

Corporate credit risk affected by business cycles and industry factors

29 May 2019 – Bank of Finland Bulletin 2/2019 – Financial stability



Karlo Kauko
Senior Adviser



Eero Savolainen
Senior Economist



Olli Tuomikoski
Economist



Jukka Vauhkonen
Senior Adviser

The Finnish corporate loan stock has grown in recent years. Corporate loans are riskier than household loans, yet the default rates on corporate lending have almost returned to the levels prevailing before the financial crisis. Even the protracted recessionary period did not significantly increase banks' loan losses on corporate lending. The low level of interest rates have supported companies' debt servicing capacity and kept losses in check. Credit losses may pick up again if global cyclical conditions deteriorate, interest rates are raised, or if household indebtedness results in a sharp contraction in private consumption.



In most banking crises, the majority of banks' credit losses are incurred on corporate loans, which was also the case during the Finnish banking crisis of the 1990s. Household credit only accounted for a small proportion of all loan losses during the crisis. When credit losses topped out in 1992, less than 7% of Finnish banks' loan and guarantee losses were from household loans, even though they represented about one-third of banks' loan portfolios. During the same year, 72% of banks' loan losses were incurred on domestic corporate loans, which comprised less than half of all banks' receivables.^[1]

Most household lending is secured with collateral, which significantly reduces the credit

risk. Private persons cannot declare bankruptcy and have little recourse for having their debts absolved.^[2] By contrast, companies facing insolvency problems often cease operations, e.g. by declaring bankruptcy. While banks retain the collateral received against secured loans they have issued to bankrupt companies, realising these assets is typically a drawn-out process. Moreover, collateral assets can lose a significant portion of their market value during economic downturns, further fuelling banks' credit losses.

In recent years, banks have only incurred minor losses from corporate lending. The prevailing macroeconomic conditions, and the low levels of interest rates in particular, have helped companies meet their repayment commitments. The future of this positive state of affairs rests entirely on the performance of the economy. Corporate loan losses may begin to swell if the economic environment deteriorates.

This article examines the distribution of the Finnish corporate loan stock across different industries and, in light of experience gained from previous crises, evaluates the risks associated with the structure of the loan stock as well as the magnitude of credit risk faced by its bank creditors.

How much, and to which companies, have banks lent?

The corporate loan stock has grown at a moderate pace in recent years, but still slightly faster than nominal GDP^[3] (Chart 1).

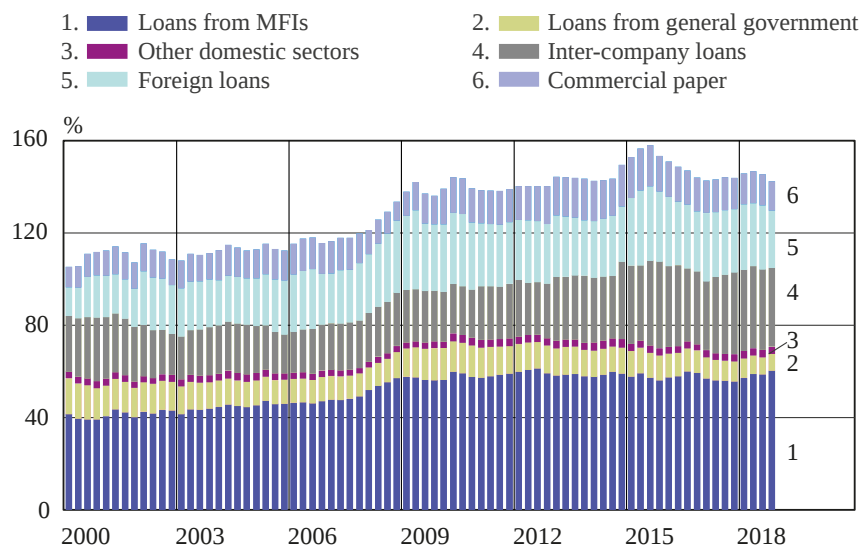
1. See Pensala and Solttila 1993, 14.

2. The courts can order debt restructuring for private persons, or they can be declared bankrupt in distraint proceedings.

3. According to financial accounts data published by Statistics Finland, companies (excluding housing corporations) had EUR 26 billion in bonds payable and EUR 5 billion in commercial paper payable as of September 2018. Other loans amounted to substantially more, almost EUR 220 billion. Companies' liabilities to domestic credit institutions and other MFIs alone stood at EUR 54 billion. In addition, companies had tens of billions worth of loans issued from abroad as well as by other companies.

Chart 1.

The ratio of corporate-sector loan-based liabilities relative to GDP has remained fairly steady for a decade already



Source: Statistics Finland.

15.4.2019
bofbulletin.fi

Credit institutions operating in Finland quickly increased their lending to Finnish companies in the early 2000s. At the end of 2008, the stock of these loans reached almost EUR 50 billion, or 26% relative to GDP. The corporate loan stock expanded at a brisk pace after the global financial crisis and stood at EUR 53.4 billion at the end of 2018, or 23% relative to GDP.^[4]

In 2011–2018, companies operating in electricity, gas and heating and in real-estate activities (excluding housing corporations) accounted for most of the growth in the loan stock, incurring liabilities of EUR 3.6 billion and EUR 3.4, respectively (Chart 2).^[5] These two industries accounted for over half of the growth in the corporate loan stock during this period.

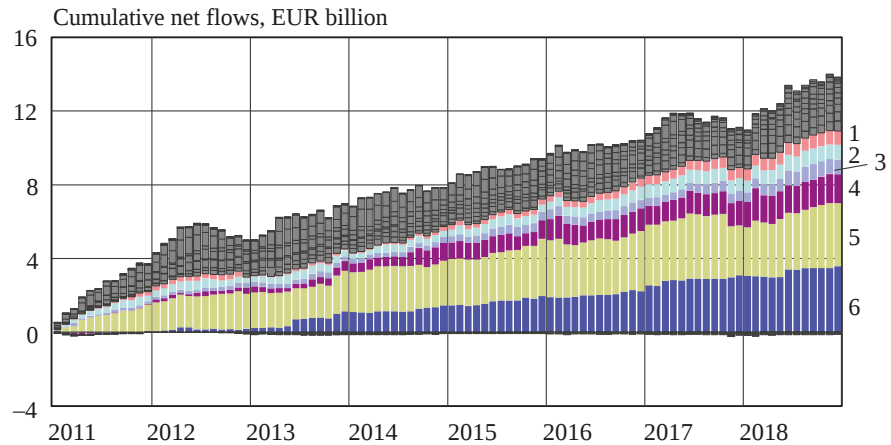
4. In terms of financial stability, corporate loans issued by domestic banks are likely to be higher risk than, say, lending between companies or foreign debts, which are often intra-group balance sheet items.

5. The chart depicts net flows while taking into account classification changes and loan impairments, so that it depicts the loan stock's 'real growth'.

Chart 2.

Energy and real-estate sectors accounted for almost half of all corporate lending growth since 2011

1. Agriculture, forestry and fisheries
2. Construction
3. Professional, scientific and technical activities
4. Financial and insurance activities
5. Real estate activities
6. Electricity, gas, heating and air conditioning activities



The 16 industries with the least change in their loan stocks are depicted in grey. Certain industries have seen their loan stock shrink, which means that their cumulative net flow is negative.

Source: Bank of Finland.

15.4.2019
bofbulletin.fi

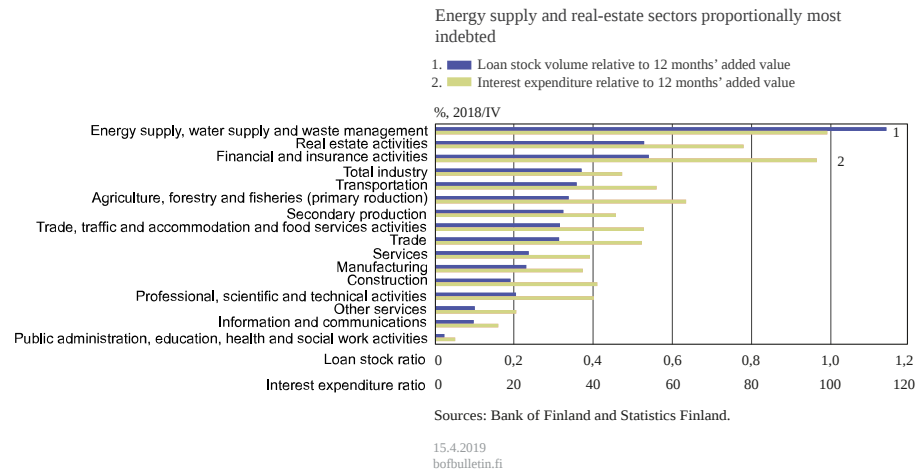
The energy and real-estate sectors also stand out when their loans are examined relative to the value added created in these industries. The ratio of the loan stock relative to value added created by the energy industry in 2018 is 115%. However, the industry's annual interest rate expenditure is still only 1% relative to the annual value added. Accordingly, energy-industry companies seem to be well positioned to meet their debt-servicing commitments—as do most other companies in other industries too, as a rule (Chart 3).

The growth of loans to real-estate companies^[6] has been rapid. More than this, however, credit institutions operating in Finland have seen their exposure to real estate grow because of their lending to housing corporations (excluded from Chart 2). In the past five years, lending to housing corporations has increased by almost 70%.

The use of property as collateral against corporate loans has not significantly changed in recent years. In February 2019, corporate loans secured on housing and other real estate accounted for 22% of the total stock of corporate loans, and it has remained at similar levels in recent years.

6. Real-estate activities include e.g. property management and rental companies.

Chart 3.



Corporate credit risk across sectors

Based on their levels of non-performing assets, companies have recently been able to service their loans as successfully as households, on average.^[7] According to the FIN-FSA, non-performing loans comprised 2.0% of credit institutions' stock of corporate lending as of September 2018, compared with 1.9% of their loans to households. These figures are small by recent historical standards in Finland. When the banking crisis reached its worst at the end of 1992, non-performing assets accounted for about 12% of deposit banks' receivables from companies (Vihriälä 1993, 583).

Loan losses have remained fairly small amid the favourable conditions of recent years (Chart 4), but this does not necessarily imply a permanent reduction in risk. Corporate loan losses are often particularly sensitive to the business cycle. Credit losses remain low during upswings but become widespread in recessions, especially if interest rate levels are high. In the Finnish banking crisis of the 1990s, loan losses and impairments on corporate loans increased rapidly, and the sum of these losses over a 12-month period reached up to 1.1% of the corporate loan stock.

7. A loan is classified as non-performing if its interest or principal payments are at least 90 days overdue, or if the debtor is unlikely to be able to service the debt due to insolvency.

Chart 4.

Credit and impairment losses incurred on corporate loans moderate



Source: Bank of Finland.

15.4.2019
bofbulletin.fi

Household borrowing and especially mortgages and housing company loans can heighten the credit risk on corporate loans. In crisis situations, indebted households may reduce their consumption levels, which makes it more difficult for companies producing for the domestic market to meet their loan obligations. Severe banking crises seem to be linked to rapid expansions of housing credit rather than growth in corporate finance (Büyükkarabacak and Valev 2010; Detken et al. 2014).

The credit risk associated with corporate lending varies according to the respective industry of the debtor. Industries that are the most sensitive to the economic cycle are also the likeliest to default on their loans. For example, if a company sells capital goods, its income flow and debt-servicing capability are strongly dependent on the macroeconomic environment. Also, a high degree of fixed costs and dependency on domestic demand are linked with credit risk being more sensitive to cyclical fluctuations.

The construction industry is highly sensitive to the business cycle and, as evidenced by past crises, high-risk. During the Finnish recession of the 1990s, a large number of receivables from the real-estate sector were written down as losses, especially in property investment (Pensala and Solttila 1993, 14). The same industries inflicted even larger losses in Spain, for example, during the 2008–2014 crisis (Banco de España 2017, e.g. pages 88, 91, 158). In Ireland, the construction industry proved to be one of the most problematic debtors during the banking crisis (Lawless and McCann 2012, 6). In recent years, with a veritable building boom ongoing, only a relatively small share of all lending to the construction industry has become non-performing (Chart 5).

In addition to the construction industry, companies in the hotel and restaurant business have also been prone to bankruptcies (Chart 6). Taken together with trade, they comprise

half of all bankruptcies. Related sub-industries that are particularly prone to bankruptcy include house construction, building completion and finishing as well as electrical work and plumbing. In addition to these, restaurants and other hospitality companies as well as road haulage and removal companies are prone to bankruptcy. Bankruptcies in these industries potentially have the strongest impact on employment.

In recent times, the largest loan losses have occurred in manufacturing, even though the industry's bankruptcy level is only as high as the corporate-sector average. The sawmill industry in particular has been in dire straits. Companies in the metal industry and mechanical engineering have also caused loan losses, even though these industries are not particularly highly indebted (Chart 7).

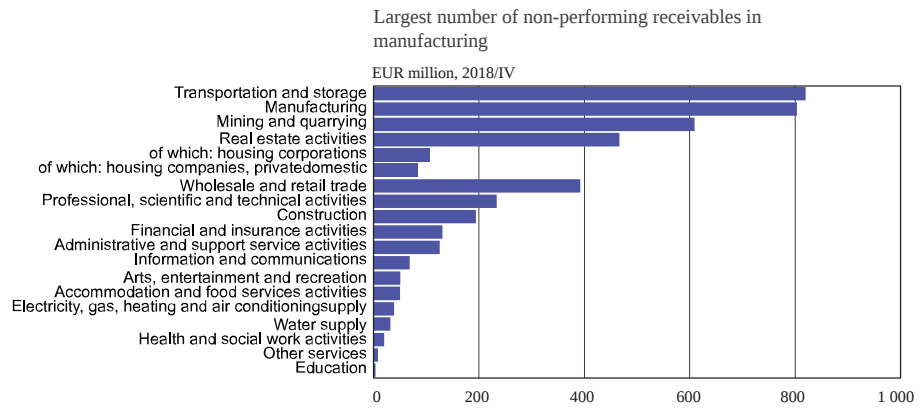
The stock of lending to the real-estate sector is notably large, but non-performing loans have remained few and far between recently. The supply of collateral has been able to cover realised losses, but the value of collateral also depends on the development of property prices. The sector has largely managed to avoid payment issues in recent years. This is in part due to the steady expansion of the rental market, both in terms of size and in terms of market rents. However, historical trends may not hold in the future if radical changes are observed in the development of prices and rents.

Sectoral risk analyses (see e.g. Jokivuolle & Viren 2013 or Takala & Viren 1999) indicate that the dependence of bankruptcies and loan losses on the business cycle and on interest rates and indebtedness is fundamentally similar across industries, albeit with different magnitudes.^[8]

When assessing banks' credit risk on corporate loans, one must assess how exposed various banks are to different industries, how prone companies in any given industry are to bankruptcy, and what proportion of a bank's receivables might be recovered through bankruptcy proceedings or realisation of collateral. Finnish banks have issued relatively few loans to industries with a higher propensity towards bankruptcy, which, for its part, reduces banks' exposure to credit risk on corporate lending.

8. In Finland, only the agriculture and forestry industry (and transport, to an extent) behaves markedly differently from other industries.

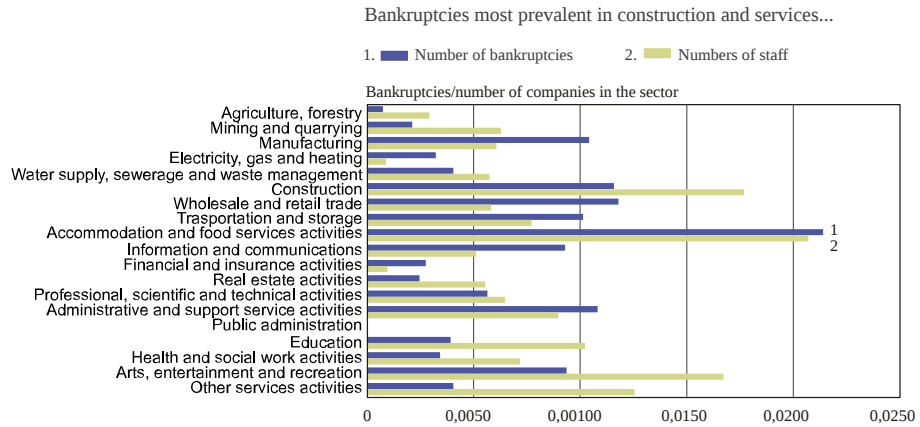
Chart 5.



Sources: Bank of Finland and Statistics Finland.

15.4.2019
bofbulletin.fi

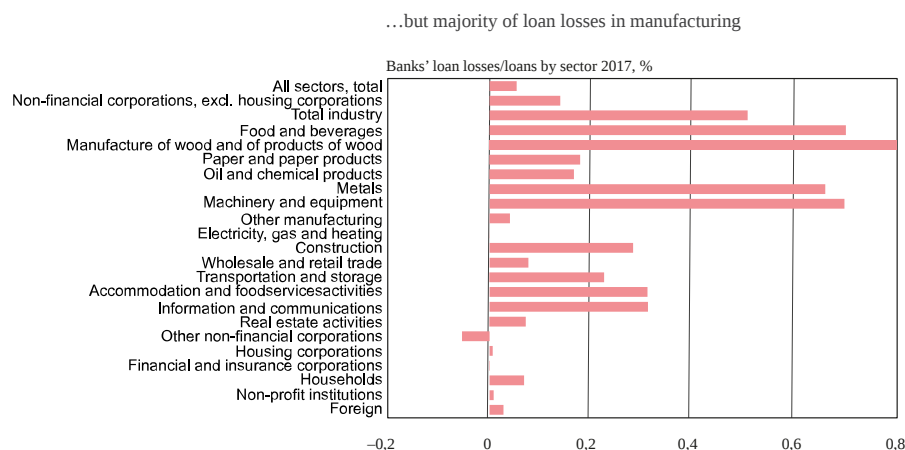
Chart 6.



Source: Statistics Finland.

15.4.2019
bofbulletin.fi

Chart 7.



Source: Financial Supervisory Authority.

15.4.2019
bofbulletin.fi

Bibliography

Banco de España (2017) Informe sobre la crisis financiera y bancaria en España, 2008–2014.

Büyükkarabacak, B. & Valev, N. T. (2010) 'The role of household and business credit in banking crises', *Journal of Banking & Finance* 34: 1247–1256.

Detken, C., Weeken, O., Alessi, L., Bonfim, D., Boucinha, M. M., Castro, C., Frontczak, S., Giordana, G., Giese, J., Jahn, N., Kakes, J., Klaus, B., Lang, J. H., Puzanova, N. & Welz, P. (2014) Operationalising the countercyclical capital buffer: indicator selection, threshold identification and calibration options. Occasional paper, European Systemic Risk Board.

Jokivuolle, E. & Virén, M. (2013) 'Model-Based Downturn Probabilities of Default for Basel III', in *Managing and Measuring Capital*. Edited by Michale Ong. Risk Books, 319–334.

Lawless, M. & McCann, F. (2012) The Irish SME lending market – a snapshot December 2010. Central Bank of Ireland.

Pensala, J. & Soltila, H. (1993) Pankkien järjestämättömät saamiset ja luottotappiot vuonna 1992. Suomen Pankin keskustelualoite 5/1993.

Takala, K. & Virén, M. (1999) 'Konkurssien taloudellinen mallittaminen ja ennakointi', *Velkakierre* 23, 15–38.

Vihriälä, V. (1993) 'Suomen pankkikriisi – mitä opimme?', *Kansantaloudellinen aikakauskirja* 89: 581–589.

Tags

corporate loans, credit losses, impairment losses

Authors



Karlo Kauko
Senior Adviser
firstname.lastname(at)bof.fi



Eero Savolainen
Senior Economist
firstname.lastname(at)bof.fi



Olli Tuomikoski
Economist
firstname.lastname(at)bof.fi



Jukka Vauhkonen
Senior Adviser
firstname.lastname(at)bof.fi