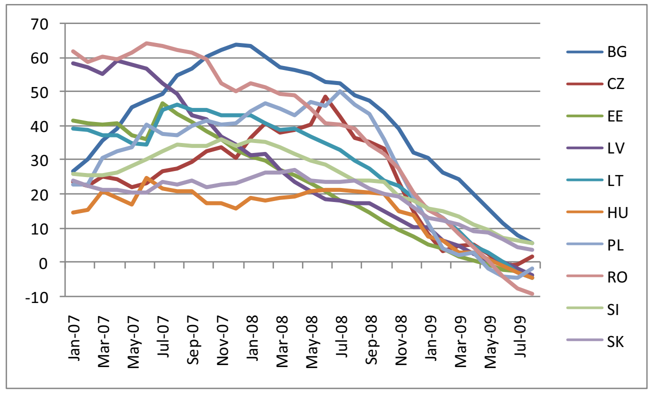
EU10 October 2009

In Focus: Credit crunch or weak demand for credit?[9]

Introduction

Domestic credit growth has declined sharply since the first half of 2008. As Figure 41 shows, in most countries domestic credit growth has turned negative from the relatively high growth rates seen at the beginning of 2007.

Figure 41. Domestic credit to the private sector has fallen significantly across the EU10 countries (percent change, yoy)



Source: European Central Bank, World Bank staff calculations

Indeed, since the collapse of Lehman Brothers in September 2008 there has been a tightening of lending conditions, widespread increase in uncertainty and large scale repatriation of capital from emerging markets as a whole, driven by a reassessment of growth prospects and the need for firms and investors in the high-income countries to strengthen their balance sheets. The Banks' Lending Survey—which covers the Euro Area banks—indicated significant net tightening of credit standards for loans to enterprises in the third quarter of 2008[10]. According to the survey response this tightening was due both to expectations of weak future economic activity and hence lower profitability of borrowers (and hence greater risks to lenders), but also due to the impact of banks' funding costs and balance sheet constraints, including their ability to access market financing. The impact of banks' funding costs and balance sheet constraints increased further in the fourth quarter of 2008. Given the substantial role that foreign banks play in all EU10 economies (the share of foreign bank assets in total banking sector assets ranges from 60 percent in Romania to almost 98 percent in the Czech Republic and Slovakia) developments in these parent foreign banks and their subsidiaries have a significant bearing on the EU10 domestic credit markets overall.

Domestically-owned banks in the EU10 have also faced difficulties as liquidity in the inter-bank market dried up. Inter-bank markets in the EU10—which are smaller and shallower than the rest of the EU—are dominated by unsecured borrowing and FX swaps and shocks emanating from the global money markets spilled over to the EU10 economies to a large extent via the FX swap markets. Liquidity in the FX swap markets of the EU10 was significantly impaired in the last quarter of 2008 as evidenced by the sudden surge in bid ask spreads in the forward exchange markets. With foreign and parent banks hoarding euro liquidity, local institutions faced difficulties hedging their euro asset exposure through the euro FX swap market and could not raise short term euro funding[11].

Thus the decline in credit could reflect supply side constraints (or a credit crunch) resulting from a variety of factors. Banks may be unwilling to lend because of a perceived increase in the risk of default that cannot be internalized by raising the cost of borrowing. Banks may also be unable to lend because of shrinking banking sector deposits and other sources of funding and/or the need for them to hold greater reserves and increase their capital provisioning to meet more rigorous capital adequacy standards. Thus on

[9] Prepared by Swati Ghosh.

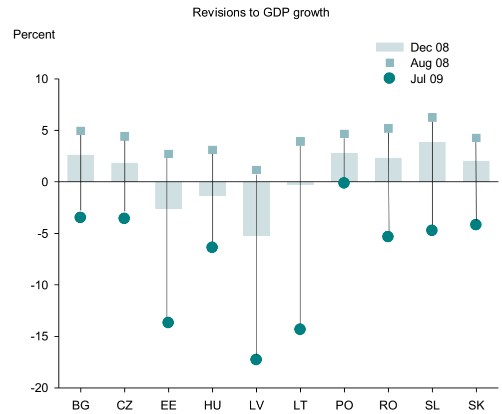
[10] The ECB Bank Lending survey reports the difference (net percentage) between the share of banks reporting that credit standards have been tightened and the share of banks reporting that they have been eased. A positive net percentage as stated in the text therefore indicates that a larger proportion of banks have tightened credit standards ("net tightening").

[11] see Inter-bank Markets and Spillover from the Global crisis in EU10 report February 2009

the supply side it could reflect perceived increased riskiness of borrowers and uncertainty, liquidity constraints, new credit standards by banks, capital constraints or tighter bank supervision.

Alternatively, however, the observed decline in credit may now reflect the fact that the demand for credit has declined given the sharp deterioration in output and worsening economic prospects across the region. Output has plummeted across the region, reflecting the deteriorating global environment for trade and declining domestic consumer confidence. As Figure 42 below shows, projections for 2009 have been revised down progressively for all EU10 countries. Lower expected profits and deteriorating economic prospects may in turn reduce firms' investment and demand for credit.

Figure 42. Revisions to GDP growth projections for 2009



Source: Based on consensus forecasts

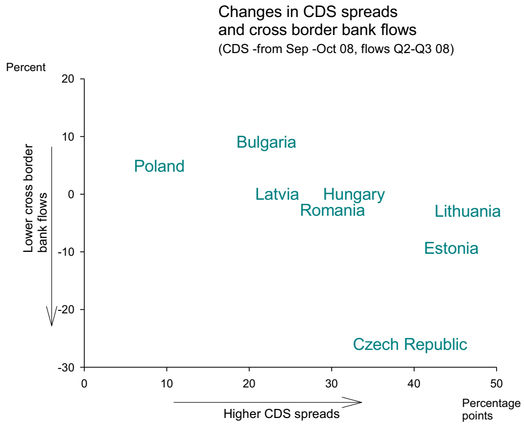
From a policy perspective, the distinction is important. If banks are unwilling to lend because, for instance of a perceived increase in the risk of default that cannot be internalized by raising the cost of borrowing, attempts to increase liquidity and reduce interest rates to stimulate aggregate demand and the demand for loans will prove largely ineffective. In this case, initiatives that reduce the uncertainty and increase the information base to encourage banks to be willing to lend to creditworthy borrowers may be useful. This is especially likely to be the case for SMEs—making the design of schemes that reduce uncertainty and encourage lending particularly important. On the other hand if the contraction in credit reflects demand side problems—implying that banks would be willing to lend but may be unable to due to weak demand for credit, then in principle, easing the fiscal stance—to the extent that there is scope for doing so taking into account the availability of financing and fiscal sustainability issues— or the effective use of EU structural funds to promote lending to SMEs or investment in energy efficiency may help to expand aggregate demand and generate an expansion in credit. It should be recognized however, that in for many of the EU10 countries, the scope of stimulative fiscal policy is likely to be limited (see RER May 2009 for a discussion of fiscal positions in the EU10 countries).

This note analyzes the credit developments in Hungary, Poland and Latvia more closely examining whether the observed decline in credit likely reflects supply side issues (or a credit crunch) or rather weaknesses in credit demand. The selection of these countries allows the analysis to capture some of the diversity of the impact of the global financial crisis on domestic credit markets.

Macroeconomic context and developments at the outset of the global crisis

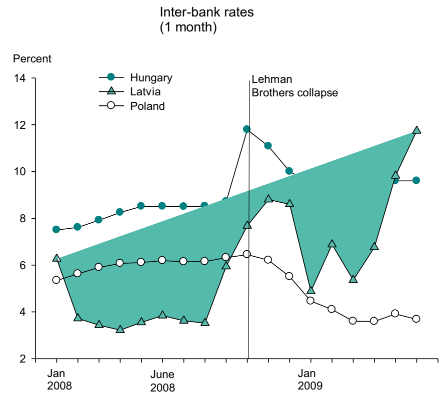
All three countries were affected by the crisis, albeit to different degrees. While Latvia's spreads on 5-year CDS increased by 23 percentage points during September-October 2008, and Hungary's by 33 percentage points, Poland saw an increase of 9 percentage points during the period (Figure 43). Latvia and Hungary also saw declines in cross-border bank flows in the third quarter of 2008 over the second quarter of 2008 (by 1.8 percent and 2.7 percent respectively) and sharp increases inter-bank rates in the third quarter of 2008. Although Poland also experienced an increase in inter-bank rates as liquidity dried up, the spike was significantly lower (Figure 44).

Figure 43. Changes in CDS spreads and bank flows (CDS changes Sep-Oct 08, flows June-Sep 2008)



Source: Eurostat, World Bank staff calculations

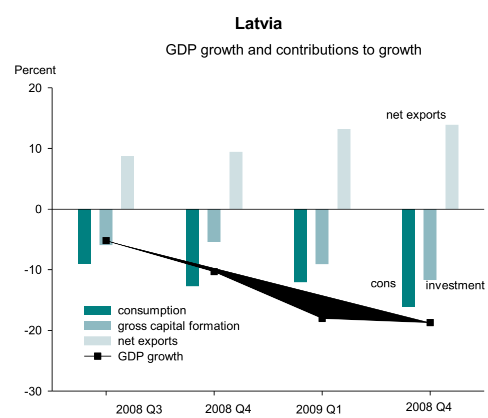
Figure 44. Inter-bank rates



Given the significant variation on banking systems' reliance on non-deposit sources of financing across countries, the impact of the decline in access to foreign finance on the supply of domestic credit also varied. Latvia's loan to deposit ratio at around 230 was one of the highest among the EU10 countries; that of Poland's was considerably lower at 108, while Hungary's was in between at around 140. Together with the extent of decline in cross border bank flows, this had a bearing on the domestic credit growth. Thus Latvia's domestic credit growth fell the most rapidly of the three countries to 3.4 percent quarter on quarter by the third quarter of 2008. In Hungary credit growth fell more slowly in the third quarter of 2008 while in Poland, credit growth (quarter-on-quarter) continued to rise slightly in the third quarter.

As the crisis deepened, economies were affected not only through tighter credit and declining investment (resulting from both tighter credit as well as uncertainty about prospects) but also a collapse in export demand; in turn this intensified the negative impact of the global crisis on domestic consumption and the demand for credit. Latvia's GDP growth which had turned negative at -2 percent by the second quarter of 2008 even before the collapse of Lehman Brothers, fell sharply to -5.2 percent year-on-year in the third quarter of 2008 and by 10 percent in the last quarter of 2008. By the first quarter of 2009, GDP had declined by 18 percent year-on-year (Figure 45). Hungary still registered positive growth in the third quarter of 2008 (1.3 percent year-on-year) but by the fourth quarter GDP had fallen by 2.5 percent, and by 6.7 percent in the first quarter of 2009 (Figure 46). Of the three countries, Poland is the only one that continued to register positive growth during the second half of 2008 and the first quarter of 2009 (when growth was around 1 percent)—although this still entailed a sharp decline from the almost 6 percent growth seen in the first half of 2008 (Figure 47).

Figure 45. GDP developments in Latvia



Source: Eurostat, World Bank staff calculations

Figure 46. GDP developments in Hungary

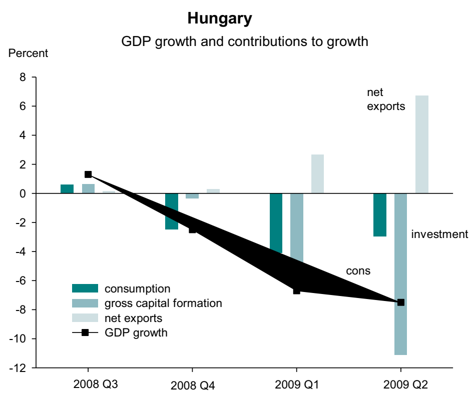
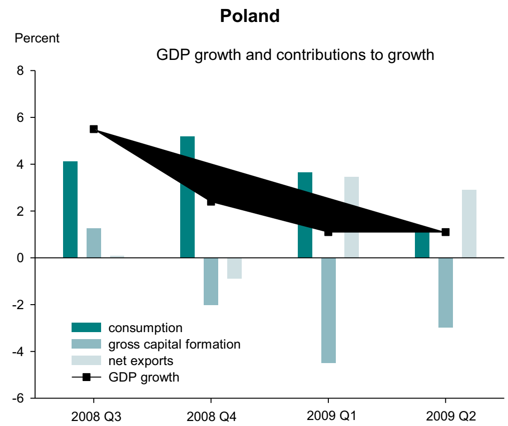


Figure 47. GDP developments in Poland



Source: Eurostat, World Bank staff calculations

Empirical results

This note adopts the switching regression framework following Ghosh and Ghosh (2000) to determine whether the issue is one of a credit crunch or weak credit demand. An observed decline in credit can be consistent with a decline in the supply of credit or a decline in the demand for credit. Distinguishing between the cases and hence determining whether there is a credit crunch or not, requires a framework that explicitly allows for market disequilibrium. The methodology we adopt is a switching regression framework in which we estimate both the demand for and supply of credit. This framework allows for, but does not impose, non-market clearing interest rates. As such, the methodology is ideally suited to examining the behavior of the loan market in these countries both prior to the crisis and in the aftermath. Based on this methodology the analysis finds the following[12]:

Latvia

For Latvia, the analysis points to a credit crunch during the third and fourth quarters of 2008, and a weak demand as the binding constraint in the first quarter of 2009 (Figure 8). The extent of the credit crunch was highest in the third quarter of 2008 when demand exceeded supply by 26 percent. By the fourth quarter of 2008, however, the demand for credit had declined, in line with the economic downturn, while the supply of credit increased somewhat (reflecting increased exposure of parent banks) so that the excess demand was only around 3 percent. And by the first quarter of 2009, the demand for credit had declined significantly –the decline in credit was no longer a reflection of supply side difficulties but rather weak demand for credit. Indeed, the estimated supply exceeded the estimated demand for credit by 15 percent (Figure 49).

Concerns by parent banks from early 2007 about their overexposure in the Baltics had already led to a slowdown in economic activity much before October 2008 and the global credit crunch, (around 55 percent of the banking system is foreign-owned, primarily involving Swedish banks). However, following the collapse of Lehman Brothers, the largest locally owned bank faced liquidity pressures and a deposit run (which led the Government to take it over and later introduce a partial deposit freeze to stem the (mainly non-resident) deposit outflow.

By the end of 2008, GDP had declined by 10 percent which would explain the decline in seen in the estimated the demand for credit as well. Thus the excess demand for credit declined significantly in the last quarter of 2008.

[12] For further details see "Credit crunch or weak demand for credit" S. Ghosh (background paper prepared for the Regional Economic Report, October 2009).

And by the first quarter of 2009, the economy had contracted by almost 16 percent. Construction and consumer durables fell sharply in reflecting rising unemployment (to around 14 percent) and loss of consumer confidence.

Although the exposure of foreign banks was scaled back in the first quarter of 2009 and domestically owned banks also made relatively large repayments, the weak economy meant that the demand for credit fell by more. Hence, as noted above, the analysis suggests that the weak demand for credit was the underlying factor by the end of 2009[13].

Figure 48. Estimated supply of and demand for credit in Latvia

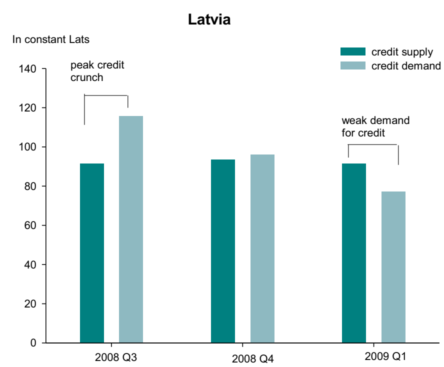
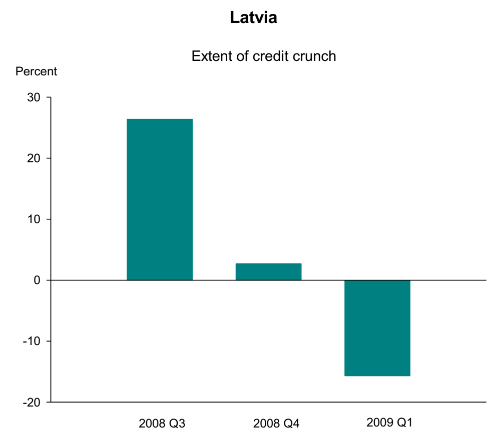


Figure 49. Extent of credit crunch in Latvia



Source: World Bank staff calculations

Hungary

The analysis suggests that in Hungary there was a credit crunch—or excess demand for credit—from the third quarter of 2008 through the first quarter of 2009 (Figure 50). The extent of the credit crunch peaked in the fourth quarter of 2008, when the analysis suggests that, at the aggregate level, demand for credit exceeded the supply of credit by almost 14 percent.

As noted earlier, Hungary experienced significant capital outflows following the collapse of Lehman Brothers. By the first quarter of 2009 the demand for credit had also declined, reflecting developments in the real economy, when output declined by 6.7 percent year-on-year As a result the extent of excess demand for credit was lower at around 10 percent (Figure 51).

[13] A survey of advanced and emerging market banks on factors affecting the supply and demand for trade finance was undertaken recently. The survey found that the downturn in trade largely reflected falling demand rather than a lack of trade finance—trade generally fell much more than trade finance during 2008 and 2009. Correspondingly six of the seven banks pointed to a decrease in trade as the main driver of the decrease in their trade finance activities (see Box 1.1 IMF World Economic Outlook October 2009).

Figure 50. Estimated supply of and demand for credit in Hungary

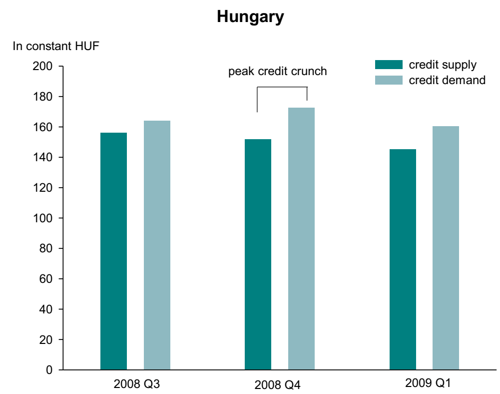
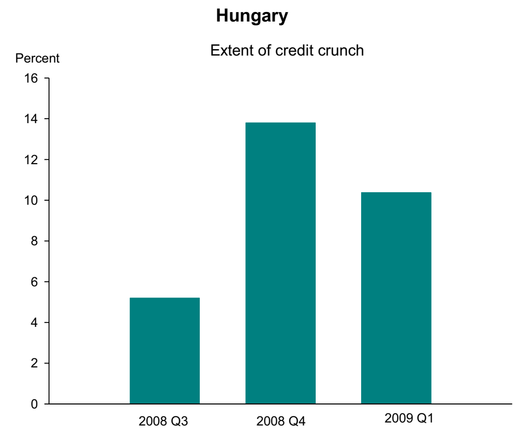


Figure 51. Extent of credit crunch in Hungary



Source: World Bank staff calculations

During the second quarter of 2009 the liquidity position of Hungarian banks improved significantly with liquid assets a share of the total having increased sizably. The FX market has normalized in line with global developments and bank deposits—especially corporate deposits have increased. In view of the much better liquidity position of banks, parent banks of Hungarian subsidiaries have been able to withdraw some of the additional funding that had been injected during the strains in October 2008 and March 2009. The short to medium term FX position of domestic credit institutions has also improved since April 2009 with the direct loans that the government has extended to these institutions.

Poland

Although Poland was the least affected of the three countries in the wake of the financial crisis, as in other countries, inter-bank markets froze in late October 2008 reflecting greater uncertainty and risk aversion. As a result a number of banks had difficulty in obtaining foreign exchange liquidity to fund their foreign currency denominated mortgage portfolio. And while foreign bank exposure has remained stable since the third quarter of 2008 surveys suggest that banks have tightened their credit criteria. Such lending policies have been influenced by economic outlook and expected deterioration in capital positions.

Although growth was still around 5.5 percent in the third quarter of 2008 by the fourth quarter it had fallen to 2.4 percent year-on-year. The decline reflected weaker investment and consumption. And economic activity declined in the first quarter of 2009 to around 1.0 percent.

The econometric analysis corroborates this trend pointing to a credit crunch in the third quarter of 2008 but then weaker demand for credit through the first quarter of 2009 (Figure 52). Since the fourth quarter of 2008, a decline in the demand for credit together with some increase in the supply of credit (relative to the third quarter of 2008) has meant that the binding constraint has been weakness in the demand for credit (Figure 53).

Figure 52. Estimated supply of and demand for credit in Poland

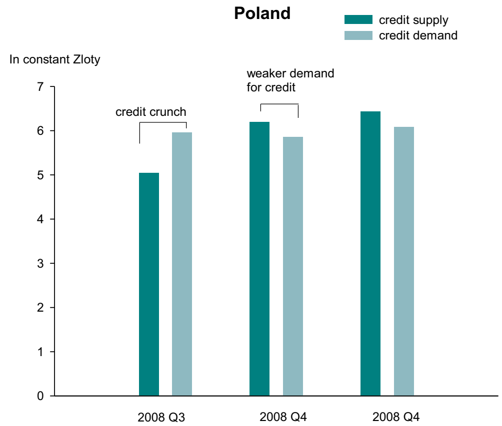
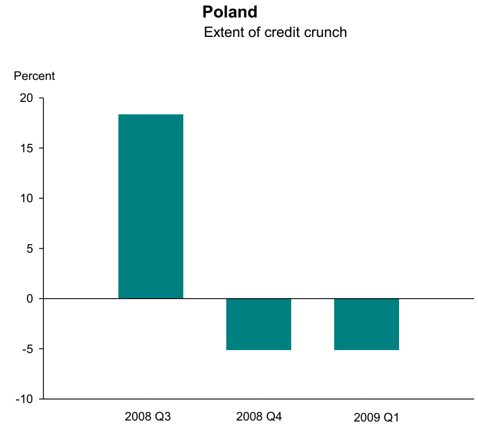


Figure 53. Extent of credit crunch in Poland



Source: World Bank staff calculations

Conclusions

It bears emphasizing that the results of this note pertain at the aggregate level and to the aggregate economy. Thus no distinction is made in the supply of credit between credit that is rolled over and the provision of new credit. Clearly the provision of fresh lending is a key element for the restoration of firms' health. Second, even when there is no evidence of credit rationing at the aggregate level, at the microeconomic level, individual firms who are otherwise creditworthy may well have found that their demand for credit at prevailing interest rates was unmet. In particular, smaller firms are more likely to be prone to a credit crunch arising from informational problems.

Second, there are dynamics associated with a credit crunch. In the immediate aftermath of the Lehman Brothers collapse and onset of the global financial crisis, there is evidence of a credit crunch in all three countries, albeit with differences in timing and magnitudes. That is—over and above any increases in interest rates, there is evidence of quantity rationing. However, as domestic aggregate demand has declined and the recession has deepened, the demand for credit also declined. In Poland and Latvia, the supply constraint had turned into a demand constraint (at the aggregate level) by the first quarter of 2009. Indeed, the initial credit crunch and credit supply problem is likely to have contributed to the decline in GDP and hence to the decline in demand in credit subsequently.

Once the recovery process is underway, in principle there may be a period during which the incipient demand for credit may outpace the supply of credit, resulting in a credit crunch. With ongoing bank de-leveraging pressures, it is likely that the supply of bank credit will continue to fall through the remainder of 2009 and into 2010 in both the US and in the EU15. The significant role of foreign (EU15) banks in the EU10 countries could well constrain liquidity and the supply of credit in the EU10 countries. Moreover, the level of non-performing loans (NPLs) in emerging Europe has also started to increase as corporate loan quality (and to a lesser extent household credit quality) has deteriorated reflecting the high leverage and overall worsening of the business environment. While the current level of provisions appears generally sufficient to cover loan losses at this time, the additional provisioning required going forward could limit banks' capital positions and their ability to issue new loans.

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