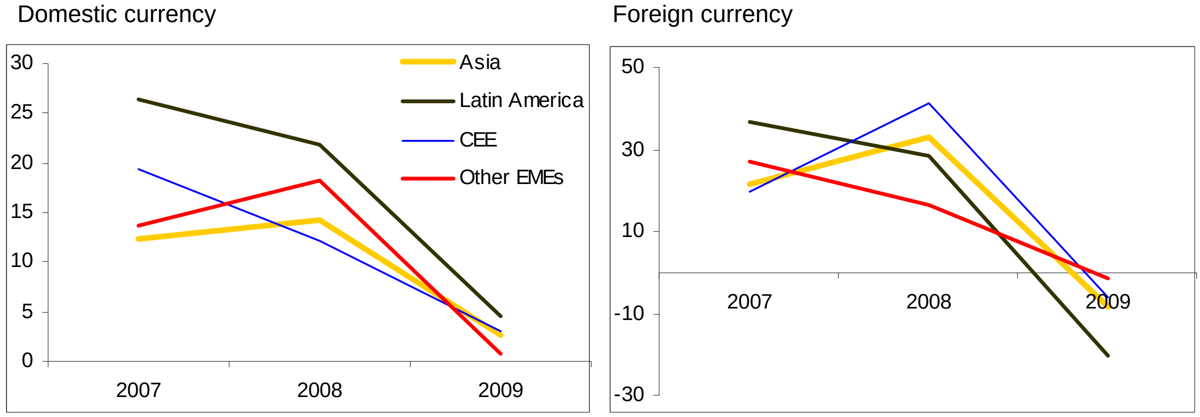
There were also some significant changes in the composition of bank assets other than loans. Holdings of long-term securities fell sharply in CEE and Latin America, and increased in Asia and other EMEs in 2009 (Appendix Graph A2, left-hand panel). In CEE, the reduction in long-term bond holdings was limited to domestic corporate and government bonds, while foreign bond holdings increased sharply (Appendix Graph A3). Banks in Asia and other EMEs also increased their foreign bond holdings in 2009. In addition, banks in most EMEs increased their holdings of short-term securities (Appendix Graph A2, right-hand panel).

Central bank contributions to the meeting provided further detail on these developments and on changes in banks' behaviour during the crisis. In Hungary, India, Korea, Singapore, South Africa, Thailand and Turkey, credit growth slowed sharply as credit demand fell and banks tightened their credit standards and price and non-price credit terms. In Argentina and the Philippines, the composition of domestic credit shifted from the household sector before the crisis towards the corporate sector in 2009. In South Africa, in contrast, corporate lending decreased more than loans to households due to a sharp contraction in output. China was an important exception: the growth rate of total loans doubled in 2009 to 30% year-on-year by end-October.

Graph 14

Domestic and foreign currency loans

Year-on-year growth rates, in per cent



Source: Central bank questionnaires.

Banks in several countries (including Brazil, the Czech Republic and South Africa) shortened the maturity of lending and often increased voluntarily their holdings of statutory liquid assets. This was also the case with commercial banks in India and Turkey, which significantly increased their holdings of government securities. In Korea, banks expanded their short-term placements in money market funds.

In Poland, there was a significant disruption of the domestic interbank deposit market. In response, banks limited the growth of credit to the economy (especially the non-financial corporate sector), raised the share of highly marketable treasury securities in their assets, and increased holdings of central bank bills, current account balances, and deposits at the central bank.

5. Domestic versus foreign-owned banks

Reflecting the diversity of ownership forms and market positions of banks in EMEs, the responses of domestic and foreign-owned banks to the crisis have been quite varied and cannot be easily categorised.

A number of central banks in countries with both low and high shares of foreign bank ownership (eg Brazil, Hong Kong SAR, Korea, Malaysia, Saudi Arabia, Singapore and Thailand) reported that there have been no major differences in the reactions of domestic and foreign-owned banks during the crisis. For instance, South Africa's largest foreign-owned bank (which is the second largest bank in the country) responded to the crisis in a similar way to the domestic banks. In Thailand, both foreign and local banks became more cautious in lending to risky businesses (especially small- and medium-sized enterprises, which was also the case in Korea); and reduced their off-balance sheet transactions, especially in FX derivatives. The main difference was that foreign-owned banks reduced household loans and increased secured lending slightly, while the Thai banks increased household loans and kept secured lending unchanged.

Similarly, in Hong Kong SAR, both local and overseas banks cut back loans to the corporate and household sectors sharply after the onset of the crisis. One difference was that locally incorporated banks were more aggressive in securing stable funding in the retail market by offering more attractive time deposit rates. In Singapore, some foreign banks cut back lending to non-core customers and complex trading activities as part of restructuring measures undertaken by parent banks worldwide. Overall, however, these cutbacks were not significant. In Saudi Arabia, liquidity from head offices decreased temporarily for some foreign bank branches, which restricted their usual role in interbank funding and lending to various sectors in the economy. Nevertheless, one foreign bank branch was able to issue an Islamic bond (sukuk) to fund its Saudi assets during the crisis.

Among the countries with a moderate share of foreign-owned banks (ie 15–30% of total banking sector assets), foreign-owned banks generally reduced domestic credit faster than private domestic banks, for instance in Argentina, Turkey, and among smaller foreign banks in South Africa. Similarly, foreign-owned banks in Colombia were quite procyclical in consumer lending. In Argentina and Turkey, the decline in credit by the private banks – both foreign and domestic – was partly offset by increased lending by the state-owned banks.

The funding responses of private domestic banks and foreign-owned banks also differed in this group of countries. In Turkey, for instance, foreign-owned banks reduced interbank borrowing much more than private domestic banks (this was also the case in the Philippines); they issued subordinated debt to offset the decline in cross-border loans and significantly increased the amount of funds raised from repo transactions, while the private domestic banks reduced their funding through repos.

It is interesting to note that reactions to the crisis differed even among some foreign-owned banks. In South Africa, smaller foreign-owned banks whose parents were more exposed to the global financial turmoil were cut off from head office funding and had to reduce their exposures to the corporate sector. If the news about their foreign owners was bad, they tried to emphasise how they were de-linked and independent; if the news was good, they stressed the willingness of their parents to stand by them.

Among the countries where foreign-owned banks play a key role in domestic financial intermediation, the question of domestic versus foreign-owned banks was less relevant than the question whether foreign banks helped to maintain financial stability through the crisis. On this issue, experiences varied. In Mexico, some subsidiaries – especially those whose parents were in trouble – initially reduced credit faster than other banks, although later on, domestic banks also cut back their lending. Many foreign-owned banks in Mexico ended up lending to parent banks.[4] Some parent banks also transferred loans to large Mexican firms from the books of the head office to the books of the subsidiaries in order to reduce the head office leverage. Foreign bank subsidiaries also reduced their risk positions and trading activity in the FX and sovereign debt markets.

In contrast to Mexico, parent banks fulfilled their support function in Hungary during the crisis, with no signs of withdrawing funds from their subsidiaries. In addition to stabilising the position of subsidiaries, parent banks provided them with FX funding and increased the role of intragroup foreign currency swaps. On the other hand, domestically owned banks received government loans to strengthen their liquidity position during the crisis, and the central bank provided FX liquidity under its swap facility. Both local and foreign-owned banks reduced their profit targets for 2009, started competing for deposits, and cut back loans to risky industries such as construction.

The experience of Poland was somewhere between these extremes. Foreign-owned banks generally reduced corporate credit and expanded household credit faster than Polish-owned banks. They kept on providing foreign currency loans (though at a much diminished rate), while Polish-owned banks largely stopped providing such loans, replacing them with local currency loans. Foreign-owned banks also closed their liquidity funding gap faster than

[4] This was also the case in some central European countries – in particular the Czech Republic and Slovakia – in the last quarter of 2008 and the first quarter of 2009 (see Mihaljek (2010)).

domestically owned banks. In particular, at the height of the crisis in Q4 2008, foreign-owned banks withdrew earlier than domestic banks from the interbank market, preferring to deal with the central bank rather than with other commercial banks. This lack of confidence was "imported" from the outside: parent banks apparently instructed their Polish subsidiaries to withdraw from the local interbank market. But, on the whole, parent banks did not abandon their subsidiaries in Poland or elsewhere in CEE during the crisis (see Mihaljek (2010)). They broadly maintained their cross-border credit lines and lending in domestic currency, thus acting as a stabilising force during the crisis and demonstrating that these markets were of strategic importance to them.

A related issue is whether parent banks would convert some of their emerging market subsidiaries into branches after the crisis. Over the past decade, centralisation of the decision-making process in global financial institutions has led to a system in which subsidiaries operate more or less like branches. In the European Union, this development has been facilitated by the adoption of the single EU banking passport.

Branch banking often looked more attractive to host country authorities in the past because it seemed to provide greater incentives to foreign banks to transfer know-how and technology to EMEs. With the crisis, however, the focus of host country authorities has shifted towards financial stability issues. This has made subsidiaries more attractive because of the possibility of ring fencing their assets and of regulating them more tightly than branches. New banking regulations proposed by the Basel Committee on Banking Supervision (2009) could reinforce this trend by raising capital and liquidity requirements for subsidiaries. In CEE, for instance, some foreign banks announced that they might turn their subsidiaries into branches if the local regulation of subsidiaries' activities increased significantly after the crisis.

However, there has also been a movement away from foreign bank branches in some countries. In China, the authorities would like foreign-owned banks – which are currently present only as branches – to expand their presence in the form of subsidiaries in the future. One reason for this was the high concentration of some activities in foreign bank branches: with just 2% of total banking system assets, foreign bank branches accounted for 50% of derivatives and 18% of FX trading before the crisis. The authorities would like foreign banks to commit to the local market, ie to lend and fund their activities in China in the future. Malaysia had some positive experience with this approach – by requiring foreign banks to operate as subsidiaries, the authorities ensured that banks had a level playing field and entered the crisis with sufficient capital. By contrast, the authorities in India were reluctant to give foreign-owned banks dominance over some market segments. This could happen if foreign banks were granted the full national treatment currently given to domestic banks, ie if foreign banks were allowed to turn their branches into subsidiaries.

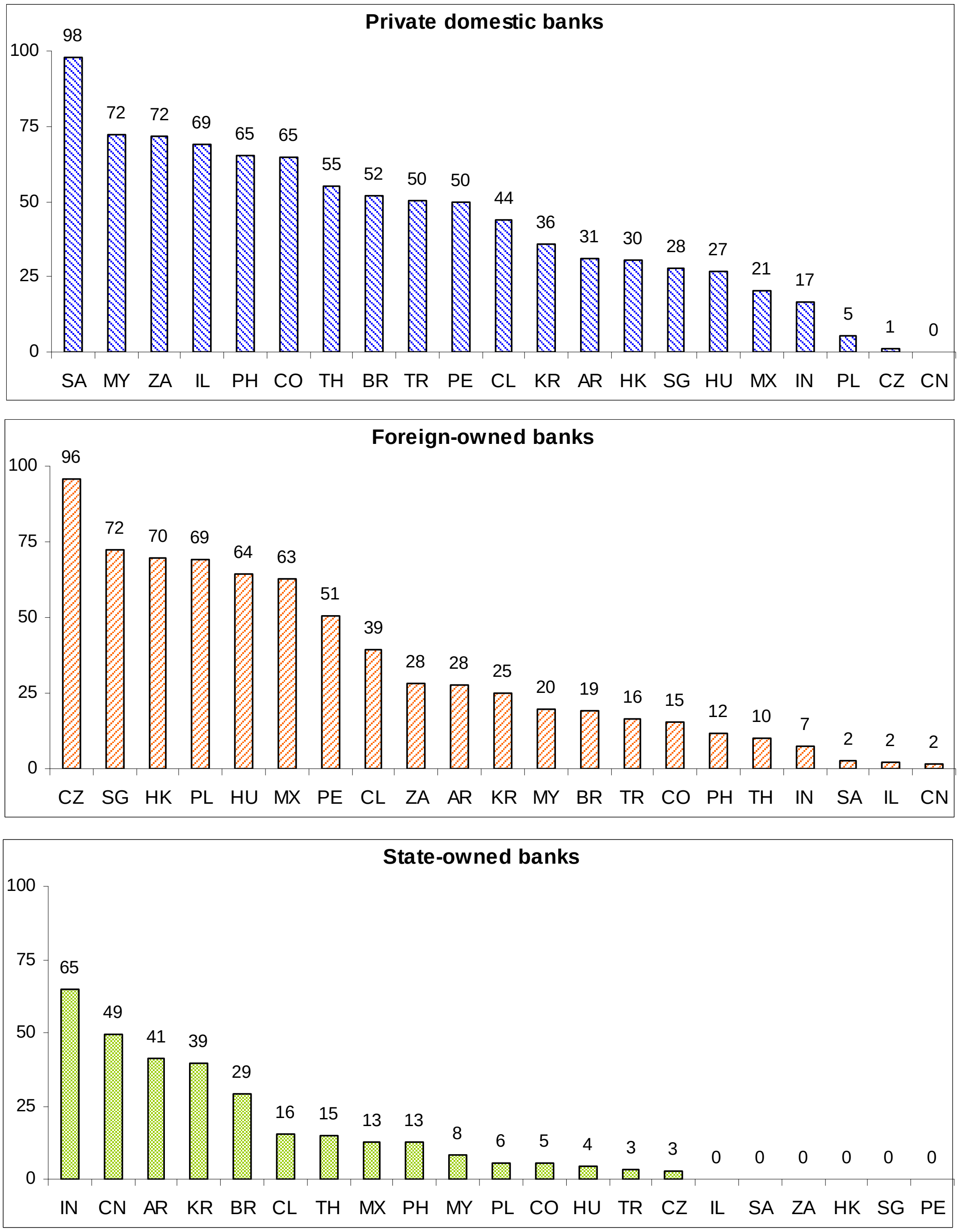
In summary, in many EMEs where foreign-owned banks do not play a key role in domestic financial intermediation, the differences in the reactions of local and foreign-owned banks to the crisis were small and discernible mainly in the details of their funding and lending operations. In particular, there have been no noticeable changes in the composition of the loan portfolios of the two groups of banks after the crisis. In EMEs, where foreign banks play a somewhat bigger role, foreign-owned banks generally adjusted their balance sheets faster and more deeply than domestic banks. Finally, in EMEs where foreign-owned banks are the dominant financial intermediaries, reactions to the crisis depended on the exposure of parent institutions, the financial health of subsidiaries, and the strategic importance of subsidiaries for parent banks. In the end, financial stability has been preserved both in those EMEs where parent banks fulfilled their support function and those where they withdrew funds from subsidiaries. However, as discussed in the accompanying BIS papers prepared for the meeting, in both cases, this required some extraordinary efforts on the part of central banks to stabilise the local financial markets.

Appendix

Graph A1

Ownership structure of banking systems in EMEs, 2009

As a percentage of total banking system assets



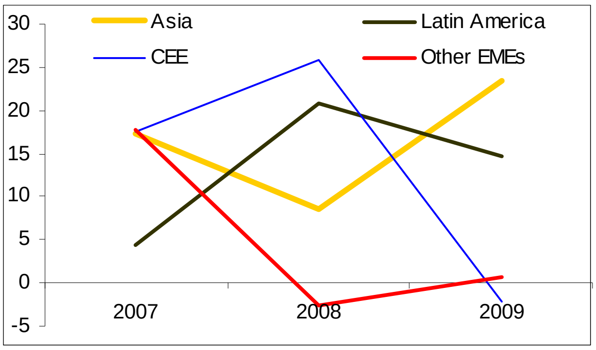
Source: Central bank questionnaires.

Graph A2

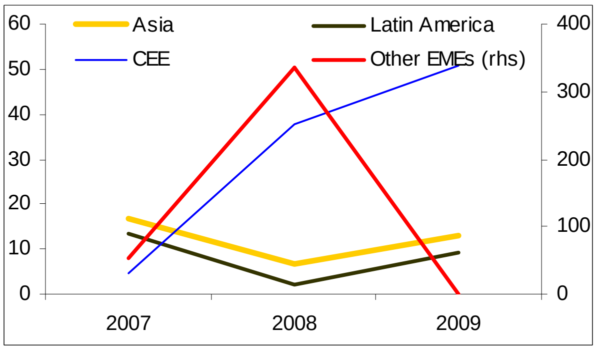
Holdings of securities by banks in emerging markets

Year-on-year growth rates, in per cent

Long-term securities



Short-term securities



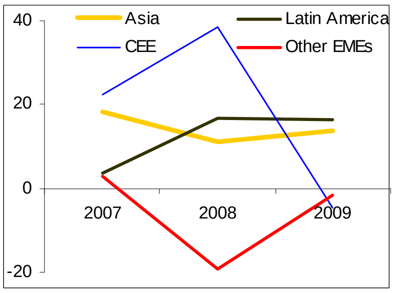
Source: Central bank questionnaires.

Graph A3

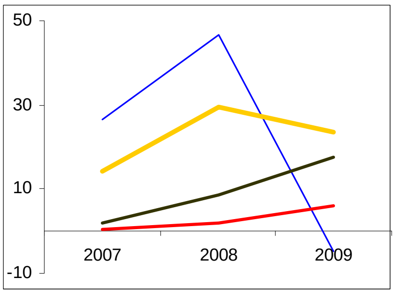
Holdings of long-term securities by banks in emerging markets

Year-on-year growth rates, in per cent

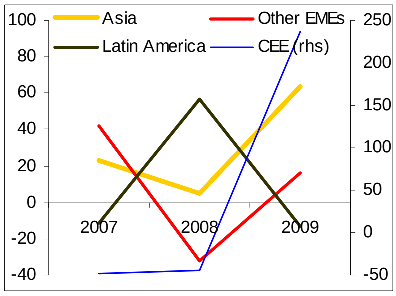
Domestic corporate bonds



Government bonds



Foreign bonds



Source: Central bank questionnaires.

References

Al-Hamidy, A (2010): “The global financial crisis: impact on Saudi Arabia”, this volume.

Banai, A, J Király and M Nagy (2010): “The demise of the halcyon days in Hungary: foreign and local banks before and after the crisis”, this volume.

Babicky, V (2010): “The international banking crisis and domestic financial intermediation in the Czech Republic”, this volume.

Bank of Israel (2010): “Domestic bank intermediation: domestically owned versus foreign-owned banks”, this volume.

Basel Committee on Banking Supervision (2009): *International framework for liquidity risk measurement, standards and monitoring – consultative document*, Basel, 17 December.

European Bank for Reconstruction and Development (EBRD): *Transition report 2009: Transition in crisis?*, London: EBRD.

De Haas, R and I Lelyveld (2004): “Foreign bank penetration and private sector credit in central and eastern Europe”, *Journal of Emerging Market Finance*, vol 3, no 2, pp 125–51.

Guinigundo, Diwa (2010): “The impact of the global financial crisis on the Philippine financial system: an assessment”, this volume.

Hawkins, J and D Mihaljek (2001): “The banking industry in the emerging market economies: competition, consolidation and systemic stability: an overview”, *BIS Papers*, no 4, August, pp 1–44.

Ibrahim, M (2010): “The international banking crisis and domestic financial intermediation in Malaysia”, this volume.

Kozinski, W (2010): “The international banking crisis and domestic financial intermediation in Poland”, this volume.

Mihaljek, D (2010): “The spread of the financial crisis to central and eastern Europe: evidence from the BIS data”, forthcoming in R Matousek (ed), *Banking and financial markets in central and eastern Europe after 20 years of transition*, London: Palgrave Macmillan.

——— (2009): “The financial stability implications of increased capital flows for emerging market economies”, *BIS Papers*, no 44, December, pp 11–44.

——— (2006): “Privatisation, consolidation and the increased role of foreign banks”, *BIS Papers*, no 28, August, pp 41–66.

Sinha, A (2010): “The international banking crisis and domestic financial intermediation in India”, this volume.

South African Reserve Bank (2010): “The international banking crisis and domestic financial intermediation in emerging economies: issues for South Africa”, this volume.

Turner, P (2008): “Banking consolidation in the emerging market economies: foreign and domestic”, in *Competition in the financial sector: proceedings of a G20 workshop*, Jakarta: Bank Indonesia, February, pp 113–14.