

The Refinancing Structure of Banks in Selected CESEE Countries

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In this paper, we present systematic regional and cross-country information about the refinancing structure of the banking sector in selected Central, Eastern and Southeastern European (CESEE) countries. We use the most recent data available (from mid-2008 until end-2009) to focus on the situation of CESEE banking sectors following the intensification of the financial crisis triggered by the collapse of Lehman Brothers. At that time, there were fears of spillover effects, given the strong reliance of most of these countries' banking sectors on foreign funding. Our analysis shows that in the second half of 2008, most CESEE banking sectors received additional funds from abroad, while in the course of 2009, net capital flows to banks turned at least temporarily negative in all countries under review except Poland. However, the size of net outflows on the liability side of banks' balance sheets differed substantially across countries. Looking at the whole period from mid-2008 to end-2009, our findings suggest that outflows affected above all banking sectors that had very high net foreign liabilities at the onset of the crisis (i.e. in the Baltic countries, particularly Latvia and Estonia) and banking sectors with comparatively low levels of foreign ownership (Slovenia, Ukraine and Russia).

JEL classification: G15, G21, G32, O16, O52

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1 Introduction

The refinancing structure of the banking sector is a key aspect of overall macro-financial stability in any country. The financial crisis has highlighted the importance of this issue even further. Earlier work on this topic, in particular Walko (2008), presented systematic regional and cross-country information on the refinancing structure of the banking sectors in selected Central, Eastern and Southeastern European (CESEE) countries up to end-2007 and mid-2008, respectively. His study focused on banks' situation before external funding conditions deteriorated significantly in the fall of 2008 after the collapse of Lehman Brothers. At that time, there were fears of spillover effects, given the strong reliance of most of these countries' banking sectors on foreign financial resources (including foreign parent banks), which had played a major role in financing the rapid expansion of domestic credit during the precrisis years.

Have these spillover effects indeed materialized, or was the integration of CESEE banks in European banking networks an asset when the financial crisis deepened? This is the core issue we address in this study by examining the funding structure of selected CESEE banking sectors. In updating and broadening the analysis presented by Walko (2008), this study examines the impact of the crisis on CESEE banks' refinancing structure with a focus on the period from mid-2008 to end-2009 (in the following referred to as the review period).

While Walko (2008) was based on a country sample comprising Bulgaria, Croatia, the Czech Republic, Hungary, Poland, Romania, Slovakia and Slovenia, this paper also includes the Baltic countries as well as Ukraine and Russia. The

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inclusion of these countries is of particular relevance as the crisis affected them more strongly and, in the case of the Baltics, sooner than most other countries in the sample. Moreover, the banking sectors of Ukraine and Russia are structurally different from those of the other countries in that the presence of foreign banks is smaller (Ukraine) or much smaller (Russia). Looking at the Baltic states, Estonia and Lithuania rank among the countries with the highest share of foreign-owned banks (almost 100% in Estonia and more than 90% in Lithuania), while in Latvia about 65% of banks' total assets are in the hands of foreign owners. While statistical information on parent bank financing is scarce (no centralized dataset, insufficient information from national sources), this study puts together all available information to provide comprehensive evidence on the foreign funding of CESEE banks during the crisis in a comparative cross-country perspective. Moreover, the paper presents a new proxy for parent bank funding derived from BIS banking statistics.

The paper is structured as follows: Section 2 summarizes the main findings of recent empirical studies on cross-border bank flows during the crisis. Section 3 presents the main features of the refinancing structure of CESEE banking sectors, which is, in most countries, characterized by high net foreign liabilities. Sections 4 and 5 focus on changes in net foreign liabilities since the collapse of Lehman Brothers. Following a detailed discussion of flows on the liability side of balance sheets in section 4, the subsequent section also takes into account asset-side flows that helped accommodate for external financing constraints in many countries under review. The two sections are based on flow data (balance of payments), as stock data are subject to valuation effects and thus more difficult to interpret. Section 6 analyzes developments in gross liabilities with a focus on external liabilities, private sector deposits, capitalization levels and central bank funds. Section 7 examines developments in the structure of external liabilities with a special focus on their maturity. Section 8 sheds light on the important role of parent bank funding, and section 9 summarizes the main findings and suggests policy conclusions.

2 Literature Overview

Several recent papers examine cross-border bank flows to emerging economies' banking sectors during the crisis, some of which have a special focus on the role of parent bank funding. Berglöf et al. (2009) as well as EBRD (2009) argue that the integration of most CESEE countries' banking sectors in European banking networks was a crisis-mitigating factor as parent bank financing remained stable, thus attenuating negative capital flow dynamics. Similarly, Vogel and Winkler (2010) conclude that a higher share of foreign banks' assets stabilized cross-border flows in CESEE, in particular bank-to-bank lending, during the crisis. However, the authors argue that foreign banks did not stabilize cross-border bank flows to emerging economies in general during the global crisis. CESEE might have been different in this respect due to its special context of European integration. The authors also find that higher capital inflows prior to the crisis were followed by more pronounced outflows during the crisis. Hermann and Mihaljek (2010) study the nature of spillover effects in bank lending flows from advanced to emerging market economies. They conclude that the decrease in cross-border loans to CESEE was more limited than in Asia and Latin America, largely because of the high degree of financial integration in Europe and comparatively sound banking

systems. Hoggarth et al. (2010) look at international bank flows on a global level and show that the reversal of inflows during the crisis was selective. One of the main conclusions, which is particularly relevant for our paper as well, is that interbank lending has fallen especially sharply, whereas cross-border intra-group lending has held up better.

3 Funding Gaps and Net Foreign Liabilities in CESEE Banking Sectors...

3.1 ...before the Collapse of Lehman Brothers

Most CESEE countries entered the crisis with a funding gap, i.e. domestic deposits did not fully cover the stock of domestic credit to the private nonbank sector. In general, the more banks are able or willing to refinance rapid credit growth through other refinancing instruments than retail deposits, the wider the domestic credit and deposit stocks can drift apart. Nondeposit funding sources include equity, domestic debt issuances and external liabilities. It is therefore likely that the deepness of the domestic debt security market and its usage by banks as well as the ability of banks to tap foreign sources of funding (e.g. parent banks, access to international capital markets) play an important role in this regard. Shin and Shin (2010) argue that the size of noncore² funding sources on banks' balance sheets provides information on their willingness to increase exposure and can therefore be regarded as a measure for the stage of the financial cycle. A detailed assessment of factors that explain differences of funding gaps in CESEE goes beyond the scope of this paper.

As illustrated in Walko (2008), in the majority of countries funding gaps had led to large or very large net external liabilities by mid-2008 (Croatia: around 8% of GDP; Bulgaria, Hungary, Romania and Slovenia: 13% to 21% of GDP). In Ukraine, net external liabilities were roughly as high as in the latter group in mid-2008 (around 16% of GDP), after having expanded particularly fast in the preceding years (from 2005 until mid-2008, net external liabilities as a percentage of GDP more than quintupled). In Russia, the banking sector also recorded a funding gap, and net external liabilities amounted to about 5% of GDP in mid-2008. As a percentage of assets, the net external liability position of the Russian banking sector was comparable to that in Croatia, but still markedly lower than those observed in Bulgaria, Hungary, Romania, Slovenia and Ukraine. In the Baltic countries, net external liabilities as a percentage of GDP reached the highest levels within the country sample in mid-2008, and the funding gap was even higher in these countries. In Latvia, net external liabilities amounted to 50% of GDP, in Estonia to 35% of GDP and in Lithuania to about 25% of GDP. In fact, only the Czech banking sector recorded net external assets in mid-2008.

In most countries, net external liabilities were approximately the same size or smaller than funding gaps, suggesting that net external liabilities were used predominantly to refinance private sector credit growth. However, there were some exceptions, e.g. Romania, where the net external liability position was substantially larger than the funding gap and where part of external liabilities was chan-

² The precise definition of core liabilities appeals to the principle that core liabilities are the claims of the ultimate creditors (the household sector) on the intermediary sector (Shin, 2010).

neled into central bank instruments. The situation was similar in Slovakia (for more details, see Walko, 2008).

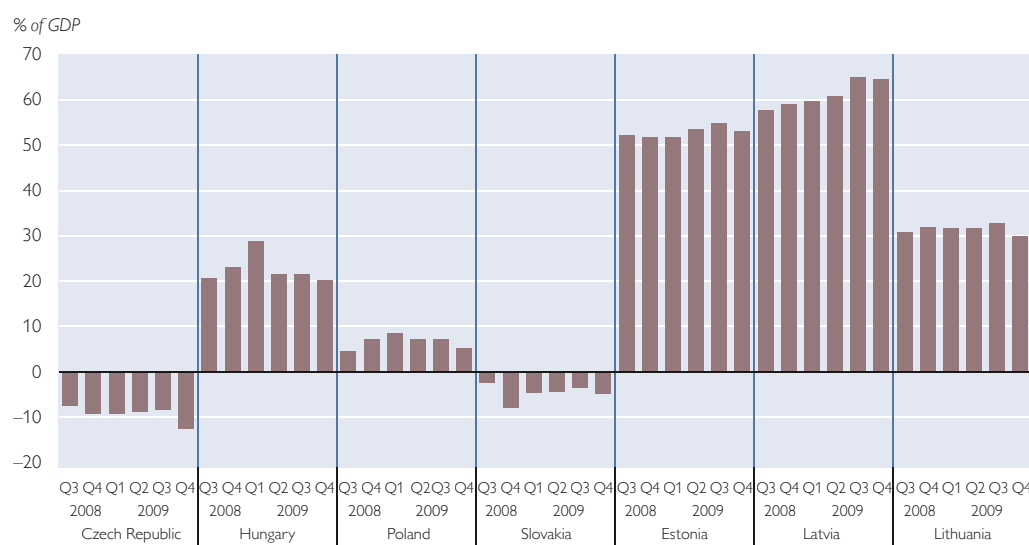
In the framework of the international investment position methodology, external liabilities comprise foreign direct investments (FDI), portfolio investments (equity and debt) and other investments (loans as well as currency and deposits). Excluding liabilities related to FDI (which are part of capital and reserves in banks' balance sheets and which are not available on a sectoral basis for the country sample), foreign liabilities were dominated by currency and deposits and/or loans in all CESEE countries before the collapse of Lehman Brothers. This was also true for the Baltic countries, Russia and Ukraine. In Ukraine and Estonia, portfolio debt securities as a percentage of GDP played a more important role than in the other countries under review. Given the comparably low level of foreign ownership in the banking sectors of Russia, Slovenia and Ukraine, it is likely that a considerable, but (due to a lack of data) not exactly specifiable share of external financing came from nonparent sources (e.g. syndicated loans).

3.2 Funding Gaps Remained Elevated in Most Countries since Mid-2008

Over the review period, funding gaps remained elevated in most countries. In late 2008 and early 2009, they even increased, partly due to an exchange rate effect. In countries where the amount of foreign currency loans is larger than the amount of foreign currency deposits, depreciating domestic currencies caused the domestic credit stock to increase more than domestic deposits (Hungary, Poland, Romania, Russia and Ukraine). Moreover, in some cases, temporary deposit outflows contributed to the widening of funding gaps (in particular in Russia, Ukraine, Bulgaria, Romania, Croatia, Lithuania and Latvia). Subsequently, however, funding gaps started to narrow in most countries in the course of 2009 as domestic credit growth declined or even turned negative, CESEE currencies recovered and deposits stabilized or even increased. In the Baltic countries,

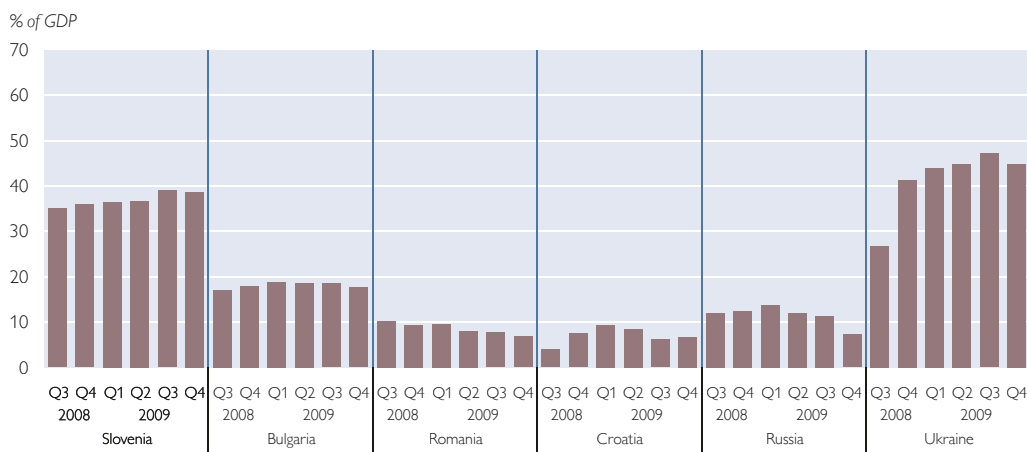
Chart 1a

Funding Gaps of CESEE Banking Sectors



Source: National central banks.

Chart 1b

Funding Gaps of CESEE Banking Sectors

Source: National central banks.

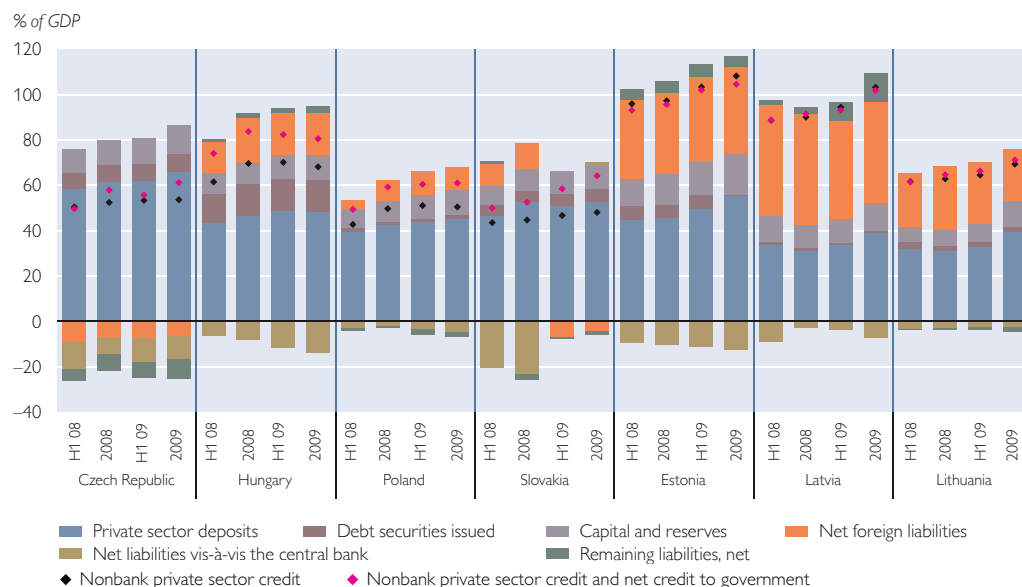
Slovenia and Ukraine, though, the funding gap rose until the third quarter of 2009 before contracting slightly in the final quarter.

Net foreign liabilities continued to be an important refinancing source in most countries during the review period, except for the Czech banking sector, which sustained its net external asset position. More specifically, several major Czech banks were net creditors of the European banking groups to which they are affiliated (CNB, 2009). After net foreign liabilities had continued to increase in the second half of 2008 in most countries, a downward trend was seen in 2009, both in absolute terms and also relative to GDP (which declined in all countries but Poland that year). As a percentage of GDP, the decrease in net external liabilities was most pronounced in Latvia, Lithuania, Slovenia and Ukraine, but was also noticeable in Hungary, Romania and Bulgaria. In Poland and Croatia, net foreign liabilities expanded until mid-2009 before declining only slightly until year-end. In Croatia, this increase came after a gradual decline from 2007 until the third quarter of 2008 – a development that was related to the central bank's measures to contain bank lending based on foreign borrowing, which were lifted in 2008 and 2009. In Estonia, net external liabilities increased slightly during 2009.

By contrast, in Slovakia and Russia, the net foreign liability position turned into a net foreign asset position. In Slovakia, this was mainly due to a reduction of funds held in sterilization instruments of Národná banka Slovenska (NBS) following the country's entry into the euro area. Since the money banks had deposited with the NBS comprised mainly surplus funds received from foreign banks, the decrease in sterilization operations with the NBS in 2009 was reflected on the liability side in a decline in deposits and loans received from foreign banks (NBS, 2009). In Russia, the banking sector became a net external creditor due to external financing constraints after the collapse of Lehman Brothers and an accumulation of external assets during the crisis.

Chart 2a

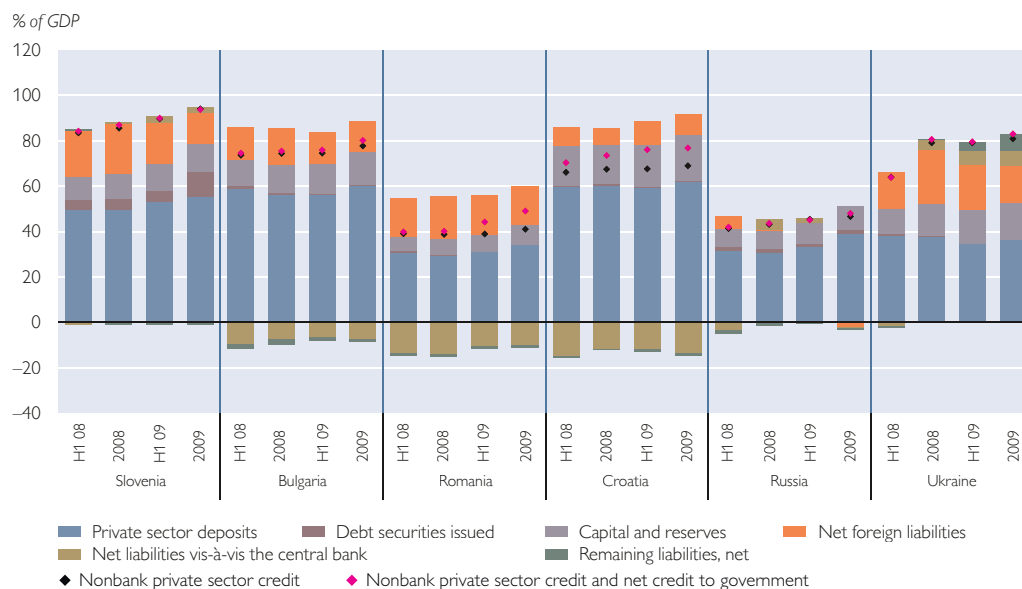
Domestic Credit and Its Financing



Source: National central banks.

Chart 2b

Domestic Credit and Its Financing



Source: National central banks.

To better understand to what extent the developments of banking sectors' net external position were driven by liability- and asset-side flows on the one hand and valuation effects (including exchange rate effects and other adjustments) on the other hand, we will analyze balance of payments data (i.e. flows) first before turning to changes in the structure of external liabilities.

4 External Funding Declined, Disruptions on Swap Markets

4.1 Typically (Still) Positive Net Inflows Shortly after Lehman, Turnaround in 2009

First, we take a closer look at capital flows to CESEE banking sectors' liability side during the post-Lehman crisis (charts 3a and 3b). The balance of inflows and outflows on the liability side of most CESEE banking sectors was positive in the third and fourth quarters of 2008, with other investments being the dominant source of inflows. Summing up the last two quarters of 2008, net outflows on the liability side were seen only in Slovenia and Russia, i.e. the two countries with the lowest level of foreign bank ownership, as well as in Latvia and the Czech Republic. In Ukraine, liability-side net flows turned negative in the final quarter of 2008. In 2009, capital flows on the liability side turned or remained negative in all countries with the exception of Poland. From the third quarter of 2008 until the fourth quarter of 2009, average other investment and portfolio outflows as a percentage of quarterly GDP on the liability side were particularly large in Latvia (11%), Slovenia, Estonia and Ukraine (4% to 5%). Without government-guaranteed bond issuances in the third quarter of 2009, average outflows in Slovenia would have amounted to 8% of GDP. After Russia and the Czech Republic had experienced continued outflows in the first quarter of 2009, the negative dynamics lost momentum in the course of 2009. In the final quarter of 2009, the refinancing situation showed signs of improvement, as the Czech Republic, Hungary, Poland, Bulgaria and Croatia reported either a positive balance of portfolio and other investment liability flows or only marginal net outflows.

4.2 Why Did the Latvian Banking Sector Experience Very Large Outflows?

In Latvia, the large capital outflows from the banking system were due to multiple factors (IMF, 2009a): Domestically owned banks were largely not in a position to roll over maturing syndicated loans. In addition, nonresidents' deposits (a major funding source of domestically owned banks) were withdrawn on a large scale. Moreover, writedowns on euro-denominated loans were worsening banks' net open foreign exchange positions, which they had to offset by buying foreign exchange assets or by decreasing foreign exchange liabilities (including repaying loans to parent banks). Furthermore, shrinking loan portfolios enabled foreign-owned banks to repay liabilities to their parents. This was, however, almost fully compensated by recapitalization measures (IMF, 2010a), so that altogether, parent banks honored their commitment to maintain their exposure as agreed in the context of the IMF-EU support package that was granted to Latvia in late 2008 (inflows related to recapitalization are not included in charts 3a and 3b as they are recorded as FDI flows).

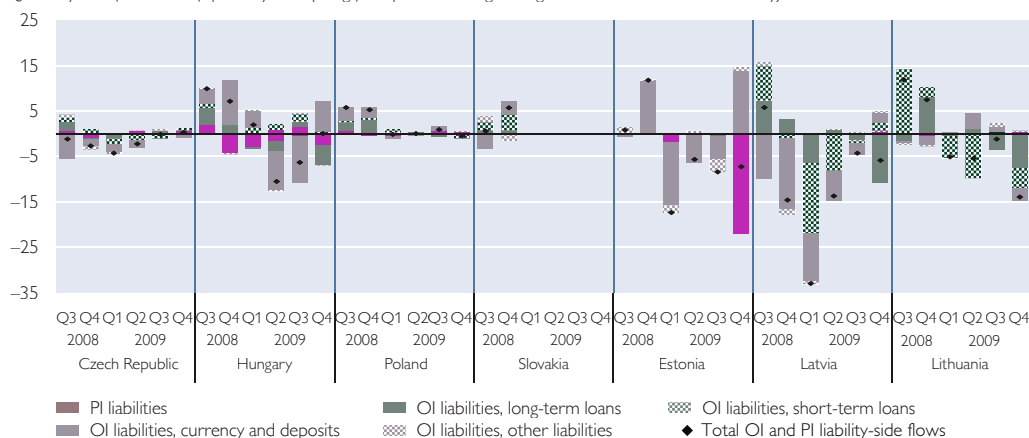
4.3 Rollover of Short-Term Loans Held Up Well in a Number of Countries

A more detailed analysis reveals that short-term loans contributed relatively strongly to total outflows only in Latvia, Lithuania, Slovenia, Russia and Ukraine, suggesting that banks in these countries were less able to roll over maturing short-term loans than banks in the other CESEE countries under review. For example, the fact that in Bulgaria a large part of short-term debt is from Bulgarian subsidiaries to their parent banks reduced the rollover risk (IMF, 2010b). Also, the mainly foreign-owned Hungarian, Polish and Estonian banking sectors were able to roll

Chart 3a

Liability Side: Portfolio and Other Investment Flows to Banking Sectors

Quarterly BOP flows in % of quarterly GDP (using four-quarter moving averages to smooth out GDP seasonality)



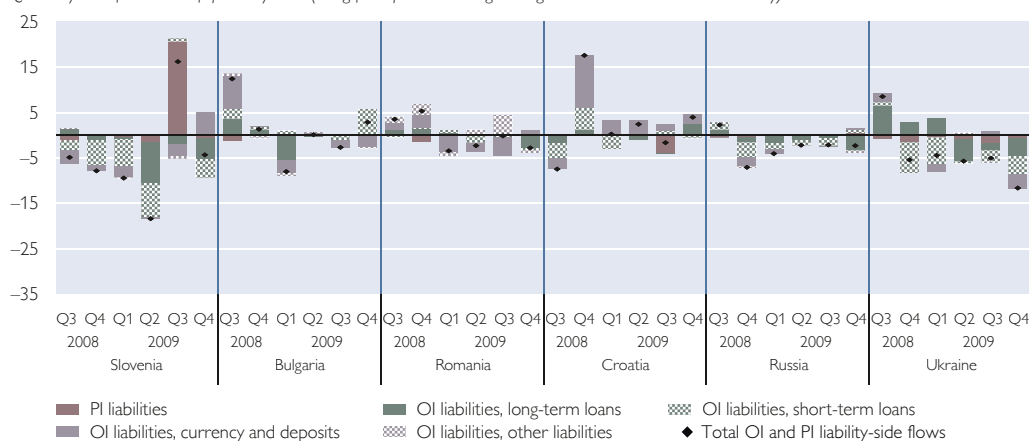
Source: National central banks.

Note: PI = portfolio investment comprising equity and debt, OI = other investment. FDI-related flows are not included due to lack of data.

Chart 3b

Liability Side: Portfolio and Other Investment Flows to Banking Sectors

Quarterly BOP flows in % of quarterly GDP (using four-quarter moving averages to smooth out GDP seasonality)



Source: IMF.

Note: PI = portfolio investment comprising equity and debt, OI = other investment. FDI-related flows are not included due to lack of data.

over maturing short-term loans to a large extent. In Hungary, Estonia, Latvia, Romania and the Czech Republic, currency and deposits was a major source of outflows. The (net) redemption of long-term loans caused substantial outflows in Hungary, Latvia, Lithuania, Slovenia, Bulgaria, Russia, and – from the second quarter of 2009 – also in Ukraine. Given the low reliance on portfolio investments in most countries under review, this component also played a less important role in the crisis period, but still caused noticeable outflows in Hungary, Ukraine and Estonia.

4.4 Foreign Exchange Swap Markets Partially Dried Up

In addition to tightening external funding conditions, negative spillovers of financial market turbulences to international foreign exchange swap markets put the funding strategies of the banking sectors in Hungary and Poland to a test, as highlighted in Mák and Páles (2009) as well as in NBP (2009a and 2009b). In recent years, part of foreign currency-denominated lending was funded by liabilities in domestic currency. Banks often hedged the resulting on-balance sheet open foreign exchange position by using foreign exchange swap transactions, which implied a rollover risk as the maturity of foreign exchange swap transactions was usually shorter than that of loans. The international financial market turbulence, and in particular strains in the U.S. dollar funding markets following the collapse of Lehman Brothers, spread around the globe and resulted in a partial drying-up of foreign exchange swap markets. This made it more difficult for banks in CESEE countries to hedge their foreign exchange positions.

In the case of Hungarian and Polish foreign-owned banks, risks were mitigated by parent banks' provision of further foreign exchange swap transactions. Thus, it was not such a surprise that the first commercial banks facing serious foreign exchange swap rollover problems were majority-owned by residents. In response to this situation, in mid-October 2008, Magyar Nemzeti Bank (MNB) and later on Narodowy Bank Polski (NBP) stepped into the market as counterparties for foreign exchange swaps by introducing several foreign exchange swap instruments to reduce functional market disorders. Their operations received support from the ECB, which concluded repo agreements with the MNB and the NBP in mid-October and early November 2008, respectively. These agreements on repurchase transactions provided for the possibility to borrow up to EUR 5 billion for the MNB and up to EUR 10 billion for the NBP.

In addition to these bilateral provisions of euro liquidity, the Swiss National Bank established temporary EUR/CHF swap arrangements with the MNB and the NBP, by which the SNB provided Swiss francs against euro for a term of seven days or occasionally for a longer term. The availability of central bank facilities and the support by parent banks widely prevented rollover risks from materializing. An inability to roll over foreign exchange swap transactions could have resulted in an even more pronounced devaluation of CESEE currencies (and/or a reduction in central bank foreign currency reserves) as banks would have been forced to buy foreign currencies on the spot market. Alternatively, a widening of banks' open foreign exchange positions would have resulted in additional capital requirements for foreign exchange risk.

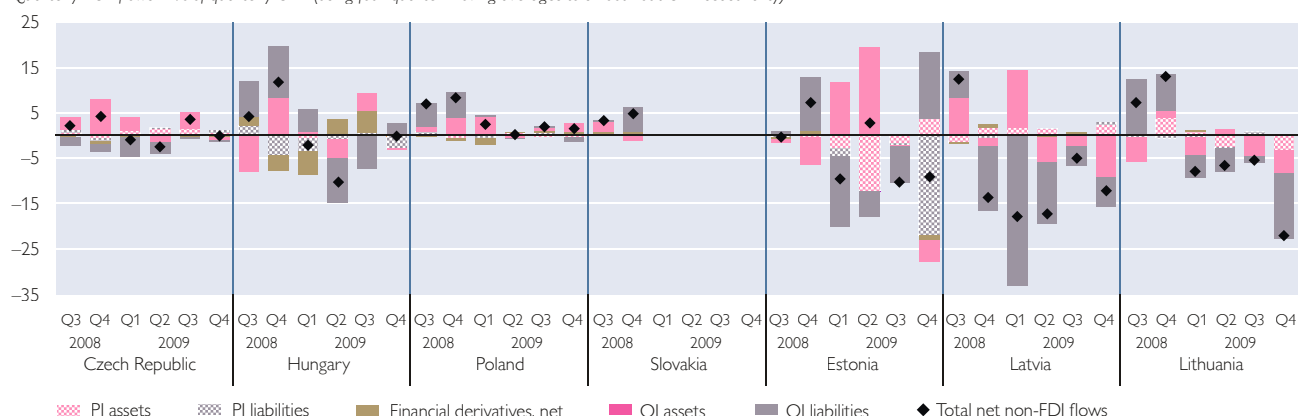
5 Some Banking Sectors Used External Asset Buffers to Accommodate Decreasing External Funding

Reducing external assets is one way for banks to accommodate decreasing external funding. In the countries under review, including the Baltics, Russia and (to a lesser extent) Ukraine but with the notable exception of Romania, banks held large volumes of external assets, both as a percentage of GDP and relative to external liabilities, as of mid-2008. In particular in the Czech Republic and Slovenia, banks responded to the reduction of external liabilities by selling external assets after having accumulated them in the first half of 2008. In the third and the fourth quarters of 2008, both countries' banking sectors were able to more than com-

Chart 4a

Asset- and Liability-Side Flows

Quarterly BOP flows in % of quarterly GDP (using four-quarter moving averages to smooth out GDP seasonality)



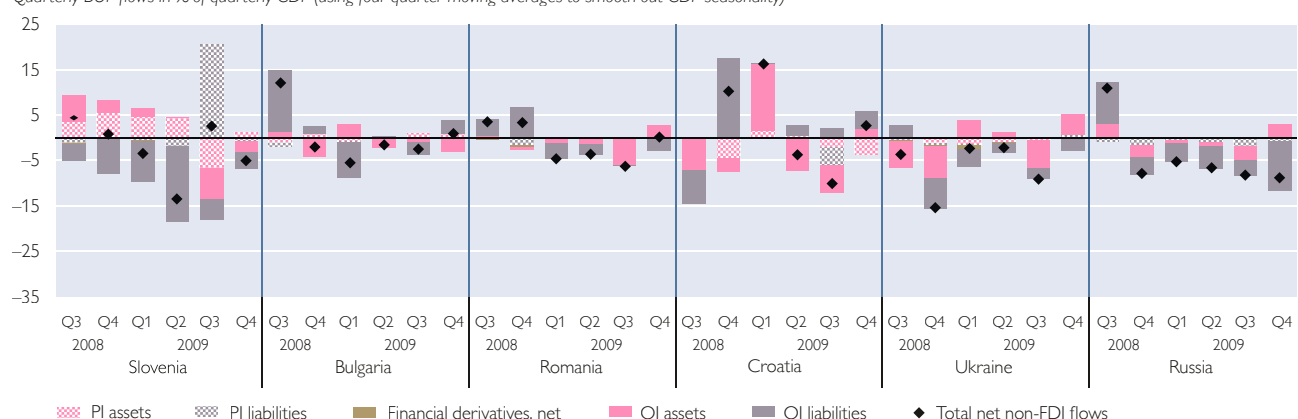
Source: IMF.

Note: PI = portfolio investment, OI = other investment. FDI-related positions are not included due to lack of data.

Chart 4b

Asset- and Liability-Side Flows

Quarterly BOP flows in % of quarterly GDP (using four-quarter moving averages to smooth out GDP seasonality)



Source: IMF.

Note: PI = portfolio investment, OI = other investment. FDI-related positions are not included due to lack of data.

pensate for liability-side outflows and even recorded positive net capital inflows. The Polish banking sector reduced external assets, even though it received additional funds from abroad. The Hungarian, Estonian, Latvian and Lithuanian banking sectors also ran down external assets in the final quarter of 2008 and/or the first quarter of 2009. This was often followed by a renewed accumulation of external assets in the remainder of 2009. In Croatia, external assets were sold particularly in the first quarter of 2009, but were then gradually built up again in subsequent quarters. It is important to note, however, that the relaxation of Hrvatska narodna banka's foreign currency liquidity regulations in February 2009 (to help cover the government's financing needs) led to a temporary recourse to foreign assets at that time (IRC Expert Group, 2010).

Looking at aggregated data, the banking sectors of Russia and Ukraine did not reduce external assets in times of restricted external financing conditions. In

Russia and Ukraine, the banking sectors even accumulated external assets, while at the same time experiencing capital outflows on the liability side. This resulted in sizeable (asset and liability side-induced) outflows from the banking sector. To stem the outflow of capital in late 2008 and early 2009, the Bank of Russia placed temporary restrictions on the balance-sheet currency position and introduced a threshold for the value of foreign assets held by credit institutions that received unsecured loans from the Bank of Russia (Bank of Russia, 2010). External financing constraints together with an accumulation of external assets resulted in the Russian banking sector becoming a net external creditor in the course of 2009.

6 Dependence on External Funding Remains Comparatively High, Capital and Reserves Are Being Increased

In the second half of 2008, the share of external liabilities to total liabilities rose or at least remained unchanged in all banking sectors under review except in Slovenia and Croatia (see charts A1a and A1b in the annex). This rise (together with central bank liquidity) seems to have offset the declining share of private sector deposits in some cases.

Developments were more heterogeneous in the course of 2009: The ratio of external liabilities to total liabilities declined in the Czech Republic, Slovakia, Latvia, Lithuania, Slovenia, Romania, Russia and Ukraine. The reductions were most pronounced in Slovakia (for the specific reasons already mentioned), in Latvia and Lithuania (albeit from extraordinarily high levels) and in Slovenia and Russia. While the Czech and the Slovak banking sectors were able to compensate the decreasing share of external liabilities through private sector deposits, the banking sectors in some other countries had to rely more heavily on government deposits and central bank liquidity as well as, in the case of Slovenia, on government-supported bond issuances.

It is also remarkable that in Hungary, Poland and Croatia, banking sectors' external liabilities increased relative to total liabilities since mid-2008. In Estonia and Bulgaria, the share of external liabilities in total liabilities stayed more or less unchanged over the review period.

As pointed out in Walko (2008), financing by capital and reserves has played a much more important role in several CESEE countries than in the euro area. Since mid-2008, capital and reserves as a percentage of total liabilities has in fact increased, and capital adequacy ratios (i.e. the ratio of capital to risk-weighted assets) have also risen. Foreign banks recapitalized their subsidiaries either through capital injections or through retained earnings and thereby directly supported financial sector stability. Moreover, some governments supported their banking sectors via the recapitalization of state-owned banks and, in Latvia and Ukraine, also by taking control of and recapitalizing domestically owned private banks (for more information on Ukraine, see Barisitz and Lahnsteiner, 2009).

In many CESEE countries, central banks provided additional liquidity to ease banks' liquidity pressures and in some countries (in particular Croatia and Romania) also to facilitate the refinancing of government debt. Liquidity support measures included lowering minimum reserve requirements, broadening eligible collateral and increasing the frequency of auctions. Hungary, Poland and Romania took measures to support foreign exchange markets, including foreign exchange liquidity injections and currency swap arrangements (Gardó and Martin, 2010). In

Slovakia, Russia and Ukraine, the position of the banking sector vis-à-vis the central bank changed from that of a net creditor to a net debtor. In Slovakia, banks' sterilization positions at the NBS were substantially reduced when Slovakia entered the euro area. In 2009, banks increasingly deposited their remaining surplus liquidity with foreign (parent) banks and made greater use of funding from the NBS (NBS, 2009), which resulted in a net debtor position of about 1% of GDP vis-à-vis the central bank.

In Ukraine and Russia, the national authorities stepped in with large-scale liquidity injections (Barisitz et al., 2009; Barisitz and Lahnsteiner, 2009) in response to external financing constraints and private sector deposit withdrawals. The net debtor position vis-à-vis the central bank reached about 7% of GDP in Ukraine (peaking in the third quarter of 2009) and 5% in Russia (reaching its maximum value in the first quarter of 2009). In Ukraine, the banking sector's net debtor position remained at elevated levels until the end of 2009, while in Russia, the banking sector once again became a net creditor vis-à-vis the central bank in the final quarter of 2009.

7 The Structure of External Liabilities Has Not Changed Substantially for Most CESEE Banking Sectors

7.1 Maturity Structure Largely Unchanged in the Majority of Banking Sectors

Some CESEE banking sectors entered the crisis with a large stock of short-term debt (see Walko, 2008). As at mid-2008, short-term instruments had a very high share in banks' total external debt in Slovakia, Bulgaria and the Czech Republic. The share was elevated also in Poland, Estonia and Latvia, but lower in Hungary, Lithuania, Slovenia, Croatia, Romania, Ukraine and Russia.³ High levels of short-term indebtedness as a percentage of GDP were recorded in Latvia, Estonia, Bulgaria and Slovakia, followed by Slovenia, the Czech Republic and Hungary. The share was rather low in the other countries.⁴

A closer look at the data shows that a high share of short-term debt (on the basis of original maturity) in mid-2008 did not necessarily go hand in hand with large liability-side outflows over the subsequent one-and-a-half years. While a full-fledged analysis is restricted by data limitations (e.g. lack of information on the currency structure of external liabilities), the following developments are still remarkable in a cross-country perspective. The Bulgarian banking sector recorded strong short-term inflows in the second half of 2008 and only a modest decline in 2009. As a result, short-term external debt – which had been very high in mid-2008 both as a percentage of total external debt and of GDP – did not decline in the review period. Measured in euro, short-term debt even increased by 12% from mid-2008 to end-2009, whereas long-term debt declined by 11%. As already noted, in Bulgaria the rollover risk was reduced because a large part of short-term debt was from Bulgarian subsidiaries to their parent banks. In Poland and Croatia,

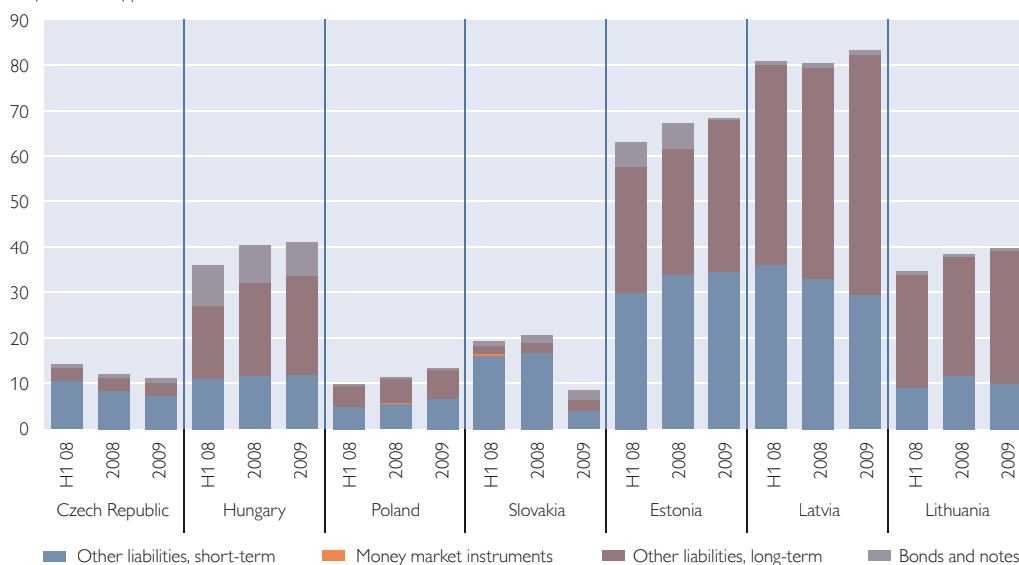
³ In mid-2008, the share of short-term debt to total external debt was 85% in Slovakia, about 75% in Bulgaria and the Czech Republic, 45% to 50% in Poland, Estonia and Latvia, and 25% to 35% in Hungary, Lithuania, Slovenia, Croatia, Romania, Ukraine and Russia.

⁴ In mid-2008, the share of short-term debt to GDP was 36% in Latvia, 30% in Estonia, nearly 20% in Bulgaria and Slovakia, 13% in Slovenia, about 11% in the Czech Republic and Hungary, and between 4% to 7% in Lithuania, Poland, Croatia, Ukraine and Russia.

Chart 5a

Structure of Banks' External Debt

% of GDP, end of period

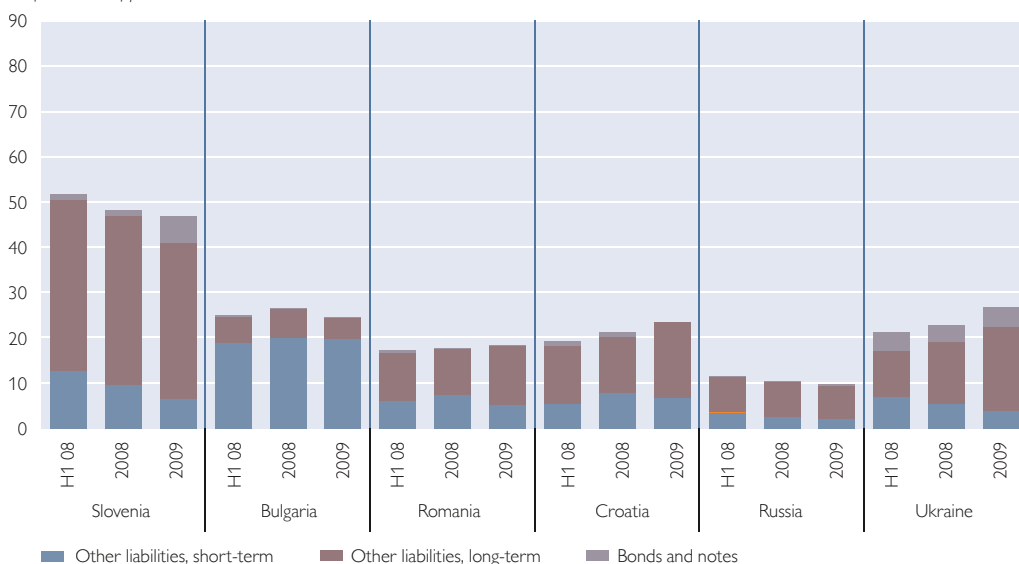


Source: IMF, national central banks.

Chart 5b

Structure of Banks' External Debt

% of GDP, end of period



Source: IMF, national central banks.

short-term debt (in terms of euro) increased at an only slightly lower rate than long-term debt. A rather modest decline in short-term debt was seen in Estonia (by 2%, measured in euro), Hungary (3%) and Lithuania (5%). In turn, Russia, Ukraine and Slovenia saw the sharpest declines in short-term debt (50% to 60%), followed by the Czech Republic, Latvia (both around 30%) and Romania (25%).

As a result, the most marked decline in the share of short-term debt in total external debt was observed in Ukraine (by 18 percentage points to 15%). In the Czech Republic, Latvia, Romania, Russia and Slovenia, the ratio of short-term debt to total external debt declined by about 10 percentage points. In Poland, Lithuania, Croatia and Hungary, it stayed almost unchanged, even though Poland had recorded a relatively high ratio in mid-2008. In Bulgaria and Estonia, it even increased slightly. Slovakia represents a special case for the reasons mentioned above, with the share of short-term debt falling sharply to 50% of total external debt (and to 4% of GDP).

7.2 Other Investments Still Much More Important than Portfolio Investments

External liabilities continued to be dominated by loans and deposits during the review period (see charts A2a and A2b in the annex). The dependence on portfolio securities remained relatively unchanged in Ukraine and increased in Slovenia and in Hungary, where the biggest bank, OTP, accounts for a significant portion of this component. In Slovenia, the stock of long-term portfolio debt securities (supported by state guarantees) as a percentage of total external liabilities increased markedly in the second half of 2009, while the share of loans and deposits declined as a consequence of the sizeable outflows recorded since the intensification of the global crisis. In Hungary, foreign holdings of portfolio equity securities became more important in 2009 and, as a percentage of GDP, reached the highest level (5%) in our country sample. Portfolio equity securities remained nonnegligible also in Poland (2% of GDP), but their share in total external liabilities declined due to an increase in long-term loans as well as currency and deposits.

The (still large) currency and deposits as well as loan liabilities positions also include the financing of local subsidiaries by foreign parent banks. However, the lack of systematic data on the share of parent bank funding within these components severely hampers any systematic analysis. Therefore, the next section will provide an overview of information from national central banks on parent bank funding and a proxy for parent bank funding derived from BIS banking statistics.

8 Parent Bank Funding Plays an Important Role

While some observers argue that the integration of CESEE banks into international banking groups attenuated the slowdown in capital inflows (Berglöf et al., 2009; EBRD, 2009), lack of data prevents us from giving concrete figures on parent bank funding for the whole sample. Information available from national central banks and the IMF in general supports the hypothesis that parent bank funding was a positive factor during the crisis, in particular in the third and fourth quarters of 2008, when the global crisis intensified. While the role of parent bank funding is usually seen to be positive, there are still concerns that if an important parent bank experiences persistent financial tensions (which could result from market concerns about sovereign debt sustainability in the home country of that bank), these strains could also spill over to the region (see IMF, 2010b).

8.1 Coordinated International Policy Response Bolsters Parent Banks

The coordinated measures taken by euro area countries to support their respective banking systems proved beneficial for the CESEE region, as most home

country authorities permitted the support of subsidiaries by parent banks (including the use of state capital injections for subsidiaries), i.e. there was no ring-fencing. Apart from the repo arrangements for Poland and Hungary mentioned above, CESEE countries outside the euro area also benefited indirectly from other measures taken by the ECB. In particular, the ECB extended liquidity support to euro area-based banks, which helped these banks continue the refinancing of their CESEE subsidiaries. As part of the euro area, Slovakia and Slovenia benefited directly from those measures. Moreover, Hungary, Latvia and Romania (and other countries in the region not covered in this study), which agreed on a multilateral support package with the IMF and the EU, benefited from the European Bank Coordination Initiative (“Vienna Initiative”), which was successful in coordinating the response of major public and private stakeholders to the financial crisis in CESEE (EBRD, 2009). As part of this initiative, EU-based parent banks pledged to keep their direct and indirect exposures and to recapitalize their CESEE subsidiaries if needed.

8.2 Publicly Available Information Points to Positive Role of Parent Banks

Information from national central banks sheds further light on the issue of parent bank financing during the crisis period. According to the MNB (2009 and 2010), foreign parent banks raised the financing of their Hungarian subsidiaries by nearly EUR 3 billion in the last quarter of 2008. In 2009, the volume of external funding began to decline as a result of normalizing liquidity conditions and of balance sheet adjustments. The share of parent bank funds in total external funds rose to 60% by the end of 2009, compared to about 50% in mid-2008. The MNB argues that parent bank commitments mitigated the risks arising from the high rate of short-term foreign funding. In addition, parent banks increased their own subsidiaries’ capital in numerous cases.

The NBP (2009a) reports that the risk of a withdrawal of foreign funding did not materialize in Poland. The largest increase in liabilities to parent entities was recorded in September and October 2008. Moreover, most Polish banks decided to retain 2008 profits in capital, and some banks also received subordinated loans from parent entities. After marked growth in the fourth quarter of 2008, funding from foreign parent entities remained at a stable level in 2009 (NBP, 2009b). Because foreign parent banks continued to renew financing provided in the fall of 2008, the Polish banking sector was able to continue lending despite difficulties in obtaining long-term funding from the domestic interbank market.

According to Banka Slovenije (2009), refinancing risks related to external liabilities primarily affected domestically owned banks, which constitute a considerable part of Slovenia’s banking system. In the second half of 2008, the majority of external borrowing (about three-quarters) was raised by foreign-owned banks. The large domestic banks made debt repayments in the final quarter of 2008. Similarly, in the first two months of 2009, they again raised no new loans from abroad. As funding conditions tightened in the fall of 2008, banks actively competed over interest rates on deposits by the nonbanking sectors for some time, but only partly made up for the loss of funding from foreign banks. The banks compensated for the drop in external funding with government deposits, government-guaranteed bonds and funds raised at the ECB. In 2009, accessing external funding was still easier for foreign-owned banks than for domestically owned banks.

However, the amount of newly raised loans remained below the precrisis level (Banka Slovenije, 2010).

In the case of Bulgaria, the IMF finds that foreign parent banks have broadly maintained their level of funding of their local subsidiaries (IMF, 2010a). In 2008, the Bulgarian National Bank requested commitment letters from foreign parents to ensure that they provide adequate liquidity and capital. (In fact, this concern was not specifically related to Bulgaria but characteristic of the region as a whole.) The IMF also stresses that the decline in total foreign funding resulted in strong competition for domestic deposits in Bulgaria (and other CESEE countries).

In Croatia, foreign credit inflows, mostly from parent banks, were important for maintaining bank liquidity during the most severe turbulence in international financial markets. In the first nine months of 2009, banks continued to rely on foreign sources, above all deposits of their foreign owners, to compensate for the sluggish collection of residents' deposits. Stronger owner support in the form of deposits together with a slight increase in residents' deposits and reliance on previously accumulated liquidity reserves enabled banks to continue their lending activities in 2009 (HNB, 2009 and 2010).

According to Lietuvos Bankas (LB, 2009), Lithuania avoided liquidity problems in the fourth quarter of 2008 as parent banks fully compensated the decline in domestic deposits in the case of foreign-owned banks. By contrast, domestically owned banks responded to the liquidity shock by offering substantially higher deposit interest rates. In 2008, the banking sector's debt to parent banks soared by 38% to 43% of total balance sheet liabilities, which corresponds to about 94% of the banking sector's external liabilities. During 2009, financial flows generated by a shrinking loan portfolio and by the deposits attracted were used to reduce liabilities to parent banks (see chart A3 in the annex). The amount of funds provided by parent banks decreased to 39% of total balance sheet liabilities at end-2009 (LB, 2010). However, as a percentage of external liabilities, the share of parent bank funds increased to 98%. At the same time, domestically owned banks actively competed in the deposit market by offering high interest rates (LB, 2010).

Eesti Pank reports that in the fall of 2008, Estonian banks were able to compensate the slight decrease in deposits by drawing additional funds from parent banks where necessary (Eesti Pank, 2008). At a later stage, the funding needs of banks decreased in line with demand for new lending. Furthermore, Eesti Pank states that the parent banks of larger market participants had sufficient access to wholesale funding and were able to provide funding to their subsidiaries in Estonia. Nevertheless, the competition for domestic deposits increased (Eesti Pank, 2010). In February 2009, Eesti Pank entered into a precautionary arrangement with the Swedish central bank to enhance its capabilities to provide liquidity under the currency board regime in place in Estonia. According to Eesti Pank, the arrangement was a step to complement the high liquidity and capital buffers of Swedish banks' branches and subsidiaries operating in Estonia.⁵

The financial stability reports of Latvijas Banka give interesting insights into the role of parent bank funding in Latvia, since they contain explicit information on the development of assets and liabilities of the subsidiaries of both foreign-owned and domestically owned banks (Latvijas Banka, 2009 and 2010). In the

⁵ See www.eestipank.info/pub/en/press/Press/pressiteated/pt2009/_02/pt0227.

fourth quarter of 2008, foreign-owned banks received additional funds from their parent banks. At that time, domestically owned banks were confronted with large-scale outflows of nonresidents' deposits (their dominant funding source) and repayments of syndicated loans. Deposit outflows had to be compensated by central government deposits (deposited at Parex banka, the country's second-largest bank, which the state had to take over during the crisis). In 2009, liabilities of foreign-owned banks to their parent banks decreased mainly on account of a contraction of the loan portfolio and an increase of paid-up and subordinated capital. For domestically owned banks, the structure of funding was notably affected by a further decrease in deposits as well as by repayments of syndicated loans. The amount of Treasury deposits with Parex banka stayed largely constant over the year 2009.

In Russia, banks on an aggregate level experienced sizeable outflows. Large government-controlled banks were hardly in a position to access external funding markets in 2009 but subsidiaries of foreign banks raised additional funds from their parent institutions. Banks with foreign stakeholdings in authorized capital proved more resilient to the financial crisis due to their conservative strategies and support from parent banks (Bank of Russia, 2010).

Ukraine faced severe balance-of-payments pressures but, according to the IMF, foreign-owned banks were able to secure funding from their parents (IMF, 2009b).

8.3 A Proxy for Parent Bank Funding

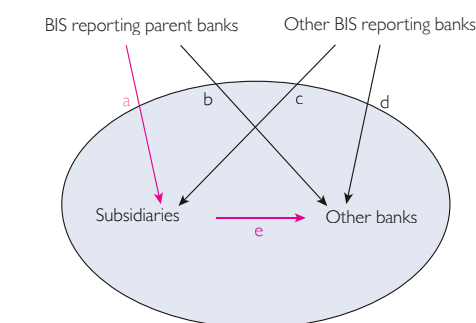
BIS banking statistics also confirm that parent banks have continued to support their subsidiaries and branches in CESEE and have been a more stable source of funding than other external sources. As BIS banking statistics do not include a direct measure for claims of parent banks vis-à-vis their CESEE subsidiaries, we construct a proxy by using the difference between BIS locational statistics on an immediate borrower basis (which do not net out intragroup lending) and BIS consolidated statistics (which do). This proxy no doubt has certain shortcomings and has to be used with caution because first, the population sample of locational and consolidated statistics is different,⁶ and second, foreign currency lending from subsidiaries to other banks⁷ cannot be singled out, which means that the proxy underestimates the claims of parent banks on their subsidiaries. Thus, when looking at developments over time, the proxy is particularly biased if subsidiaries of foreign parent banks are to a large extent involved in interbank foreign currency lending and this component shows strong fluctuations. Third, locational statistics include cross-border claims of BIS reporting banks vis-à-vis central banks while consolidated statistics do not. However, the amount of these claims is usually negligible. Fourth, the proxy underestimates parent bank funding if parents partly finance their CESEE subsidiaries via nonrelated entities located in a financial center (round-tripping of funds).

⁶ BIS locational statistics comprise 42 reporting countries, while BIS consolidated statistics cover only 30 countries. The following countries are included in the locational statistics but not in the consolidated statistics: the Bahamas, Bahrain, Bermuda, the Cayman Islands, Cyprus, Guernsey, the Isle of Man, Macao SAR, Malaysia, the Netherlands Antilles, South Africa and South Korea.

⁷ Item e in chart 6.

Chart 6

A Proxy for Parent Bank Funding on the Basis of Positions vis-à-vis Banks



Locational = $a + b + c + d$

Consolidated = $b + c + d + e$

Proxy = Locational – Consolidated = $a - e$

Source: Author's considerations based on BIS 2008a, 2008b and 2009.

Note: e comprises only foreign currency interbank lending.

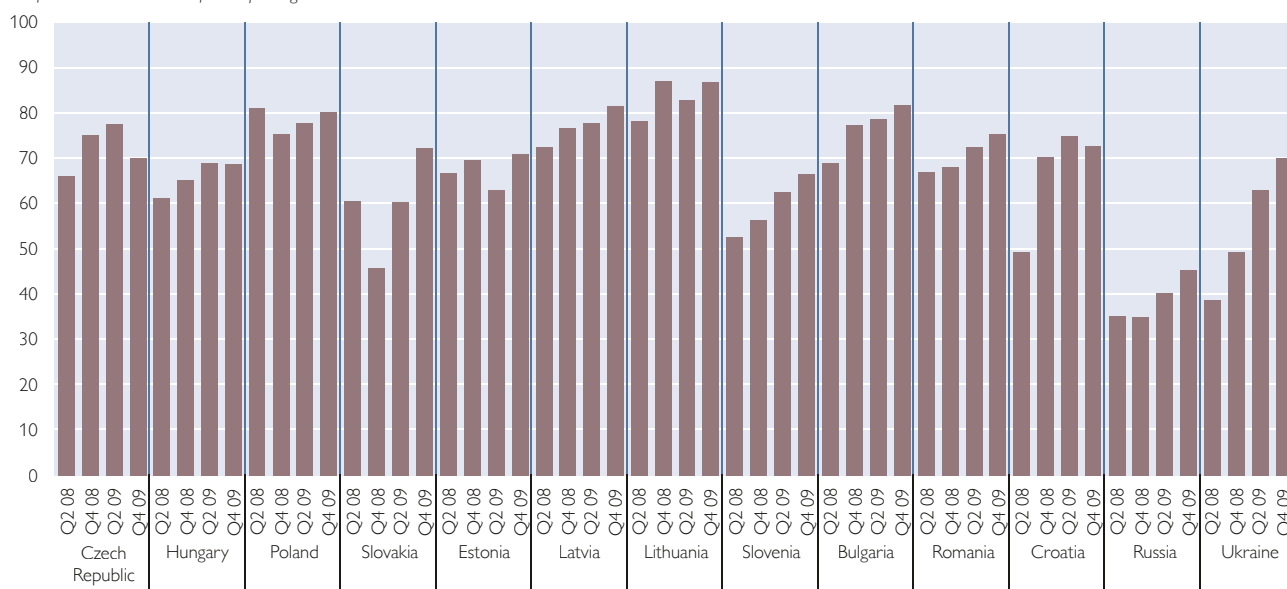
Despite its shortcomings, this proxy is to our knowledge and assessment the best option available. Interestingly, Chart 7 shows that the share of intragroup lending to subsidiaries in total external claims of BIS reporting banks increased vis-à-vis all CESEE banking sectors from mid-2008 until end-2009. It is also remarkable that this increase (from comparably low levels) was particularly strong in Slovenia, Russia and above all in Ukraine, i.e. in banking sectors which experienced severe total outflows. Only in the case of Poland does the proxy indicate that the share of parent bank lending to domestic subsidiaries in total external claims of BIS reporting banks

declined in the second half of 2008, which does not appear to be in line with the observations reported by the NBP (see above). According to the NBP, parent bank funding increased markedly in the fourth quarter of 2008.

Chart 7

Proxy for the Share of Parent Bank Lending to CESEE Subsidiaries

% of total external claims of BIS reporting banks



Source: BIS, OeNB calculations.

9 Concluding Remarks

In this paper, we present systematic regional and cross-country information about the refinancing structure of the banking sectors in 13 CESEE countries, namely the CESEE EU Member States as well as Croatia, Ukraine and Russia. Our goal was to present the most recent data available (covering the period from mid-2008 until end-2009) and to focus on the situation following the intensification of the financial crisis.

Sizeable net external liabilities that had accumulated in the years prior to the crisis in most CESEE countries under review raised concerns that liquidity and refinancing risks for banking sectors in this region could materialize in an environment of deteriorating global funding conditions. We examined whether these risks actually materialized.

Our analysis shows that, notwithstanding the severe global financial turbulences, the majority of CESEE banking sectors received additional funds from abroad (in net terms) in the third and fourth quarters of 2008. Taking together these two quarters, outflows were seen only in Russia, Slovenia, the Czech Republic and Latvia. Yet, in the course of 2009, liability-side net capital flows to banks (at least temporarily) turned negative (or remained negative) in all countries except Poland. However, the size of these outflows differed considerably across banking sectors.

Looking at the whole review period, our findings suggest that the outflows affected above all banking sectors that had very high net foreign liabilities at the onset of the crisis (i.e. in the Baltic countries, particularly Latvia and Estonia) and banking sectors with comparatively low levels of foreign ownership (Slovenia, Ukraine and Russia). Moreover, external assets helped cope with external financing constraints in all countries except Russia and Ukraine.

Information available from national central banks as well as a proxy for parent bank funding, which we derived from BIS banking statistics, suggest that foreign-owned banks were indeed supported by their parent institutions (mostly euro area-based banks). In particular, there is substantial evidence that foreign ownership reduced the rollover risk in those cases in which short-term loans were mostly from parent banks.

As a result, the maturity structure of external debt did not change substantially across the country sample during the review period. Hence, it seems that creditors (and their relationship with debtors) are at least as important for the stability of funding as the maturity structure of refinancing. These findings – larger outflows in case of initially larger net foreign liabilities and the positive role of parent bank funding – are confirmed by the results of other recent studies reviewed in section 2.

In some countries, the provision of additional funds from parent banks helped compensate for temporary deposit withdrawals or a stagnation of the deposit base (particularly in Lithuania, Estonia and Croatia). In other countries, the banking sectors – on an aggregate level – were confronted with external funding constraints and deposit withdrawals at the same time (Russia, Ukraine). It should be noted, however, that disaggregated information in countries with a low level of foreign ownership suggests that foreign-owned banks found it easier to obtain external funds than domestically owned banks. As a consequence of external funding constraints (in particular wholesale funding), the competition for domes-

tic deposits increased. Some national central banks report that particularly domestically owned banks actively competed for deposits by offering higher rates, while in other countries all banks intensified their efforts to attract deposits irrespective of their ownership.

Against the background of still relatively high net external liabilities, most CESEE banking sectors will remain confronted with considerable rollover needs over the next few years. In fact, some of them remain highly dependent on external financial resources. Those banking sectors that were able to roll over most of their short-term debt during the last two years obviously still have a large share of short-term external debt on their balance sheets. The nature of the refinancing structure (i.e. strong capital base, low dependence on capital markets, substantial funding from parent banks with a strong commitment to the region) is likely to mitigate refinancing risks, as it has so far in the financial crisis, in particular as long as parent banks remain in a position to fund their subsidiaries.

It is unlikely that the precrisis levels of new external financing in the form of parent bank and wholesale funding will be reached again for some time. On the supply side, large refinancing needs in the global banking sector, especially in the euro area, over the coming years (BIS, 2010; IMF, 2010c) might constrain the provision of additional funds to affiliated and nonaffiliated banks abroad and/or make these funds more costly. On the demand side, low private sector credit demand in the early stage of the still fragile recovery implies that the need for external funds by banks active in CESEE will remain subdued as well, in particular in the short run. This seems especially relevant for countries lagging behind in economic recovery. Nevertheless, net external liabilities will remain an important refinancing item, given that their levels are still high – for most CESEE countries, a shift to a larger share of domestic funding can only be expected to be gradual.

What do our results suggest in terms of policy implications? Generally, from a funding perspective, the strategy of integrating CESEE banking sectors in European banking groups was successful in mitigating the impact of external shocks during this particular crisis episode. Public assistance (multilateral support packages for several CESEE countries as well as access to government support mechanisms and ECB liquidity by euro area parent banks) certainly helped parent banks to support their subsidiaries. Moreover, the Vienna Initiative reduced the risks of a negative equilibrium because it ensured that banks had incentives to stay in the region and the reassurance that other banks would not withdraw, either.

The commitment of parent banks vis-à-vis their subsidiaries rests on several underlying factors. Parent banks perceive the CESEE region as extended home markets, not least because of the expected higher long-term profitability in these countries. Moreover, parent banks are eager to avoid endangering their reputation by suddenly withdrawing funds from subsidiaries (reputational risk). These factors can be expected to remain in place, suggesting that parent banks are likely to play a positive role also in possible future crises in the region as a whole or in individual countries.

This experience of the more advanced CESEE countries may be relevant for other emerging economies, in which not all major banks have been privatized so far. However, Vogel and Winkler (2010) come to the conclusion that foreign banks did not keep cross-border bank flows stable to emerging markets in general and that the CESEE countries have been different due to their special context of Euro-

pean integration. Moreover, the strategy of integrating national banking sectors into cross-border banking networks is not without risk. Financial strains can spill over to the host country if an important parent bank faces major financial difficulties.

Our findings also show that overly high net external liabilities were usually associated with more pronounced capital outflows from banking sectors (in particular wholesale funding) during the crisis. This is one of the reasons why it would seem useful to consider policy measures to limit net external liabilities in phases of dynamic growth and financial sector development. While this study focused on liability-side risks, proposals for regulatory measures will also have to take into account the asset side (in particular, the question of which kinds of loans banks refinance by using the various funding sources available) and, more generally, overall macrofinancial stability (e.g. the question of whether domestic credit growth goes hand in hand with large external imbalances).

A direct way to address the issue of overly high net external liabilities in the banking sector would be to introduce a maximum ratio of net external liabilities to banking assets.⁸ The observation of such a ratio, which would not include equity provided by foreign investors, would ensure that banks limit the size of external liabilities and/or build up sufficient external asset buffers. Such a measure could be particularly useful in limiting the build-up of external liabilities for the purpose of funding domestic foreign currency loans to households, which typically cannot borrow cross-border. In a similar vein, Shin (2010) proposes to introduce a non-core liabilities tax as a tool to dampen the procyclicality of the financial system especially for emerging economies (core liabilities are essentially retail deposits and money market funds). In banking sectors in which noncore liabilities mainly consist of external liabilities this measure would have similar implications as the introduction of a maximum net external liability ratio. In fact, the latter could be interpreted as a special case of noncore liability tax where the tax rate is zero up to a permitted threshold (which then would have to be defined in net terms) and infinite beyond that threshold. Alternatively, authorities could introduce a ratio of banks' liquid foreign currency claims to foreign currency liabilities – a measure that is already in place in Croatia. Another option would be to tax or limit (via prudential measures) foreign currency lending to reduce the need for external funds.

In turn, measures that aim to reduce lending in foreign currency should be accompanied by the build-up or further development of local currency and capital markets. In fact, the EBRD already launched a Local Currency and Local Capital Markets Initiative in May 2010 (for more details, see EBRD, 2010). This initiative aims at supporting and complementing the actions of many governments to build up local sources of funding and reduce the use of foreign exchange in the domestic financial system. These policy measures will have an impact on the refinancing structure of banking sectors in the region over time as they will most likely induce CESEE banks to raise more domestic deposits and/or to issue more local currency-denominated bonds.

⁸ To avoid circumventions, this ratio could also include local currency bonds issued by banks domestically through private placements that are acquired by foreign investors. Moreover, the ratio could also include domestically issued foreign currency bonds.

Overall, the financial crisis has put CESEE banking sectors and their refinancing strategies to a severe test. Despite considerable differences across countries, CESEE banking sectors have weathered this shock without experiencing any meltdowns. Our study confirms that the integration of many CESEE banks into European banking networks proved to be a stabilizing factor at the height of the crisis – a finding that is also supported by other most recent papers. However, the experience gained from the crisis also suggests that, looking forward, policy-makers should consider measures to avoid an overly high build-up of net external liabilities.

While the situation of CESEE banking sectors started to stabilize more recently, the overall situation continues to be diversified, and some fragilities remain. Therefore, to safeguard overall macrofinancial stability in the CESEE region, the refinancing developments of CESEE banking sectors still need to be monitored and analyzed regularly.

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Annex

Chart A1a

Gross Liabilities of CESEE Banking Sectors

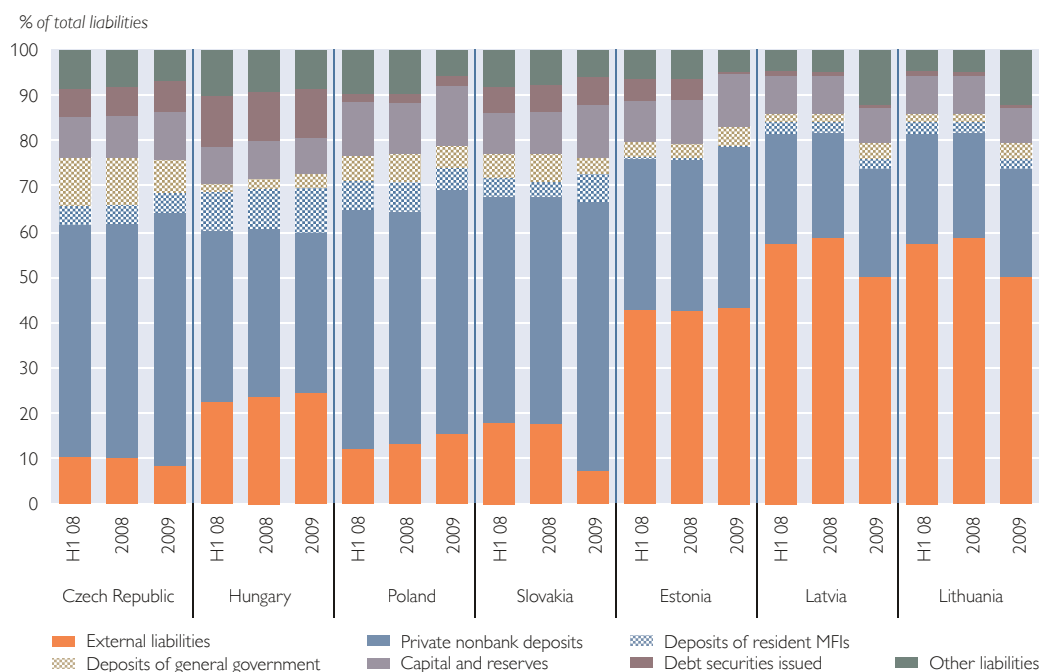


Chart A1b

Gross Liabilities of CESEE Banking Sectors

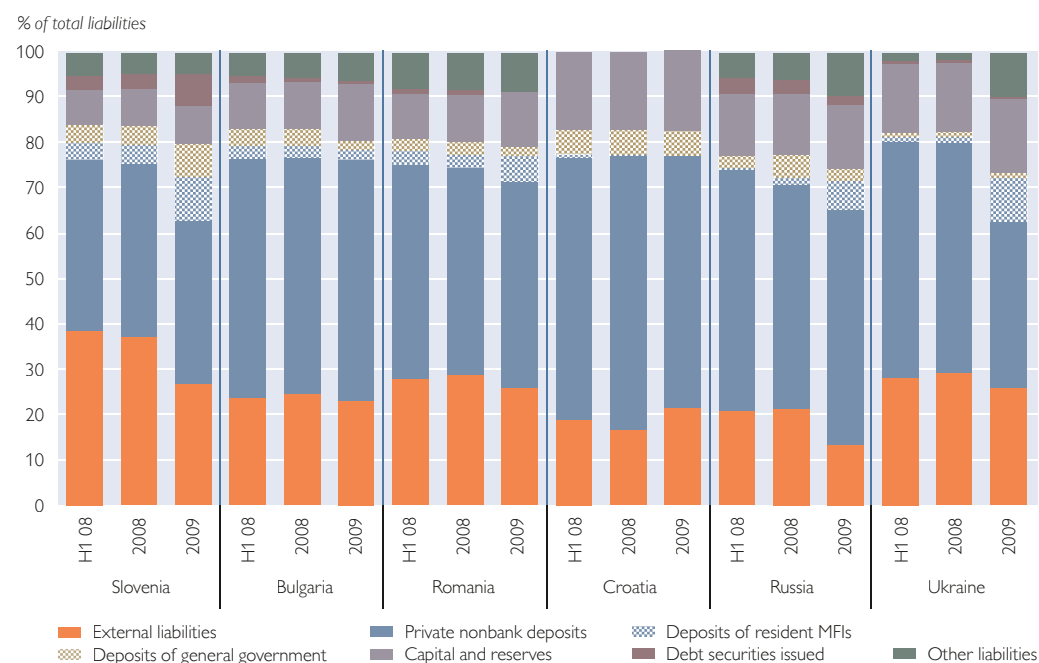
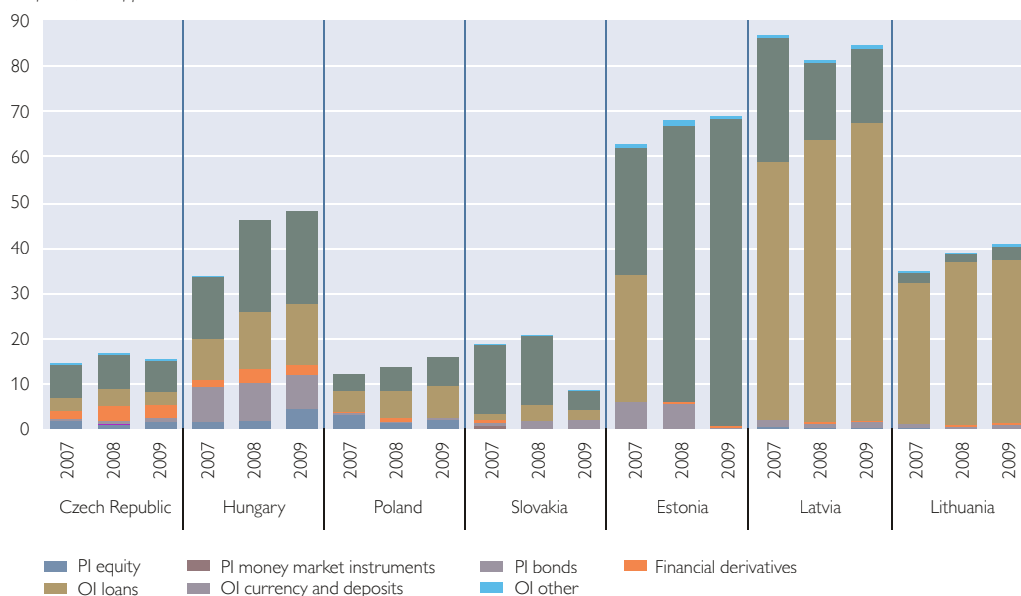


Chart A2a

Structure of Banks' External Liabilities

% of GDP, end of period



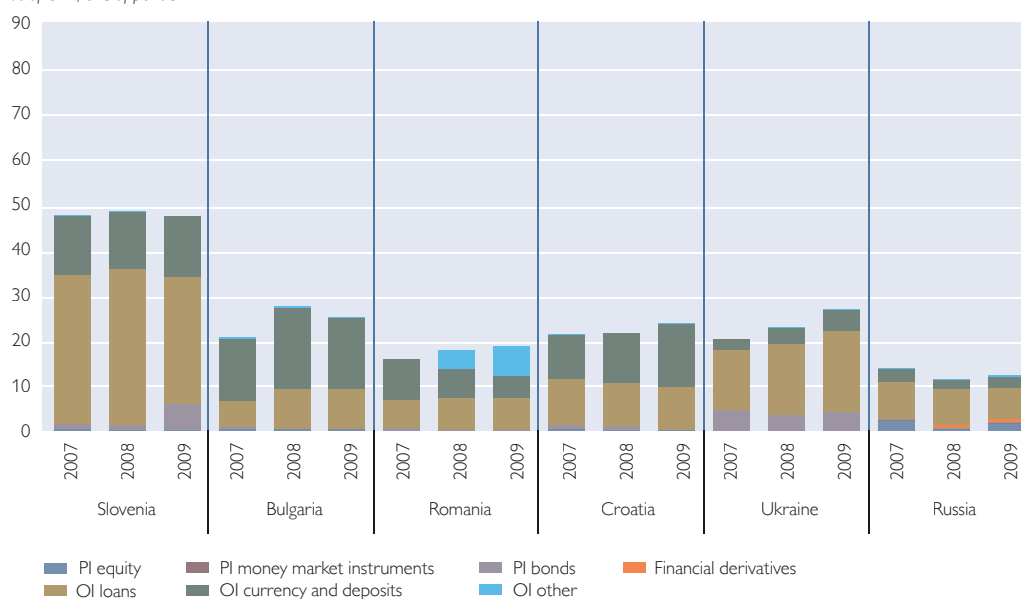
Source: IMF, national central banks.

Note: PI = portfolio investment, OI = other investment. FDI-related positions are not included due to lack of data.

Chart A2b

Structure of Banks' External Liabilities

% of GDP, end of period



Source: IMF, national central banks.

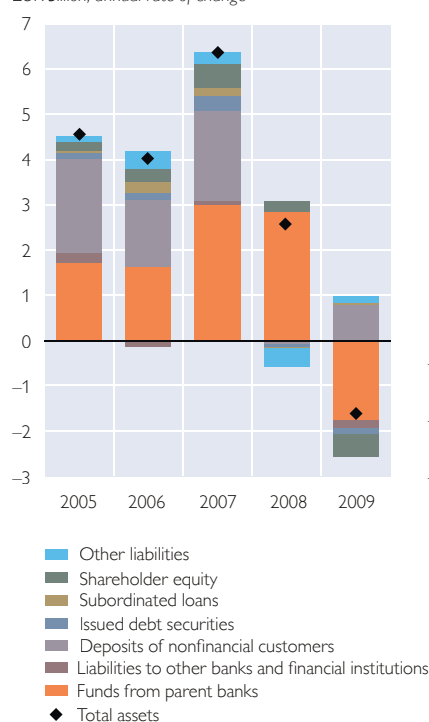
Note: PI = portfolio investment, OI = other investment. FDI-related positions are not included due to lack of data.

Chart A3

Parent Bank Funding: The Case of Lithuania

Shifts in Funding Sources of Banking System Assets

EUR billion, annual rate of change



Changes in Selected Balance Sheet Items of Foreign-Owned Banks

LTL billion



Source: Lietuvos Bankas.