Macroprudential Commentary

December 2022

NÁRODNÁ BANKA SLOVENSKA
EUROSYSTÉM

Summary

- The financial cycle is undergoing a change. Strong expansionary trends are gradually moderating. Amid uncertainty and rising inflation, a number of credit market segments have begun to cool. On the other hand, the labour market remains strong.
- New lending to households has decreased. A notable increase in mortgage rates has contributed to the slowdown in lending. At the same time, however, higher-risk mortgages (in terms of their DSTI ratio) are being granted to a greater extent and disproportionately to less educated borrowers with lower income. This in turn is contributing to a build-up of risks.
- Growth in loans to non-financial corporations (NFCs) remains robust, though the situation is heterogeneous across sectors. With prices surging, there is an increasing need for financing, including external financing, and especially for working capital.
- The residential property market is also beginning to slow down. Compared with the first half of the year, housing prices have on average stopped rising and the number of properties on the market offered for sale has increased.
- Despite uncertain times, banks are achieving solid profitability and maintaining capital strength. Given their capital position, banks should be able to cope with potential shocks in the period ahead. There is, however, a new challenge in the form of a potential shortage of stable sources of funding.

Also in this edition

No change in the CCyB rate

Private sector behaviour is changing amid the presence of elevated risks, specifically the war in Ukraine and its repercussions for economic developments in Europe, accelerating inflation, and heightened uncertainty about the future. Whereas a year ago there was a large appetite for borrowing, today the credit market is affected by a surge in interest rates and, to some extent, by a greater degree of uncertainty. New lending to households has slowed, flat prices have on average stalled, and rising interest rates are gradually eroding credit demand and availability, particularly across households. Among firms, too, however, a shift in behaviour is apparent, as they face rising input prices that are increasing their external financing needs, in particular for working capital. This situation has been reflected in the financial cycle, whose upswing is starting gradually to ease after previously gathering pace. Nevertheless, credit losses in the banking sector remain low.

Although a number of indicators point to shifts in the financial cycle, it is too soon to speak about a full-blown turn, given that the economic situation, especially the labour market, remains stable. Banks are sufficiently capitalised to be able to cope with potential losses arising from existing risks. In this context, there is currently no need to adjust the countercyclical capital buffer (CCyB) rate.

Expectations for the CCyB rate in the next quarter

Národná banka Slovenska (NBS) does not envisage having to adjust the countercyclical capital buffer rate in the next quarter.

In its most recent CCyB rate increase, NBS already took into account the possible cooling of growth trends. Although new lending has eased, a proportion of new loans are higher risk owing to greater repayment burdens. This implies that banks in Slovakia are not changing their approach to risk. In other EU countries, by contrast, a tightening trend in bank credit standards can be observed. The shift in the financial cycle does not warrant any release of the countercyclical capital buffer (CCyB). The moderation of expansionary trends means that risks associated with the financial cycle are building up, albeit more slowly than they were in the previous period. There would be impetus to release the CCyB if credit losses increased above the norm.

NBS is therefore paying close attention to the evolution of risks; if there is any risk of them translating into losses, NBS stands ready to reduce the CCyB rate in order to give banks the leeway to cope with extraordinary credit costs.

Household loan growth is slowing

The build-up of risks associated with rising indebtedness has moderated After more than two years of acceleration, growth in loans to households has slowed. Although year-on-year indicators are changing only slowly,[1] each successive month shows changes in the market. From a financial stability perspective, the easing of uptrends is good news, since the excessive growth of recent year has heightened risks associated with household indebtedness.

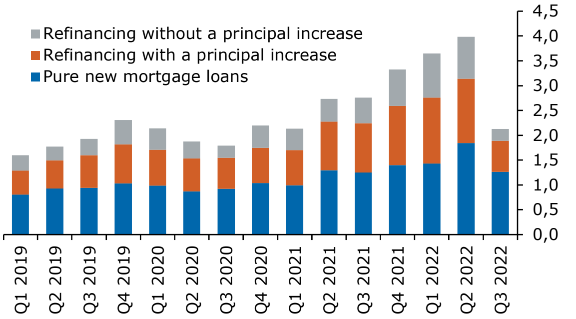
In the mortgage loan segment, the most notable drop was in demand for refinancing, though new lending also moderated slightly.[2] Both the number and volume of new mortgage loans have been rising in recent years. After peaking in the second quarter of 2022, the number of pure new mortgage loans decreased in the third quarter, both compared with the previous quarter and in year-on-year terms.[3] The median amount of pure new mortgage loans started falling in the previous quarter.[4] The changes in respect of refinancing loans are more pronounced. Refinancing involving a principal increase fell by more than one-third year-on-year in the third quarter of 2022;[5] refinancing not involving a principal increase, by more than half.[6] Naturally, compared with the exceptional spring wave of refinancing, the declines are even more marked.

This evolution is largely due to rising interest rates[7] and a consequent sharp increase in debt service-to-income ratios and decrease in loan demand. Interest rates are already close to their 2015 level and are above average compared with other euro area countries. This has had a downward impact on both the median amount of mortgage loan origination and on demand for refinancing. Moreover, the decline in the amount of mortgage lending stands in contrast to an environment of elevated inflation and historically high housing prices – in other words, with the need for large loans for the financing of higher expenditure.

In the second largest category of loans to households – consumer credit – the volume of new credit agreements is approximately stable and average interest rates have not so far increased significantly.[8] As a result, the year-on-year change in total consumer credit has edged into positive territory after three years of decline.[9] Consumer credit growth has been driven mainly by inflation. It has also been indirectly affected by the changing interest rate environment and resulting decline in incentives for debt consolidation mortgages.

Chart 1 While growth in new mortgage loans has slowed slightly, demand for refinancing is far lower than in the previous period

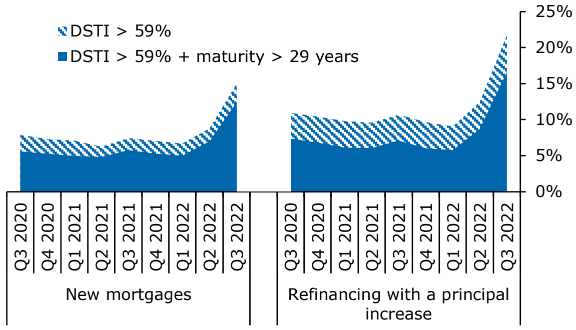
(amount of loans provided in the given quarter in EUR billions)



Source: NBS.

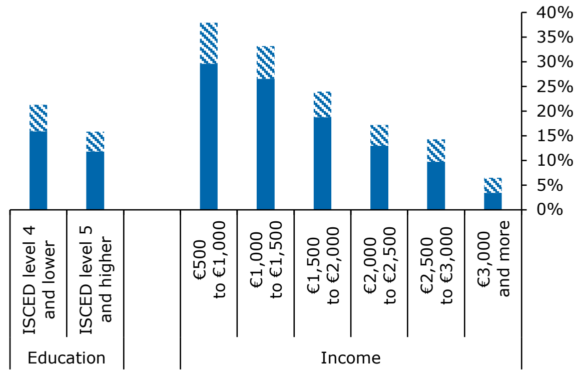
Chart 2 Share of mortgage loans with a DSTI ratio at the regulatory limit increased sharply…

(share of mortgage loans with a DSTI ratio of more than 59% or a maturity of more than 29 years)



…especially among less creditworthy borrowers

(share of mortgage loans with a DSTI ratio of more than 59% or a maturity of more than 29 years)



Source: NBS

Note: ISCED – International Standard Classification of Education.

The non-performing loan ratio has decreased, although the net default ratio indicates a potential deterioration. The non-performing loan (NPL) ratio is still falling, but only because of growth in the total loan portfolio.[10] In fact, the net flow of NPLs (i.e., the change in the amount of NPLs net of accounting adjustments) has begun to increase very slowly, but steadily, after years of stability. This applies not only to the mortgage segment,[11] but also, to a lesser extent, to consumer credit.[12]

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1 Annual growth in loans to households fell from a summer peak of 10.9% to 10.5% in October 2022.

2 The total amount of pure new mortgage loans averaged more than €1.3 billion per quarter in the second half of 2021 and was slightly below that level in the third quarter of 2022.

3 The total number of pure new mortgage loans averaged 14 thousand per quarter in the second half of 2021; it rose to more than 18 thousand in the second quarter of 2022, before dropping to 13 thousand in the third quarter.

4 After a long uptrend, the median value peaked in the first and second quarters of 2022 (at €100 thousand), before falling to €97 thousand in the third quarter.

5 The volume of these loans fell from €1.1 billion in the third quarter of 2021 to €0.6 billion in the third quarter of 2022.

6 The volume of these loans fell from €0.6 billion in the third quarter of 2021 to €0.2 billion in the third quarter of 2022.

7 The average interest rate on all mortgage loans granted in October 2022 was 2.8%; the average rate on pure new mortgage loans increased to 3.2%.

8 The average interest rate on consumer credit granted in October 2022 was 8.3%.

9 The annual rate of change in total consumer credit increased to zero in September 2022 and up to 0.5% in October.

10 The overall NPL ratio stood at 1.2% in October 2022.

11 The NPL ratio for mortgage loans fell to an all-time low of 1.16%. In October 2022. The net default rate for these loans increased from -0.02% in February 2022 to 0.06% in October 2022. A change in the second decimal place usually indicates volatility, but in 2022 the rate's trend has been clearly upward, at a pace of +0.01 pp per month.

12 The NPL ratio for consumer credit fell to 7.3% in October 2022, close to its historical low (7.1%). The net default rate is at 1.8% and showing signs of shifting upwards.

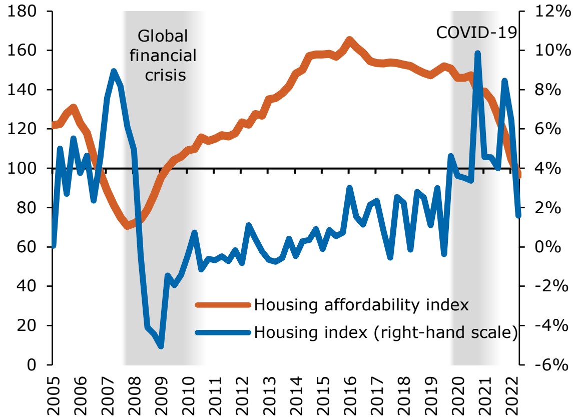
As a result of higher repayments, however, new mortgage loans are riskier. The share of mortgage loans with a DSTI ratio at or above the regulatory limit has risen sharply since the second quarter of 2022. This is true not only for refinancing involving a principal increase, but also for pure new mortgage loans. In most cases, high DSTI ratios have been combined with long maturities (30 years or more) in order to maximise the credit provided. At the same time, as was seen during the pandemic crisis, borrowers with high repayment burdens face the greatest risk of running into repayment difficulties. Moreover, high-DSTI loans have been provided to a greater extent to lower-income and less educated borrowers, thus further increasing their riskiness. Changes in the financial cycle have therefore not yet translated into a tightening of bank credit standards, even while relatively strong tightening trends can already be seen in several western European countries.[13]

Flat prices have on average stopped rising since the summer

Housing market behaviour has started to gradually shift away from the strong expansionary trend seen in recent years. Although prices of houses and flats are on average one-fifth higher[14] than they were a year earlier, their prices have on average stopped rising since the summer of 2022.[15] This trend shift is noticeable across regions, types of housing, and sizes of flats. It is most pronounced in respect of larger, four- and five-room flats, which since the summer have recorded the largest decline in average price. Household behaviour is changing because of rising interest rates, heightened uncertainty due to high inflation and to persistently rising energy prices, and, relatedly, increasing caution in response to falling real wages. Compared with a year earlier, households are taking more time over homebuying decisions.

Chart 3 Housing affordability has fallen significantly in recent years owing to strong growth in housing prices

(evolution of the housing affordability index vis–à–vis housing prices; index, quarter-on-quarter percentage changes)



Sources: NBS, Statistical Office of the Slovak Republic (SO SR), and United Classifieds.

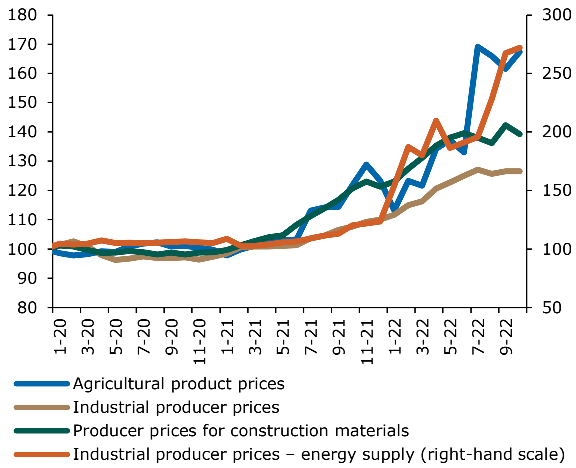
This situation is also reflected in an increase in the number of flats listed for sale[16] and an increase in the average length of time that properties are listed for sale. The situation is similar in the new-build market, where price growth has stalled in recent months.[17] At the same time, the supply of new flats was around one-third higher in the third quarter of 2022 than in the second quarter. Housing affordability has deteriorated significantly compared with the near historical highs of its pre-pandemic levels. Not only have strongly rising housing prices contributed to a weakening of property purchasing power, so too, in recent quarters, have rising interest rates.

In the corporate sector there is still great uncertainty about future developments

Although firms' revenues continue to rise, pessimism in the corporate sector is relatively high owing to increasing input costs and weakening global demand. The rising price level is supporting corporate revenues, which in the third quarter of 2022 increased by more than one-quarter on a year-on-year basis. Revenues increased also in real terms,[18] though their growth rate slowed slightly in September.[19] The best-performing firms were in the industry sector and the transportation and storage sector. On the other hand, real revenues declined in the sectors of energy supply, trade, and services. Despite the relatively favourable evolution of revenues, pessimism about future developments remains present in the corporate sector. Most leading indicators are either near the levels they were at during the global financial crisis, or at levels denoting an economic contraction.[20]

Chart 4 Most wholesale prices have stopped rising

(wholesale prices in absolute terms; index: 2019 = 100)



Sources: NBS, SO SR, and United Classifieds.

[13] Approximately one-third of banks in the euro area tightened mortgage credit standards in the third quarter of 2022. In addition, unlike in Slovakia, the share of rejected mortgage applications increased sharply.

[14] Annual growth in housing prices averaged 21.9% in the third quarter of 2022.

[15] In quarter-on-quarter terms, housing prices increased by 8.5% in the first quarter of 2022 and by 6.4% in the second quarter, but by a mere 1.6% in the third quarter.

[16] The number of flats on the market increased mainly in the last three months, when it rose by one-third.

[17] New-build prices in Bratislava at the end of September were one-fifth higher year-on-year, but they were unchanged compared with the second quarter of 2022.

[18] Growth in revenues at constant prices stood at 4% in September 2022.

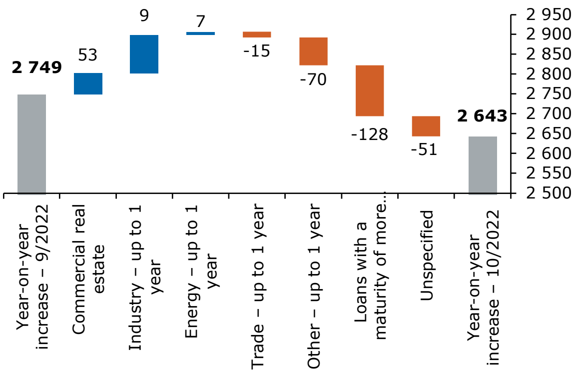
[19] The annual growth rate fell by almost 2 pp.

[20] The Economic Sentiment Indicator produced by the European Commission; the indicators produced by the Institute for Economic Research (Ifo) and the Centre for European Economic Research (ZEW), both based in Germany; and the Purchasing Managers' Index.

Developments in wholesale prices indicate that they may have peaked.[21] The evolution of energy prices, which surged in September, will be important in this regard. While energy prices are rising strongly, no significant correction in overall wholesale prices can be expected. In the second quarter of 2022, despite prices remaining high, firms on average managed to maintain profit margins at close to previous period levels.[22] Firms have so far, on average, succeeded in passing on rising input prices to output prices. In this respect, however, there is increasing heterogeneity across the corporate sector. Among firms with negative profit margins, losses are increasing, while firms with positive margins are seeing their situation improve still further. These conclusions have been further borne out by the results of a survey[23] capturing developments in the third quarter, in which firms reported pressure on their profitability alongside an increase in revenues.[24] Firms reported significant increases in labour costs and input prices.[25]

Loan growth remains strong, though in many segments it is slowing. Annual growth in loans to non-financial corporations stood at 11.5% in October 2022.[26] Across EU countries, however, such growth rates are relatively widespread.[27] The robust growth in NFC loans is due to high inflation in the economy, which is putting upward pressure on firms' financing needs for working capital. Short-term working capital financing is therefore the main driver of annual loan growth.[28] Besides short-term lending, lending to the commercial real estate (CRE) sector is also rising sharply. Here, too, lending growth may have been stoked by rising prices, specifically prices of construction work and materials.[29] On the other hand, against a backdrop of considerable uncertainty about the economic situation, growth rates for loans for fixed investment and loans with a maturity of more than one year have moderated. There has also, however, been a slowdown in short-term lending to most sectors of the economy. All in all, most categories of corporate credit are experiencing slower growth.[30] Only in the CRE portfolio and in the portfolio of short-term loans to the industry and energy sectors has growth accelerated. Moreover, this acceleration has been relatively concentrated across certain large and medium-sized enterprises. Although, according to firms' survey responses,[31] the availability of financing is a lesser problem, firms' need for external financing increased slightly during the period under review. At the same time, they report that the availability of external financing is deteriorating[32] and are less optimistic about its availability over the next six months.

Chart 5 Lending activity has slowed in most segments of the corporate sector
(year-on-year increase in NFC loans in EUR millions)

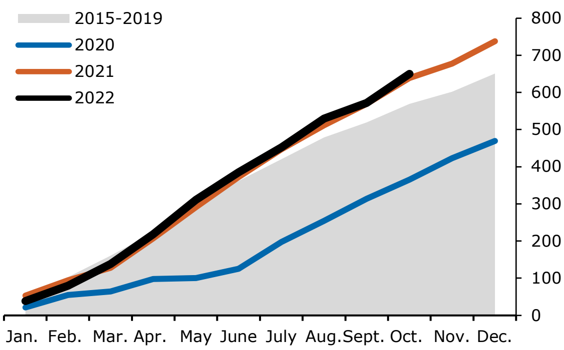


Sources: NBS, and Register of Bank Loans and Guarantees (RBUZ).

Banks are strong enough to cope with potential shocks

The banking sector is well placed to maintain capital strength in the period ahead. Key in this regard is banks' profit-generating capacity, which remains sound despite uncertain times. The sector's net after-tax profit for the first ten months of 2022 amounted to €650 million, representing a year-on-year increase of 1.7%. After undergoing years of compression, interest margins have been under less pressure as a result of rising interest rates, while the banking sector has managed to maintain a solid pace of credit growth. Banks' aggregate net interest income has increased by 4.7% year-on-year.[33] Interest income has increased far more sharply than interest expenses.[34] Moreover, given the amount of new

Chart 6 Bank profits continue do well in 2022
(net after-tax profit of the banking sector in EUR millions)



Source: NBS.

21 Annual growth in wholesale prices remains elevated despite having fallen gradually in recent months. If wholesale prices stabilise, their annual growth rate will gradually decline.

22 Compared with the pre-pandemic period, margins even increased slightly, from 2.7% to 3.2%.

23 Survey on the access to finance of enterprises (SAFE) conducted on a sample of 500 firms. The survey was carried out in September and October 2022 and covers the period from April to September 2022.

24 Half of the firms surveyed reported a decline in profitability.

25 Around half of the firms surveyed mentioned shortages of skilled labour and input prices as the main problems they faced.

26 Compared with September 2022, the annual growth rate slowed by 84 bp.

27 Among central and eastern European countries, Slovakia ranks at the median; in other words, NFC loan growth is higher in half of the countries in the CEE region. Among EU countries, Slovakia ranks seventh.

28 In the past two months, loans with a maturity of up to one year accounted for almost half of total NFC loan growth.

29 Most of growth pertains to loans for existing property development projects, possibly implying an increasing need for additional financing to complete projects or to manage completed buildings.

30 Whether categorised in terms of maturity, purpose, economic sector, or firm size.

31 'Availability of financing' ranked fifth behind 'regulation' and 'difficulty in finding customers', with 13% of the firms surveyed citing it as their biggest problem.

32 Firms report that banks are less willing to lend against the backdrop of a worsening economic outlook. Banks are also becoming stricter in assessing the specificities of individual sectors and firms. As regards lending conditions, firms expressed the most concern about rising interest rates, but also about increases in other financing costs. Collateral requirements have, to a lesser extent, also been tightened.

33 Net interest income for the first ten months of 2022 increased by €63 million year-on-year.

34 Interest income increased in the first ten months of 2022 by €120 million year-on-year; interest expenses, by €58 million.

business, including sales of third parties' products and services (investment and insurance products), banks have also managed to increase their fee and commission income.[35] On the other hand, uptrends in inflation and wage demands have partly reduced banks' income growth and have also resulted in an increase in their administrative costs. [36] After ramping up their loan loss provisioning in 2020, the first year of the pandemic crisis, banks did not need to provision to a significant extent in 2021, whereas in 2022 their provisioning has returned to pre-crisis levels. The amount of net provisions for the first ten months of 2022 already exceeded the amount of provisions created during the whole of the previous year.[37] There has, however, been a noticeable change in the structure of provisioning, with the share of provisions for Stage 2 loans (loans that have experienced a significant increase in credit risk) having risen since the summer, implying that banks have changed their approach on grounds of higher risk perceptions. Even so, approaches to provisioning remain heterogeneous across the banking sector. Although the Slovak banking sector's profitability has improved significantly since the first year of the pandemic crisis, it has long been below the median for national banking sectors in the EU, in the first quartile.

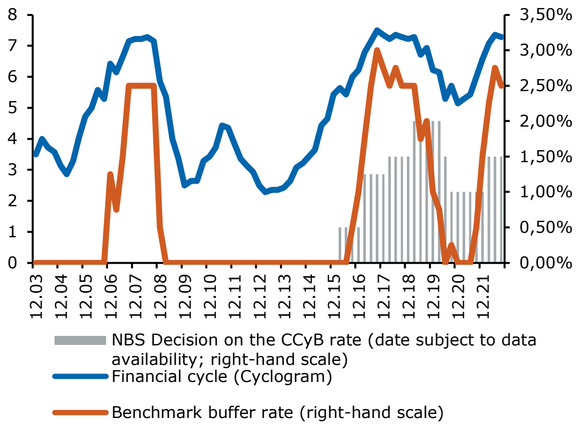
The banking sector's capital adequacy is lower now than it was in the summer of 2021, but it remains above pre-pandemic levels. The aggregate total capital ratio remained unchanged in the third quarter, at 19.2%.[38] Developments in the amount of risk-weighted assets (RWAs) remain a significant factor of change. Among systemically important banks, an increase in RWAs has caused the aggregate total capital ratio to fall by 0.1 pp, while among systemically less significant banks, a decrease in RWAs has caused it to rise by 0.8 pp[39]. In the case of systemically important banks, however, their profits have already played a significant role this year, with a proportion of them having been retained as capital upon the fulfilment of conditions. The good news is that banks are comfortably meeting regulatory capital requirements and that their capital utilisation is not constrained by either the leverage ratio or the ongoing minimum requirement for own funds and eligible liabilities (MREL).

The financial cycle's expansionary trends are starting to moderate

After being in a strong upswing for a year and a half, the financial cycle is showing signs of a trend shift. Most of the indicators [40] monitored for the purpose of assessing the financial cycle's phase remain at or just below historical levels. In a number of areas, however, a gradual easing can be observed. Besides the slowing growth rates for loans to households and housing prices, indicators of banks' risk aversion have stopped falling amid an end to the downtrend in the non-performing loan ratios. At the same time, economic sentiment has weakened significantly in the wake of events since February 2022. The only indicator that increased in the third quarter was lending to firms. The outlook for future expected developments points to continued cooling in the financial sector. It will be affected mainly by a slowdown in loan growth and an easing of property market pressures in the context of rising interest rates. Risks associated with the cycle's evolution should already be building up at a slower pace than they were in the previous period. On the other hand, with interest rates rising, some new loans carry higher repayment burdens, and this trend is more pronounced among mortgage loans to less creditworthy borrowers. This in turn is contributing to a build-up of risks.

Chart 7 Financial sector developments are likely to be in a changing phase

(composite index; percentages)



Source: NBS.

Note: Higher index values imply an intensive build-up of imbalances.

[35] Net fee and commission income for the first ten months of 2022 increased by 10.3% (€58 million) year-on-year.

[36] Administrative expenses for the first ten months of 2022 increased by 3% (€28 million) year-on-year.

[37] In 2021 domestic banks created provisions amounting to €125 million, while in the first ten months of 2022 their net provisioning amounted to €147 million.

[38] In the two years before the onset of the pandemic crisis, the sector's total capital ratio ranged between 18% and 18.5%.

[39] Among systemically important banks, the total capital ratio fell to 18.4% in the third quarter; among systemically less significant banks, it increased to 22.3%.

[40] In the third quarter of 2022, ten of the 14 indicators included in the Cyclogram, NBS's composite indicator of the domestic financial cycle, were at the highest or second highest level denoting a financial cycle upswing.

What´s new in the world of macroprudential policy

Do digital currencies pose a risk to financial stability?

This question is examined in a paper published by the US Federal Reserve Board.[41] The volume of digital assets has risen sharply in recent years, despite their elevated price volatility. According to the paper's authors, even with the fragile stability of digital assets, adverse shocks to digital asset markets have had only a limited impact on the traditional financial system. This is because the digital asset ecosystem does not at present provide significant financial services outside the ecosystem and its interconnections with the traditional financial system are limited. The study does, however, identify potential risks to financial stability if in future the digital asset ecosystem becomes more strongly interlinked with traditional financial institutions. There would then be increased run risk in stablecoins, possibly resulting in fire sales and, relatedly, in potentially large fluctuations in cryptoasset valuations, as well as an exacerbation of problems with decentralised finance (DeFi) platforms,[42] which typically operate without asset concentration limits. Further problems may arise as result of a lack of regulation of such assets.

Why European banks adjust their dividend policies

This is the subject of a paper published by the IMF.[43] Using a panel data approach for two samples of listed and unlisted European banks, the paper concludes that, over a decade and a half preceding the pandemic, dividend payouts by European banks were adjusted in line with the motivations found in the literature. Therefore, compared with other banks, more profitable and better-capitalised banks paid out a larger share of their profits as dividends. Higher dividend payouts are also associated with larger banks and with superior shareholder protections. However, according to the paper, banks do not seem to account for future expected economic developments, economic uncertainty or for their own earnings' prospects when making decisions about dividend payouts. Counterfactual simulations suggested that some reduction in dividends paid could have been in expected in 2020, during the pandemic crisis, but it would have likely been limited in size. This, according to the authors, implies that supervisory recommendations have played an important role in retaining capital in the banking sector during the most uncertain phase of the pandemic, thus increasing its loss absorption capacity.

How are banks managing their liquidity in the tiering environment?[44]

A paper published in the ECB Working Paper Series[45] has examined how banks adjusted their strategies following the introduction of the ECB's two-tier system in October 2019. Under the new system, banks' excess reserve holdings up to a certain threshold were subject to a lower holding cost. The study shows that banks took advantage of this option, as they increased their holdings of central bank reserves by decreasing their holdings of interbank loans, intra-group loans, and marketable securities. This behaviour of banks was common across countries. The study also found that banks have a preference for a stable portfolio composition of liquid assets over time. Another finding is that a shock to the cost of holding liquid reserves in one market can spill over into other markets.

Effects of monetary policy on household expectations

A paper published by the US Federal Reserve Board[46] addresses this issue and confirms the well-known impact of monetary policy on household expectations. A key point, however, is whether or not the household is a homeowner. The study finds that homeowners typically revise down their near-term (three-year ahead) inflation expectations and their optimism about future labour market conditions in response to a rise in mortgage rates, while their long-term expectations do not change. In contrast, renter households are less likely than homeowners to adjust their inflation expectations in response to monetary policy changes. The authors explain this difference by the fact that a change in interest rates has a direct impact on the finances of homeowners who are making monthly mortgage payments. These households therefore have more incentive to pay attention to mortgage rate changes to seek an opportunity to refinance their mortgage with a lower rate. The effectiveness of monetary policy is therefore affected by the rate of homeownership in the economy.

The December 2022 Macroprudential Commentary was discussed by the NBS Bank Board on 19 December 2022. The publication has not been copyedited.

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[41] Azar, P.D., Baughman, G., Carapella, F., Gerszten, J., Lubis, A., Perez-Sangimino, J.P., Rappoport, D.E., Scotti, C., Swem, N., Vardoulakis, A. and Werman, A., "The Financial Stability Implications of Digital Assets", *Finance and Economics Discussion Series*, No 2022-058, Board of Governors of the Federal Reserve System, Washington DC, July 2022.

[42] Decentralised finance programs operating on the basis of open-access blockchains.

[43] Belloni, M., Grodzicki, M. and Jarmuzek, M., "Why European Banks Adjust their Dividend Payouts?", *IMF Working Papers*, No 2022/194, International Monetary Fund, Washington DC, September 2022.

[44] The two-tier system for reserve remuneration, which exempts part of credit institutions' excess liquidity holdings (i.e. reserve holdings in excess of minimum reserve requirements) from negative remuneration at the rate applicable on the ECB's deposit facility. The ECB introduced the system in order to support the bank-based transmission of monetary policy.

[45] Baldo, L., Heider, F., Hoffmann, P., Sigaux, J-D. and Vergote, O., "How do banks manage liquidity? Evidence from the ECB's tiering experiment", *Working Paper Series*, No 2732, European Central Bank, Frankfurt am Main, September 2022.

[46] Ahn, H.J., Xie, S. and Yang, C., "Effects of Monetary Policy on Household Expectations: The Role of Homeownership", *Finance and Economics Discussion Series*, No 2022-065, Board of Governors of the Federal Reserve System, Washington DC, September 2022