



Macprudential Commentary

September 2023



NÁRODNÁ
BANKA
SLOVENSKA
EUROSYSTEM

Summary

- The financial cycle has continued cooling. In a high interest rate environment there is less propensity to take on debt. Despite a stable labour market and a growing economy, demand for loans is lower than a year ago.
- Growth in loans to households is no longer slowing. Their origination is down by one-third compared with the previous three years, but it has stopped falling.
- In the face of rising interest rates, growth in lending to firms has moderated.
- Housing prices have fallen for a third successive quarter.
- Rising interest income has buoyed banks' profit-generating capacity. But although their profits are rising, banks in Slovakia remain among the less profitable in Europe in terms of return on equity. And while their capital positions are still sufficiently strong, their aggregate capital adequacy ratio is below the average for European banks.



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No change in the CCyB rate

The financial cycle is clearly cooling. Lending to both households and non-financial corporations (NFCs) has slowed significantly, and annual loan growth rates are now stable in single digits. The slowdown is due to reduced demand. Households and firms are far less inclined to take on debt than they were a year ago. This shift is largely accounted for by the upward impact of higher interest rates on borrowing costs as well as by a change in households' expectations for housing price developments. This situation has also been reflected in the housing market, with prices of houses and flats having fallen, on average, by more than one-tenth since the autumn of last year. Loans, however, are not defaulting to any significant extent, with bank borrowers still managing to service their debts. Moreover, banks are sufficiently well capitalised and are able to make profits even amid slower loan growth.

For now, there is no need to adjust the countercyclical capital buffer (CCyB) rate. The financial cycle's cooling is not a reason to reduce the CCyB rate. Such a move would demand loan losses well above current loan loss provisioning levels.



Expectations for the CCyB rate in the next quarter

The financial sector's current cooling trends are expected to continue in the next quarter. Demand for loans will remain subdued and consequently affect the housing market. At the same time, with the economy and labour market on a stable path, no significant increase in loan defaults is envisaged.

In this context, Národná banka Slovenska does not see any reason to adjust the countercyclical capital buffer rate in the next quarter.

CCyB rate
1.50%



Stabilisation of the household loan market in the first half of 2023

After declining in the previous period, mortgage origination remained steady in the second quarter of 2023.¹ Annual growth in the mortgage portfolio slowed to 5.8% in July 2023, owing to the fading base effect of autumn 2022 developments. Mortgage origination remained steady at around two-thirds of its 2020–22 average. In terms of mortgage growth, Slovakia remains in the top half of EU. Mortgage rates continued rising in the second quarter, but at a more moderate pace of 10 basis points each month.

The key to understanding current mortgage trends is the overall smaller number of mortgages. On the other hand, the average amount of mortgage originations has remained virtually unchanged. Since the second half of 2022, the number of mortgage originations has fallen sharply – in respect of both new mortgages and refinancing mortgages. There was, however, no significant change in this figure between the first and second quarters of 2023.

The riskiness of new mortgages has also stabilised. Although still at a high level, the share that have a debt service-to-income (DSTI) ratio at the regulatory limit² was no longer rising in the second quarter of 2023. The non-performing loan (NPL) ratio is at a favourable level, lower than at any other time in the almost 20-year available history.

Consumer credit remains on an upward trend. The portfolio has now been growing for seven consecutive months. As a result, its annual growth rate has gradually increased to 5.2%.³ Since their last modest increase in the autumn of 2023, interest rates have remained flat. With similar trends observed in many EU countries, Slovakia remains in the EU's upper quartile for interest rate levels.

The NPL ratio for consumer credit has also reached new historical lows.

Chart 1 Mortgage demand has stabilised

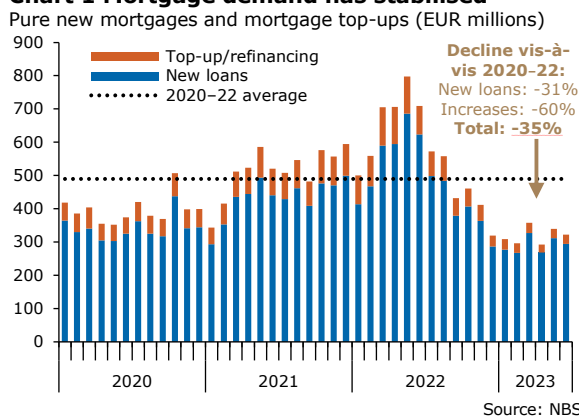
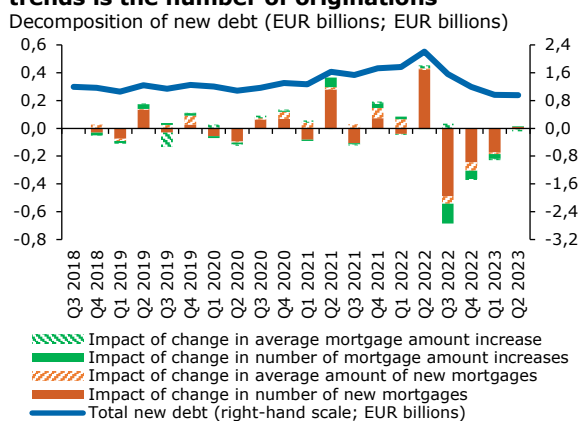


Chart 2 The key factor in current mortgage trends is the number of originations



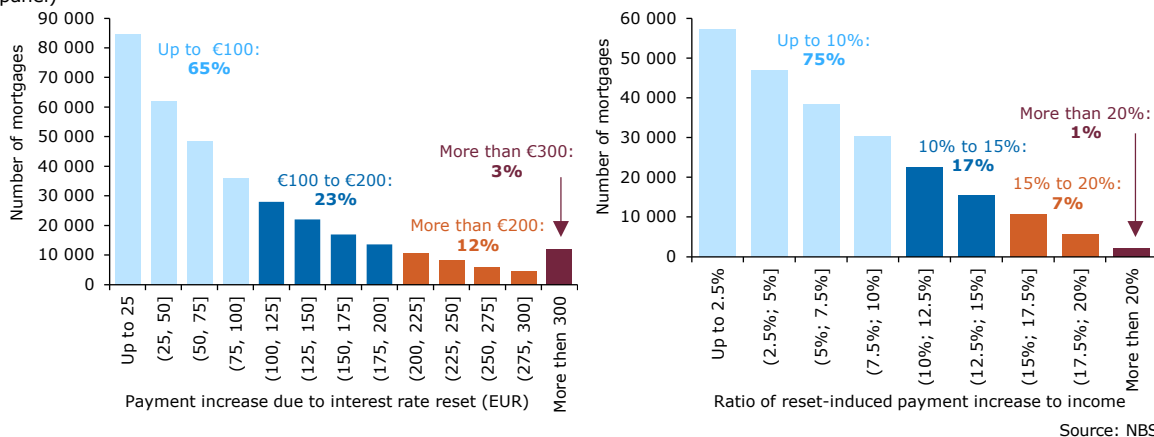
Households will feel the pinch of, but cope with, interest rate resets⁴

Before the end of 2025 a majority of current mortgages will undergo an interest rate reset that increases the loan payments. In most cases, however, the rise will not be severe. The average mortgage payment increase will be €92. As a result, household income will fall, on average, by 7%. Importantly, many mortgages are already substantially paid off, so the payment increase will be far less than it would be for a new mortgage.

Only 1% of mortgages will be subject to an increase in payments that exceeds 20% of income. The largest increase in payments relative to income will be faced mainly by highly indebted households – in particular young borrowers, often individuals, who have purchased more expensive properties (e.g. in Bratislava). A particularly important factor for households' debt servicing ability is the labour market situation, which is currently in very good shape.

Chart 3 For most mortgages that undergo an interest rate reset before the end of 2025, payments will not increase by more than €100

Distribution of mortgages by payment increase (left-hand panel) and by ratio of payment increase to income (right-hand panel)



¹ The amount of new mortgages fell by 31% in both the first and second quarters of 2023 (compared with the average for 2020–2022).

² The share of new mortgages that have a DSTI rate at the regulatory limit (60 %) was around one-quarter.

³ As at July 2023.

⁴ The topic is further addressed in NBS Discussion Note No 131, 'Nárast splátok hypoték je pre väčšinu domácností zvládnuteľný' (in Slovak only).



Households' deposits fell slightly, firms' remained flat

The outstanding amount of household deposits fell slightly year-on-year, by 0.7%, in the second quarter of 2023. Households are gradually changing demand deposits into time deposits, which nevertheless still constitute only 21% of the portfolio. The rate of increase in time deposit rates has slowed somewhat. In the first quarter of 2023, they ranked in the euro area's upper quartile, while in the second quarter they were at the median level. Although corporate deposits are also showing a certain volatility, their overall trend is one of stagnation.



Lending to the corporate sector is gradually slowing against a backdrop of subdued economic activity

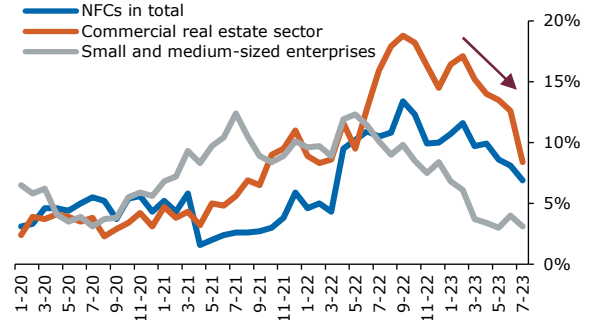
Lending to the corporate sector has slowed quite markedly. Annual growth in loans to non-financial corporations (NFCs) stood at 6.9% in July 2023. Compared with the double-digit growth rates observed as recently as late last year, that represents a quite pronounced slowdown. Among EU countries, Slovakia ranks in the third quartile for NFC loan growth, while among central and eastern European (CEE) countries, it is at the median.

The slowdown in corporate lending is relatively widespread, but it is being driven mainly by the lending to the commercial real estate (CRE) sector. It is in the CRE sector that the turning of the financial cycle is most apparent. In certain months of the previous period, the flow of loans to CRE firms accounted for up to one-half of the total increase in corporate loans. As a result, annual growth in CRE loans was close to 19%.⁵ In the first half of this year, the monthly flow of CRE loans dropped to half of its 2022 high, while in July the total amount of CRE loans declined. This trend has translated into a sharp slowdown in annual growth in loans to the CRE sector.⁶ Growth has slowed gradually in both lending to SMEs and in lending to large enterprises, and to a more moderate extent in respect of micro enterprises.⁷

In the breakdown of lending growth by loan maturity, short-term loans contributed to the slowdown. Loans with a maturity of up to one year have been declining since March 2023. On the other hand, long-term loans in particular have contributed positively to the growth rate.

Chart 4 Slowdown in lending to the corporate sector

Outstanding amount of loans to NFCs (annual percentage changes)



Source: NBS

Housing prices fall for a third successive quarter

The housing market is cooling. A combination of interest rate hikes, rising living costs and persisting uncertainty has made people less inclined to buy a home. Not even falling prices of flats have yet managed to revive demand. Since peaking in October of last year, these prices have dropped by approximately one-tenth and have now been falling for three successive quarters.

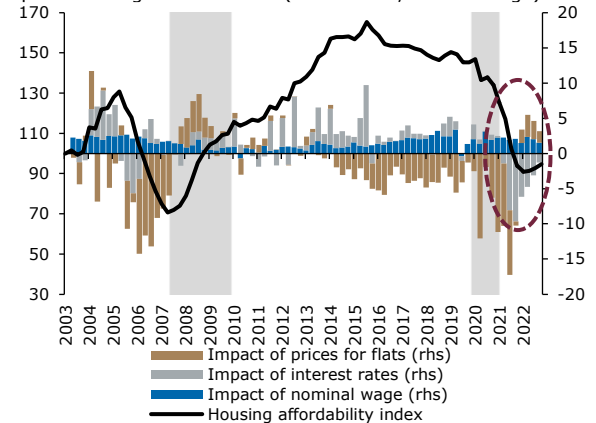
Cooling has been evident in all segments of the housing market, with all types of housing declining in price. Prices of flats of all sizes are falling, as are prices of single-family houses.

Changes are also apparent in the new-build housing market. Although the number of occupancy permit issuances for flats still increased by around one-tenth⁸ in the second quarter of 2023, the number of building permit issuances for flats fell significantly,⁹ even hitting a 20-year low in Bratislava Region. Property developers have clearly adjusted to the new situation in the housing market and to softening demand.

After declining sharply in the last two years, housing affordability is starting to improve. In the context of falling property prices, household nominal income growth and stabilising interest rates, housing affordability has stopped deteriorating in 2023 and is in fact improving slightly. The improvement has been more notable for households with

Chart 5 Housing affordability has started to improve again after declining in the past two years

Evolution of the housing affordability index and quarter-on-quarter changes in the index (index value; index change)



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

Notes: Housing affordability is here defined as the inverse of the share of the median net wage that is required to repay a notional loan for the purchase of a flat. Disposable income is expressed as the average net income in Slovakia after deduction of the minimum subsistence amount. The grey bands denote episodes of financial crises, the global financial crisis and the COVID-19 pandemic crisis.

An increase in the index indicates an improvement in housing affordability, and vice versa.

⁵ The largest quarterly increases in the CRE loan portfolio were in the second and third quarters of 2022. The annual growth rate reached a high of 18.8% in September 2022.

⁶ Annual growth in CRE loans slowed to 8.4%, down from 12.6% in June 2022 and from 16.4% in early 2023.

⁷ The year-on-year slowdown is due in part to a high comparison base in the previous year.

⁸ The number of flats for which an occupancy permit was issued in the second quarter of 2023 represented an 11.2% increase year-on-year (source: SO SR).

⁹ The number of building permits issued for flats in the second quarter of 2023 was 27.4% lower year-on-year (source: SO SR).

children, which have benefited not only from the aforementioned effects, but also, to a significant extent, from new policy measures to support families (an increase in allowances and a tax bonus for dependent children and an increase in the parental allowance).



Bank profits boosted by higher interest margins

Banks are maintaining strong profitability. The Slovak banking sector's aggregate after-tax profit for the first seven months of this year was half again as much as for the same period of the previous year, rising by €223 million to €674 million. The improvement was almost entirely due to net interest income, which increased by nearly one-third year-on-year.¹⁰ Faster-rising interest income from assets, in particular from corporate loans, is helping banks increase their profits despite slower lending growth and a rise in interest expenses.¹¹ But although their return on equity (ROE) is at favourable levels, Slovak banks remain among the less profitable in Europe on this metric. Nor has this situation been changed by the increase in Slovak banks' ROE in the past year and a half, as the ROE of European banks rose faster over the same period. In terms of ROE, Slovak banks therefore rank in the bottom quartile of European banks.

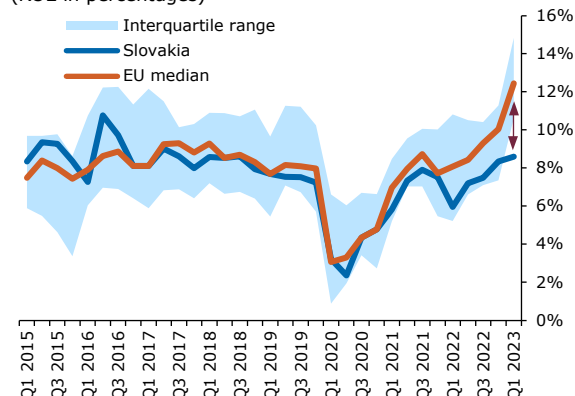
Other loss account items have not had a significant impact on banks' financial performance. As yet, there has not been any notable increase in the cost of banking products. Indeed, banks' net fee and commission income is maintaining a stable annual growth rate of 2%. In an environment of elevated inflation, however, banks' operating expenses have increased,¹² with staff and outsourcing costs going up. Given the low level of loan defaults and the relatively stable situation, banks have not had to step up their loan loss provisioning. Although their net provisioning for the first seven months of this year was one-fifth higher year-on-year,¹³ it was not significant in volume terms.¹⁴ Another sign that banks do not as yet perceive risks to be elevated is the fact that the amount of higher risk (Stage 2) loans has decreased since the start of the year.

Banks in Slovakia remain sufficiently capitalised. Banks continue to be solvent, and the sector's total capital ratio stayed unchanged in the second quarter of 2023, standing at 19.7% as at the end of June. There were, however, some changes in the capital structure, with the share of highest quality CET1 capital edging down by 0.3 percentage point. Compared with capital adequacy of banks across the EU, the total capital ratio of Slovak banks is 1 pp below the median. By the end of June 2023, Slovak banks' capital headroom amounted to 3.7% of risk-weighted assets.¹⁵ However, that ratio has since fallen, because on 1 August 2023 the CCyB rate was raised by 50 basis points to 1.5%. Banks remain compliant with the minimum requirement for own funds and eligible liabilities (MREL) as well as with the leverage ratio.¹⁶

Liquidity developments remain a challenge for the banking sector. After stabilising to some extent in the early part of this year, banks' surplus of stable funding fell substantially in the second quarter, down to slightly below its level at the end of 2022. Although the cost of market funding has risen, banks are still comfortably meeting regulatory requirements for stable funding.¹⁷ Banks remain sufficiently liquid, although their liquidity coverage ratio (LCR) has dropped slightly.¹⁸

Chart 6 Despite their profitability rising, Slovak banks ranks among the less profitable in the EU in terms of ROE

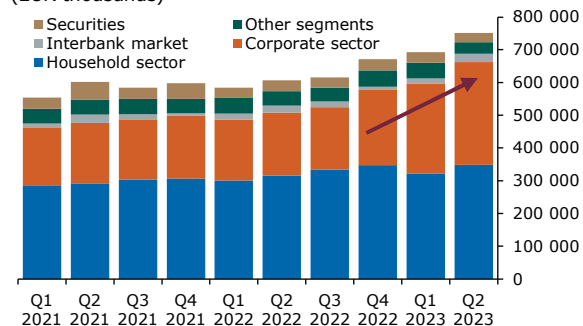
(ROE in percentages)



Sources: ECB, and NBS.

Chart 7 Banks' profit growth driven mainly by rising income from the corporate sector

(EUR thousands)



Source: NBS.

¹⁰ The banking sector's net interest income for the first seven months of 2023 increased by around €300 million year-on-year.

¹¹ Although interest expenses for the first seven months of 2023 increased fivefold year-on-year, from more than €130 million to €820 million, interest income almost doubled, from €1.1 billion to €2.1 billion.

¹² Operating expenses for the first seven months of 2023 increased by 7% year-on-year.

¹³ It was also slightly higher compared with the average for the pre-pandemic years of 2015–2019, but these differences are not significant.

¹⁴ Banks net provisioning for the first seven months of 2023 amounted to €118 million, down from €100 million in the same period of last year and from an average of €100 million for the pre-pandemic years of 2015–2019.

¹⁵ The so-called management buffer – available capital less capital requirements and leverage on an individual basis. If further adjusted to take into account MREL and the consolidated position of the given banks, the management buffer falls to 2.2%.

¹⁶ The Slovak banking sector's leverage ratio was 7.5% at the end of the second quarter of 2023, well above the 3% regulatory minimum.

¹⁷ The banking sector's net stable funding ratio (NFSR) was 130% at the end of June 2023, comfortably above the regulatory minimum.

¹⁸ The LCR declined by 6.5 pp at the beginning of the third quarter of 2023, to 176.6%.



The financial cycle continues to cool

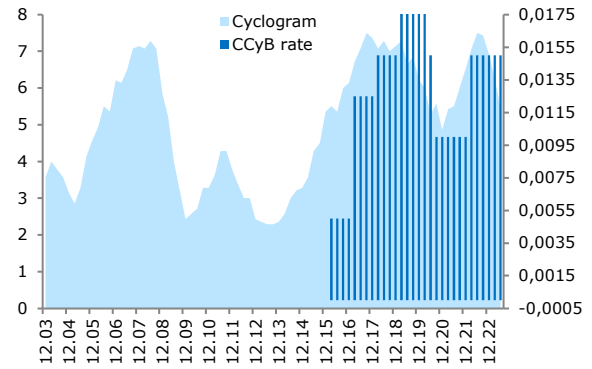
The financial cycle has now been moderating strongly for three successive quarters. As recently as a year ago, loans and prices of flats were growing at a double-digit pace, but today both the credit and housing markets are in a quite different situation. Although lending to households and firms is increasing, the pace of growth has slowed sharply. As for prices of flats, they have declined for three consecutive quarters. The financial sector has slowed down even while the economy continues to grow, albeit at a modest pace, and while the labour market remains stable. The softening of demand largely reflects a shift in market sentiment, as increases in debt servicing costs and living costs have greatly reduced household demand for loans. In an environment of rising input costs, firms are also taking a more cautious approach to new borrowing.

The cooling of demand has also been reflected in the Cyclogram, NBS's composite indicator of the financial cycle, which over the past three quarters has moved significantly closer to its pandemic-crisis levels.

Although the pace of the financial cycle's slowdown is similar to that observed during the pandemic crisis, the factors behind today's cooling are different. Three years ago, an economic lockdown caused a slowdown in both the financial sector and the real economy, while today's cooling is almost entirely confined to the credit and housing markets.

According to the near-term outlook, the financial cycle is expected to continue slowing for still some time, though at a more moderate pace than that seen in recent quarters.

Chart 8 Although the financial cycle is cooling at similar pace as it did during the pandemic crisis, the causes of the current slowdown are different (composite index; percentages of risk-weighted assets)



Source: NBS.

Note: Higher Cyclogram values imply a strong build-up of imbalances.



How to establish effective surveillance of highly leveraged non-bank financial institutions

A new paper published by the Bank for International Settlements¹⁹ draws on the recent experience of the Hong Kong Monetary Authority (HKMA). Non-bank financial institutions (NBFIs), such as hedge funds and family offices,²⁰ have considerably expanded their share in the provision of services within the financial system, as they can offer a wide range of tailored services. At the same time, however, these entities' potential to create risks to financial stability has also increased, given their usually high leverage, liquidity mismatches, high concentration of exposures, and interconnectedness. This risk is further exacerbated by the fact that they are often not subject to financial regulation and supervision and are subject to little disclosure. In response to this situation, the HKMA in 2021 adopted a surveillance framework for these entities. As a first step in narrowing the data gap, the HKMA combined the data on these entities available from trade repositories and from regulated entities (banks, insurers, and funds), as well as from other data sets. It then developed a suite of indicators to monitor the systemic risk present in these entities in respect of their portfolio structure, interconnectedness with other entities, leverage, and sensitivity to market news and to the macro environment. The HKMA has thus been able to acquire consolidated data on 1,000 NBFIs; it regularly (every quarter) publishes the ten NBFIs with the highest identified risks and it monitors them more closely. Experience has confirmed that the HKMA's surveillance framework can identify and flag problematic entities. Indeed, one company published on the quarterly list later faced legal action for its behaviour towards clients, and another case saw brokers end cooperation with an NBFI owing to concern that it was involved in unfair practices.

Can the yield curve predict economic activity?

This question is addressed in a paper published by the US Federal Reserve.²¹ Using a sample of data drawn from 11,500 US banks and covering a period of 20 years, the authors examined what effect the yield curve slope has on economic activity. According to their findings, the slope of the yield curve affects banks' lending decisions. A steeper yield curve associated with higher term premiums boosts bank profits and incentivises bank lending. This is because maturity transformation is at the core of banks' business model, with banks typically taking on short-term liabilities, such as bank deposits and wholesale borrowing, to fund lending activity, which is usually of a longer-term nature. According to the authors, a larger term premium implies greater expected profits on maturity transformation. Banks are thus incentivised to increase loan supply. This is the credit channel of economic growth financing. The paper finds that more leveraged banks have higher exposure to the term premium and therefore show a stronger response to term premium fluctuations.

Can macroprudential policy be more effective in an inflation targeting environment?

According to the authors of a paper published by the IMF,²² macroprudential measures reduce bank systemic risk further under inflation targeting. Using bank-level data for 45 countries comprising various monetary and exchange rate regimes, and applying a dynamic panel model, the authors find that while macroprudential policy itself helps reduce bank systemic risk, inflation targeting enhances the effectiveness of DSTI and LTV limits, and capital requirements. The authors argue that tighter monetary policy in response to higher inflation or a larger output gap, which tend to accompany a credit boom, increase interest rates. As a result, funding costs increase, thereby reducing excess liquidity and mitigating excessive credit growth, which is the objective of macroprudential policy.

What risk do crypto-assets pose to financial stability?

The surge of interest in cryptocurrencies in recent years is related to the advantages they offer: lower transaction costs, faster payments, no intermediation, anonymity, and potentially high returns on investment. However, the risks associated with this type of asset were revealed when the crypto-asset investment bubble burst in early 2022, with the result that the market value of crypto-assets dropped by almost two-thirds from its November 2021 peak of around \$3 trillion. A report published by the Bank for International Settlements²³ has looked at the risks related to crypto-assets. Crypto-asset investors can experience market risk, given that the high price volatility of crypto-assets can result in losses. At the same time, investors can face liquidity risks due to the lack of transparency and the concentration of trading in the crypto-asset sector. Investment in this type of asset is also often associated with credit risk, as crypto-asset platforms and traders are frequently characterised by high debt levels, excessive leverage and low transparency in respect of disclosure. These assets are also prone to cyber attacks, as they depend on the internet and software-coded contracts. From a financial stability perspective, there is also the risk of flight from bank deposits to cryptocurrencies, and the consequent heightening of risks related to cross-border transfers and anonymous capital flows. According to the authors, regulatory and supervisory authorities need to act at the international level to reduce data gaps in order to improve monitoring of entities trading in crypto-assets, with particular focus on their links to the traditional financial system and infrastructure. Moreover, instead of imposing barriers or limits between crypto-assets and the traditional financial system, the authors recommend effective regulation and supervision of markets in these assets. This requires a clear definition of the mandate and regulatory framework. Regulation should be defined as activity-based (following the baseline 'same risk, same activity, same regulation') and as entity-based only in areas where such a definition makes sense – such as the setting of capital and liquidity requirements, which must be adjusted to reflect the specific characteristics of the entities concerned.

The September 2023 Macroprudential Commentary was discussed by the NBS Bank Board on 25 September 2023. The publication has not been copy-edited. Reproduction is permitted provided that the source is acknowledged.

¹⁹ Cheng, K., Liu, Z., Pezzini, S. and Yu, L., "Building an integrated surveillance framework for highly leveraged NBFIs – lessons from the HKMA", *BIS Papers*, No 137, Bank for International Settlements, August 2023.

²⁰ Family offices are private wealth management advisory firms that serve ultra-high-net-worth individuals and families, providing them with a broad spectrum of tailored services in the areas of wealth management, investment, insurance, and charitable giving, as well as other services.

²¹ Minoiu, C., Schneider, A., Wei, M., (2023). Why Does the Yield Curve Predict GDP Growth? The Role of Banks", Finance and Economics Discussion Series, No 2023-049, Board of Governors of the Federal Reserve System, Washington DC, July 2023.

²² Belkhir, M., Naceur, S.B., Candelon, B., Choi, W.G. and Mugrabi, F., "Macroprudential Policy and Bank Systemic Risk: Does Inflation Targeting Matter?", IMF Working Papers, No 2023/096, International Monetary Fund, Washington DC, June 2023.

²³ Consultative Group of Directors of Financial Stability (CGDFS), "Financial stability risks from cryptoassets in emerging market economies", *BIS Papers*, No 138, Bank for International Settlements, August 2023.