Analysis

Impact of ECB's policy rate changes on corporate loan rates varies strongly across countries

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Olli-Matti Laine, Aleksi Paavola, Eeva Kerola

AUTHORS



Olli-Matti Laine
Senior Economist



Aleksi Paavola
Senior Market Analyst



Eeva Kerola
Senior Economist

A significant proportion of the stock of corporate loans in the euro area consists of fixed rate loans. This is a factor slowing the transmission of monetary policy. It is why the interest rate increases which the European Central Bank (ECB) began making in 2022 have not yet passed through to the loan servicing costs of a large proportion of companies. Correspondingly, in many companies the ECB's recent cuts in its key policy rates are not yet reflected in lower borrowing costs. The proportion of corporate loans that are fixed rate varies between industries, but the difference is even more significant across euro area countries. For example, in Germany and France, the majority of corporate loans are tied to a fixed interest rate, whereas in Finland, the proportion of fixed rate loans is very small.



Time lag in transmission of monetary policy to lending and the economy

The impact of monetary policy decisions on economic growth and inflation is seen gradually and with a lag of many months. Nelimarkka (2024) estimates that the largest impact of the ECB's rate increase cycle, which began in 2022, will be felt on the euro area economy between mid-2023 and 2025. Darracq-Paries et al. (2023) reach a similar conclusion. Even though the ECB has already decreased its key policy rates, the effects of the earlier interest rate increases are still dampening the rise in prices.

The euro area economy is bank-centric, with most household and corporate debt financing consisting of credit granted by banks – despite the increasing share of bonds in firms' debt financing in recent years.[1] The pass-through of ECB policy rates to bank lending thus plays a key role in the transmission of monetary policy to the economy (see e.g. Lane, 2022; Lane, 2023). In the euro area, the terms of bank loans are therefore a key factor affecting financing conditions for the private sector.[2]

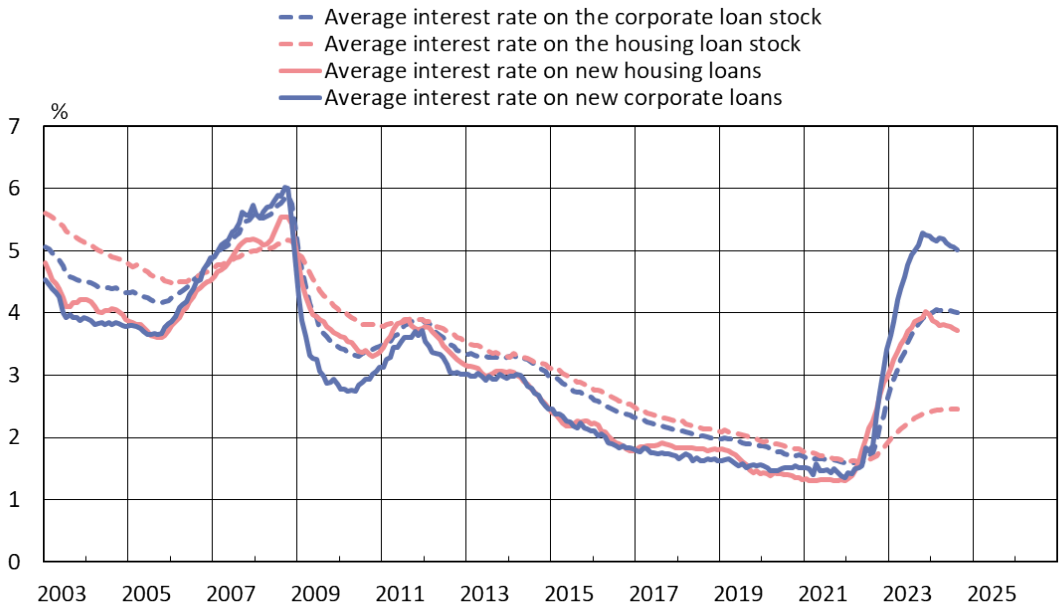
The pass-through of policy rate changes to banks' credit terms – the transmission of monetary policy – varies. Interest rates on new loans follow movements in policy rates fairly closely: in 2022, lending rates rose rapidly, reflecting the increases in the ECB's policy rates, and have started to decline this year as the interest rate cycle has turned (Chart 1).[3] This part of the monetary policy transmission process is also subject to lags that vary case by case. Calculations by Kerola (2024) show that the rise in the ECB's policy rates passed through to interest rates on new housing and

corporate loans in 2022–2024 at a slightly slower pace than in the previous monetary policy tightening cycle in 2005–2007.[4] Possible reasons for the weaker pass-through of ECB rate increases to bank lending rates include differences in the interest rate expectations or loan demand during the rate increase cycles, the growing popularity of fixed rate loans during the era of low interest rates, and the increasing use of hedging products.

Average interest rates on the aggregate loan stock rise at a significantly slower pace than interest rates on new loans (Chart 1). This is because a notable proportion of bank financing to firms and households in the euro area consists of fixed rate loans, where the interest rate is set for the entire loan period on the date the loan is granted. As a result, average financing costs for many companies and households have remained moderate, despite the ECB's rate increases. Correspondingly, despite the current policy rate cuts, the financing costs of many entities may still rise if capital borrowed at a fixed rate when interest rates were low matures and has to be rolled over at a higher interest rate. This article examines the pass-through of monetary policy to corporate credit via the banking sector particularly from this perspective.

Chart 1.

Interest rates on loan stocks respond more slowly than interest rates on new loans



Source: European Central Bank. 32423@Lainakannankorko(ET24)en

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Monetary policy passes through more rapidly to variable rate loans

The pass-through of monetary policy is stronger in the case of companies with variable rate bank loans. An increase in policy rates restricts the operating conditions of such companies as the rise in interest expenses reduces their available funds (Ippolito et al., 2018). In other words, if a company has variable rate loans, changes in policy rates will affect its operating profit and cash flow. This, in turn, will affect profit distribution and investment. This is referred to as the floating rate channel of monetary policy. Empirical evidence of the existence of the channel is presented by Ippolito et al. (2018) and Gürkaynak et al. (2022).

A similar mechanism also applies to housing loans and other credit: households' disposable income and consumption decisions are affected by changes in borrowing costs (Calza et al., 2013; Di Maggio et al., 2017). However, this article focuses on corporate loans, for which a granular AnaCredit dataset covering the entire euro area is available. This allows us to examine the pass-through of monetary policy at the company level.

About half of the corporate loans granted by euro area banks are variable rate loans and half are fixed rate loans.[5] A significant proportion of companies therefore have fixed rate bank loans, but the situation varies considerably from one country to the next. Differences between countries in the proportions of variable rate and fixed rate loans have been studied mainly in the case of housing loans. Both Campbell (2012) and Albertazzi et al. (2024) conclude that consumers prefer fixed rate loans more in countries where inflation has been historically less volatile. The latter article also finds other reasons for the wider use of fixed rate loans, such as low financial literacy among households and a high correlation between unemployment and the short-term interest rate. Overall, the authors consider that in the case of housing loans, household demand is a stronger determinant than the supply of loans from banks when it comes to the choice between variable and fixed rate loans.

Jungherr et al. (2022) show that firms' investment is more responsive to monetary policy when a significant fraction of their debt matures. For understanding the pass-through of policy rate changes it is therefore useful to know when the existing loans will mature and when companies will need new financing. Below, we use the AnaCredit register of corporate credit to examine the maturities and interest rates of euro area corporate loans.

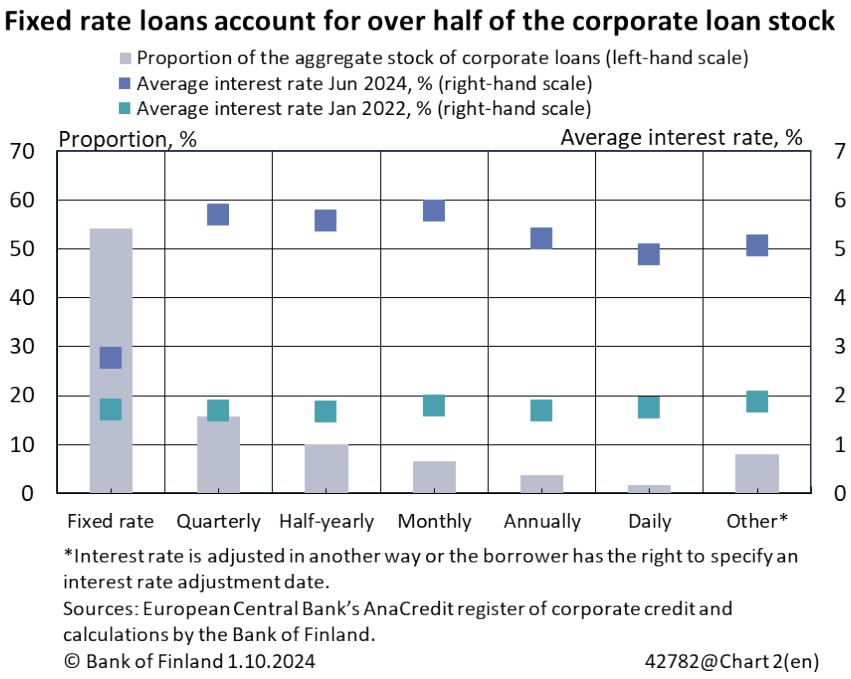
Pass-through of interest rate changes to euro area corporate loans varies

The rapid rise in interest rates that began in 2022 has significantly increased loan servicing costs in the euro area's corporate sector. However, the increase in a company's interest burden depends on the extent to which it has variable and fixed rate loans. Around half of all loans in the AnaCredit register of euro area corporate credit are fixed rate loans (Chart 2). The second most popular types of loan are those in which the interest rate is adjusted on a quarterly (18%) or half-yearly (10%) schedule.

As noted above, approximately half of the stock of corporate loans consists of fixed rate loans, in which the interest rate remains unchanged throughout the loan period. The interest expenses on these loans therefore rose relatively little during the rate increase cycle that just recently ended (Chart 2). The average interest rate on the stock of fixed rate corporate loans has risen from approximately 2% in January 2022 to about 3% in June 2024, a rise of around one percentage point.

By contrast, in variable rate corporate loans, the policy rate increases have been passed on broadly to the existing stock of loans (Chart 2). Depending on the type of loan, the average interest rate on the stock of variable rate corporate loans has risen since January 2022 by 3 to 4 percentage points, and the average interest rate in June 2024 was approximately 5%–6%. This means that, based on current expectations for interest rates[6], the interest expenses of variable rate corporate loans will begin to decrease.

Chart 2.



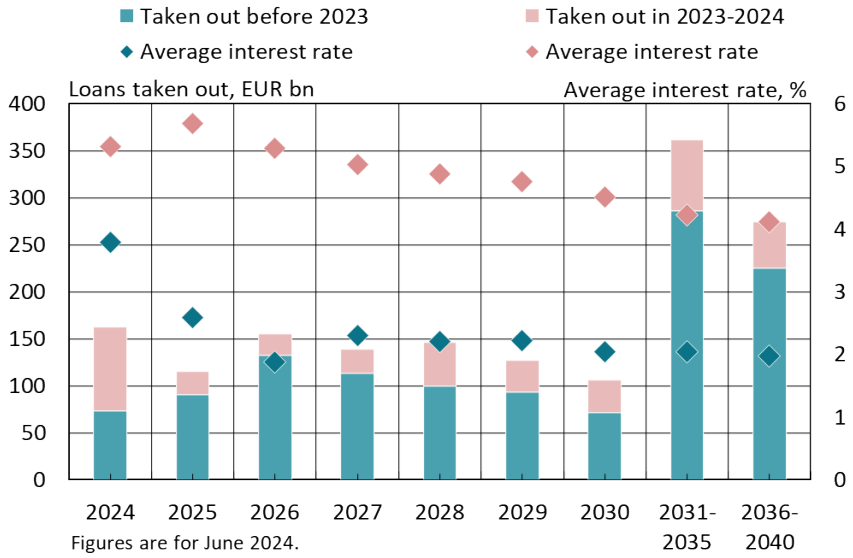
In the case of fixed rate loans taken out during times of low interest rates, any increase in interest expenses will take place only when the loan matures and needs to be rolled over. The increase in financing costs is limited by the fact that only a small proportion of fixed rate loans will mature within the next couple of years (Chart 3).

The average interest rate on fixed rate corporate loans that will mature by the end of 2024 is nearly 5%, as a large proportion of these loans were also initially with short maturities. Therefore, any roll-over of these loans will hardly increase interest expenses at all.

However, the further we look into the future, the lower the average interest rate on maturing fixed rate corporate loans. This is because a significant proportion of long-term fixed rate loans maturing in the 2030s were taken out before 2023, when interest rates were low (Chart 3).[7] Their average interest rate is still approximately 2%. These low interest rate loans taken out before 2023 account for about 37% of fixed ate corporate loans and nearly one in five of all corporate loans. A large proportion of corporate loans is thus fully hedged against larger rises in interest expenses.

Chart 3.

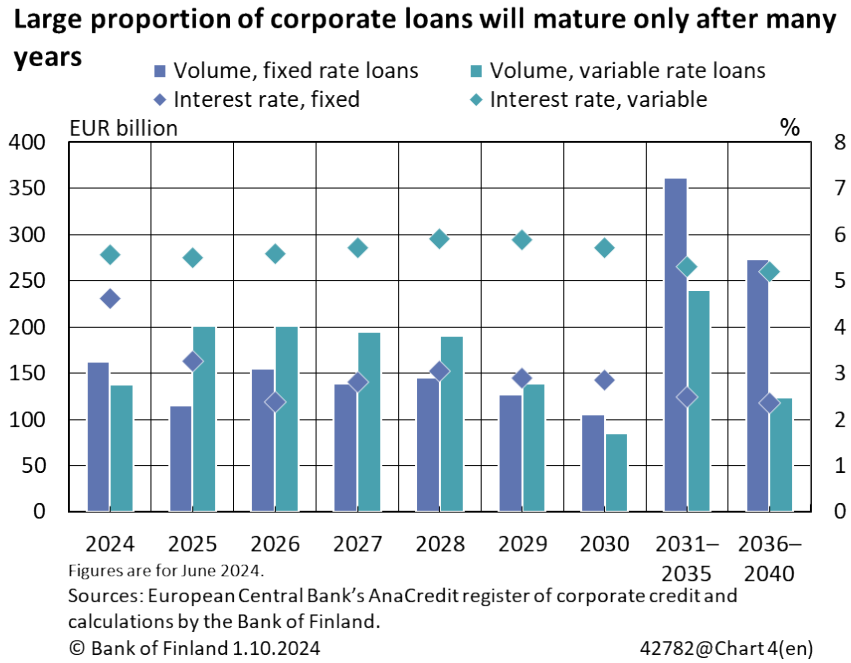
Significant proportion of fixed rate corporate loans taken out during era of low interest rates



Figures are for June 2024.
Sources: The European Central Bank's AnaCredit register of corporate credit and calculations by the Bank of Finland.
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When fixed rate loans maturing next year are rolled over, the interest burden will grow unless interest rates decline considerably from the current level. The majority of fixed rate corporate loans will mature only after 2025 (Chart 4). Compared to the current level of rates, the average interest rate on these fixed rate corporate loans is fairly low, at between 2% and 3%. If current market expectations for interest rates materialise, interest expenses will increase in connection with the roll-over of these loans as well, albeit moderately.

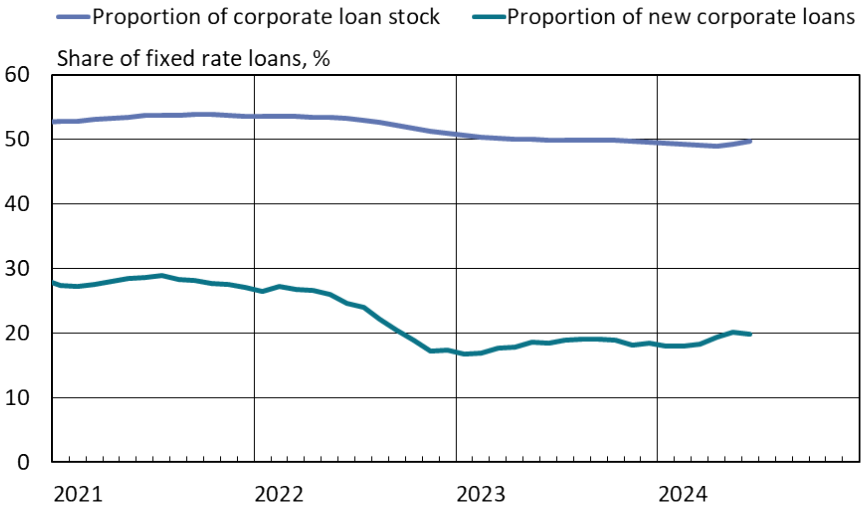
Chart 4.



The popularity of fixed rate corporate loans has decreased since the start of the rate rises (Chart 5). This is probably because a company taking out a fixed rate loan when interest rates are high will be fixing its borrowing costs at an elevated level for the entire maturity, and the current level of interest rates is high compared to recent history. In addition, a large proportion of fixed rate corporate loans have been short-term loans with a maturity of up to 1 year. A borrower that rolls over a fixed rate loan once a year will benefit from a decline in interest rates in the same way as for variable rate loans.

Chart 5.

Proportion of fixed rate corporate loans decreased after rise in interest rates



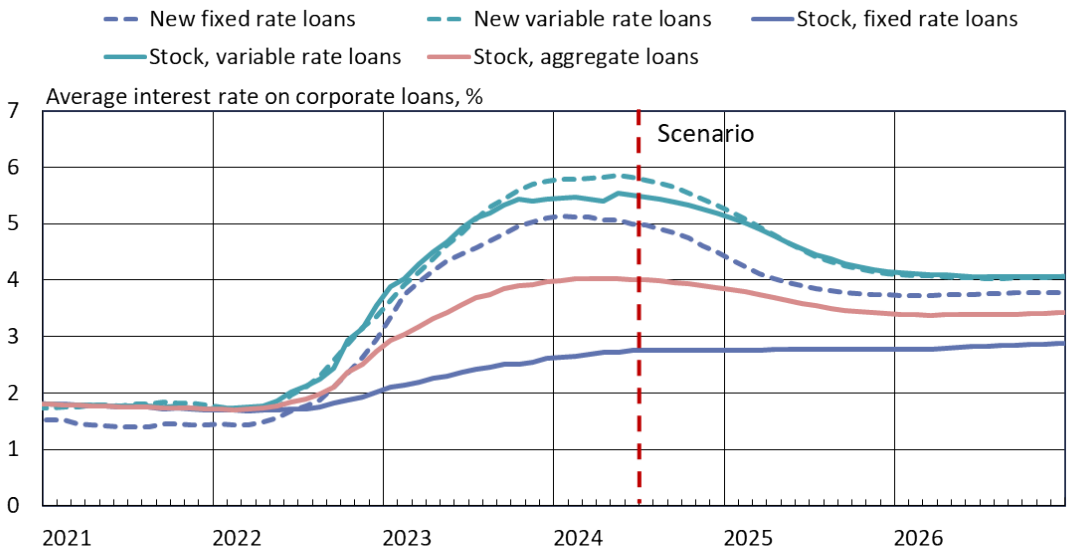
Includes only fixed rate loans with maturity of over 1 year.
Sources: European Central Bank's AnaCredit register of corporate credit and calculations by the Bank of Finland
© Bank of Finland 1.10.2024 42782@Chart 5(en)

Overall, the proportion of corporate loans that are fixed rate will have a significant impact on the loan servicing costs of companies in the euro area whenever policy rates are changed. In particular, if the proportion of fixed rate loans (with long maturities) is high, this will increase the time lag before the rate changes are passed through to lending rates.

The impact of fixed rate loans on monetary policy transmission in the entire euro area is illustrated in Chart 6. We can see that the rise in the average interest rate on the stock of fixed rate loans to below 3% at the moment has maintained the average interest rate on the aggregate loan stock at approximately 4%. The chart also includes a scenario that is based on simple assumptions about the possible path of interest rates for loan stocks and for new loans if risk-free market interest rates were to develop in accordance with current market pricing. The scenario is not a forecast; instead its purpose is to illustrate a possible path of average interest rates in the immediate years ahead.[8]

Chart 6.

Interest rate on stock of fixed rate corporate loans will probably continue rising



Average interest rate on new loans, 6-month moving averages. The scenario assumptions are presented in the article.
Sources: European Central Bank and calculations by the Bank of Finland.
© Bank of Finland 1.10.2024 42782 Chart6(en)

Proportion of fixed rate loans differs across countries and industries

There are considerable differences across countries in the euro area in the proportion of all corporate loans that consists of fixed rate loans. Fixed rate loans protect borrowers against rising interest rates (Chart 7). In the calculations presented here, fixed rate loans with a maturity of up to one year are distinguished from those with a longer maturity. In terms of the pass-through of interest rates, these fixed rate loans with a short maturity can be regarded more as variable rate loans.

Compared with the euro area average, the proportion of fixed rate corporate loans is significantly larger in France and Germany (70%–75%). In these two countries, the interest burden has so far only risen for a small number of companies. In Lithuania, Latvia and Finland, in turn, the changes in the ECB's policy rates have already effectively passed through to almost the entire stock of corporate loans, because fixed rate loans account for less than 10% of the loan stock.

There seems to be a fairly strong correlation between the country-specific ratio of fixed to variable rate loans among corporate loans and the same ratio among housing loans, although throughout the euro area a slightly larger share of mortgages are fixed rather than variable rate

loans (Chart 8). This is not surprising, as housing loans are relatively large and long-term contracts for households, so it can be beneficial to hedge against interest rate increases by taking a fixed rate mortgage. Companies appear to have a slightly higher tolerance for interest rate risk. That said, country-specific factors seem to play an important role in respect of the prevalence of fixed and variable rate loans, regardless of the borrower, as fixed rate loans are more popular among both companies and households in the same countries.

Chart 7.

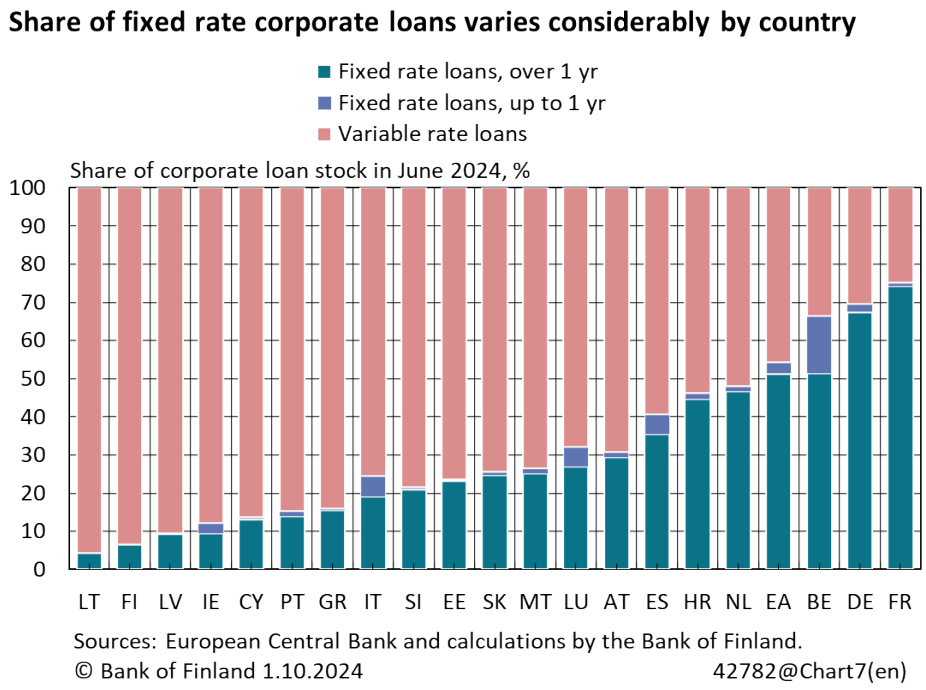
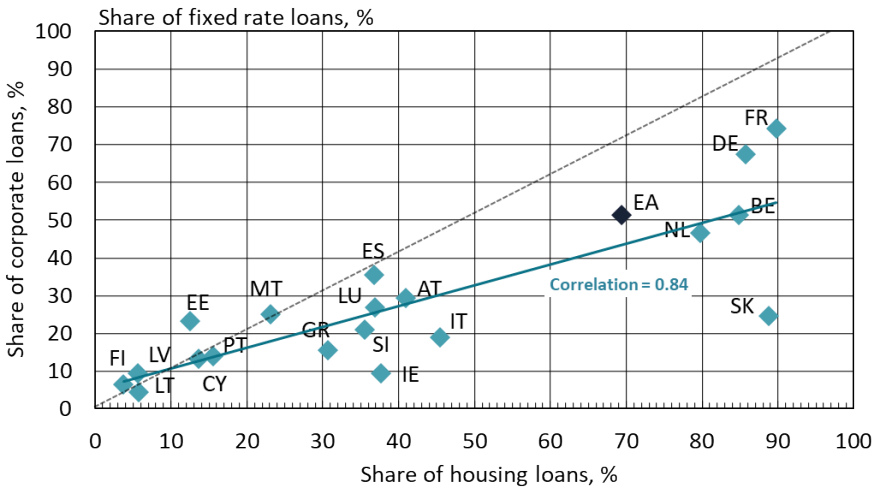


Chart 8.

Country-specific differences in the proportions of fixed and variable rate loans are roughly the same for both corporate and housing loans

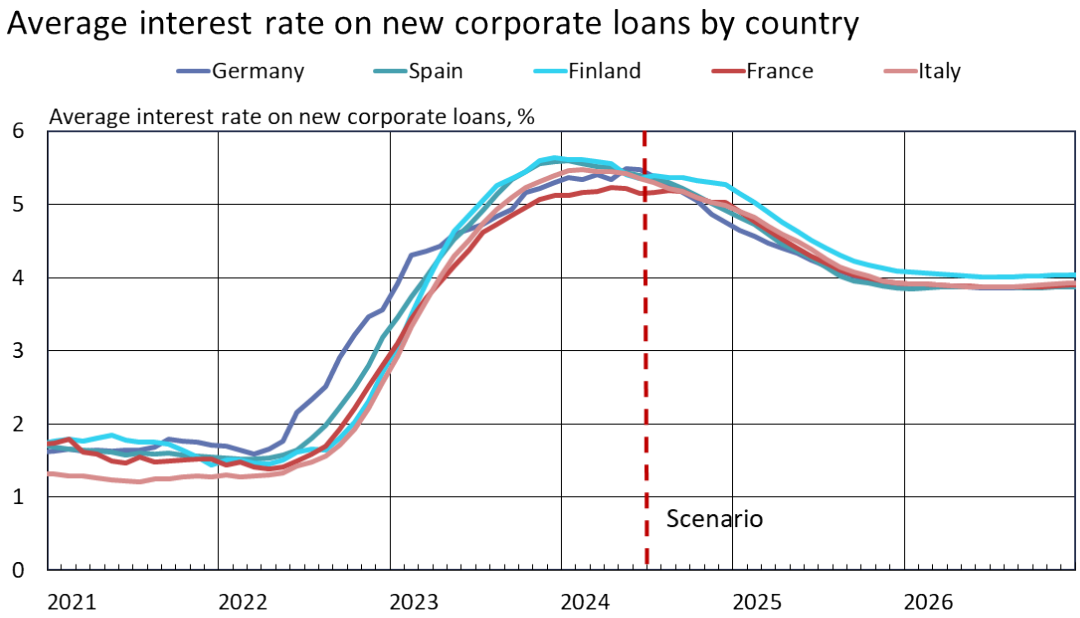


Corporate loans: share of loan stock in June 2024, includes only fixed rate loans of over 1 year.
Housing loans: share of new loans, average for 2003–2024.
Sources: European Central Bank and calculations by the Bank of Finland.
© Bank of Finland 1.10.2024 42782@Chart8(en)

The country-specific differences in the prevalence of fixed rate loans are well reflected in the average interest rates on the stock of corporate loans. While the average rate on new loans has seen a broad-based rise in different countries, to over 5%, the average rate on the aggregate loan stock has risen much less in countries where a high proportion of fixed rate loans protects borrowers from rising interest rates (Chart 9 and Chart 10). In France and Germany, where fixed rate corporate loans are more common, the corporate sector's average interest expenses have increased by a total of a couple of percentage points over the past two years, compared with 3.5 percentage points in Finland and Italy, where variable rate loans are more popular.

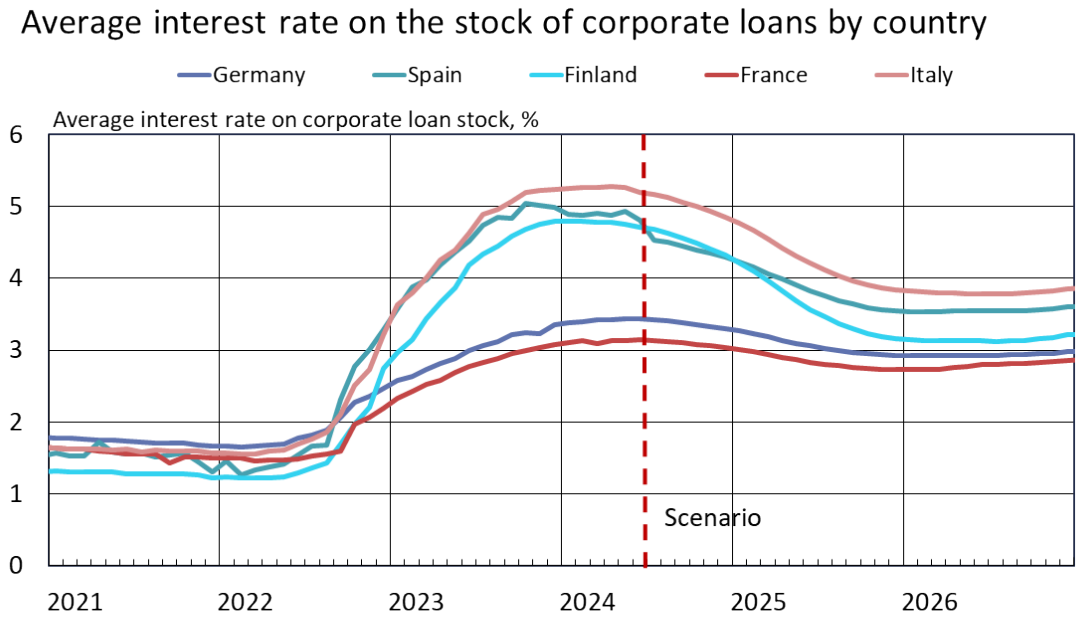
Charts 9 and 10 also present a hypothetical scenario for the path of interest rates on outstanding and new loans over the next few years by country. The assumptions are the same as above in Chart 6. The charts illustrate how average interest rates on outstanding loans will continue to reflect the country-specific preferences for fixed and variable rate loans even though the rates on new loans are likely to move fairly uniformly, as has been the case so far.[9] In Finland, for example, due to the large volume of variable rate loans, the average rate on outstanding loans is likely to decline rapidly if interest rates fall in accordance with current market expectations. By contrast, in Germany and France, where borrowers prefer fixed rate loans, the average rate on outstanding loans is still slowly rising, as there are more long-term loans that were taken out in times of low interest rates than in the other countries on average.

Chart 9.



6-month moving averages. The scenario assumptions are presented in the article.
Sources: European Central Bank and calculations by the Bank of Finland. 42782 Chart9(en)
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Chart 10.

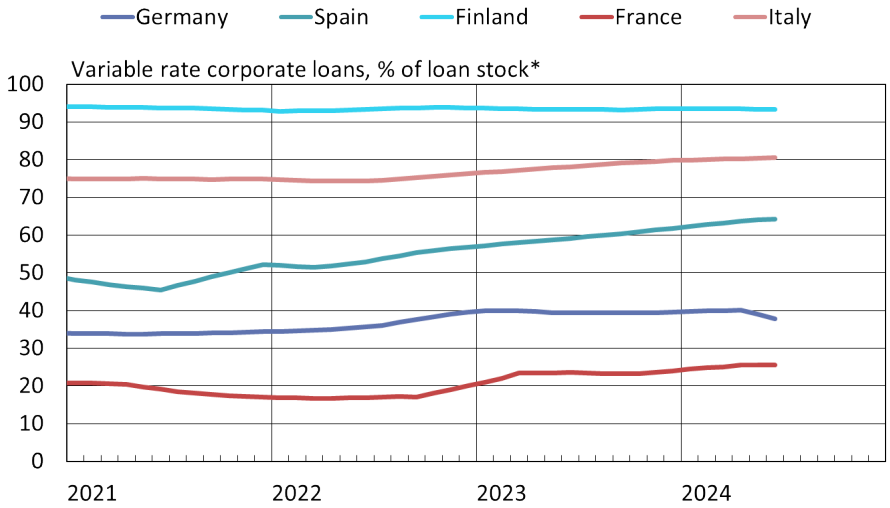


The scenario assumptions are presented in the article.
Sources: European Central Bank and calculations by the Bank of Finland. 42782 Chart10(en)
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Although variable rate loans have become more common following the rise in interest rates, overall, their country-specific shares of the loan stock have remained very stable in recent years (Chart 11). An exception to this is Spain, where the share of variable rate loans has followed a clear upward trend in recent years.

Chart 11.

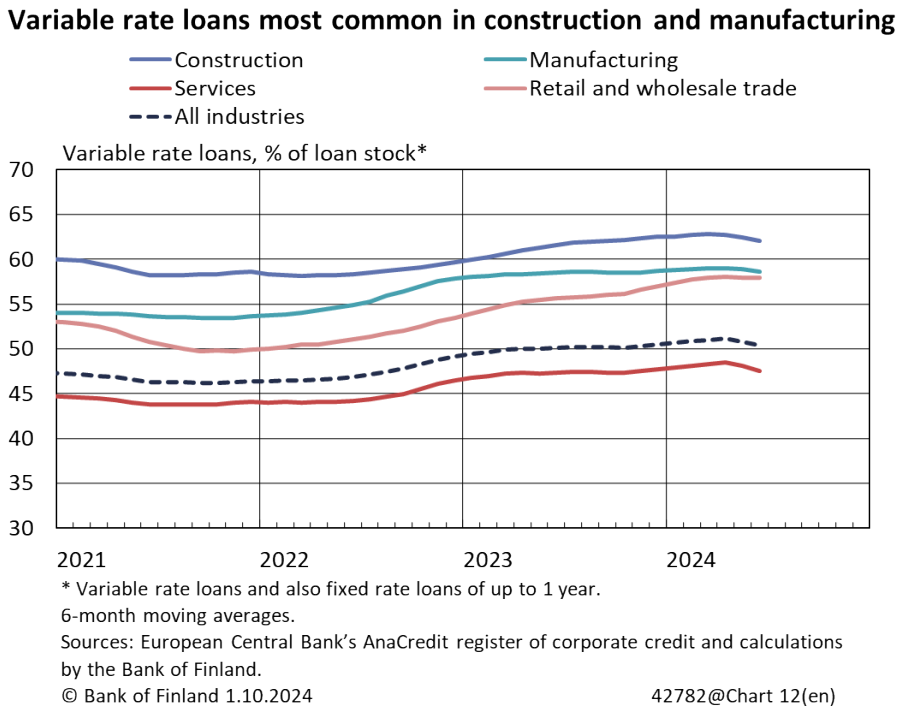
Share of variable rate loans has varied only slightly across time



* Variable rate loans and also fixed rate loans of up to 1 year.
6-month moving averages.
Sources: European Central Bank's AnaCredit register of corporate credit and calculations by the Bank of Finland.
© Bank of Finland 1.10.2024 42782@Chart 11(en)

Variable rate loans are also considerably more common in some industries than in others (Chart 12). They are much more usual in construction and manufacturing than in the service industries. Consequently, during the current rate increase cycle, the average borrowing costs have risen significantly more for construction and manufacturing companies than for services companies. This may partly explain the diverging trends in services and manufacturing (for more information, see the Monetary Policy Review, in Finnish).

Chart 12.



As with country-specific differences, industry-specific differences can also be illustrated by comparing the average interest rates on new and outstanding loans (Chart 13 and Chart 14). Although the interest expenses on new loans have risen on a broad front across industries – by just under 4 percentage points to around 5%–6% – there are differences when it comes to the average rate on outstanding loans. Over the past two years, the average interest burden has grown by about 1 percentage point more for companies in manufacturing, construction and the retail and wholesale trade than for services. The industry-specific differences in the proportions of fixed and variable rate loans also affect the country-specific differences.

Chart 13.

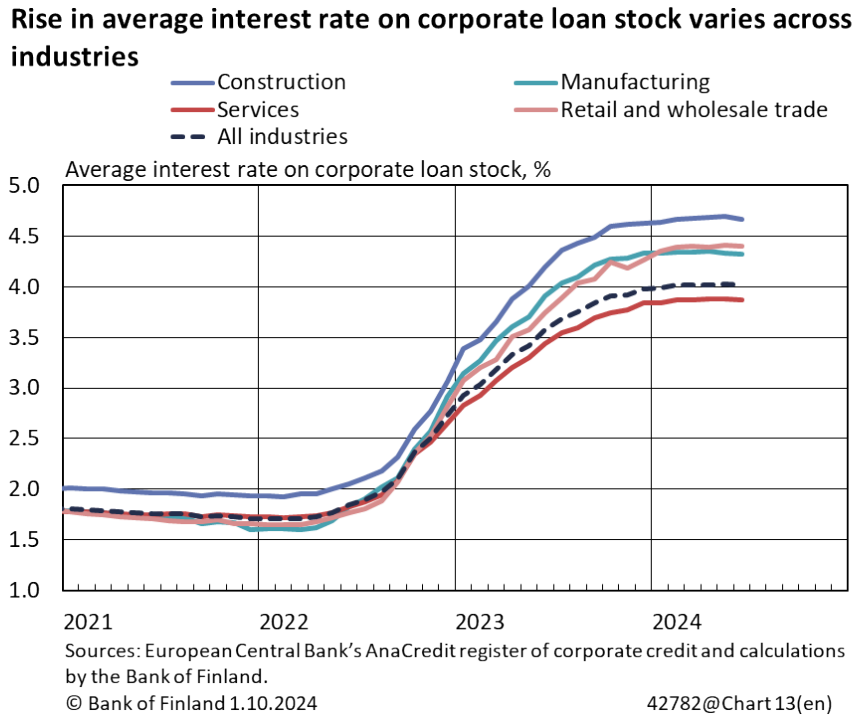
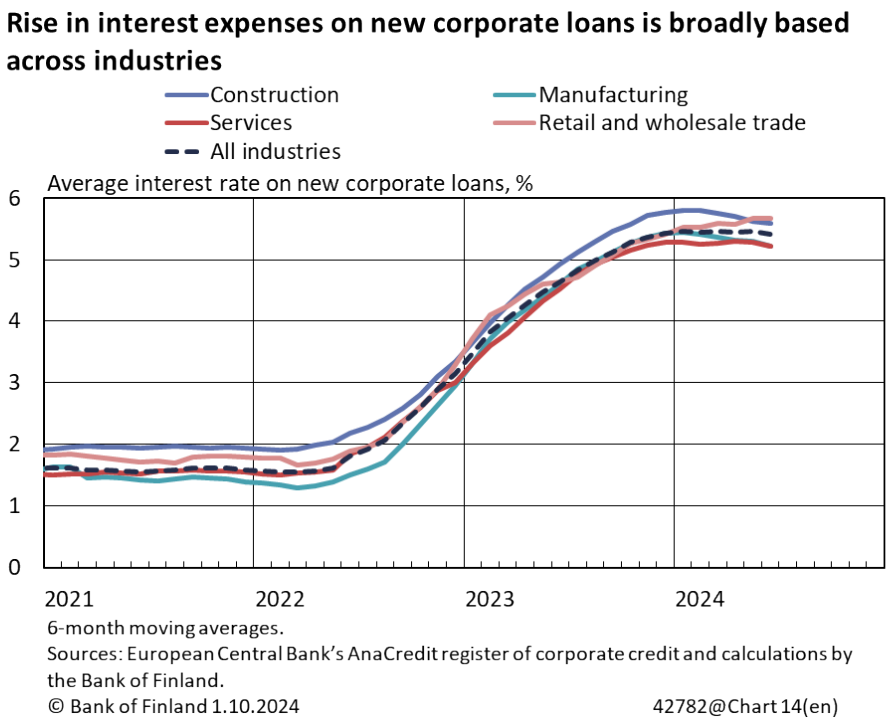


Chart 14.



Impact of ECB's policy rate changes on corporate loan rates vary considerably across countries

Among the stock of corporate loans in the euro area, a significant proportion are still tied to low interest rates. Many of these loans will mature only after many years. As a result, the average interest rate on the corporate loan stock has remained fairly low, and for many companies their interest expenses may rise when rolling over maturing loans. Thus, the effects of the monetary tightening cycle of the past few years have not yet been fully transmitted to corporate loans in the euro area. Despite the ECB's recent interest rate cuts and market participants' current expectations of lower interest rates, the decline in the average interest rate on the stock of corporate loans will be slow.

There are considerable differences across countries in the euro area in the prevalence of variable rate corporate loans. In Germany and France, where the majority of corporate loans are at fixed rates, the average interest rate on the loan stock will decline only slightly in the immediate years ahead. By contrast, in Finland, where fixed rate loans comprise only less than 10% of the corporate loan stock, interest rate cuts will quickly reduce the corporate sector's interest burden. Although the ECB's policy rate increases have in the past couple of years added to the interest burden of companies especially in countries where variable rate loans are common, in the very same countries the average rate on corporate loans has remained lower than in the other countries during the entire era of the euro. In Finland, for example, the average rate on the corporate loan stock has been 2.65% during the euro era, compared to 3.36% in the euro area as a whole and 3.47% in Germany. The differences are due to the fact that short-term rates have been lower on average than long-term rates practically throughout the euro era, except for the period of rapidly rising interest rates of recent years.

There are also industry-specific differences. For example, variable rate loans are fairly common in manufacturing. Overall, however, the differences are small compared with the differences across countries.

What is the macroeconomic significance of the proportion of variable rate loans, in terms of monetary policy? In other words, would monetary policy measures have impacted inflation and GDP in a materially different way if all bank loans in the euro area had been fixed rate loans? It is impossible to give a precise answer to this, but Ippolito et al. (2018) conclude that the floating rate channel is at least as important as the bank lending channel. However, the results of the study do not tell us anything about the macroeconomic importance of variable rates, so further research is needed.

The macroeconomic significance of the prevalence of variable rates in household loans has also

been discussed in the article Higher interest rates are slowing inflation and economic growth in Finland. The model calculation presented in the article suggests that the large proportion of variable rate mortgages slightly amplifies the impacts of monetary policy but that this is of moderate importance, as monetary policy is also transmitted through many other channels.[10] Changes in the level of interest rates have a direct impact on companies' willingness to invest and on households' willingness to save.

Thus, even large differences in the proportion of fixed and variable rate loans do not necessarily imply large differences in the impact of monetary policy on GDP or on inflation across the countries of the euro area. Monetary policy is transmitted not only through bank lending but through many other channels as well. There is no detailed or conclusive research data yet on how the prevalence of fixed versus variable rate corporate loans affects the transmission of monetary policy.

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Notes

1. As a proportion of the debt financing of euro area companies, the bond financing acquired by these companies from the markets has increased in the past 15 years from about 15% to 25%. The rest is financing granted by banks. The majority of households' debt for house purchases or other investments consists of bank loans. ↑
2. When, as a result of monetary policy tightening, banks are less inclined to grant new credit and lending rates rise, the volume of new loans will decline, which will, in turn, dampen investment and consumption. The impact of monetary policy on the economy specifically via the bank lending channel has long been recognised (see e.g. Bernanke and Gertler, 1995; Kashyap and Stein, 2000). ↑
3. There are nevertheless differences between corporate and housing loans in regard to interest rate movements, particularly in an environment of rapid rate increases like this, as ↑

fixed rate loans comprise a larger share of housing loans than of corporate loans. Fixed rate housing loans also typically have longer maturities than corporate loans.

4. Beyer et al. (2024) conclude, too, that the pass-through of interest rate increases to lending rates in the euro area has been slightly slower than in the previous tightening cycles. In an earlier study, Hristov et al. (2014) found that the pass-through of the ECB's rate changes to lending rates in the euro area was generally complete by 2007. Correspondingly, Altavilla et al. (2020) describe how monetary policy pass-through to lending rates in the euro area varied in the period 2007–2017 due to country-specific and bank-specific factors, among other things. They note that banks passed the policy rate changes through to lending rates in full, on average, but slowly, although the pass-through was less strong in the case of banks with a weak balance sheet. They noted further that the muted pass-through can be alleviated by unconventional monetary policy measures. ↑
5. In the euro area, the majority of household loans are mortgages, and these are largely fixed rate loans. The policy rate increases which the ECB began in 2022 have thus not yet passed through to a significant share of these existing loans. There is significant variation among the euro area countries in the types of mortgages taken: in Germany and France, for example, nearly all housing loans are fixed rate, whereas in Finland and in the Baltic countries, variable rate loans are popular. ↑
6. The ECB's deposit facility rate is now 3.50% and the shortest money market rates are slightly lower. Based on short-term market pricing in September, interest rates will decline to around 2% by the start of 2026. ↑
7. This is also partly due to the selection of companies: large and low-risk companies typically take out more loans with very long maturities than small and high-risk companies. As a result, in loans with long maturities, the average risk premia and hence also the interest rate may be slightly lower than in loans with shorter maturities. ↑
8. The scenario is not a forecast but a simple illustration in which the parameters are selected in such a way that the risk premia and the movement in average interest rates on loan stocks correspond relatively well to the situation before the rate increase cycle. Scenario assumptions: 1) Risk-free rates follow the market pricing that prevailed in early September. 2) The interest rates on new loans follow the 3-month and 10-year risk-free rates with a margin of +2.0 percentage points (variable rate) and +1.5 percentage points (fixed rate). 3) The interest rate on the stock of variable rate loans changes monthly by 75% from the average monthly change in the short term risk-free rate over the previous six months. 4) In all the loan types, there is no increase in the loan stock, but instead the loans are rolled over. ↑
9. The scenario assumes that risk premia (i.e. loan margins) are of equal size on average in all countries. This assumption will not necessarily hold true, as for example in Finland corporate risk premia have typically been lower in the past than in many peer countries. If this continues to be the case, the average rate on the stock of Finnish corporate loans will at some point fall below that in peer countries, as it did before the rate increase cycle in 2022. ↑
10. Moreover, the macroeconomic impact of mortgage rates is also determined by how large a proportion of households have outstanding loans in general and how loans are distributed in terms of income and wealth levels. Similarly, in the case of corporate loans, the volume of loans and their distribution across companies with different balance sheet structures, for ↑

example, may be relevant to the transmission of monetary policy.

Keywords

AnaCredit, banks, loans to non-financial corporations, monetary policy