The refinancing of CESEE banking sectors: What has changed since the global financial crisis?

Mathias Lahnsteiner[1]

We systematically analyze the liability structure of banking sectors in Central, Eastern and Southeastern Europe (CESEE) in a cross-country perspective over a decade (2008–2018). The refinancing structures have materially transformed since the start of the global financial crisis (GFC), as witnessed by a marked decline of net foreign liabilities (NFL) in % of GDP in various countries. Turkey represents a notable exception from this general trend, as its banking sector has accumulated net foreign liabilities – to an extent comparable to the levels seen in some CESEE EU Member States before the GFC. The general NFL reduction was in some cases partly driven by a shrinking credit stock (in % of GDP or even nominally) and, in almost all cases, partly or fully driven by increasing domestic deposits. Hence, most CESEE banking sectors saw a shift in their funding structure from net foreign liabilities to domestic deposits. At the same time, the share of overnight deposits in total liabilities increased considerably in many countries. It is also noteworthy that the gaps between foreign currency loans and foreign currency deposits narrowed or even disappeared, so that foreign currency loans no longer surpass foreign currency deposits at the current stage (or only slightly so). Looking ahead, deposits will likely continue to grow (as long as the high nominal wage growth is maintained), but banks in the EU will have to adapt their funding structure to the new regulatory environment by issuing bonds that are eligible under the minimum requirement for own funds and eligible liabilities (MREL). Hence, the role of debt securities is expected to increase from a very low level.

JEL classification: G15, G21, G32, O16, O52
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Introduction and literature overview

The refinancing structure of banking sectors in Central, Eastern and Southeastern Europe (CESEE) started to increasingly draw attention of researchers and policymakers during the boom years in the run-up to the global financial crisis (GFC). As Walko (2008) pointed out, banks in several CESEE countries strongly relied on funding from abroad to refinance brisk domestic lending activity in the years leading up to the GFC. High net foreign liabilities (calculated as the difference between foreign liabilities and foreign assets of the domestic banking sector, NFL) that arose alongside elevated loan-to-deposit ratios and funding gaps (i.e. higher loans than deposits) made some banking sectors vulnerable to negative spillovers at times of vanishing global funding availability following the collapse of Lehman Brothers.

Hence, not surprisingly, the focus of research on CESEE banking sectors funding published in the first few years after the start of the GFC was on the role of foreign funding. Looking at the period from mid-2008 to end-2009, Lahnsteiner (2011) highlighted that liability-side net capital outflows affected, above all, banking sectors that had very high NFL at the start of the GFC (i.e. in the Baltic countries,

[1] *Oesterreichische Nationalbank (OeNB), Foreign Research Division, mathias.lahnsteiner@oenb.at.* *Opinions expressed by the authors of studies do not necessarily reflect the official viewpoint of the OeNB or of the Eurosystem. The author would like to thank Peter Backé and Markus Eller (both OeNB) as well as an anonymous referee for helpful comments and valuable suggestions.*

particularly Latvia and Estonia) and banking sectors with comparatively low levels of foreign ownership (Slovenia, Ukraine and Russia).[2] Some papers have come to the conclusion that the existence of European banking networks – characterized by a high share of foreign ownership in CESEE banking sectors – stabilized cross-border flows and was a crisis-mitigating factor in the immediate period following the collapse of Lehman (see e.g. Berglöf et al., 2009, as well as Vogel and Winkler, 2011). Hameter et al. (2013) aimed to pin down this argument further by examining Austrian bank-level data, distinguishing between direct cross-border lending to affiliates and direct cross-border lending to nonaffiliates. This analysis showed that intragroup cross-border credit from Austrian banks was more stable than lending to nonaffiliated borrowers during the 2008/2009 financial crisis period. In general, the cross-border deleveraging process in CESEE proceeded gradually, and disorderly developments could be avoided.

Notwithstanding the stabilizing role of intragroup cross-border flows immediately after the collapse of Lehman, several papers have found evidence for the transmission of international shocks through multinational banks via the credit channel in the wake of the GFC. De Haas and Van Lelyveld (2014) even find that foreign bank subsidiaries curtailed credit more aggressively than domestic banks. Yet, De Haas et al. (2015) show that while both domestic and foreign banks sharply curtailed credit during the financial crisis, foreign banks that participated in the Vienna Initiative[3] were relatively stable lenders. Focusing on Poland, Pawlowska et al. (2015) conclude that intragroup links between banking institutions can serve both as an important channel for the international transmission of liquidity risk and as a stabilizing mechanism during liquidity crises. Vujic (2015) provides evidence that the internal capital markets of foreign-owned banks were a transmission channel of the euro area sovereign debt crisis shock from Western Europe to CESEE.

Impavido et al. (2013) argue that foreign funding sources were reduced in response to reduced external imbalances, a reduced ability to tap international savings, banking groups' own strategies, initiatives by some regulators and against the background of uncertainties surrounding the future of the banking union project. Regulatory initiatives include the Austrian supervisory guidance on strengthening the sustainability of the business models of large internationally active Austrian banks adopted in 2012 ("Sustainability Package"). As one of its pillars the loan-to-local stable funding ratio (LLSFR) was introduced as a monitoring tool with the aim to achieve a more balanced refinancing structure for exposed foreign subsidiaries.[4] Accordingly, the Austrian supervisory authorities have been monitoring the stock and flow LLSFRs of Austria's largest banks' foreign subsidiaries (see OeNB, 2019).

[2] *In most CESEE EU Member States the share of foreign-owned assets in total banking sector assets was still relatively high in 2018, with more than 80% in the Czech Republic, Slovakia, Lithuania and Croatia, between 60% and 80% in Estonia, Latvia, Bulgaria and Romania, and between 40% and 60% in Hungary, Poland and Slovenia. The share came down noticeably in Estonia (from 99% in 2008), Romania (from 88% in 2008) and Poland (from 73% in 2008), while it increased in Slovenia (from 28% in 2008). In Russia, Ukraine and Turkey, foreign-owned banks have played a less important role with the respective shares ranging from about 10% to 30%. For more information on ownership trends (also with respect to state-owned banks) in banking sectors worldwide, see Cull et al. (2017).*

[3] *Under the Vienna Initiative, parent banks committed themselves to maintain their exposures and recapitalize their subsidiaries in CESEE.*

[4] *For further details, refer to https://www.oenb.at/en/financial-market/financial-stability/sustainability-of-large-austrian-banks-business-models.html.*

In this paper, we systematically present aggregated balance sheet data of CESEE banking sectors (including private and public banks) in a cross-country perspective. By updating part of the analysis provided in Lahnsteiner (2011), we look at the ten-year period from 2008 to 2018. Against the background of deleveraging marked by declining NFL, the following questions arise: In how far did the decline in NFL go hand in hand with shrinking balance sheets? And in how far were NFL replaced by other refinancing instruments? It turns out that indeed both factors were at work, with varying contributions across countries and with domestic deposits emerging as the main replacement item. Consequently, this paper also aims to provide a starting point for scrutinizing deposit increases and thereby represents a shift in the strand of literature on bank funding analyses from foreign funding to domestic funding. Questions that will be addressed include: Which sectors drove the increase in deposits? Which role do overnight deposits and foreign currency deposits play?

While Lahnsteiner (2011) was based on a country sample comprising Bulgaria, Croatia, the Czech Republic, Hungary, Poland, Romania, Slovakia and Slovenia, the Baltic countries as well as Ukraine and Russia, this study also includes Turkey.[5] Turkey represents an interesting case, as the banking sector's funding structure in recent years developed similarly to other CESEE countries ahead of the GFC.

This paper is structured as follows: Section 1 discusses changes in the refinancing structure with a special focus on the development of net foreign liabilities within five-year subperiods as well as the emergence of deposit surpluses. Section 2 then provides more detailed information on deposit increases broken down by sectors and the increasing role of overnight deposits. Section 3 looks at deposit euroization and examines whether remaining foreign currency (FX) loans are matched by FX deposits. Section 4 concludes.

1 How have net foreign liabilities and funding gaps developed?

1.1 Funding by means of net foreign liabilities has almost vanished

As shown in charts 1a and 1b, the banking sectors of all countries except the Czech Republic recorded positive net foreign liabilities (NFL) at end-2008. A cross-country comparison at the beginning of our observation period shows that the NFL position was very small in Russia and Turkey, considerable in Poland, Slovakia and Croatia, high in Hungary, Slovenia, Bulgaria and Romania, and very high in Estonia, Latvia and Lithuania. NFL peaked at the end of 2008 in most countries under review, even though Lehman Brothers already collapsed in September 2008. It is noteworthy that most CESEE banking sectors still received additional funds (mainly within the category of other investments) from abroad in the second half and even in the final quarter of 2008.

A look at the five-year period from end-2008 until end-2013 generally confirms the finding that banking sectors with very high NFL or a low level of foreign ownership saw the most pronounced net capital outflows in the wake of the GFC[6]

[5] *Hence, we focus on a country sample representing the 11 CESEE EU Member States plus the 3 largest non-EU CESEE countries.*

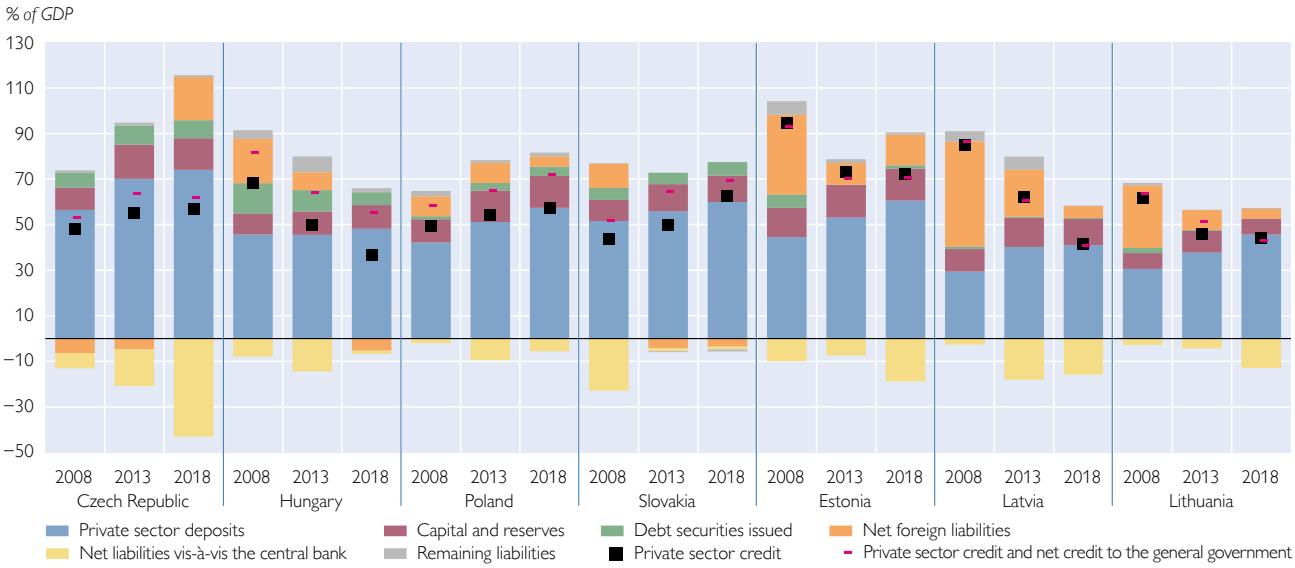
[6] *In Russia, the reduction of NFL already took place in the course of 2008.*

(see Lahnsteiner, 2011) and hence a reduction in the NFL position – also beyond 2009. In Ukraine, the downward adjustment proceeded fastest, as the NFL position in % of GDP more than halved already in 2010. In Estonia and Slovenia, the NFL position in % of GDP fell below half of the end-2008 level in 2011, while in Latvia and Lithuania, this was the case in 2012. In all these countries, the fast decline in the NFL position was accompanied by a reduction of the domestic private sector credit stock (i.e. claims of domestic banks vis-à-vis private nonbanks) as a percentage of GDP as well as in nominal terms.

Among the countries recording a high level of foreign ownership, Bulgaria saw the fastest decline, as NFL as a percentage of GDP fell markedly below the 2008 level already in 2011. In contrast to the countries mentioned in the above paragraph, the decline in the period from 2008 to 2013 did not go together with a decline in private sector credit but resulted from an increase in domestic deposits. In Hungary and Romania, two countries that directly benefited from the Vienna Initiative, NFL as a percentage of GDP were still above 80% of the 2008 level in 2011 in the former and above 90% in the latter country. Afterwards, however, a notable decline could be observed. In Romania, the private sector credit stock in % of GDP was only slightly below the 2008 level in 2013 and higher in nominal terms (even when adjusted for exchange rate valuation effects). In Hungary, the private sector credit stock in % of GDP as well as in nominal terms fell markedly below the 2008 level in 2012 and 2013.

Chart 1a

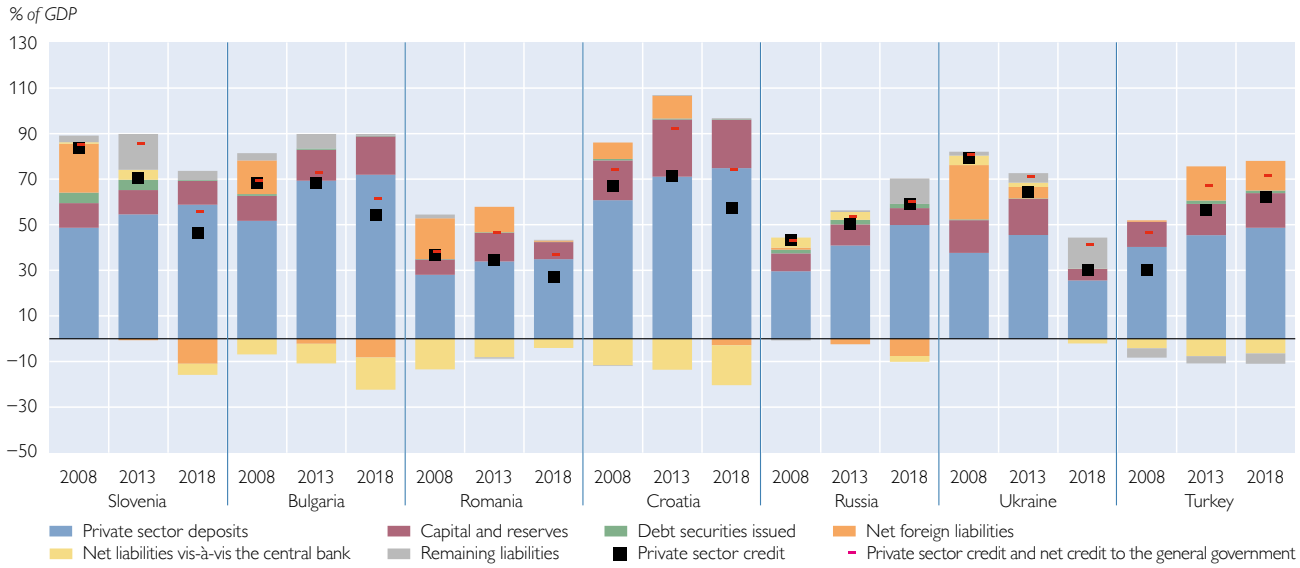
Private sector credit and its refinancing



Source: Eurostat, national central banks, national statistical offices.

Chart 1b

Private sector credit and its refinancing



Source: Eurostat, national central banks, national statistical offices.

If we look at the first five years after 2008 together, the changes measured in percentage points of GDP were substantial in some cases: NFL declined by 25 percentage points in Estonia and Latvia, about 20 percentage points in Lithuania, Slovenia and Ukraine, and about 15 percentage points in Bulgaria. In Hungary, the decline was considerable (about 10 percentage points) and somewhat higher than in Romania. While most banking sectors recorded declines, it should be noted that the NFL position remained almost unchanged in Poland and increased markedly in Croatia, while the Czech Republic maintained its net foreign asset position in the first couple of years after 2008. Slovakia's banking sector represents a special case, as its NFL position did not reflect a funding gap in 2008 because private sector deposits exceeded private sector credit. Yet, funds deposited at the central banks ahead of euro adoption reflected mainly surplus funds received from foreign banks. The decrease in sterilization operations with Národná banka Slovenska (NBS) in 2009 was reflected on the liability side in a decline in deposits and loans received from foreign banks (NBS, 2009). Hence, after euro adoption at the beginning of 2009, the NFL position was quickly reversed into a net foreign asset position (NFA, which means that foreign assets surpass foreign liabilities). It is worth noting that the Turkish banking sector accumulated NFL to a considerable extent starting from 2010, reaching a level in 2013 that was comparable to NFL positions seen in Romania and Bulgaria back in 2008. Yet, with the notable exceptions of Turkey, Poland and Croatia, NFL positions were already markedly smaller in 2013 than in 2018. In the Czech Republic, Slovakia, Slovenia, Bulgaria and Russia, a small NFA position was recorded in 2013.

How did NFL and NFA positions develop in the five years from 2013 to 2018? In general, NFL positions declined (Poland, Latvia, Lithuania), in some cases coming down to almost balanced positions (Romania and Ukraine), or even reversed into NFA positions (Hungary and Croatia). In Turkey, NFL peaked at 16% of GDP in

2015, before declining slightly to 13% in 2018. In Estonia, the NFL position was larger in 2018 than in 2013, but still considerably below its 2008 level.

Looking at the countries that recorded an NFA position in 2013, it turns out that the NFA position slightly diminished in Slovakia between 2013 and 2018, while it rose in Slovenia, Bulgaria and Russia (partly reflecting sanctions that restrict the access of important Russian banks to international financial markets). In the Czech Republic, the NFA position developed distinctly differently, as it reversed into a large NFL position. As chart 1a shows, the buildup of NFL was accompanied by rising net assets vis-à-vis the central bank. The rise in foreign liabilities (and their maintenance at elevated levels) has to be seen in the context of the central bank's exit from the exchange rate floor in 2017 and the expected related appreciation of the Czech koruna and a growing positive interest rate differential vis-à-vis the euro area due to hikes of the Czech key policy rate since 2018. Czech banks placed the funds received from abroad (including from parent banks) mainly with the Czech central bank (see Czech National Bank, 2017 and 2019). This is again an example for an NFL position that is not related to a funding gap. In fact, private sector deposits exceeded private sector credit by 17% of GDP in the Czech Republic at end-2018, compared to 15% in 2013 and 8% in 2008.

From a policy perspective, it is also worth noting that declines in NFL were not accompanied by a rise in domestically issued debt securities in CESEE. In fact, in most countries where debt securities played a more noticeable role at the start of the GFC, the volume of debt securities issued as a percentage of GDP either remained broadly unchanged (Czech Republic, Slovakia) or declined (Hungary, Estonia and Slovenia). Only in Poland did the importance of debt securities in the funding structure increase somewhat. All in all, it seems that – particularly in the run-up to the GFC – issuing domestic bonds became dispensable for CESEE banks because of the availability of foreign funding (primarily from foreign parent banks that were able to issue debt securities themselves at more favorable terms than their CESEE subsidiaries) and later because of shrinking balance sheets as well as increasing use of the domestic deposit potential.

1.2 From funding gaps to deposit surpluses

Deposit surpluses have become a quite common feature among CESEE banking sectors. Funding gaps narrowed or deposit surpluses emerged, as the private sector credit stock shrank (in % of GDP or even nominally) and private sector deposit volumes increased. In nominal terms, private sector credit volumes did not decline in all countries and not over the whole observation period but, at end-2018, the private sector credit-to-GDP ratio was below the level seen at end-2008 in 9 out of 14 countries (Hungary, Estonia, Latvia, Lithuania, Slovenia, Bulgaria, Romania, Croatia and Ukraine). In nominal terms (and adjusted for exchange rate valuation effects), out of these nine countries, only Estonia, Bulgaria and Romania featured a higher private sector credit stock at end-2018 compared to end-2008. It is worth noting that private sector credit stocks were influenced by policy measures with regard to foreign currency loans (see box 1 in Beckmann, 2017), sales of nonperforming loans to nonbank investors and write-offs in several CESEE countries. The transfer of assets from banks to an asset management company in the wake of a banking crisis explains part of the steep decline in Slovenia. After declines in the first couple of years and episodes of creditless economic recoveries, the nominal

private sector credit stocks started to rise in most cases in the period from 2015 to 2017, but so far this recovery has only led to a deceleration of the decline or a stabilization of private sector credit-to-GDP ratios.

The importance of changes in private sector credit and private sector deposits in driving funding gaps or deposit surpluses varied widely by countries. In Hungary, the private sector credit stock was lower by about 30 percentage points of GDP in 2018 compared to 2008, while deposits were only 2 percentage points higher. In Slovenia, the credit contraction was slightly deeper, but deposit volumes increased by about 10 percentage points. In Estonia, Latvia, Lithuania and Romania, the decline of credit in % of GDP was also higher than the increase in deposits, though the difference in the contribution of the two components was much smaller in Lithuania than in the former two countries. In Ukraine, the funding gap narrowed over the ten-year period, as the decline in the private sector credit stock in % of GDP surpassed the decrease in the private sector deposit volume in % of GDP. In several countries the narrowing of funding gaps and emergence of deposit surpluses reflected strong to very strong private sector deleveraging and to some extent increasing deposit volumes.

In Bulgaria and Croatia, however, the increase in deposit volumes surpassed the decline in credit volumes over the observation period. As a result, the deposit surplus in these two countries stood at about 17% of GDP at end-2018, reaching the highest level in the region – together with the Czech Republic.

Turning to countries that saw their credit-to-GDP ratios rise over the observation period, it is worth noting that deposits grew more strongly than credit in the Czech Republic, thus widening the deposit surplus. In Poland, a similar development led to the closure of the funding gap at the end of the observation period. In Slovakia, however, the increase in private sector deposit volumes could not keep pace with the rise in the private sector credit-to-GDP ratio, leading to a moderate funding gap. In Turkey, a considerable funding gap emerged due to a strong increase in the private sector credit-to-GDP ratio and a much lower increase in the private sector deposit volume. In Russia, the banking sector still shows a funding gap, which, however, declined over the observation period, as the private sector deposit volume in % of GDP grew more strongly than the private sector credit stock.

The emergence or persistence of private sector deposit surpluses (or domestic private sector credit shortfalls) in several countries (Czech Republic, Hungary, Lithuania, Slovenia, Bulgaria, Romania and Croatia) deserves some more attention. First, it should be noted that deposit surpluses become smaller (in the Czech Republic, Slovenia and Bulgaria) or disappear (in Hungary, Romania and Croatia) if we take into account net credit to the general government (see charts 1a and 1b). Nevertheless, it is noteworthy that private sector deposits have become large enough to cover not only private sector credit but also net credit to general government in full or in part in some countries. Moreover, even after taking into account the government sector, deposit surpluses appear particularly sizable in the Czech Republic and Bulgaria. As these deposit surpluses in domestic banking sectors coexist with external debt of the private sector, room has opened up for the private sector (in particular enterprises) to substitute external debt with domestic banking sector credit. In fact, the total deposit surplus (including net credit to the general government) made up about 80% of private sector external debt (amounting to 15% of GDP) in the Czech Republic at end-2018 and 50% of private sector external debt (amounting to 22% of GDP) in Bulgaria.

While in the Czech Republic the private sector credit level (including direct cross-border credit) was assessed to lie below the level justified by fundamentals in Comunale et al. (2018), the opposite was the case in Bulgaria (as well as in Croatia). While from a funding perspective, private sector credit does not appear excessive in Bulgaria, as it is predominantly domestically financed, it turns out to be overshooting (in particular when including direct cross-border credit) when put into context with macroeconomic and financial fundamentals (see Comunale et al., 2018). In a CESEE comparison, private sector deposits look very large in Bulgaria, as it is the country with the lowest GDP per capita among the CESEE EU Member States.

2 A closer look at deposits

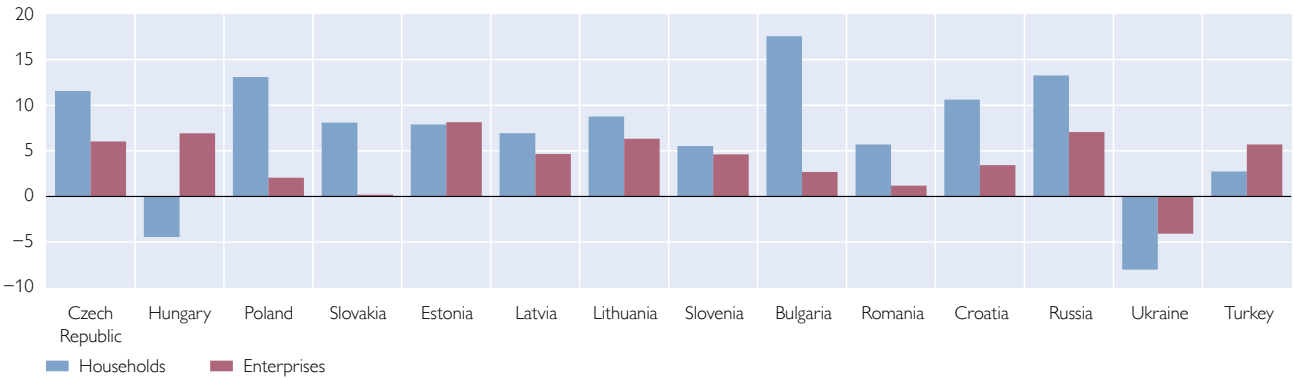
A simple look at deposit developments by sector (chart 2) reveals that the increase in private sector deposits from 2008 through 2018 was driven by the household sector in most countries (private sector deposit levels are shown in charts 1a and 1b). Household sector deposits increased by more than 10 percentage points of GDP in the Czech Republic, Poland, Bulgaria, Croatia and Russia. Also, in Latvia, Lithuania, Slovenia and Romania, the contribution of the household sector to the increase in private sector deposits exceeded that of enterprises. In Estonia, household sector deposits grew swiftly as well, but their rise was marginally below the increase in deposits accounted for by enterprises. Only in Turkey and Hungary, did the enterprise sector accumulate more deposits than the household sector, with household deposits even shrinking as a percentage of GDP in Hungary. Ukraine is the only country in which deposits of both households and enterprises in % of GDP turned out to be lower in 2018 than in 2008. In this case, the erosion of private sector deposits is related to the strong impact of the GFC and the deep recession and confidence loss in 2014–2015, as described in Barisitz and Lahnsteiner (2009 and 2017).

Alongside considerably rising deposits in most CESEE countries, the role of overnight deposits increased in a low interest rate environment. Hence, the maturity structure saw a shift to very short-term liabilities, or to be more precise, funds that customers can withdraw without prior notice on a daily basis. As examined in Kerbl et al. (2019) for the Austrian banking sector, this does not only have implications for liquidity risks, but also for interest rate risks.

Chart 2

Change in private sector deposits, 2008–2018

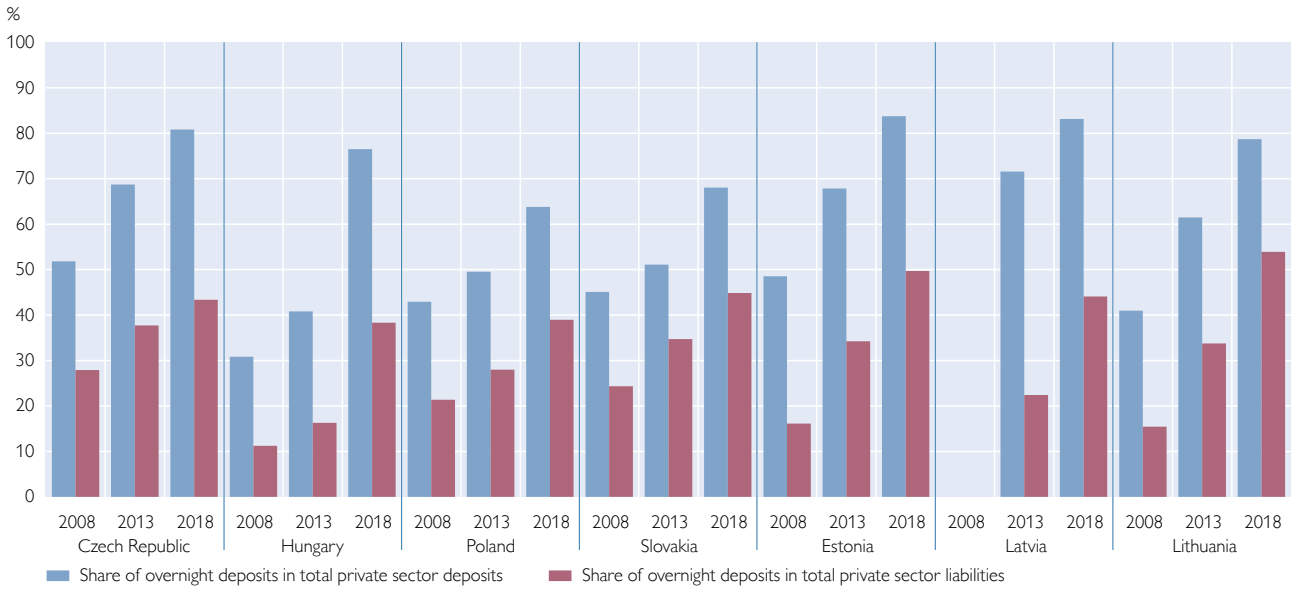
Percentage points of GDP



Source: Eurostat, national central banks, national statistical offices.

Chart 3a

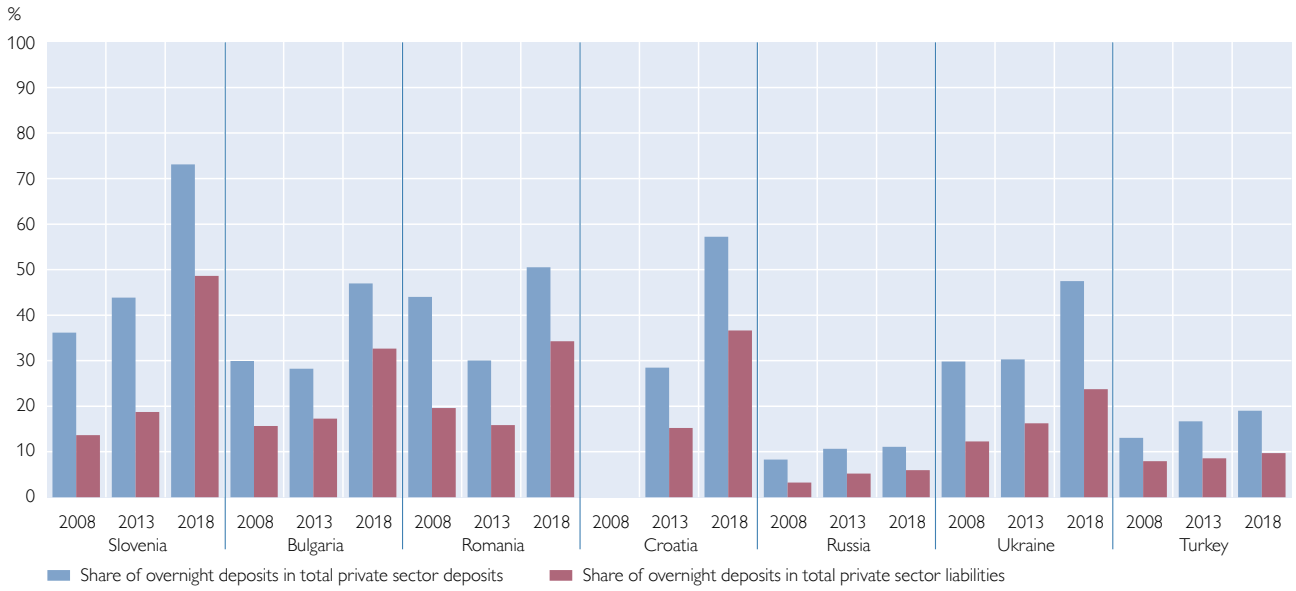
Overnight deposits of the private sector



Source: Eurostat, national central banks, national statistical offices.

Chart 3b

Overnight deposits of the private sector



Source: ECB, national central banks.

Note: In the case of Turkey, the chart shows private sector deposits of deposit money banks (representing around 90% of the banking sector in terms of total liabilities), including foreign currency deposits of the official sector.

As depicted in charts 3a and 3b, overnight deposits by the private sector gained importance in all countries under review. This item reached levels of 70% to slightly more than 80% of total private sector deposits in the Czech Republic, Hungary, Estonia, Latvia, Lithuania and Slovenia in 2018, and hence went up markedly over a decade. In relation to total liabilities, the highest figures (40% to about 50%) were recorded in the Czech Republic, Slovakia, Estonia, Latvia, Lithuania and Slovenia. Hence, the issue of overnight deposits is most relevant in CESEE euro area countries as well as in the Czech Republic and Hungary. In Poland, both ratios came close to the highest values in the CESEE region. Also Bulgaria, Romania, Croatia and Ukraine (despite very high interest rates in the latter country) saw a remarkably increasing share of overnight deposits in total private sector deposits and total liabilities. Overnight deposits have remained noticeably less relevant in Russia and Turkey.

3 How has the gap between foreign currency loans and deposits evolved?

As shown in charts 4a and 4b, foreign currency loans surpassed the level of foreign currency deposits by a wide margin in several countries at the start of the GFC (by more than 20% of GDP in Hungary, Estonia, Latvia, Lithuania and Ukraine; to a smaller extent in some other countries). Foreign liabilities played an important role in reducing currency mismatches on banks' balance sheets. Hence, in addition to indirect credit risk stemming from foreign currency loans to unhedged borrowers, banks faced rollover risks emanating from foreign liabilities and FX swap transactions (for a brief summary of the role of FX swaps in Hungary in 2008 and 2009, see Lahnsteiner, 2011).

In Estonia, Latvia and Lithuania, the adoption of the euro brought about an end to this imbalance as the large stock of euro loans became domestic currency loans. This was also the case in Slovakia, where this issue had been much less relevant. In Hungary, measures to scale back FX loans (including the conversion of FX loans to households in 2015), a switch to lending in domestic currency and quite stable private sector foreign currency deposits resulted in a balanced position between foreign currency loans and foreign currency deposits in the private sector by the end of our observation period. In Croatia, the conversion of Swiss franc-denominated household loans into euro-denominated loans at historical exchange rates at end-2015 also led to a decline in the share of foreign currency loans in total loans (Beckmann, 2017). Starting already in 2014, a foreign currency deposit overhang arose in Croatia that reached more than 10% of GDP at end-2018, also reflecting very high and broadly stable deposit euroization there (see Dumicic et al., 2018, for more information about euroization in Croatia, as well as Brown and Stix, 2015, who provide an analysis of the causes of euroization in Eastern Europe). A considerable foreign currency deposit overhang also emerged in Bulgaria, a country featuring a high level of deposit euroization. Positive gaps between foreign currency loans and foreign currency deposits were closed or even reversed in some other countries as well, through a combination of measures to restrict foreign currency lending, a recovery of domestic currency lending and relatively stable foreign currency deposits. Interestingly, foreign currency loans were on the rise in Turkey, but as foreign currency deposits almost kept pace, a foreign currency deposit overhang in 2008 transformed into a balanced position in the period leading up to 2018.

4 Concluding remarks

The transformation of most CESEE banking sectors' funding structures certainly constitutes an improvement in macrofinancial stability terms and bodes well for a sustainable lending recovery. Banks have become less dependent on foreign funding, as domestic deposits have become more important. The accumulation of NFL likely contributed to overly high credit growth in several CESEE countries ahead of the GFC. Hence, an important takeaway from this episode is that supervisory authorities should continue keeping an eye on loan-to-deposit ratios and a possible resurgence of NFL. At the same time further research is needed to understand in how far domestically refinanced credit stocks can be seen as excessive. Comparatively high credit levels and high deposit levels in Bulgaria speak in favor of applying a wide range of methods when assessing credit developments.

Turkey seems to have repeated some of the mistakes CESEE EU Member States made ahead of the GFC. Its economy recorded a current account deficit with a fragile financing structure (low FDI coverage) and its banking sector accumulated large amounts of NFL before slipping into a crisis recently. Yet, circumstances are quite different from those in CESEE EU Member States before the GFC. On the one hand, less stable wholesale funding (as opposed to parent bank funding) plays a much more important role in Turkey now than in the CESEE EU Member States back in 2008. On the other hand, global liquidity conditions are currently clearly more favorable than during the GFC, which reduces rollover risks and could facilitate a gradual adjustment of the refinancing structure in the absence of further shocks. As regards domestic funding, overnight deposits have remained of low relevance in Turkey unlike in the CESEE EU Member States.

A higher share of domestic deposits on the liability side reduces rollover risks at times of global liquidity squeezes and limits the scope for crisis transmission via the credit channel during international economic and financial crises. However, domestic crisis situations in the real economy or confidence crises now have an increased potential to spill over to the banking sector and its credit granting capacities directly through a run on deposits. The high share of overnight deposits creates the possibility of quick and large-scale deposit shifts from one bank to another, but also for system-wide withdrawals. Risks can be mitigated through accumulation of liquid assets and access to liquidity support by central banks.

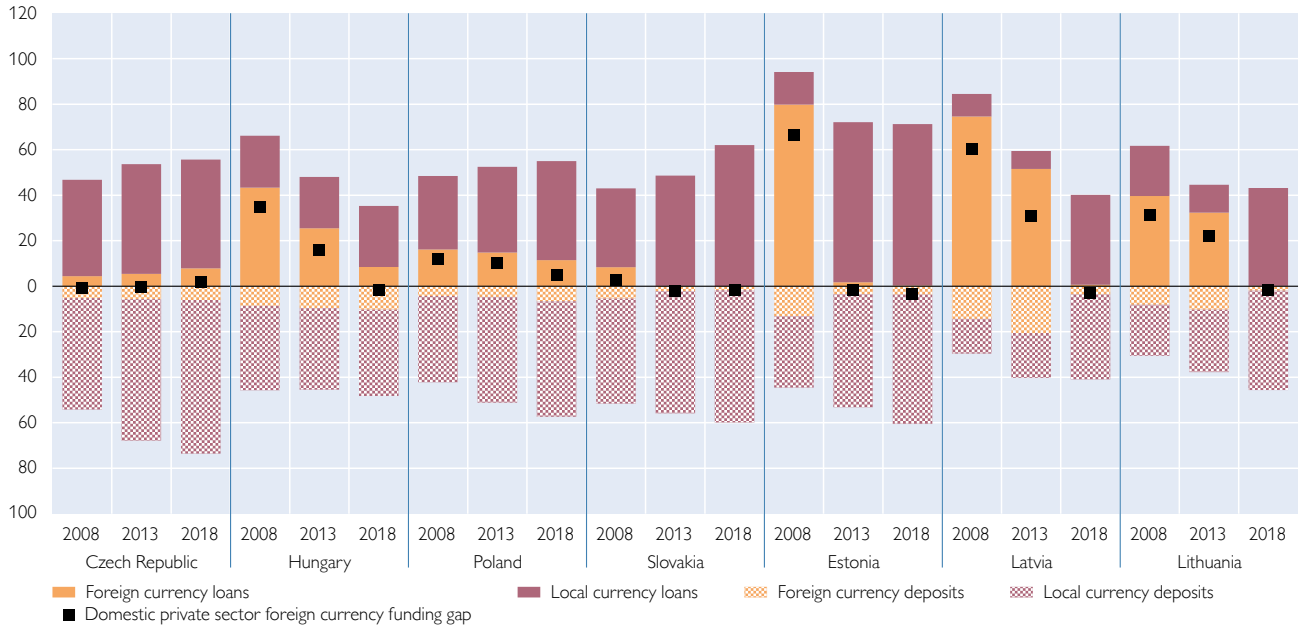
The fact that foreign currency loans no longer (or only slightly) exceed foreign currency deposits is certainly welcome from a financial stability perspective. Yet, FX deposit overhangs in Bulgaria and Croatia raise the question in how far lending in local currency is restrained by the liability structure of the banking sector. Against the background of high deposit euroization, it is not surprising that exactly these two countries aspire to adopt the euro over the medium term, as this step would largely eliminate this imbalance on banks' balance sheets.

As long as nominal wage growth remains high in most CESEE countries, household deposits are likely to rise further. At the same time, banks that follow a multiple point of entry approach under the regulatory framework introduced by the Bank Recovery and Resolution Directive (BRRD) will have to adjust their funding structure by issuing bonds that are eligible under the minimum requirement for own funds and eligible liabilities (MREL), i.e. debt that is available for bail-in, in the next few years. This might prove challenging given the still very limited role of capital market-based bank funding. Capital markets in CESEE countries are shallow

Chart 4a

Private sector loans and deposits by currency

% of GDP

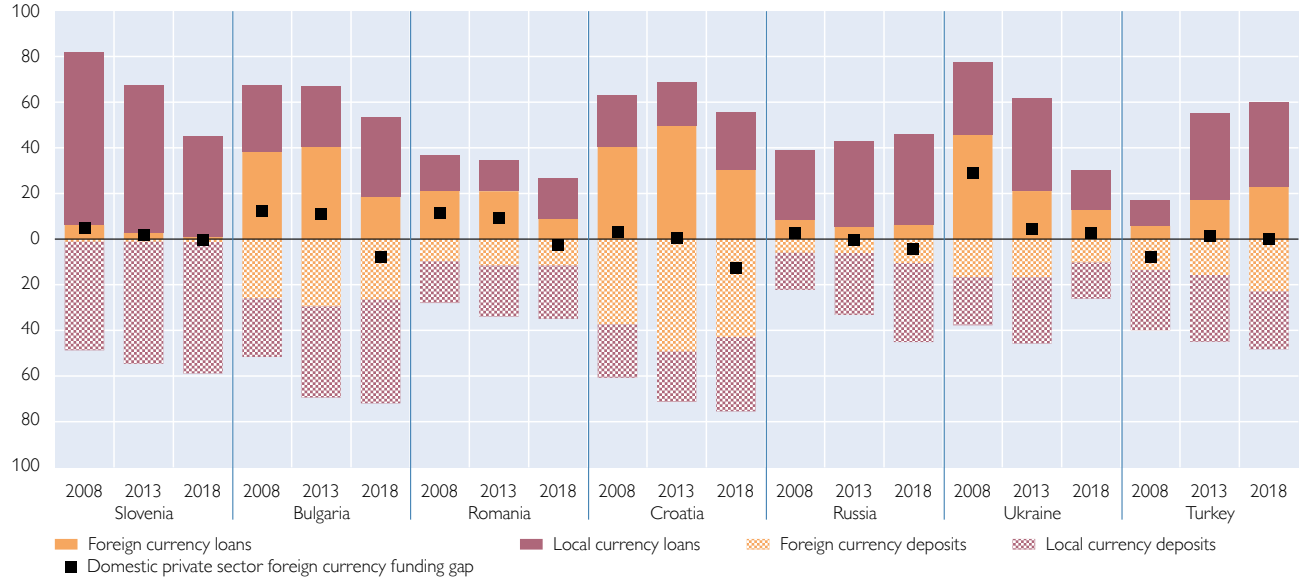


Source: Eurostat, national central banks, national statistical offices.

Chart 4b

Private sector loans and deposits by currency

% of GDP



Source: Eurostat, national central banks, national statistical offices.

(see Jäger-Gyovai, 2014) and the domestic institutional investor base is limited, particularly after the second pension pillar has been weakened or dismantled in some countries. Moreover, it is questionable how strong foreign demand for such debt instruments will be. As pointed out by Bhatia et al. (2019), European capital markets can be characterized as small, fragmented and split along national lines. Against this background, the proposal, as discussed by the Vienna Initiative Working Group on IFI financial products supporting investment in CESEE (2019), to encourage international financial institutions (IFIs) to invest in such debt instruments and act as a door opener makes sense.

To summarize: The refinancing structures of banking sectors in CESEE have undergone a material transformation since the start of the GFC. In many regards, these changes can be seen as an improvement in terms of resilience, but there are still several issues that deserve close attention by supervisors and policymakers. These include keeping a close eye on liquidity risks and maturity mismatches, given the rise in overnight deposits, and preventing an excessive rebuilding of NFL in the future. Moreover, in CESEE EU Member States, the adaption of funding structures to the new regulatory environment should be supported by reducing barriers to more European capital market integration (in the spirit of the capital markets union) with the aim to avoid a negative impact on bank lending.

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