



# **BANK OF FINLAND BULLETIN**

**BANK OF FINLAND ARTICLES ON THE ECONOMY**

# Table of Contents

---

<b>Banks must be able to finance firms and withstand loan losses amid the coronavirus pandemic</b>	<b>3</b>
--	----------

---

# Banks must be able to finance firms and withstand loan losses amid the coronavirus pandemic

20 MAY 2020 4:00 PM • BANK OF FINLAND BULLETIN 2/2020 • FINANCIAL STABILITY



Paavo Miettinen  
Head of Division



Adam Saada  
Economist



Nea Tiirilä  
Economist



Jukka Vauhkonen  
Senior Adviser

Stricter capital requirements since the global financial crisis have improved the ability of banks to lend and absorb losses in a crisis situation like the coronavirus pandemic. A robust lending capacity is now needed to finance fundamentally sound Finnish companies with liquidity needs. It must be ensured that banks are well-capitalised to withstand future loan losses.



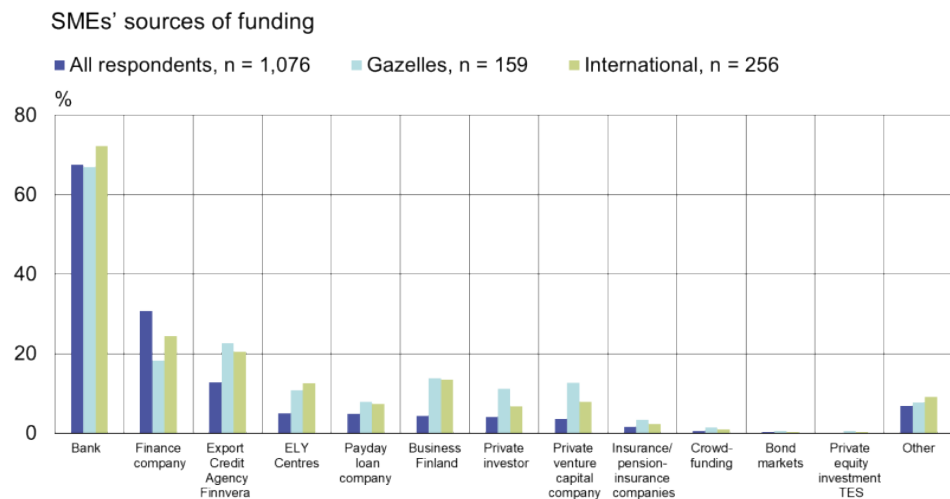
A large number of Finnish companies are seeing sharply falling revenues as a result of the coronavirus containment measures and declining consumer confidence. The abrupt contraction in income has been mirrored by a strong increase in the demand for funding. With collapsing sales, many companies will see their cash reserves quickly run dry without significant operational adjustments, additional financing or other support measures (see [Yritysten maksuvaikeudet koronapandemiassa – laskelmia yritysaineistolla](#), ‘Companies’ liquidity problems during the coronavirus pandemic – calculations based on company data’, in Finnish only).

Businesses are in need of funding or direct financial support to survive the transitory external shock to the economy. The purpose of such is to prevent companies’ liquidity problems from turning into bankruptcies and extensive lay-offs from leading into mass

unemployment. These measures are aimed at preventing a long-lasting recession similar to that of the 1990s, when banks were incapable of financing sound companies, resulting in a dramatic rise in unemployment.

Domestic banks are by far the most important source of external funding for Finnish firms. Banks are especially important for the financing of micro- and small and medium-sized enterprises (Chart 1). To mitigate the recession, as well as for the recovery of the economy, it is essential that Finnish banks are able meet companies' at least temporarily higher need for loans.

Chart 1.



Source: Federation of Finnish Enterprises, SME Barometer Spring 2020.

4 May 2020  
bofbulletin.fi

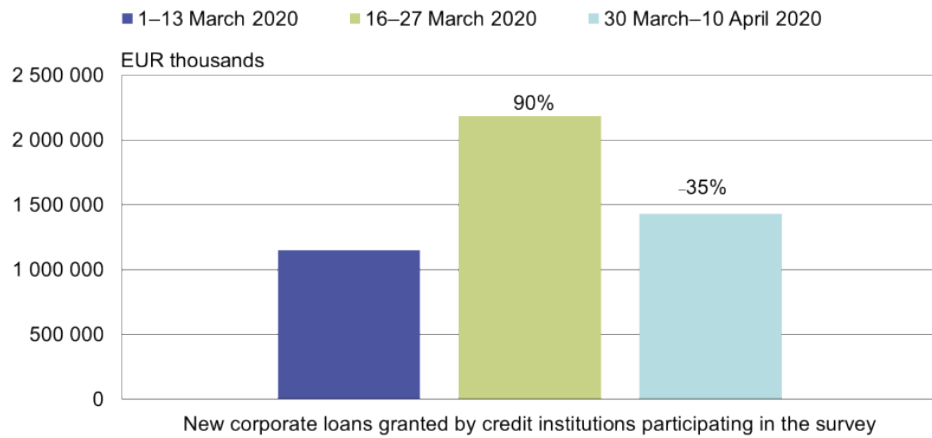
## Coronavirus pandemic testing the lending capacity of Finnish banks

The financing needs of Finnish companies began to spike in mid-March 2020, when most of the restrictions and recommendations on public gatherings and personal movement were introduced. In anticipation of a potential rise in companies' borrowing needs, authorities have introduced several measures aimed at strengthening the lending capacity of banks.

A survey on bank lending to non-financial corporations conducted by the Financial Supervisory Authority (FIN-FSA), Bank of Finland and Ministry of Finance shows that the provision of new corporate loans by banks in the second half of March (16–27 March) was over 90% larger than in the first half of the month (1–13 March) (Chart 2). However, during the first two weeks of April banks' new corporate loans had declined on the preceding two weeks. This decline in companies' need to borrow might in part be explained by direct corporate subsidies launched by the government in the second half of March.

Chart 2.

What was the volume of new corporate loans granted by your bank during the survey period, percentage change on the previous period



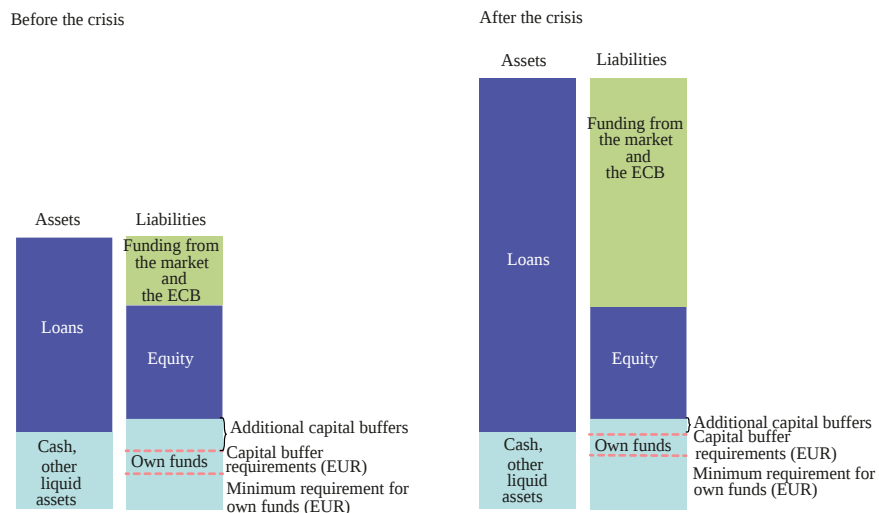
Source: Survey by FIN-FSA, Bank of Finland and Ministry of Finance.

5 May 2020  
bofbulletin.fi

When evaluating the banking system's capacity to increase its lending, a simplified balance sheet example can help illustrate which factors determine a bank's ability to lend. Chart 3 shows the balance sheet composition of a hypothetical bank before the pandemic crisis ('before the crisis') and after escalation of the pandemic ('after the crisis'). For the purpose of illustration, changes in the balance sheet are portrayed as very large and do not represent actual volume changes in the size or composition of the balance sheet.

Chart 3.

A bank's balance sheet before the crisis and after the escalation of the crisis



Source: Bank of Finland.

4 May 2020  
bofbulletin.fi

The majority of a bank's assets (left-hand side of the balance sheet) are loans granted by the bank. In addition to this, banks hold cash or capital instruments that can quickly be converted into cash to safeguard their liquidity. In Chart 3 these liquidity items are presumed to remain unchanged.<sup>[1]</sup>

The majority of a bank's liabilities (right-hand side of the balance sheet) are deposits held by households and firms. The loan-to-deposit ratio of the Finnish banking sector is above 100 percent, i.e. the volume of loans granted is larger than the volume of deposits received.

Banks finance their lending not only with deposits but also by issuing bonds.<sup>[2]</sup> In addition, euro area banks receive funding from the European Central Bank (ECB) against collateral. Chart 3 assumes that banks will finance their higher lending entirely by drawing on wholesale funding and by receiving funding from the central bank.

Own funds are the third item on a bank's balance sheet that it can use to finance lending. After the global financial crisis banks have been required to hold a significantly higher volume of own funds, to protect depositors and taxpayers from bank defaults and banking crises.<sup>[3]</sup>

Banks' capital adequacy requirements can roughly be divided into two types or requirements: a minimum capital requirement and buffer-type additional capital requirements. Non-compliance of the former may lead to a bank having its authorisation withdrawn, and non-compliance of the latter will result in restrictions on profit distribution, among other penalties.<sup>[4]</sup>

Own funds held by Finnish banks exceeded the volume demanded by the minimum capital requirement and buffer requirements at the end of 2019. Because a higher volume of lending increases a bank's capital requirements in euro terms (right-hand side), it is the size of the additional buffers that in the short term dictates how much a bank is able to increase its lending.

## Bank lending capacity has been strengthened by monetary, fiscal and macroprudential policy

---

1. A bank's minimum liquid assets are determined on the basis of the liquidity coverage ratio (LCR) requirement, which was introduced worldwide following the global financial crisis, to prevent systemic liquidity risks in the banking sector.

2. The fund raising of banks will be regulated globally by the Net Stable Funding Ratio (NSFR). The purpose of the NSFR requirement is to prevent the excessive funding of banks' activities with very short-term funding that may dry up very rapidly in a crisis situation. The regulation will enter into force in the EU on 28 June 2021.

3. Banks are today required to hold a significantly larger volume of own funds with the highest ability to absorb losses, for example share capital and cooperative share capital. Moreover, systemically important banks must hold debt instruments that can be written down in a crisis situation or be converted into Common Equity Tier 1 capital to finance crisis resolution. Bank supervision has been harmonised and improved since the crisis.

4. These buffer requirements are either statutory requirements or additional requirements by supervisory or macroprudential authorities that can be imposed for reasons such as the systemic importance of a bank or structural vulnerabilities in the banking system. A more detailed description of bank capital regulation is available on the FIN-FSA's website at: <https://www.finanssivalvonta.fi/en/regulation/regulatory-framework/crrcrd/>

## measures

The stylised balance sheet shows that if a bank increases its lending (left-hand side), it must increase its funding (right-hand side) accordingly. When evaluating the Finnish banking systems' capacity to meet a potential rise in the funding needs of Finnish companies, three points deserve particular focus, namely (i) how much and for how long will companies' funding needs increase; (ii) how willing are banks to increase their corporate lending; and (iii) how will the banking sector finance its increased lending.

It is difficult to estimate how the funding needs of firms will develop. During the global financial crisis, Finnish banks strongly increased their lending to non-financial corporations as soon as the crisis escalated. Afterwards, lending began to quickly decline as companies started to postpone investments.

The coronavirus pandemic weakens the economic outlook for Finland and Finland's trading partners and raises credit risk on corporate loans. The Government's decision to increase several times over the loan guarantees offered by Export Credit Agency Finnvera distributes credit risk between banks and the government, and encourages banks to increase their lending to small and medium-sized enterprises (SMEs). The purchases in the commercial paper market launched by the Bank of Finland, which have a maximum envelope of EUR 1 billion, in turn, decrease the need for large businesses to acquire bank loans and thus strengthen the ability of banks to lend to smaller businesses ([Suomen Pankki käynnisti toimintansa yritystodistusmarkkinoilla](#), 'The Bank of Finland re-entered the commercial paper market', in Finnish only).

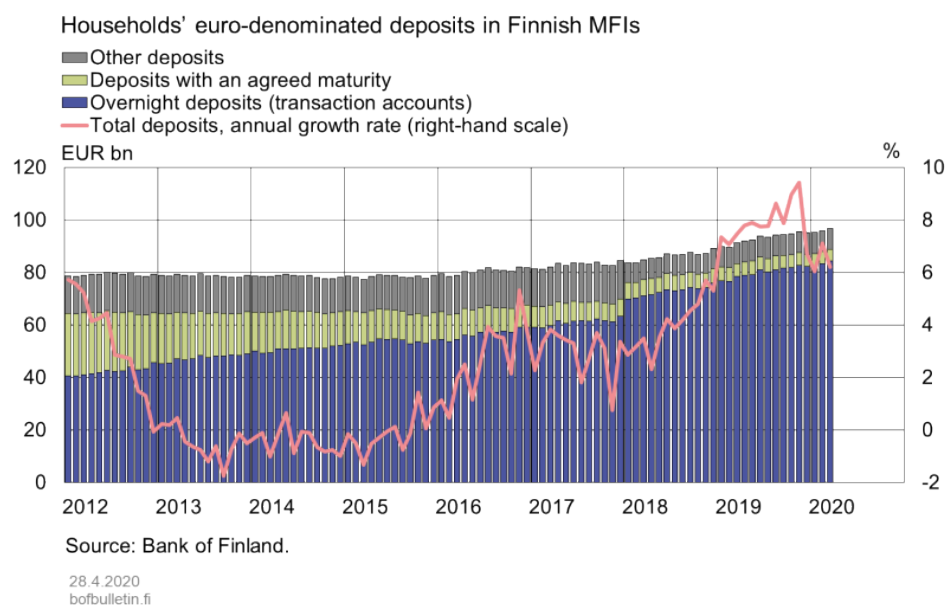
As shown in the balance sheet illustration above, Finnish banks can finance a potential rise in corporate loans by (i) attracting more deposits; (ii) increasing their volume of own funds or (iii) obtaining additional funding from the wholesale market or central bank.<sup>[5]</sup>

Deposit volumes usually grow in crisis situations, as households and firms wish to keep their assets in a form that is as liquid as possible. Finnish MFIs' stock of deposits has increased rapidly since 2018. The annualised growth rate in the stock of household deposits was slightly higher than 6% in March 2020. This strong growth in deposits contributes to the lending capacity of Finnish banks. Weaker profitability and higher loan losses, in turn, are detrimental to the accumulation of own funds in a crisis situation, as they reduce retained earnings. In addition, the demand for share issuances is virtually nil during crisis situations.

---

5. If a bank were to hold a considerable volume of cash, it could in principle increase its lending by converting part of its cash holdings into credit. In practice, however, it is not profitable for banks with a high loan-to-deposit ratio to hold large volumes of assets as cash or equivalents.

Chart 4.



The FIN-FSA Board's decision to lower banks' capital buffer requirements by one percentage point, as well as the decisions taken by other Nordic supervisors to ease countercyclical capital buffer requirements, has increased the lending capacity of Finnish banks by an estimated EUR 95 billion.<sup>[6]</sup>

European supervisory authorities have also granted quantitative and qualitative allowances in capital and liquidity requirements and have urged banks to use their accumulated buffers to maintain their lending to the real economy. Banks have also been recommended to refrain from dividend distribution at least until 1 October 2020. In addition, banks are allowed to make use of flexibility in the accounting and regulatory framework, as they determine how the modified loan repayment arrangements they have offered their customers in response to the coronavirus pandemic should be taken into account in loan loss provisions and the assessment of customer credit risk. Supervisory authorities have also alleviated banks' regulatory burden for instance by granting leeway in reporting requirements and by postponing bank stress tests to 2021.

For Finnish banks to increase their lending, banks themselves must be able to borrow from the financial markets and the ECB. In this respect, it is fortunate that the yields on covered bonds issued by large Nordic banks remain historically low, even if they have risen slightly. (Nordic countries are vulnerable to housing market risks aggravated by the coronavirus pandemic). Since the escalation of the pandemic, the ECB has increased its refinancing at very favourable terms in order to support bank lending to businesses (EKP:n rahapolitiikan toimet koronapandemian aikana, 'ECB's monetary policy measures during the coronavirus pandemic', in Finnish only).

6. The decisions increased the domestic lending capacity of Finnish banks by an estimated EUR 30 billion. See <https://www.finanssivalvonta.fi/en/publications-and-press-releases/Press-release/2020/macprudential-decision-fin-fsa-board-lowers-credit-institutions-capital-requirements/>

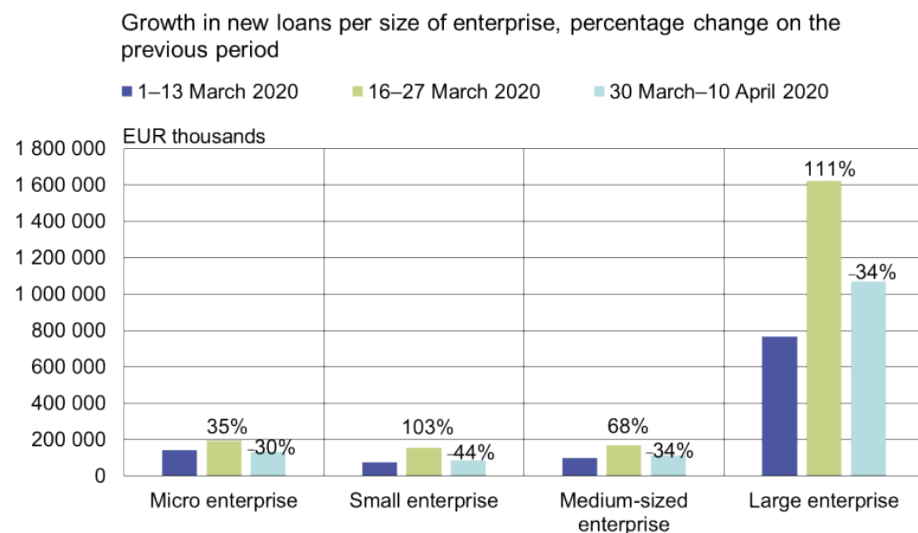


## Not all companies are keen to borrow amid economic uncertainty

Making bank loans more readily available does not help companies that do not consider it prudent to borrow in exceptional economic circumstances or that have little collateral available. Companies may avoid borrowing if they are uncertain about improving their profitability after the crisis and being able to service a larger debt burden.

The survey conducted by the FIN-FSA, Bank of Finland and Ministry of Finance suggests that banks increased their lending to companies of all sizes during the second half of March. However, loans to micro enterprises increased by far the least in relative terms (Chart 5). This may suggest that micro enterprises are particularly hesitant to take on new loans. For many firms especially in the service industry, profitability is modest even during normal times, which is likely to increase their reluctance to borrow.

Chart 5.



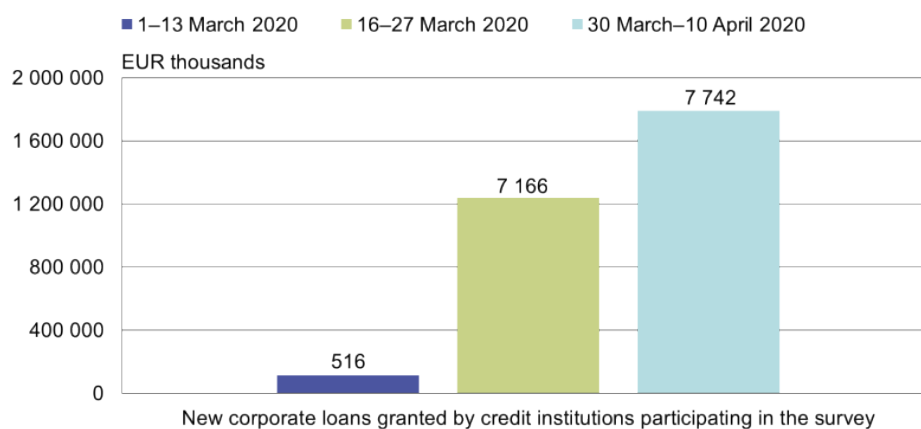
Source: Survey by the FIN-FSA, Bank of Finland and Ministry of Finance.

4 May 2020  
bofbulletin.fi

The extensive fiscal measures currently in place to prevent bankruptcies ought to be continued, so that fundamentally sound but distressed companies might continue their operations (see [Pandemic demonstrates necessity of risk buffers](#)). Banks have helped ease the liquidity crisis of firms by granting interest-only periods and other changes to loan repayment programmes. The aforementioned survey conducted by authorities shows that the amount of interest-only periods granted by banks during the second half of March was nearly 15-fold compared with the first half of the month (Chart 6).

Chart 6.

Regarding corporate loans, how many interest-only periods or other allowances in repayment arrangements did your bank grant during the survey period, number of exemptions on bars



Source: Survey by the FIN-FSA, Bank of Finland and Ministry of Finance.

4 May 2020  
bofbulletin.fi

## Coronavirus pandemic to increase banks' credit risks and loan losses

The weakening of the economic outlook will be similarly reflected in the quality of banks' credit portfolios after a delay. Scenarios for estimating bank loan losses can be constructed based on the alternative economic scenarios published by the Bank of Finland in April.<sup>[7]</sup>

In the following, loan losses on credit institutions' domestic lending are estimated based on a model introduced by Jokivuolle, Pesola and Viren (2015).<sup>[8]</sup> The model explains the banking sector's ratio of loan losses (as a percentage of outstanding loans) by regressing the loan loss ratio on GDP, inflation, the real interest rate, house and stock (share) prices, and the credit-to-GDP gap.<sup>[9],[10]</sup>

House and stock price changes are simulated using a simple econometric model. Price movements are based on a mechanical specification and depend on changes in GDP and interest rates.<sup>[11]</sup> In the scenarios, both prices decline by about 20% compared with levels

7. In April the Bank of Finland published two alternative scenarios looking at the impact the coronavirus containment measures might have on the Finnish economy. In the first scenario, the Finnish economy contracts by 5% in 2020. The containment measures are gradually lifted, and the economy expands by nearly 7% in 2021. In the second scenario, the Finnish economy contracts by about 13% in 2020. As the containment measures are held longer in place than in the first scenario, economic growth remains at about 3.5% in 2021.

8. Esa Jokivuolle, Jarmo Pesola and Matti Viren: Why is credit-to-GDP a good measure for setting countercyclical capital buffers? *Journal of Financial Stability*, 2015, vol. 18, issue C, 117-126.

9. The credit-to-GDP gap is the statutory primary indicator for setting a countercyclical capital buffer (CCyB) requirement.

10. Calculations of the size of the credit-to-GDP gap are based on the assumption that the credit stock remains unchanged and GDP contracts as estimated in the alternative scenarios.

11. Prices are explained also by past changes in prices.

at the end of 2019.

The model calculates the loan loss ratio for the domestic loan stock given the assumed development of the underlying variables. The loan loss ratio can be presented in euro terms by multiplying the estimate with the aggregated stock of household and corporate loans, which stood at about EUR 225 billion at the end of 2019.<sup>[12]</sup> In addition, the model assumes that the interest rates on household and corporate loans are 1.5 percentage points higher than the Euribor.

The results of the model are presented as quarterly loan losses in Chart 7. The cumulative loan losses from the first quarter of 2020 onwards are shown in the tables below.

Chart 7.



Table 1.

Loan losses on corporate and household loans in scenario 1

12. The applied model does not directly estimate the distribution of loan losses between corporate and household loans. These relative shares have instead been estimated separately under the different scenarios.

	Non-financial corporations, cumulative loan loss		Households, cumulative loan loss		Cumulative loan losses total EUR bn
	% of loan stock	EUR bn	% of loan stock	EUR bn	
2020	1.1	1.0	0.4	0.5	1.5
2021	2.2	2.0	0.5	0.7	2.7
2022	3.0	2.7	0.7	0.9	3.6

Source: Bank of Finland.

Table 2.

### Loan losses on corporate and household loans in scenario 2

	Non-financial corporations, cumulative loan loss		Households, cumulative loan loss		Cumulative loan losses total EUR bn
	% of loan stock	EUR bn	% of loan stock	EUR bn	
2020	1.4	1.3	0.4	0.6	1.9
2021	3.6	3.2	0.8	1.1	4.3
2022	5.2	4.7	1.0	1.4	6.1

Source: Bank of Finland.

Foreign lending accounts for a significant share of the loan stock for some Finnish banks. Because of the global nature of the coronavirus pandemic, it is reasonable to assume that banks will take loan losses on foreign lending as well. However, the volume of these losses is not estimated in our calculations, as the alternative scenarios focus on developments in the Finnish economy. Furthermore, the calculations look at the banking sector in aggregate, so loan losses have not been estimated for individual banks.

The loan losses on domestic lending are first estimated based on the scenarios and then compared to Finnish GDP and the banking sector's volume of own funds. In scenario 1, loan losses amount to some 1.5% of GDP in 2019, and to approximately 8% of banks' own funds at the end of 2019. In scenario 2, loan losses come to about 2.5% of GDP in 2019, and to about 13% of banks' own funds at the end of 2019. These results are sensitive to the assumed interest rate margin. If the interest rate margin were one percentage point higher than the baseline assumption, the estimated loan losses for scenario 2 would increase about 20%.<sup>[13]</sup>

During the Finnish banking and economic crisis of the 1990s, the banking sector's aggregate loan losses totalled EUR 11 billion during the period 1991-1996, which corresponds to about 12% of GDP in 1990 and some 14% of the stock of loans to households and non-financial corporations at the end of 1990. The cumulative loan losses realised during 1991-1996 were larger than the total value of bank capital at the end of 1990.<sup>[14]</sup>

The alternative scenarios and derived loan loss estimates are subject to exceptionally high uncertainty, particularly in relation to the length of the crisis. Nevertheless, these indicative calculations demonstrate the importance of ensuring that banks are well-capitalised to withstand future loan losses.

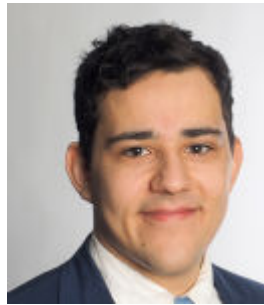
## Tags

[loan losses](#), [corporate loans](#), [coronavirus pandemic](#), [corona](#), [banks](#)

## Authors



**Paavo Miettinen**  
*Head of Division*  
[firstname.lastname@bof.fi](mailto:firstname.lastname@bof.fi)



**Adam Saada**  
*Economist*  
[firstname.lastname@bof.fi](mailto:firstname.lastname@bof.fi)



**Nea Tiililä**  
*Economist*  
[firstname.lastname@bof.fi](mailto:firstname.lastname@bof.fi)



**Jukka Vauhkonen**  
*Senior Adviser*  
[firstname.lastname@bof.fi](mailto:firstname.lastname@bof.fi)

---

13. Changing the interest rate premium allows for an assessment of the impact of tighter credit policies on the situation. Stricter lending terms would be reflected as higher interest margins and lending income, but probably also as higher loan losses in the economy as a whole.

14. The banking sector was recapitalised during the 1990s crisis.