

# Swiss Finance Institute Practitioner Roundups



## Funding Shocks and Banks' Credit Reallocation

What considerations motivate credit reallocation following funding shocks and financial crises? New research reveals three elements that drive the nature and timing of the restructuring of domestic credit portfolios.

The collapse of Lehman Brothers in September 2008 was an unprecedented shock to Western banks' funding opportunities and the academic literature shows that banks transmitted this funding shock to both their domestic and their foreign borrowers. However, recent evidence also suggests that banks do not curtail credit equally across the board. Research shows that global banks, for example, rebalance their portfolios in favor of their domestic borrowers to the detriment of their foreign borrowers when hit by a banking crisis in their home country and that—during the recent crisis—banks cut back in particular on their operations in foreign countries that are more distant from their headquarters. These findings thus indicate that there is significant heterogeneity in the reallocation decisions of banks, both between their foreign and domestic credit portfolios and within their foreign credit portfolios.

**“Are reallocation effects connected to the domestic credit portfolios of banks, and—if so—what considerations drive such a reallocation?”**

While much research has analyzed the role that such geographically influenced specialization plays in credit reallocation after a funding shock, very little has focused on the impact of other types of lending specialization. This is somewhat surprising given the important role that loan portfolio allocation and diversification play in many theoretical banking models. Furthermore, bank managers (and regulators) are often concerned about the trade-off between reducing portfolio concentration risk and having sufficient information about borrowers. Yet despite these fundamental considerations, it remains an open question whether reallocation effects pertain to the domestic credit portfolios of banks and, if so, what determines this reallocation.

A newly published paper aims to fill this gap in the academic and bank management literature by providing a comprehensive and detailed analysis of the reallocation that banks that are registered in Belgium pursue within their domestic credit portfolio after a negative shock to their funding. The bankruptcy of Lehman Brothers and the subsequent collapse of the interbank wholesale market had a significant impact on the Belgian financial system. Indeed, the aggregate volume of interbank liabilities and bank deposits of banks active in Belgium dropped from EUR 1,000 bn in August 2008 to slightly above EUR 700 bn thirteen months after the Lehman Brothers collapse. However—and this is important for this paper's analysis—the crisis in the Belgian financial sector did not originate

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from domestic shocks (e.g., a real estate shock or a collapse of the credit cycle) but primarily from an over-reliance on short-term funding in the international interbank market and partly from the over-exposure of some of the large Belgian banks to structured finance products.

To identify the reallocation in the supply of credit following these funding problems, the authors refer to 160,224 fully documented bank–firm combinations for nearly all banks and non-financial firms active in Belgium. Further, they combine monthly bank–firm-level data from a comprehensive credit register that contains all credit granted in Belgium by all financial institutions, the monthly balance sheets of these financial institutions, and the annual balance sheets of all registered firms. The richness of these data allows the authors to study various measurements of credit growth and makes it possible to disentangle credit supply from demand.

**“Banks’ main focus during a crisis is staying afloat and surviving. It makes sense to concentrate on sectors in which they can exploit their high sector presence and extract higher rents.”**

Using this detailed data set, the authors identify robust reallocation effects along three different lines—that is to say, sector presence, sector specialization, and the relative safety of firms. First, following a negative funding shock banks reallocate credit toward sectors in which they have a high sector presence (defined as the bank’s share of the total credit granted in a sector). A one standard deviation increase in sector presence reduces the funding shock’s negative impact on credit supply by 20 percent for the average firm. This finding is explained by the fact that banks direct their attention to sectors in which they can more easily extract rents, assuming that lending to a sector defines a market for credit, and a higher share in a market yields market power. As the main focus of banks during a crisis is likely to be on staying afloat and surviving, it makes sense to focus on sectors in which they can exploit their high sector presence and extract higher rents.

**“For the average firm, a one standard deviation increase in sector specialization reduces a funding shock’s negative impact on credit supply by 13 percent.”**

Second, banks reallocate credit toward sectors in which they are specialized—defined as how important a sector is for a bank (measured as the sector’s share of the total credit granted by the bank). A one standard deviation increase in sector specialization reduces the funding shock’s negative impact on credit supply by 13 percent for the average firm. A potential explanation for this is that banks will typically have gathered more sector-specific knowledge in sectors where they are specialized, improving their screening abilities and reducing the need for costly monitoring in these sectors. In order to be able to keep exploiting this information advantage—which may positively affect the probability of repayment and negatively affect the loss in the case of default—banks prefer to stay more active in these sectors.

Third, banks hit by a funding shock reallocate credit toward safe firms. The authors find that banks’ transmission of a funding shock is significantly lessened with regard to firms with low debt levels, high amounts of available collateral, and high interest-coverage ratios. A one standard deviation decrease in firms’ risk (for any of these measurements) reduces the funding shock’s negative impact on credit supply by, on average, 10 percent. This flight-to-quality is consistent with increased risk-aversion during bad times and coexists with the two aforementioned reallocation effects.

In sum, the paper’s findings suggest that, when faced with a negative funding shock, banks will swiftly reallocate credit according to their sector presence and specialization, and reallocate credit toward safer firms. Regarding the timing of these effects, banks hit by a funding shock are at first more concerned with staying afloat in the short run by focusing on loans that ensure larger cash inflows (in the form of relatively high interest payments), their focus only switching to long-term profitability (and hence to protecting their sector-specific knowledge) and firms’ risk once these short-term inflows are secure.

The full paper can be found at <http://bit.ly/2f1qXHT>.

### **Key Words**

Credit reallocation  
Sector presence  
Sector specialization  
Supply of credit

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