Analysis of the Slovak Financial Sector

2019

NÁRODNÁ BANKA SLOVENSKA
EUROSYSTÉM

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Foreword

Národná banka Slovenska produces the Analysis of the Slovak Financial Sector (ASFS) for the needs of the NBS Bank Board, the professional community and the wider public.

As one of the tools for assessing the stability of the Slovak financial sector, the ASFS should also be seen in the context of other NBS publications in this area, particularly the Financial Stability Report and the Quarterly Commentary on Macroprudential Policy, which are published on the NBS website.

The aim of the ASFS is to provide an overview of the current situation and developments in the domestic financial sector and to warn of potential risks. With regard to its systemic focus, the ASFS employs stress testing as a way of assessing the financial sector's sensitivity to various scenarios.

The last section complements the analytical part of the report by providing charts of selected macroprudential indicators for the principal risk areas in the financial sector.

This edition of the ASFS evaluates the overall condition of the financial sector as at 31 December 2019, on the basis of banking statistics data. In several parts, however, it refers to more recent available data. Activities related to the supervision of individual institutions are not covered.

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Overview

The global economic slowdown in 2019 stemmed mainly from uncertainty related to international trade

The global economy's performance in 2019 was its worst since the 2008-09 global financial crisis, with overall GDP growth standing at just 2.9%. Broad-based across both advanced and emerging-market economies, the slowdown was caused mainly by the adverse impact of declining trade activity and investment demand on industrial production. The euro area was no exception in this regard, as it also reported a decline in economic performance in 2019.

This slowdown required a response from central banks, which obliged with a return to monetary policy easing, whether via interest rate reduction or bond purchases. This also, however, further entrenched the long-term low interest rate environment and whetted risk appetite in financial markets. Bond markets saw a drop in required yields to maturity, while major equity indices climbed by between 20% and 30%.

Signs of global economic recovery started to appear towards the end of 2019, but these were snuffed out in the first quarter of 2020 by a new shock: the coronavirus (COVID-19) pandemic. The restrictions put in place to contain the spread of the virus will have an adverse impact on the global economy. Equity indices experienced their sharpest decline since the global financial crisis. It remains to be seen how long the crisis will last.

Slovakia's economic growth slowed amid cooling global demand

Although Slovakia's GDP growth of 2.3% in 2019 was above the EU average, around half of the EU countries, including the other Visegrad Four countries, reported stronger growth. In 2019, as in the previous year, domestic demand was the largest contributor to Slovak GDP growth; it was underpinned by an exceptionally favourable labour market situation that was not impaired by the cooling global economy. Nevertheless, Slovakia's export-oriented economy is now expected to contract significantly given the further weakening of global demand – due to the coronavirus situation, the increasing market uncertainty about future economic developments, the continuation of protectionist measures, and the lack of an agreement on post-Brexit arrangements between the UK and the EU.

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Annual retail loan growth slowed moderately in 2019

Although retail loan growth slowed to 7.9%, year on year, in December 2019, it remained among the highest in the European Union. This still elevated rate of loan growth was supported by economic fundamentals, in particular a strong labour market and wage growth. Other factors adding notable upward pressure were the rising prices of flats and exceptionally low interest rates. In view of the risks related to these trends, NBS further tightened regulatory lending requirements during 2019. By doing so, the central bank helped not only to moderate growth rates of loans and indebtedness, but also to mitigate credit risk.

The weakening of loan growth was more marked in the case of consumer loans (their growth rate fell to 0.2 %). Housing loan growth actually accelerated slightly, to 9.7%. This may have been partly related to the average interest rate on housing loans, which by the end of the year was basically down to 1% – the second lowest level in the euro area. Another factor may have been the high share of loans arranged through financial brokers, especially in regard to the refinancing or topping-up of existing housing loans.

Most households were servicing their loans without difficulty

The quality of loan books did not change significantly in 2019; the non-performing loan (NPL) ratio for housing loans rose slightly, to 1.7%, while the ratio for consumer loans fell moderately, to 8.4%. The stability of retail loan books was strongly supported by a favourable labour market situation and the continuing decline in interest rates, which reduced consumers' loan-servicing costs.

Corporate loan growth decelerated over the year, as the economy decelerated

The global economic slowdown in 2019 was also reflected in the Slovak corporate sector, in particular through a deterioration in business confidence and through slower growth in sales and in foreign trade. In this context, annual growth in loans to non-financial corporations (NFCs) moderated, down to 3.6% in December 2019, similar to the level in other CEE countries. At the same time, the outstanding amount of non-performing loans to NFCs came to the end of its downtrend and even began to rise slightly towards the end of the year.

The NFC debt-to-GDP ratio declined over the course of 2019, as did the NFC debt-to-equity ratio. Despite the general deterioration in the corporate sector, interest rates and interest margins decreased, owing mainly to the effects of competition and monetary policy. Given the impact of the

coronavirus, the situation in the corporate sector is expected to continue worsening in 2020.

The banking sector's profitability declined due to ongoing interest margin compression

Although the banking sector's aggregate net profit for 2019 was 0.4% higher than its profit for the previous year, large banks and small banks in the sector reported a decline in their return on equity. The main reason for this was the further substantial drop in retail loan returns, and since loan growth was slowing, banks were no longer able to offset that decline by increasing their lending activity. On the other hand, some banks were helped by lower interest rates on their bond issues, by dividend income, and by a decrease in credit risk costs. It is precisely lending activity, bond spreads and credit risk costs that may be particularly sensitive to the impact of the virus.

The Slovak banking sector's profitability was also weak in comparison with bank profitability in other EU countries of the central and eastern European (CEE) region. This is an unfavourable situation for Slovak banks to be in, especially from a foreign investment perspective. Taken together with the increase in the bank levy, this situation threatens to dampen investment in the development of the Slovak banking sector. On the positive side, the domestic banking sector is well positioned within the euro area, not only in regard to its profitability, but also in terms of its NPL coverage ratio and operational efficiency.

The resilience of the banking sector as a whole remained largely unchanged in 2019

The aggregate total capital ratio of domestic banks was 18.2% at the end of 2019, unchanged year on year, while their CET1 capital ratio increased marginally, to 15.9%. The difference between the total capital ratio of significant banks and that of less significant banks increased slightly, as the one fell to 17.8% and the other rose to 19.2%. The sector's average liquidity coverage ratio also remained largely unchanged.

Macro stress testing offers a perspective on banks' resilience in times of stress. The stress test conducted for this report included a theoretical scenario – which for the sake of comparison abstracts from the recent deterioration in the economy and financial markets – and two adverse scenarios. Both adverse scenarios were calibrated on the basis of experience gained from the global financial crisis, and although they do not factor in current parameters related to the coronavirus, they may contribute to the discussion about the potential impact of the virus on Slovak banking sector.

Even under the more severe of the two adverse scenarios, the banking sector as a whole shows relatively strong resilience, though at the expense of its total capital ratio declining to 12.7%. In that scenario, some banks have difficulty in meeting their capital requirements, and it is less significant banks that are in a more vulnerable position. The stress test exercise also demonstrated the procyclical nature of the bank levy, which in the event of bad times serves to amplify the impact of any crisis on the banking sector.

The insurance sector's profit and technical provisions increased, while traditional life insurance business declined

The insurance sector in 2019 was affected in particular by the low interest rate environment and an increased tax burden on non-life insurance. Nevertheless, the sector's aggregate profit for 2019 increased by 7.2% year on year, owing to the reduction of operating costs in the non-life segment. Compared with the previous year, the sector's solvency remained almost unchanged.

In the life insurance segment, demand for guaranteed products continued to decline in 2019, yet premiums written in unit-linked insurance business increased only marginally in year-on-year terms. On the other hand, returns on assets invested under unit-linked policies were strongly positive in 2019, after falling in the previous year.

Premium growth in non-life insurance slowed, apparently affected by the new insurance premium tax. Even so, the reduction of operating costs in the segment ensured that non-life insurance was the principal contributor to the insurance sector's overall profit growth.

The pension fund sector reported strong growth, including a substantial increase in investment returns

In both the second and third pillars of the Slovak pension system, the net asset value of funds recorded the strongest growth for several years in 2019. This reflected mainly the increase in returns on funds, but also increasing enrolment in the pension schemes. The increase in the number of second-pillar savers was the highest on record, and although the rise in third-pillar participants was more moderate, it was still robust.

The relatively strong performance of pension funds and its contribution to asset growth in both pension pillars in 2019 needs to be seen, however, in the context of market developments.

The investment fund sector's historically high growth in 2019 resulted from customer inflows and asset price growth

After increasing at a record pace in 2019, the outstanding amount of shares/units issued by investment funds in the Slovak investment fund sector ended the year at €9.6 billion. This growth was based on a combination of new customer investment in funds and the strong performance of funds. All domestic asset management companies reported an increase in the net asset value of the funds under their management. Net sales increased in all fund categories apart from bond funds, which experienced net redemptions for a fifth successive year.

The average nominal return on all domestic and foreign investment funds marketed in Slovakia was 8% in 2019. As for the highest return by fund category, equity funds ranked first with an average return of 23%.

The equity component of pension funds increased

Pension fund investment strategies in 2019 reflected the presence of strong risk appetite. Not only did the share of equities in funds' portfolios increase, so did the duration of portfolios; in addition, the corporate bond component increased at the expense of the government bond component.

Looking at the asset structure of investment funds in different fund categories, there was no significant change in 2019. Across real estate fund portfolios, the share of real estate-related investments fell slightly, while the share of bank deposits, a liquid component, increased.

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1 External and domestic developments from a financial stability perspective

1.1 External environment

The global economic slowdown in 2019 stemmed mainly from uncertainty related to international trade

The global economy's performance in 2019 was its worst since the global financial crisis. GDP growth stood at 2.9%, seven-tenths of a percentage point below the previous year's rate. The slowdown was broad-based across both advanced and emerging-market economies. The industrial production slowdown related to falling trade and weaker investment demand became the main drag on GDP growth. The principal cause of this trend was the increase in uncertainty and deterioration in sentiment which resulted from increasing political and geopolitical threats around the world. A particularly prominent role was played by the escalation of tensions between the United States and China, which at some stage developed into a full-blown trade war.

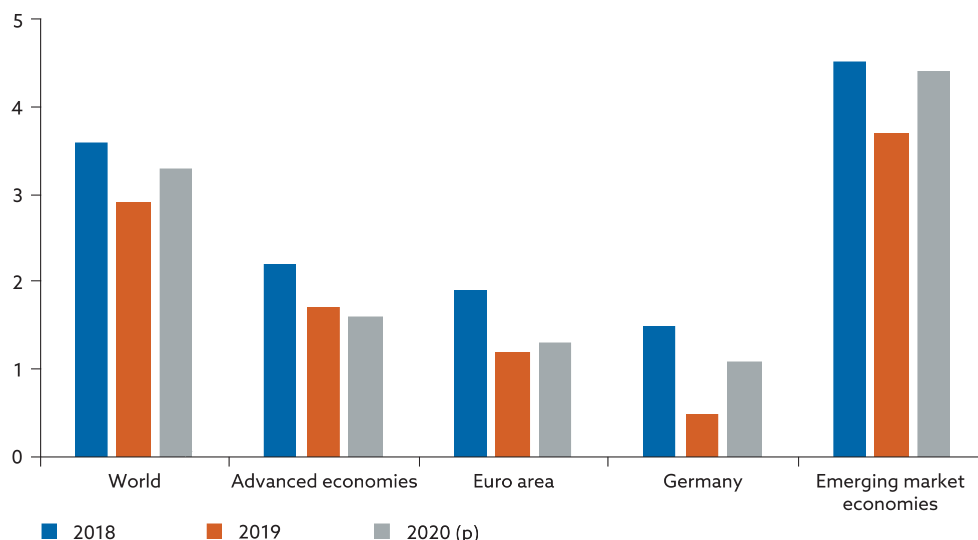
The worsening economic situation in the rest of the world had a substantial impact on the economic situation in the euro area. With exports falling and firms taking a more cautious approach to investment expenditure, euro area GDP growth eased to 1.2% in 2019, down from 1.9% in 2018 and from 2.5% in 2017.

From a sectoral perspective, the recession in industry was the main factor behind the growth slowdown. It was largely centred on the contraction of Germany's manufacturing production, which was adversely affected not just by weaker demand, but also by production disruptions related to the car industry's adaptation to stricter emission standards. As a result, in contrast to its position in previous years, the German economy contributed significantly to the euro area's economic slowdown.

Among the positive aspects of the euro area's economic situation in 2019 was the relatively strong resilience of household consumption demand, which held up well thanks to benign labour market conditions. Although employment growth was lower in 2019 than in the previous year, the un-

employment rate fell to levels close to historical lows, which supported growth in real wages. As regards GDP calculated by the production approach, its growth was supported by the services and construction sectors.

Chart 1
Global GDP growth and GDP growth of selected regions
(percentages)



Source: IMF World Economic Outlook Update, January 2020.
Note: 2020 (p) – projection for 2020, made before the coronavirus outbreak escalated.

A return to monetary policy easing and the prospect of long-term low interest rates stoked risk appetite in financial markets

The widespread worsening of economic relations across the world required a response from central banks. In 2019 global monetary policy had been entering a moderately tightening phase of the cycle when it took a sharp accommodative turn. The US Federal Reserve led the way by lowering the target range for the federal funds rate on three occasions, by 75 basis points altogether. The European Central Bank responded to the adverse developments by moving its deposit facility rate further into negative territory, reducing the rate by 10 basis points to -0.50%. In addition, the ECB decided to restart net purchases under its asset purchase programme at a monthly pace of €20 billion, and it adopted further support measures aimed at stimulating economic activity.

Despite deteriorating outlooks for the real economy, financial markets saw an increase in risk appetite during the period under review. The new wave of easing of monetary conditions resulted in robust investor demand for a broad range of financial and non-financial assets. The prevailing view about interest rates was that they would be "lower for longer", i.e. that the period of very low interest rates would be even lengthier than originally expected. In bond markets, this consensus was reflected in decreases in

required yields to maturity across the credit and maturity spectrum. Since the response was more pronounced in regard to longer-maturity securities, yield curves not only moved down, but also became flatter. The volume of bonds trading at negative yields increased sharply. By late summer, when concerns about the health of the global economy were at their height, the overall amount of negative-yielding bonds was as high as USD 17 trillion.

Equity markets were on an upswing for most of 2019. The EURO STOXX 50, an index of euro area stocks, surged by 23%, and the US S&P 500 index climbed by 29%. In Europe, equity markets increased sufficiently to make up the ground lost in the previous year, while in the United States they rose to new historical highs. In several countries, the search for higher-yielding investments was putting upward pressure on property prices.

Chart 2
Major global equity index trends

Source: Bloomberg.
Note: Rebased, 31 December 2018 = 100.

Signs of an economic upturn towards the end of 2019 were quashed by a new shock: the coronavirus (COVID-19) pandemic

In late 2019 and the first weeks of 2020, the global economic situation was showing signs of stabilising. A majority of "soft" indicators of confidence and sentiment were improving moderately around the turn of the year. The rising optimism was largely predicated on the partial trade deal struck between the United States and China, which was expected to signal a return to better relations between the two countries and to lay a basis for further negotiations. In Europe, the finalisation of the United Kingdom's withdrawal from the European Union helped ease uncertainty.

In early February 2020 the prospects of an economic upturn suffered a major blow. The global economy was hit by an unexpected new shock: the coronavirus (COVID-19) pandemic. After breaking out in China, and initially causing economic complications only in that country, the virus quickly spread across the world and has most recently hit Europe quite hard, with Italy the principal epicentre. It is now clear that the measures taken to contain the spread of the virus will, at a minimum, have a short-term impact on global economic performance. Both the demand and supply sides of the economy are affected. Nervousness is also spreading to financial markets. Equity indices have fallen more sharply than at any time since the global financial crisis, and there is rising demand for safe assets such as government bonds. The Federal Reserve responded to the emerging situation by cutting its benchmark rate by 50 basis points. The baseline expectation is still that the pandemic will have a short-term impact on economic performance and that the second half of 2020 will see the situation rapidly stabilise and start returning to normal. The key questions in this context are how long the crisis will last and whether the virus can be prevented from spreading to the greater part of the population. If the situation were to develop negatively in these dimensions, a serious systemic shock to global economic activity would loom large.

The prevailing downside risks to the global economic outlook are not only related to the coronavirus. Although the uncertainty surrounding US economic and trade policies has eased slightly, it remains a prominent threat to the world economy. The "Phase 1" trade agreement between the United States and China does not encompass all the areas touched by the countries' recent trade dispute. It remains to be seen to what extent the two sides will fulfil the terms of the deal. Apart from this, the United States is threatening to impose duties and tariffs on other countries, including euro area countries. The United Kingdom's withdrawal from the European Union finally took place at the end of January 2020; nevertheless, a return to the uncertainty that previously surrounded this issue cannot be ruled out. Relations between the UK and EU will be governed until the end of 2020 by the transitional provisions laid down in the Withdrawal Agreement. The permanent terms of the future UK-EU partnership must therefore be settled before the end of year, which, given the nature of the issue, is a very tight timeframe. The approach of the deadline could give rise to concerns in both financial markets and the real economy. Another source of recently escalating geopolitical tension is the hostility between the United States and Iran. Any further ratcheting up of tension between the countries could affect oil prices and consequently also the global economy.

In the medium term, the global economy remains exposed to risks arising from the long-term build-up of financial system imbalances. This con-

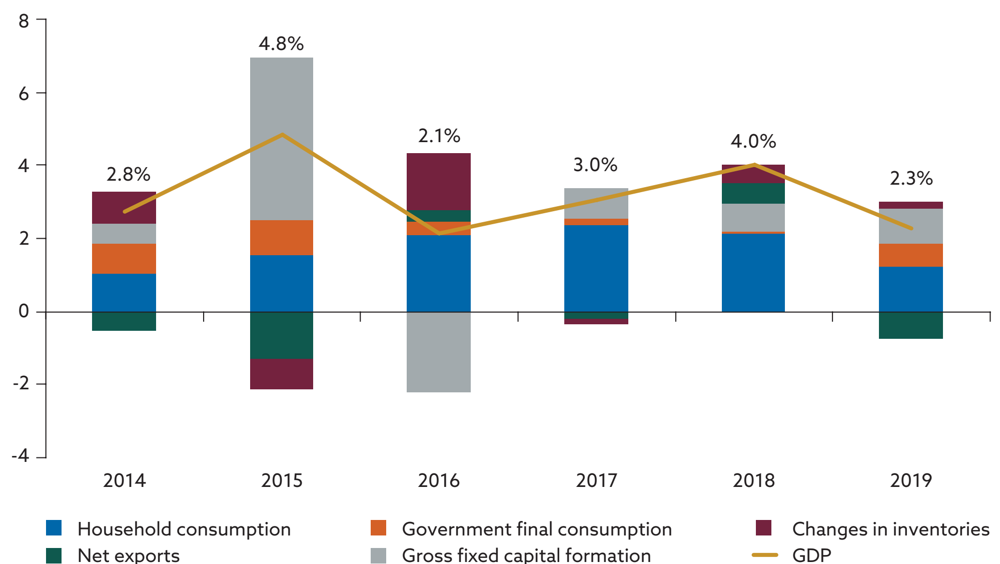
cerns mainly the burgeoning indebtedness of private and public sectors during the period of low interest rates. The other side of this story is the expansion of financial sector balance sheets; a proportion of the acquired assets are exposing financial institutions to the risk of higher losses in the event of adverse economic developments.

1.2 Domestic environment

Although the cooling of global demand weighed on Slovakia's economic growth, domestic labour market conditions remained tight

Slovakia's economic growth was slower in 2019 than in previous years. A majority of EU countries experienced an appreciable economic slowdown in 2019, and Slovakia was among that group. The cause of this deceleration was the cooling of global demand which resulted from the implementation of protectionist trade measures and the climate of heightened uncertainty. The principal negative contribution to Slovakia's GDP growth came from foreign demand. At the same time, the growth rate continued to be supported by domestic side of the economy, as domestic demand remained relatively stable.

Chart 3
Slovak GDP growth and its components
(percentages)



Sources: SO SR, NBS.

The strongest component of domestic demand remains household consumption. With its stability still supported by wage growth and a favourable labour market situation, this component accounted for more than one-half of GDP growth in 2019. Investment, too, has been a stable compo-

nent of GDP growth over the past three years, and its contribution in 2019 was more than one-third. The main source of investment growth last year was private sector activity. Another positive contributor to overall GDP growth was government consumption, whose growth was driven mainly by expenditure on wages and bonuses of public employees and by health-care expenditure. Changes in inventories also had a positive impact on growth. After deteriorating in the second half of 2018, economic sentiment remained stable during 2019, at a level indicated persisting uncertainty about future developments.

The domestic labour market proved resilient to the cooling trends in 2019. After six years of falling, the unemployment rate ended the year at 5.5%.[1] Net job creation was more than 20 thousand higher in 2019 than in the previous year, and the number of employed people stood at more than 2,450,000 at the end of the year. From a sectoral perspective, job creation was highest in the services sector. In industry, by contrast, employment contracted. The number of jobs filled by foreign workers became increasingly fewer. At the peak of the economy's expansion, around half of the jobs filled were filled by foreign nationals, while last year that ratio fell to around one-third. The relatively low labour supply was reflected in the average wage, which increased by 5.4% in nominal terms and by more than 2.5% in real terms (taking inflation into account). Household disposable income increased, as evidenced by the persisting strength of household demand for new loans.

The economic slowdown was fully reflected in corporate sales in 2019, as their annual growth rate slumped to 2.3%. Sales in the second half of 2019 even declined year on year. The drop in sales was most pronounced in the industry sector, which, being export oriented, felt the full impact of the softening of foreign demand. On the other hand, the services sector managed to maintain quite respectable sales growth, as did the telecommunications and information industry. The economy's slower growth was also reflected in construction sector sales growth, which decelerated in 2019 after being relatively strong in 2017 and 2018. Another corollary of the gradually weakening economic growth and uncertainty about future developments was that demand for loans to non-financial corporations was far weaker in 2019 than it had been in previous years.

Despite the economy's slower growth, prices of goods and services accelerated in 2019. The average annual increase in the price level in 2019 was 2.8%. The largest increases were in prices of energy and food. By contrast, non-energy industrial goods inflation was very moderate and continued

[1] According to the Labour Force Survey (seasonally adjusted data).

its decelerating trend. Given the ongoing decline in interest rates and the acceleration of headline inflation, an increasing share of loans secured by residential real estate were being provided at a negative real interest rate.

Compared with 2019, however, the risks associated with adverse economic developments have increased. Looking at the first quarter of 2020, it already appears that the coronavirus pandemic will have severely negative repercussions for the economy and financial market. It is expected that global demand will decline much further due to the spread of the virus and that the Slovak economy will suffer as a result. The likelihood of the domestic economy stagnating or falling into recession has risen considerably. Weak foreign demand and the suspension of production at several of the domestic economy's large producers and exporters will erode economic activity growth and result in a sharp downturn of the Slovak economy. At the same time, financial market uncertainty about the future economic situation has increased significantly and is also having a negative impact on overall economic and financial activity. In such circumstances, economic sentiment is expected to plummet, with resulting declines in investment and household consumption. What matters most in this regard is how long the coronavirus pandemic will last and what effects it will have on the economy and financial market. From a medium- to long-term perspective, the Slovak economy also faces the following structural challenges: electro-mobility and the tightening of emission standards in the context of the transition to a carbon neutral economy; and the substantial competitive pressure on the European steel industry.

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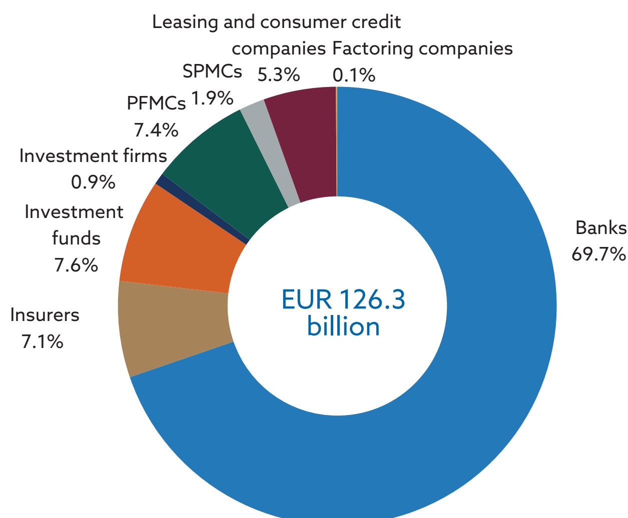
2 Integrated overview of the financial sector

Slovakia's economic slowdown in 2019 was not yet having a notable impact on the domestic financial sector; nevertheless, the environment of long-term low interest rates is putting downward pressure on the banking sector's profitability

The gradual ending of the expansionary phase of the business cycle and the moderation of economic growth in 2019 was not yet reflected in a slowdown of the financial sector. Compared with the end of 2018, the sector's total assets were higher by 6.8%, or more than €8 billion, at the end of 2019, at €126.3 billion. All significant segments of the financial sector recorded asset growth. The aggregate asset growth was supported by households' continued willingness to increase their borrowing. With economic sentiment faltering amid uncertainty about future economic developments, the private sector saving ratio increased in 2019. In this context, household investment demand increased and thus supported asset growth in those financial market segments focused on investment and capital markets. Despite the easing of expansionary trends, the build-up of risks in the financial market remained relatively elevated.

Chart 4
Distribution of assets and management assets in the Slovak financial market
(percentages)

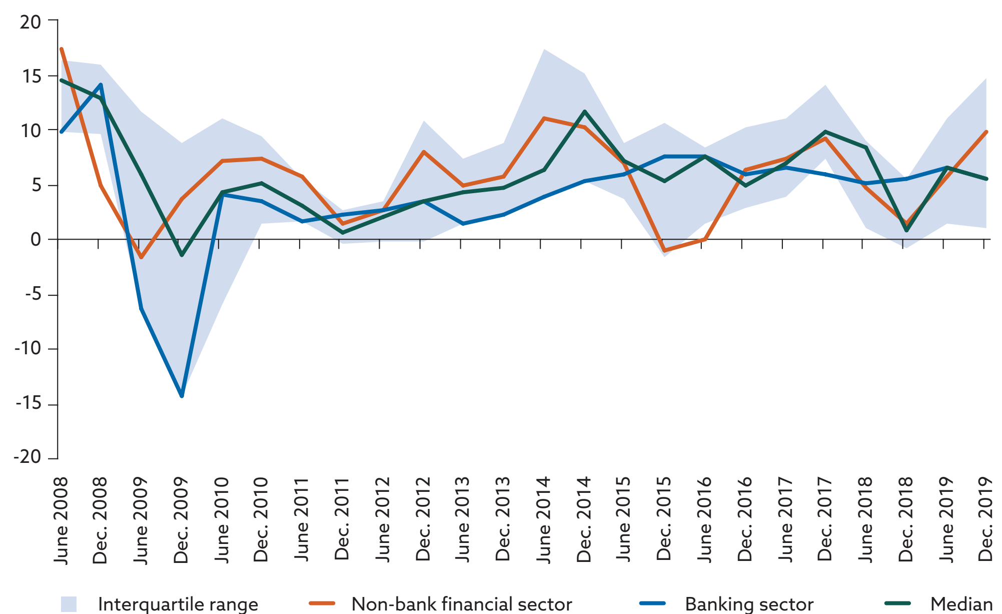


Source: NBS.

The banking sector had a significant impact on the financial market's overall asset growth in 2019, even though asset growth in this sector was lower than that across the rest of the market. Banks' total assets increased,

year on year, by 5.5%, so accounting for more than half of the overall asset growth in the financial sector. An environment of strong competition and ongoing compression of interest margins (among the lowest in the euro area) is compelling banks to step up lending activity in order to maintain their profitability. Although the domestic economy slowed appreciably in 2019, the absolute year-on-year increase in the banking sector's total assets was around €4.5 billion, maintaining a stable trend going back to 2015. The sector's business model is coming under substantial pressure, as the persisting decline in interest margins is forcing banks to provide large volumes of new loans, thereby increasing their exposure to risks of a cyclical nature.

Chart 5
Total assets in the financial sector
(annual percentage changes)



Source: NBS.

Insurers performed well in 2019, as did companies operating in the capital market

The insurance sector performed well in 2019, with its total assets recording their largest year-on-year increase in eight years, more than 6%. This growth was supported not only by an increase in gross premiums written, but also by the increasing value of invested assets. Financial market segments investing in the capital market also had a favourable year in 2019. In the investment fund sector and in both the second and third pillars of the pension system, the year-on-year increase in aggregate fund assets was in double digits. The assets of fund management companies themselves were boosted not only by the continuing demand for investment and pension fund products, but also by the fact that financial market developments in

2019 were conducive to such investments. At the same time, pension fund management companies (second pillar) benefited from a statutory 0.25 percentage point increase in the rate of mandatory contributions to the second-pillar pension scheme, up to 4.75%. In the leasing and consumer credit segment, total asset growth was moderate at just over 1%; this contrasted sharply with the previous year's result, when this segment reported double-digit growth.

From a profitability perspective, companies operating in the capital market performed particularly well

Profitability in the Slovak financial market in 2019 was heterogenous across sectors. Capital market funds benefited from favourable financial market trends, but the banking sector's profitability measured by return on equity (ROE) decreased, even though asset growth was strong. The banking sector's net profit in 2019 was similar to that in the previous year, recording a year-on-year increase of 0.5%. The sector's ROE, however, declined by 0.5 percentage point year on year and is now approaching 8%. In terms of profitability, the Slovak banking sector was one of the highest ranked among CEE banking sectors in 2016 but now lies on the edge of the lower quartile. From the perspective of foreign parent groups that own significant banks in CEE countries, the attractiveness of Slovak banks has been gradually diminishing. The domestic insurance sector maintained double-digit profitability in 2019, with a year-on-year increase of 13.3% that was close to its historical average. In the investment fund sector, asset management company profits were notably buoyed by financial market developments, and profitability remained significantly above the historical average.

The uptrend in credit quality indicators was turning slightly towards the year-end

As regards the credit quality of household loans, indicator trends varied between loan types in 2019. In the consumer loan book, which is smaller in volume terms, both the default rate and the non-performing loan (NPL) ratio decreased. This downward shift is more favourable for the fact that NPL ratios were at elevated levels to begin with. In the case of housing loans, by contrast, net default rates for housing loans rose from practically zero to 0.1% per annum. This segment, moreover, also experienced one-off effects of portfolio cleansing, which if included in the indicator would have raised the market average to 0.4%. Nevertheless, the increase in NPLs was still moderate, owing to the generally favourable economic situation and the environment of falling interest rates.

During 2019 indicators of credit risk in the corporate loan book reflected the general economic situation. Until September the credit quality of the loan book continued to improve, but in the last quarter, when economic trends deteriorated, both default rates and the NPL ratio increased. The rise in default rates was relatively broad-based across sectors and firm sizes. But although the NPL ratio for loans to non-financial corporations increased, it was still close to post-crisis lows.

The broad increase in equity positions was accompanied by increasing bond portfolio durations in several sectors

Looking at asset portfolio trends in different segments of the Slovak financial market in 2019, there was one common denominator. All sectors reported an increase in equity positions. The volume of equities and investment fund shares/units in asset portfolios increased in a largely passive manner, as the general buoyancy of equity markets during the period under review resulted in a surge in the prices of equities already included in portfolios. In some sectors, the growth of this component was further supported by targeted increases in the purchase of these instruments.

In the composition of asset portfolios, the increase in equities and investment fund shares/units was accompanied by a decline in debt securities. This trend was seen in all financial market segments with the exception of the banking sector. A number of sectors also recorded an increase in the duration of debt securities. This was most evident among insurers, whose bond portfolio durations have even so been the highest in the financial market for a long time, possibly due to insurers' efforts to bring the durations of their assets and liabilities closer together in order to optimise capital requirements. The next largest year-on-year increases in the durations were reported in the second and third pillars of the pension system and, some way behind, in the banking sector. The moves to extend durations may have been triggered by the decline in market rates and the reversal of monetary policy from a path of gradual tightening back to an easing stance. It therefore seems that financial institutions were gravitating towards the longer end of the yield curve in order at least to maintain their returns on these instruments. Increasing the duration of bond portfolios also makes them more exposed to interest rate movements.

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Table 1 Changes in the share of equity, foreign exchange and interest rate positions in individual segments of the financial market

	Equities and investment fund shares/units			Foreign exchange positions			Share of debt securities			Duration of debt securities			Duration of whole portfolio			Residual maturity of debt securities		
	2017	2018	2019	2017	2018	2019	2017	2018	2019	2017	2018	2019	2017	2018	2019	2017	2018	2019
Banks	0.4	0.3	0.5	0.1	0.1	0.4	14.1	12.9	13.1	4.8	4.6	5.1	1.3	1.3	1.3	5.5	5.2	5.3
Insurers	4.4	6.9	9.1	-0.9	0.9	1.3	69.3	69.9	67.2	6.5	6.3	8.0	6.2	5.8	6.6	8.3	8.4	9.5
Second-pillar pension funds	22.7	24.1	28.3	5.6	5.9	6.0	66.6	66.3	62.8	4.6	4.4	5.6	4.0	3.3	3.5	5.6	5.4	6.3
Third-pillar pension funds	43.9	39.4	45.2	19.5	19.3	16.9	36.8	41.0	36.2	4.4	4.7	6.2	2.9	2.3	2.3	5.5	5.9	7.3
Investment funds	43.0	43.3	47.1	13.7	14.8	14.4	18.1	18.2	16.3	2.6	2.8	2.8	1.1	0.7	0.5	2.8	3.4	3.1
ULI[1)]	82.1	83.0	85.3	3.3	3.7	4.3	18.0	16.3	13.1	3.1*	2.7	2.5	1.4	0.6	0.3	3.4	3.1	2.8

Sources: NBS and Bloomberg.
Notes: Values are given as a percentage share of total assets (or NAV) and represent the asset-weighted average for the given group of institutions.
Foreign exchange positions are given as a percentage share of assets (or NAV); they were calculated as the sum of the absolute values of the positions for each institution.
Equity positions are given as a percentage share of assets (or NAV); they do not include participating interests in subsidiaries and affiliates.
Durations and residual maturities are given in years.
1) ULI – assets invested by insurers under unit-linked life insurance policies.

The least clear trend in the Slovak financial sector in 2019 was in open foreign exchange positions. In some sectors they increased, while in others they fell or at least remained unchanged compared with the previous year. In those sectors where the aggregate positions did change, the movement was not very significant. In regard to the absolute sizes of these positions, the market segments exposed to the largest exchange rate risk were, as in previous years, second-pillar pension funds and collective investment funds.

In 2019, as in previous years, stress testing was conducted to check the resilience of different segments of the Slovak financial market under a simulated deterioration in economic performance and a climate of nervousness in financial asset markets

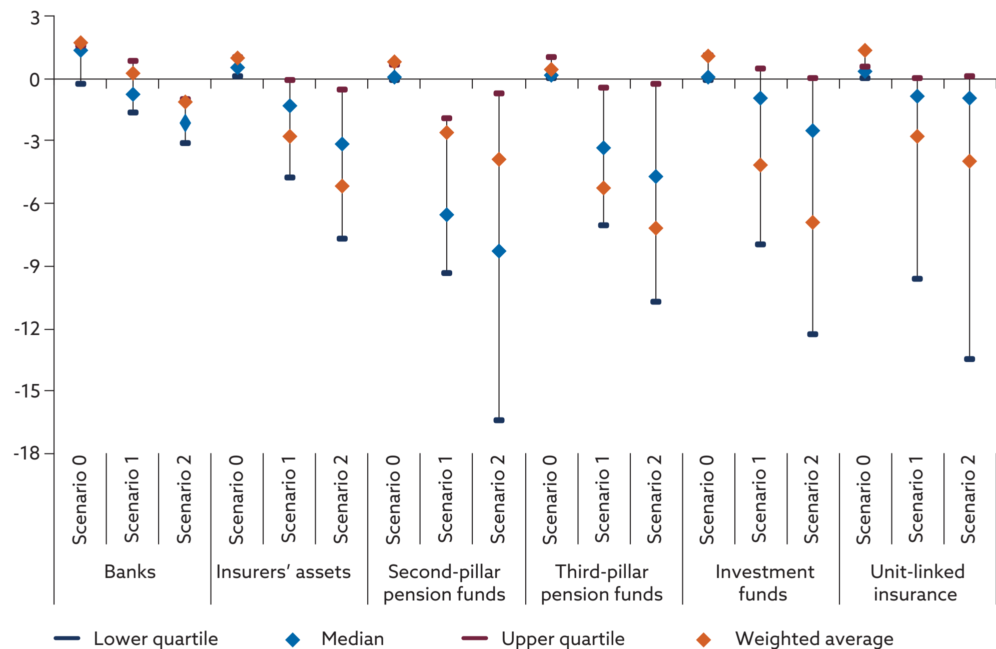
Under the adverse scenario, third-pillar funds suffer the largest weighted average loss, representing more than 5% of their net asset value. In the second pension pillar, the decline in the pension-point value (recalculated for the sector as a whole) is around half as large as that in the third pillar, which is explained mainly by the fact that less risky bond funds still account for a considerable share of the aggregate NAV of second-pillar funds. On the other hand, under the more severe adverse scenario, the index funds and equity funds that constitute the rest of the second-pillar funds experience a notable greater aggregate decline in asset value compared with many third-pillar funds.

In both adverse scenarios, the average vulnerability of investment funds is relatively greater. In the less adverse scenario, the aggregate asset value of domestic investment funds falls by 4%; in the more adverse scenario, by 7%. The risk is highly concentrated across a few funds – mainly equity funds and, to a lesser extent mixed funds – which explains why this sector reports a far lower median value.

The profitability of banks falls significantly under the adverse scenarios. In the less severe adverse scenario, the banking sector as a whole is able to generate a cumulative profit over the three-year stress test period, but that profit is far lower than its profit under the baseline scenario. The banks still in profit under the first adverse scenario are mainly large banks; more than half of the sector's banks report a loss, and the loss-making banks are mostly small ones. In the more severe adverse scenario, virtually all banks make a loss. In this case, the ratio of the sector's aggregate loss to its total assets is just over 1%. Credit losses, especially those arising from retail loan delinquency, are the principal source of downward pressure on profitability.

Chart 6

Distribution of the impact of macroeconomic scenarios on the financial sector
(percentages)



Sources: NBS, RBUZ, ECB and Bloomberg.
Notes: The chart shows quartiles of the estimated profit/loss-to-asset ratio resulting from the application of the respective scenarios as at 31 December 2019.
In the case of banks, the quartiles refer to the ratio of the total estimated net profit for the three-year stress test period to net assets as at 31 December 2019.
The data for insurers include only the change in the fair value of assets. The stress test does not include assets covering technical provisions for unit-linked insurance policies, nor the impact on insurers' liabilities.
Values are given as a percentage share of total assets (or NAV).
A detailed description of these scenarios can be found in Section 6 and in the separately published Annexes to the ASFS.

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The insurance sector was stress-tested for losses arising from the materialisation of market risks, for an increase in the loss ratio in non-life insurance, and for an increase in the surrender rate in life insurance. Under the baseline scenario, the solvency of all domestic insurers remains flat or increases. Under the less severe adverse scenario, more than half of the insurers in the sector record a decline in their equity capital, and almost all of them report a solvency capital requirement coverage ratio of more than 100%. In the more severe adverse scenario, virtually all insurers make losses that weigh on their equity, though the vast majority of them still meet the solvency capital requirement.

3 Banking sector

3.1 Trends and risks in the banking sector's balance sheet

3.1.1 Loans and credit risk

Retail sector

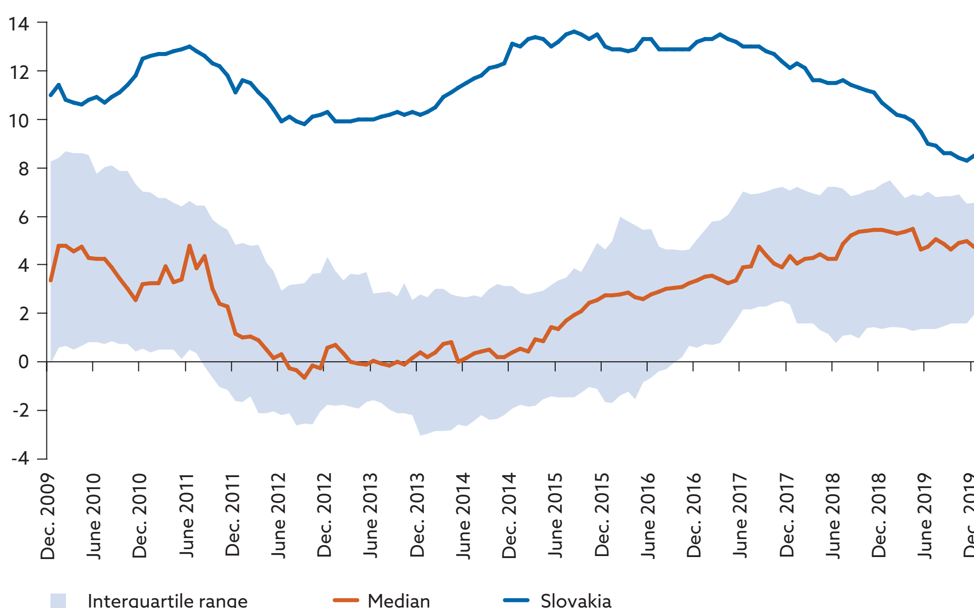
Despite easing, retail loan growth in Slovakia was among the fastest in the EU in 2019

Retail loan growth in Slovakia slowed in 2019. The year-on-year increase in total retail loans stood at 7.9% in December, 7.7% in November and 7.8% in October, levels that were the lowest recorded since the establishment of mortgage banking in Slovakia at the beginning of the century. January 2020 saw a slight upward correction, to 8.1%. The banking sector's retail loan book grew by €2.9 billion in 2019, which was its lowest absolute annual increase since spring 2016. Slovakia's retail loan growth was almost twice as high as the EU median, though in the second half of 2019 it went from being the fastest in the EU to the fourth fastest, behind the growth rates in Hungary, Bulgarian and Malta.

Chart 7

Slovakia's retail loan growth remains among the highest in the EU

Retail loans in the EU (annual percentage changes)



Source: ECB SDW.

Note: For euro area countries, the chart includes all loans irrespective of currency of denomination or country of counterparty; for non-euro area countries, it includes only loans in the domestic currency to domestic counterparties, which covers the bulk of retail loan business. Due to exchange differences, the ECB's Statistical Data Warehouse does not allow the inclusion of all loans provided by non-euro area banks.

Retail loan growth in Slovakia continued to be supported by macroeconomic fundamentals in 2019. Although the registered unemployment rate was no longer changing to any significant extent, its average level for the year, 5.0%, was the lowest in Slovakia's modern history. Besides the availability of employment opportunities, factors supporting loan growth included the rising income of households, the increasing price of loans, and the continuing residential property price growth that was putting upward pressure on demand for debt financing. On the other hand, there was downward pressure from weakening demographics, particularly in regard to the number of people entering the age cohorts in which there is highest demand for primary residence financing.

Loan growth in 2019 was further dampened by macroprudential measures adopted by NBS. Although no new measures entered into force during the year itself, the first half of 2019 was still part of the phasing-in period for new regulatory rules concerning loans with high loan-to-value (LTV) ratios or high debt-to-income (DTI) ratios. At the end of the year stricter rules for debt-service-to-income (DSTI) ratios were adopted, but these did not take effect until January and were to be phased-in by the end of June 2020.

Housing loan growth slowed, while interest rate cuts had a moderate upward impact

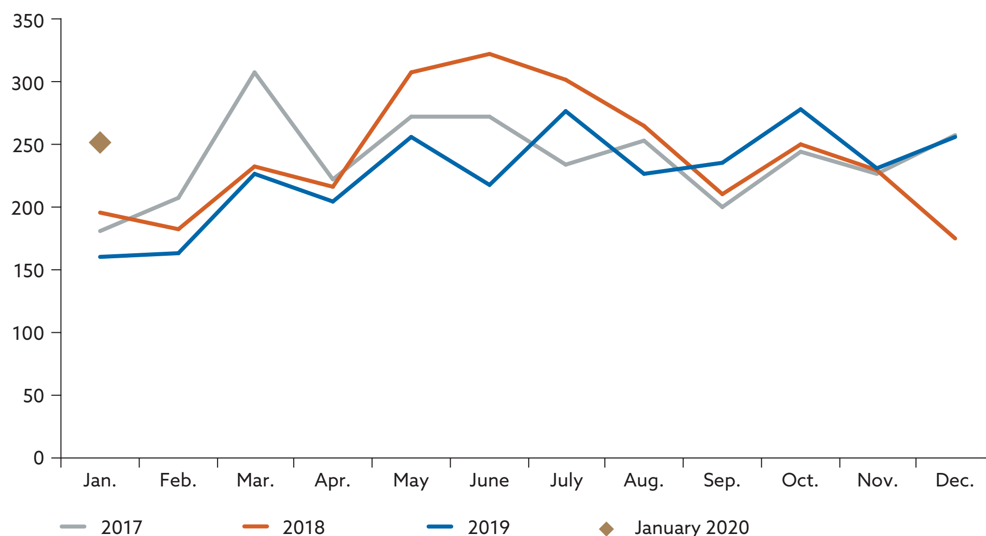
Annual growth in housing loans slowed in 2019, so continuing a trend that began in spring 2017. In the second half of the period under review, housing loan growth dropped below 10% for the first time. The rate recorded its lowest levels in November (9.4%), before picking up slightly in December (9.7%) and January 2020 (9.9%). The overall slowdown in housing loan growth in 2019 was caused mainly by weaker absolute increases in the first two quarters of the year. The monthly amount of new loans started to increase from around July and proceeded to climb to almost historical highs, buoyed by interest rate reductions and by fierce interbank competition, particularly in the area of loan refinancing. Národná banka Slovenska responded to these developments by tightening regulatory requirements in order to reduce the riskiness of lending.

One area of the housing loan segment which showed a different trend was loans provided by home savings banks, which increased by just 0.2% year on year, or just under €7 million in absolute terms.

Chart 8

The monthly flow of housing loans picked up from summer 2019, and in January 2020 it reflected the impact of frontloading

Total housing loans (month-on-month change in EUR millions)



Source: NBS.

The large majority of new housing loans were used to repay existing debt, whether with the same bank – in order to secure better terms and conditions (loan renegotiations) – or with another bank. New housing loans can be divided into three groups according to their use. The first and largest group comprises loan renegotiations that involve a change in the borrowing rate, whether at the interest rate reset date or at another time. These loans made up around 38% of total new housing loans in 2019. A second group, accounting for 28% of the total, comprises loans used for repaying a loan from another bank; these include refinancing loans without an increase in the borrower's outstanding loan amount or refinancing loans with an increase in the outstanding amount, net of the amount of the increase. Only the third group, making up 34% of the total, represents actual new debt, whether in the form of pure new loans or outstanding amount increases under refinancing loans or top-up loans. Refinancing loans often involve loan consolidation, in particular the consolidation of consumer loans or smaller borrowings through credit cards or authorised overdrafts.

The average interest rate on new housing loans remained close to 1.5% during the first half of the year, before decreasing in the second half of the year to a historical low of 1.1% (December 2019). If loans provided by home saving banks are excluded, the rate fell to below 1.03%. The average interest rate on renegotiated housing loans fell to 0,9 %. The average annual percentage rate of charge for housing loans decreased to 1.3%.

In international comparison, interest rates on new housing loans were among the lowest in the EU, with their ranking varying between second-

and fifth-lowest during the course of the year. In December 2019 they were the second-lowest in the EU, with only Finland reporting lower rates.

The reduction in interest rates in 2019 was reflected in a re-opening of the gap between rates on existing loans and rates on new loans, from 0.4 percentage point at the start of the year to 0.6 percentage point at the end. This once again increased the incentive for loan refinancing.

Maturity indicators for new housing loans remained almost unchanged in 2019 in year-on-year terms. The average maturity of housing loans in the period under review was 26.1 years. For pure new loans, the average was half a year higher, and for refinancing loans (including renegotiated loans) provided in 2019 it was half a year lower. As a share of new housing loan business, loans with a maturity of 30 years stood at 45%. Housing loans with a maturity of more than 30 years saw a slight increase in their fringe share (which rose gradually from 0.4% in 2018 to 1.0% in the last quarter of 2019). This increase was driven by the subcategory of refinancing loans not involving an increase in the outstanding amount, as their share of new housing loan business increased from 1% in 2018 to 4% in the last quarter of 2019. In line with the usual trend, the vast majority (90%) of the loans provided in 2019 had an interest rate fixation period of between one and five years.

The average LTV ratio on housing loans fell to 74.2% in 2019; its decline of around 1 percentage point was on a par with its declines in 2017 and 2018. In accordance with NBS regulatory measures, there remained no housing loans with an LTV ratio of more than 90%. The share of loans with an LTV ratio of more than 80% fell from 26% to 14% between the fourth quarter of 2018 and the same period in 2019.

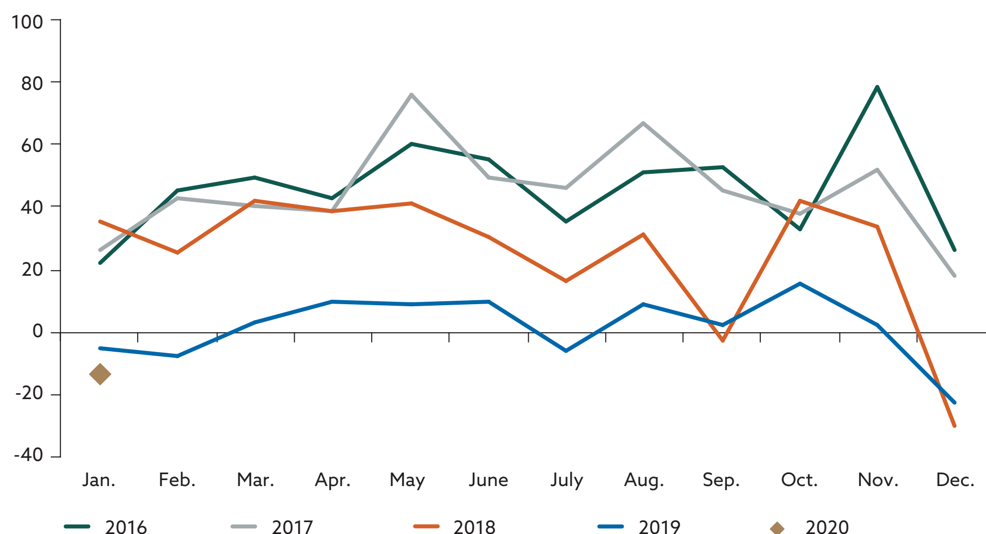
The share of housing loans arranged through financial brokers stopped increasing in 2018 and remained unchanged in 2019. Across individual banks operating in the retail market, the share of these loans in new business ranged between 0% and 97%, with the median for 2019 standing at 66%. Large, medium-sized and smaller banks could be found on both sides of the median. Approximately one-third of the brokered housing loans were arranged through one of the four largest financial intermediation companies in Slovakia; this indicates low market concentration.

Consumer loan growth almost came to standstill

Annual growth in consumer loans in Slovakia almost came to complete standstill in 2019, following on from its weakening towards the end of the previous year. Between December 2018 and December 2019, consumer loan growth fell from 6.0% to 0.2% year on year. The monthly flows of these loans were far lower compared with 2018, and in some months they

were even negative. The written-down/off amount of consumer loans was almost the same in 2019 as in 2018, at €150 million.

Chart 9
The monthly flow of consumer loans was several times negative in 2019
Total consumer loans (month-on-month change in EUR millions)



Source: NBS.
Note: The chart is adjusted to exclude the one-off impact of one bank's acquisition of part of a non-bank company in January 2018.

The slowdown in consumer loan growth in 2019 stemmed mainly from reduced production of new loans; consumer loan outflows had a more moderate impact. Some part of the slowdown may be ascribed to the consolidation of consumer loans into housing loans. As Chart 10 shows, the largest outflows of consumer loans were caused by early repayment of whole loans, although the average monthly flow of such repayments has been on a slight downtrend in recent years (€127 million in 2017; €121 million in 2018 and 2019). Most of the repaid loans were refinanced with another consumer loan or consolidated into a housing loan. On the one hand, refinancing with a housing loan reduces the riskiness of consumer debt, since the debt becomes secured. On the other hand, housing loans take longer to amortise owing to their longer maturity. Furthermore, because the interest rates on them are lower, these loans reduce banks' interest income.

As for other factors affecting consumer loan growth, the volume of current loan repayments increased in 2019. This was due not only to the actual size of the consumer loan book, but also to a reduction in interest rates or a possible change in the average maturity of the existing loan book. The impact of other outflows remained marginal during the period under review.

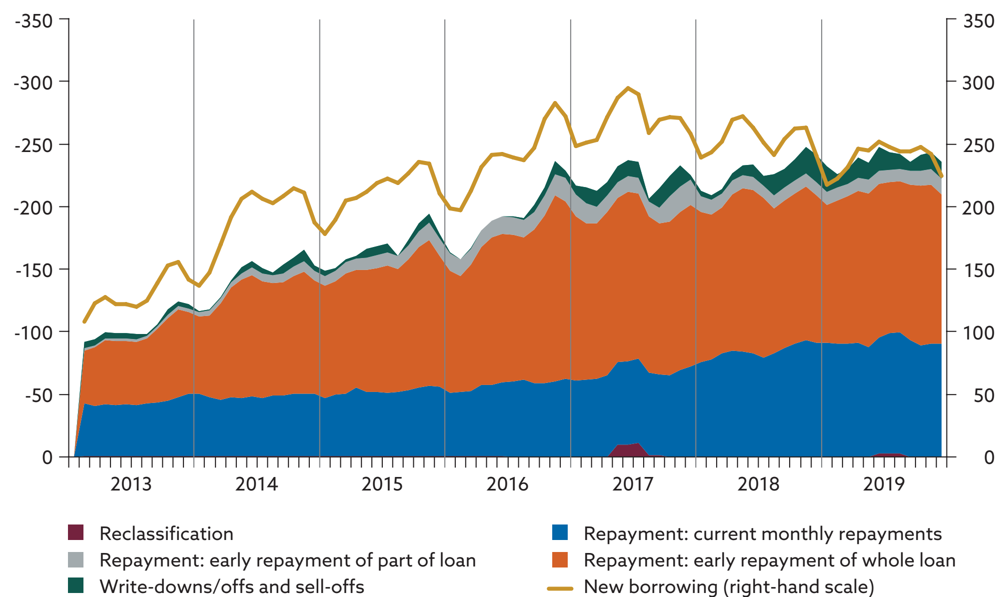
The most significant change, by contrast, was in the production of new consumer loans. The total volume of consumer loans provided during the year

fell to €2.859 billion down from €3.057 billion in 2018 and €3.205 billion in 2017. Here, too, there was certain form of consolidation, related in this case to housing loan refinancings that involve an increase in the outstanding amount; the borrowers receive an additional financial sum that can be used for consumption purposes, so they then have less need to take out a separate consumer loan.

Chart 10

The slowdown in consumer loan growth in 2019 was caused mainly by lower growth in loan production

Month-on-month flows of consumer loans broken down into positive and negative contributions (EUR millions in inverse scale; EUR millions)



Source: NBS.
Note: The chart is adjusted to exclude the reclassification resulting from one bank's acquisition of part of a non-bank company in January 2018. For the sake of clarity, the chart data are smoothed with a three-month moving average.

The average maturity of new consumer loans remains elevated. Of the new business in 2019, 70% had a maturity of eight years, the maximum allowed. Among pure new loans, the share with the maximum maturity was 62%; among loans used for refinancing without an outstanding amount increase, 73%; and among loans used for refinancing with an outstanding amount increase, 81%.

The share of bank consumer loans provided through electronic media remains relatively low: 6.6% in 2019. Given the size of individual loans provided online, it may be assumed that their share in the total number of new consumer loan agreements was higher than their share in the volume of new business.

The share of brokered loans in total consumer loans increased, year-on-year, to 9% in 2019, from 6% in 2018. Their share in pure new loans climbed

to 13%. Only some banks in Slovakia provide consumer loans through brokers. Even among those banks with a significant presence in this segment, there is considerable heterogeneity.

Interest rates on new consumer loans remained almost unchanged in 2019; their average rate in January 2020 was the same as in January 2020 (8.0%), though in autumn 2019 it dipped to 7.6%. Among euro area countries, Slovakia is ranked in the third quartile for the average interest rate on new consumer loans. Like interest rates, the average annual percentage rate of charge for consumer loans maintained its level in 2019, at 8.7%.

After a multi-year downtrend, the share of non-bank lenders in consumer financing stabilised in 2019. Compared with the previous year, their share even increased by 1 percentage point, to 15%, owing mainly to the stagnation of banks' consumer loan book. More than half (54%) of the non-bank lending was accounted for by car leasing, and three-quarters of that share comprised loans provided by bank subsidiaries. The three largest non-bank lenders provided 44% of the outstanding amount of non-bank consumer loans.

The production of new non-bank consumer loans[2] increased from €366 million in 2018 to €429 million in 2019, with almost the entire increase accounted for by a few lenders.

The average APRC for non-bank consumer loans (excluding credit cards) changed only slightly in 2019, increasing from 13.0% to 13.5%. This rise was largely centred on short-maturity loans, due to the increased activity of a small group of lenders. The average APRC for credit cards fell from 31.7% to 30.4%.

The outstanding amount of any-purpose secured loans increased, while credit card and overdraft loans decreased

In 2019 there was an increase in the outstanding amount of "other retail loans", a category that includes any purpose loans secured by immovable property. Up to the end of 2017 this category underwent little change, but in 2018 it grew by 16.0% and in 2019 by 14.5%, owing mainly to the lending activity of large banks. The share of other retail loans in total retail loan had risen to 4.7% by the end of 2019, while the average interest rate on these loans decreased in 2019, from 1.7% to 1.5%.

The outstanding amount of credit card and overdraft loans in the Slovak banking sector decreased in 2019, by 6.7% year on year. The share of these loans in total retail loans fell to 2.2%.

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[2] The data come from the Slovak Financial Ministry's report on new consumer loans.

Delinquency indicators for consumer loans and housing loans showed differing trends in 2019

The aggregate non-performing loan (NPL) ratio was falling moderately for most of 2019, before rising again later in the period; its level of 2.9% at the end of 2019 was close to its level at the start of the year. The NPL ratio for consumer loans fell during the period under review, from 8.6% to 8.4%, while the NPL ratio for housing loans increased from 1.6% in December 2018 to 1.7% in December 2019.

Looking at the net default rate, which captures the change in the amount of NPLs during the period under review and is adjusted for the impact of loan write-downs/offs and loan sell-offs, its trends in 2019 differed according to portfolio. For consumer loans, the net default rate fell from 2.9% in December 2018 to 2.4% in December 2019, while for housing loans it increased from 0.0% to 0.4%. In the case of housing loans, the year-end rate reflected the substantial impact of a one-off reclassification, absent which it would have been 0.1%. At the same time, however, several medium-sized and large banks reported a slow increase in the default rate for housing loans.

Retail deposit growth accelerated, driven up mainly by sight deposits

Total retail deposits held with banks and foreign bank branches in Slovakia grew by 7.2% year on year in 2019, which was their largest increase since 2016. In absolute terms, deposits increased by €2.6 billion. The strongest growth was in sight deposits, which at the year-end made up 67% of all retail deposits.

Total sight deposits increased by 17.9% year on year in 2019. Their growth was more pronounced across large banks (19.7%), where a large volume of deposits redeemable at notice were shifted into sight deposits. Abstracting from this effect, their growth rate in large banks stood at just 12.1%. Foreign bank branches reported aggregate sight deposit growth of 17.6% in 2019, while across medium-sized and smaller banks the rate was 7.3%.

The market share of the three largest banks in total sight deposits increased to 71.3% at the end of 2019, which was 1.7 percentage points higher compared with a year earlier. No other institution had a market share greater than 7%. The average interest rate on sight deposits remained close to zero throughout the period under review.

As for time deposits, their outstanding amount declined by 3.2% year on year in 2019. The decrease was greater among time deposits held with large banks (-10.2%) and foreign bank branches (-9.0%). Across medium-sized and smaller banks, by contrast, time deposit growth stood at 5.0%. Time deposits held with home savings banks declined for the first time on record, by 2.2%.

The market distribution of time deposits remained relatively balanced in 2019, as 32.5% of the total deposits were held with large banks, 27.8% with medium-sized and smaller banks, and 31.8% with home savings banks.

The average interest rate on new time deposits was 0.5% in 2019, 0.1 percentage point higher than the average for 2018. Certain banks' structured products had a relatively large impact on the average rate, as these offer a higher interest rate on time deposits provided in a defined combination with investments in investment funds. In 2019 new time deposits with large banks had an average interest rate of 0.8%; those with medium-sized and smaller banks, 0.4%; and those with home savings banks, 0.9%.

As regards demand for deposit products from a maturity perspective, 55% of the new deposit business in 2019 comprised one-year time deposits.[3] At the end of 2019 one-year time deposits constituted 38% of total deposits; deposits with a maturity of seven days, 7%; two-year deposits, 12%; time deposits with a maturity of between three and five years, 11%; and deposits held with home savings banks, 32%.

The outstanding amount of deposits redeemable at notice fell by 27.6% in 2019. Their share in total retail deposits therefore fell to 6.4%. The average interest rate on new deposits in this segment was 0.2% in 2019. This type of deposit is provided by only a few banks.

Residential property market

Historically low supply in Bratislava's residential new-build market pushed up residential property prices in 2019 and did so amid strong demand for new flats

Offer and sale prices for flats in Slovakia maintained their uptrend throughout 2019 and reached their highest levels on record. Offer prices for new flats increased by 10% year on year in the fourth quarter of 2019, ending the period at a historical high. Sale prices also increased, but at a more moderate pace. Sale price growth eased from 11% year on year in December 2018 to 5.3% in December 2019, even while the labour market situation remained favourable and the cost of borrowing for housing purchase dropped further. At the same time, however, sale price growth was dampened by the combination of continually rising new-build prices and the impact of NBS regulatory measures.

The fourth quarter of 2019 saw a relatively large decline in the average size of flats sold, in particular in the main market categories (one- and

[3] The amount of new time deposits is adjusted for so-called daily time deposits, which, although technically renewed each day, are a historical product and can no longer be opened.

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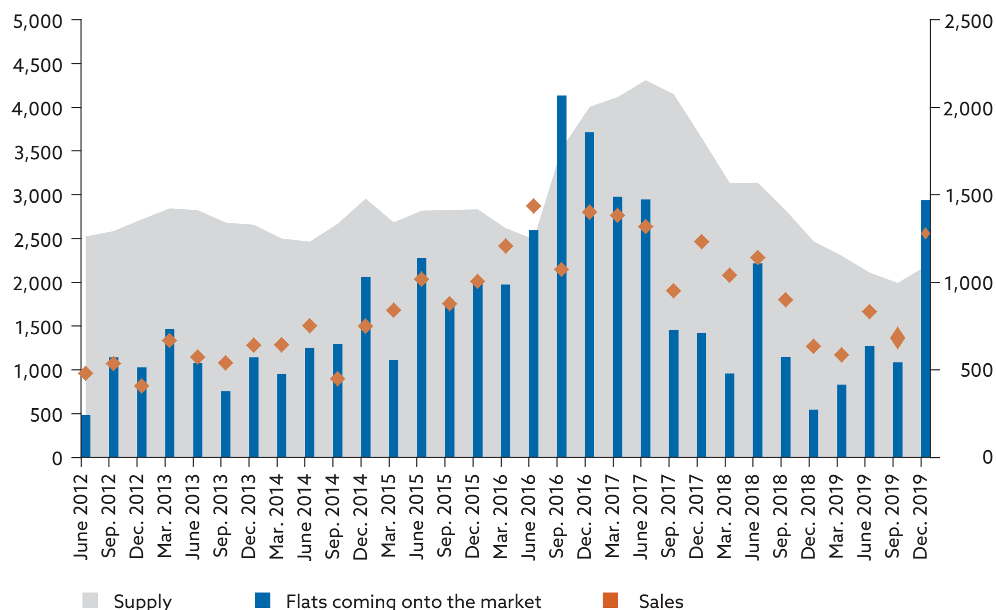
two-room flats). Consequently, sale prices for flats increased more slowly than did square metre prices. The fourth-quarter decline in size was a one-off result that may have been caused by the layouts of new property developments. It will be important, however, to keep monitoring the situation to see whether the decline corrects. The absence of a correction may indicate that price growth has outpaced customers' financial capacities and that the supply-side response is a reduction in property sizes along with the preservation of some price growth.

Demand for new flats remained elevated in 2019. Favourable labour market conditions coupled with falling interest rates continued to stoke demand for these properties. Sales of new flats decelerated quite significantly for most of 2019, before rebounding strongly in the fourth quarter, when a large number of new flats came onto the market. But despite the late-year surge, total annual sales of new flats were the lowest in four years. These sales must, however, be seen in the context of the limited supply of flats, since the number of flats sold is significantly affected by the number of flats on the market – as the trend in 2019 well exemplified. Several other indicators tend to suggest that demand remains at robust levels. Both the ratio of sales to total supply and the velocity of property development sales have remained elevated, and in nine of the last ten quarters the number of flats sold exceeded the number coming onto the market.

Chart 11

The supply of new flats reached a historical low in 2019 and did so while demand was strong

(number)



Source: Lexxus.

Looking at the new-build market in Bratislava in 2019, it was significantly affected by the limited supply of new flats. The 12% year-on-year decline in the supply of flats at the end of 2019 would have been greater but for the late-year increase in the number of new flats coming onto the market. In the third quarter of the year, however, the number of flats on the market was close to its post-crisis low. The insufficiency of supply in the context of still strong demand was also indicated by the average ratio of sold flats to total flats in project developments, which reached an all-time high of more than 85% in 2019. Despite the recent slowdown, however, construction activity is robust and the number of new builds under construction is far surpassing 2014 and 2015 levels. And considering the number of new-build starts, as published by the Slovak Statistical Office, the construction of flats in Slovakia may even be at a record level.

The situation in the housing market may be adversely affected by the coronavirus pandemic. Given the economic activity slowdown in numerous sectors and the decline in employment that is expected to result, the housing market may be negatively affected for a temporary period.

Prices of existing flats continued to rise in 2019

Prices of existing flats maintained their uptrend in 2019, recording an average increase of 10.9%, 1 percentage point higher compared with 2018. This same trend was seen in both prices of flats per square metre and prices of flats as a whole. The average size of existing flats sold in 2019 remained almost unchanged. These trends remained broadly present across the whole country, except for moderate inter-regional differences in the average price increase, which ranged from 6.7% to 16.4%. The number of flats on the market continued its downtrend in most regions, falling by an average of 10%. In Nitra, Trenčín and Žilina regions, however, the number of flats on the market increased by 40% on average. In the case of Trenčín Region, the increase was confined to the regional capital itself, while in the other two regions it was broad-based across the whole region.

Supply and sale indicators showed the same trends across prices and sizes of flats. Prices of flats followed similar trends across all types of flats, irrespective of number of rooms.[4]

Rental prices increased by 6.1% in 2019, which was similar to their trend in the previous year. Unlike the supply of flats for sale, however, the supply of flats for rent increased year on year in 2019, by almost 20% on average. Since, however, more than 75% of the rental flats on the market were located in Bratislava, the increase is not reflective of trends across Slovakia as a whole.

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[4] Reliable data on trends according to number of rooms are available only for Bratislava.

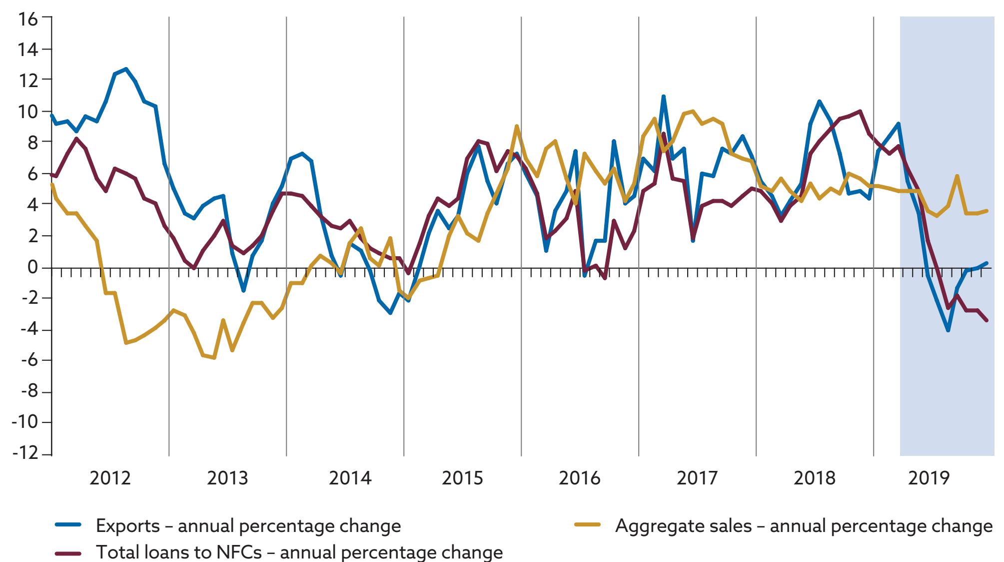
Non-financial corporation (NFC) sector

Growth in the corporate loan market slowed as the economy decelerated

Annual growth in loans to non-financial corporations in Slovakia continued to moderate throughout 2019, ending the period at 3.55%. Compared with the end of 2018, the rate was lower by 1.6 percentage points. NFC loan growth continued its decelerating trend in January 2020, ending the month at just 2.3%. In the ranking of EU countries for NFC loan growth in 2019, Slovakia was at the median for central and eastern European countries and slightly above the EU median. In terms of the rate of change in loan growth, however, Slovakia ranked among the countries reporting a greater slowdown.

The slowdown in NFC lending could be largely ascribed to the economy's gradual cooling and to the worsening economic outlook. Signs of a relatively large deterioration in the corporate sector could be found not only in leading indicators of sentiment, but also in hard indicators such as sales growth and foreign trade trends. Corporate sales experienced a large correction in 2019 after their growth had been attacking 10% in 2018 and in early 2019. Sales began declining, year on year, in the second half of 2019 and contracted by 2.8% at the end of the period. Sales trends did, however, show considerable heterogeneity across sectors of the domestic economy. Exports recorded a more moderate correction, and while they did decline, year on year, in some months in the second half of 2019, they ended year with a growth rate of 2.3%. The corporate sector's situation worsened further in the first months of 2020 as a consequence of measures taken to contain the coronavirus pandemic.

Chart 12
NFC loan growth slowed in 2019 as the economy decelerated
(percentages)



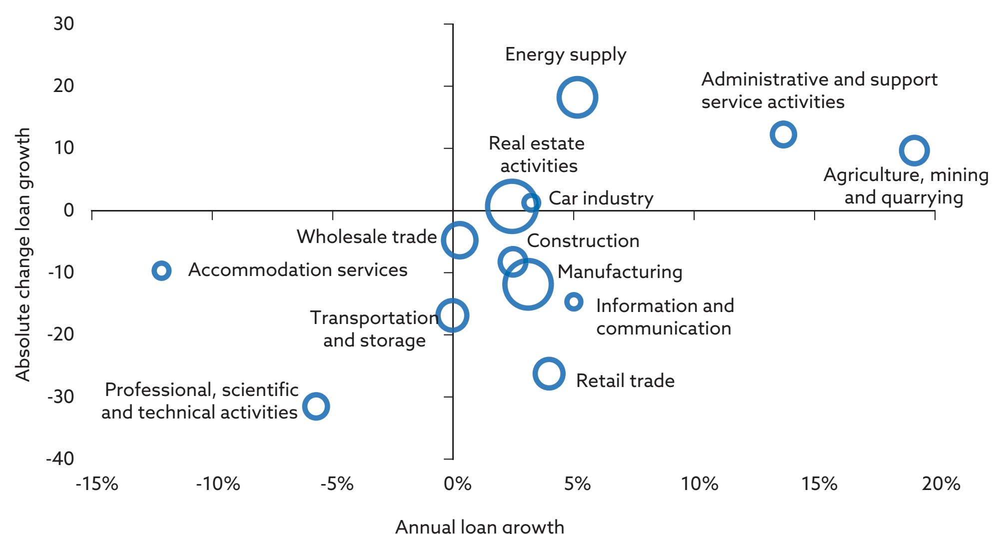
Source: NBS.

The corporate sector slowdown in 2019 was reflected in weaker lending growth in several key segments of the banking sector's corporate loan book. In the breakdown of the loan book by firm ownership, lending to private firms slowed the most (its December rate of 2.7% was 3.8 percentage point lower year on year). By contrast, the flow of loans to public firms recorded an upward jump in late 2019, without which the slowdown in total NFC loan growth would have been even more pronounced. Lending to SMEs also experienced a sharp deceleration in 2019, and its December growth rate of 1.8% represented an absolute year-on-year decrease of 3.2 percentage points. Total NFC loan growth was therefore largely driven by lending to large enterprises. In the decomposition of loan growth by loan maturity, the largest slowdown was in loans with a maturity of more than five years (typically investment-related); their growth rate in December 2019 was more than 4.5 percentage points lower than the rate in December 2018.

Lending to most economic sectors moderated in 2019, while the situation within sectors was relatively heterogeneous. Alongside declining sales, borrowing demand moderated in several sectors, including such key sectors as industry, construction, trade, and transportation and storage. In the commercial real estate sector, loan growth maintained its pace and there was a notable increase in sales. Lending to the sectors of energy supply and administrative activities accelerated.

Chart 13

Growth in lending to different economic sectors and sectoral shares in total loans to NFCs



Source: NBS.
Notes: The horizontal scale shows average annual loan growth for the fourth quarter of 2019. The vertical scale shows the change in average annual loan growth in percentage points (the average for Q4 2019 compared with the same period of 2018). The bubble size corresponds to the economic sector's share of total loans to NFCs.

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The main factors affecting corporate credit market trends in 2019 were the deteriorating economic situation and interbank competition.[5] Demand for NFC loans fell over the year as a whole. The previous time that happened was in 2013, during the debt crisis. The main cause of the decline was a drop-off in corporate financing needs for fixed investment, the impact of which outweighed that of low interest rates. Overall credit standards remained substantially unchanged during the period under review. Economic cooling was another factor that had a tightening impact on credit standards. Another factor, however, had a stronger tightening impact, namely "cost of funds and balance sheet constraints". The main easing impact on credit standards continued to come from interbank competition in the corporate credit market, which resulted in further interest margin compression. Credit standards for SMEs were tightened more than those for other borrowers, while in the case of lending to large enterprises, several banks eased their credit standards.

Lending rates for non-financial corporations continued to decrease in 2019, owing to the low interest rate environment and competition pressure in the banking sector. The average interest rate on total loans to NFCs in Slovakia decreased slightly year on year in 2019, to 2.35%. Compared with other EU countries, this figure was above the median (2%). Taking into account their standard volatility, interest rates on new loans fell moderately in 2019. Their average of 1.96% for the year was close to the EU median. Looking, however, at lending rates for different loan size categories, significant differences can be seen. In terms of the average interest rate on loans of more than €0.25 million, Slovakia's ranking among EU countries is similar to that for the average rate on total loans; by contrast, for the interest rate on small loans, typically provided to SMEs, Slovakia lies just above the third quartile. This means that borrowing costs for SMEs, which obtain most of their financing from banks, are relatively expensive in Slovakia by European standards.

Despite the economic slowdown, corporate deposits experienced an uptrend in 2019

Total deposits from non-financial corporations stood at more than €13 billion in December 2019, representing a year-on-year increase of 5.6%. The main contribution to that growth came from a 5% year-on-year increase in sight deposits, which make up 90% of total corporate deposits. Term deposits had a more moderate impact on the total growth, as they ended the year 12% higher than their level a year earlier. December's growth in total deposits was moderately lower compared with the 7% increase recorded in December 2018. Deposit rates for NFCs remained at almost zero throughout the period under review.

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[5] The corporate credit market is evaluated on the basis of the euro area bank lending survey.

Corporate indebtedness declined in 2019

The indebtedness of domestic NFCs was lower year on year in September 2019. The NFC debt-to-GDP ratio in that month stood at 53.8%, 2.4 percentage points below its September 2018 level. The 2019 figure ranked the corporate sector in Slovakia among the least indebted in the EU and close to the median for the CEE region. The decrease in the debt-to-GDP ratio occurred against a backdrop of GDP growth and a modest increase in corporate debt. Growth in loans from domestic banks was virtually the only positive contributor to corporate debt growth. The NFC sector also reported year-on-year decreases in borrowing from non-residents and securities issuance.

The NFC sector's debt-to-equity ratio was also lower year on year in September 2019, largely because the aggregate amount of own funds had increased while the amount of corporate debt was almost unchanged. As a result, the ratio stood at 87.4% in September 2019, 3.9 percentage points below its end-2018 level. This was the third-highest debt-to-equity ratio in the EU, behind the figures for Malta and Luxembourg.

Chart 14
The debt-to-equity ratio is one of the highest in the EU
(percentages)

Sources: NBS and EUROSTAT.
Note: For the sake of clarity, the debt-to-equity ratios for Malta and Luxembourg were trimmed, respectively, from 148% to 100% and from 330% to 200%.

The NPL ratio's downtrend ended in the second half of 2019, and the default rate increased

The non-performing loan ratio for NFC loans continued its downtrend during most of 2019, but then increased slightly, quarter on quarter, in the fourth quarter of the year. By October 2019 the NPL ratio stood at a post-crisis low of 3.38%; at the year-end its level was 3.46%, and in January 2020 it was 3.5%. In year-on-year terms, however, the NPL ratio continued to decline.

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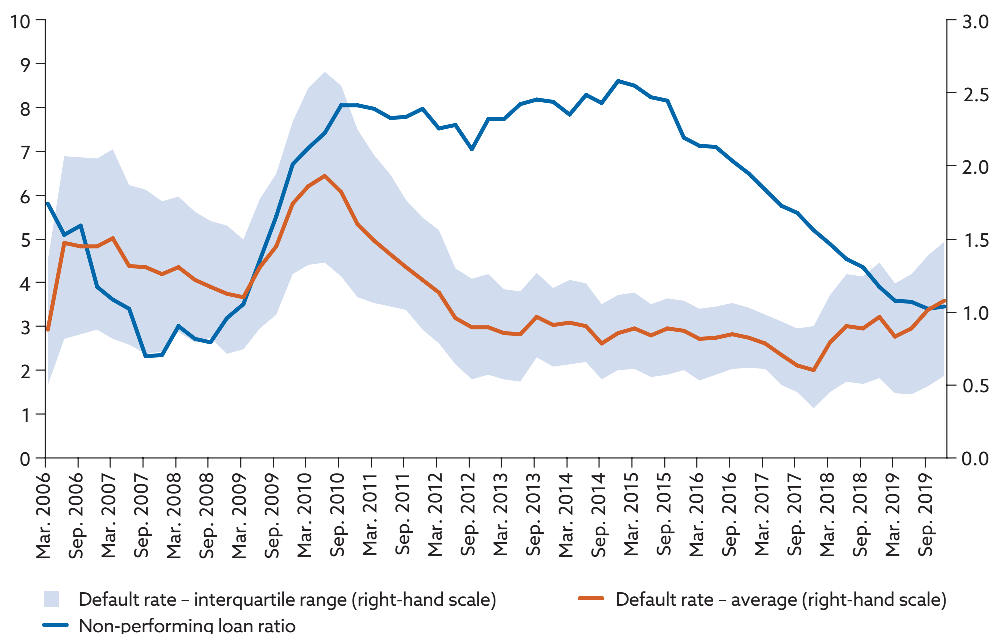
Chart 15
The NPL ratio downtrend ended while the default rate was increasing
(percentages)



Source: NBS.
Notes: The right-hand scale shows quarterly default rate for NFC loans, measured on the basis of the number of loans. The chart shows the average and interquartile range across economic sectors.

The main factor behind the ending of the NPL ratio's downtrend was the increasing default rate for NFC loans. Whether calculated on the basis of the amount or number of loans, the default rate for NFC loans increased in 2019. The increase was broad-based across economic sectors and became more pronounced in the second half of the year. The trend shift in NPL growth also reflected – in the context of the corporate sector's deteriorating situation – a substantial reduction in the amount of existing NPLs being paid down or paid off. On the other hand, there was some downward pressure on the NPL ratio from the increasing amount of NPLs that were being written down/off or sold off. The result was a significant slowdown in the year-on-year decline in the amount of NPLs, whose decline in 2018 had contributed significantly to the NPL ratio's decrease in that period. Some banks were reporting an increase in the amount of NPLs towards the end of the year.

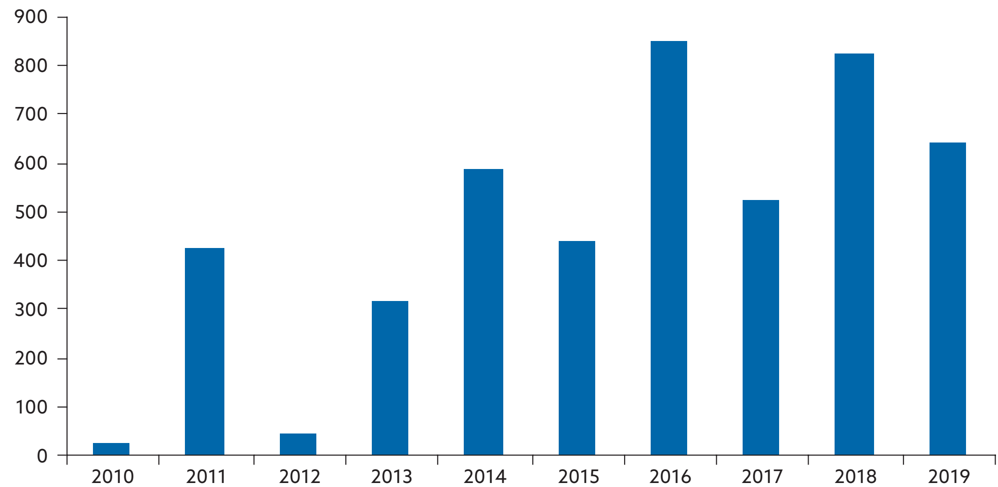
3.2 Commercial real estate

The commercial real estate market cycle remained in an expansionary phase in 2019, though the easing of some trends may indicate a peaking of the cycle

The commercial real estate (CRE) market cycle remained in an expansionary phase in 2019, but the situation was not as clear-cut as it had been in 2018. Several trends which were indicating CRE market expansion in 2018

decelerated in 2019. The continuation of that trend in 2020 may indicate a turn of the cycle. The CRE market may be adversely affected by the economic contraction expected to result from the measures taken to contain the coronavirus pandemic.

Chart 16
Decline in investment activity in the CRE market
(EUR millions)



Source: CBRE.

Investment activity in the CRE market fell, year on year, by more than 20% in 2019. Total investment during the period under review amounted to €641 million, which was the third-highest level on record and just above the figure for 2014. Most of the investment activity was in the office and industrial (logistics) segments. The slowdown in activity could already be attributed to the global economic slowdown in late 2019. Early in 2020, however, market participants generally had positive expectations for investment in 2020, which they envisaged would approach €1 billion. Favourable investor sentiment in 2019 is also evident from the further decrease in expected prime yields in the main market segments – office space, and logistics and industrial space. In the case of the retail segment, the expected prime yield increased moderately.

End-user demand in 2019 remained similar to levels in previous periods, although there was a correction in the industrial segment late in the year. In the office segment, leasing activity matched its 2018 level and did not decline in the last quarter of the year. Nevertheless, the completion of several office development projects during 2019 resulted in the office vacancy rate increasing from 6% at the end of 2018 to 8.7% a year later. In the industrial and logistics segment, leasing activity in 2019 was also similar to its 2018 level, except that in the fourth quarter it experienced a relatively sharp downward correction as the economic outlook deteriorated. As a result, the vacancy rate fell to 6%.

As regards CRE financing provided by domestic banks, its growth rate moderated in 2019. The slowdown in bank lending to the sector was more pronounced in the second half of the year, and the rate dropped to 2.7% at the end of the period. The credit quality of the CRE loan book continued to show a modest improvement in 2019, with the NPL ratio falling to a new historical low of 2.3%.

3.2.1 Securities

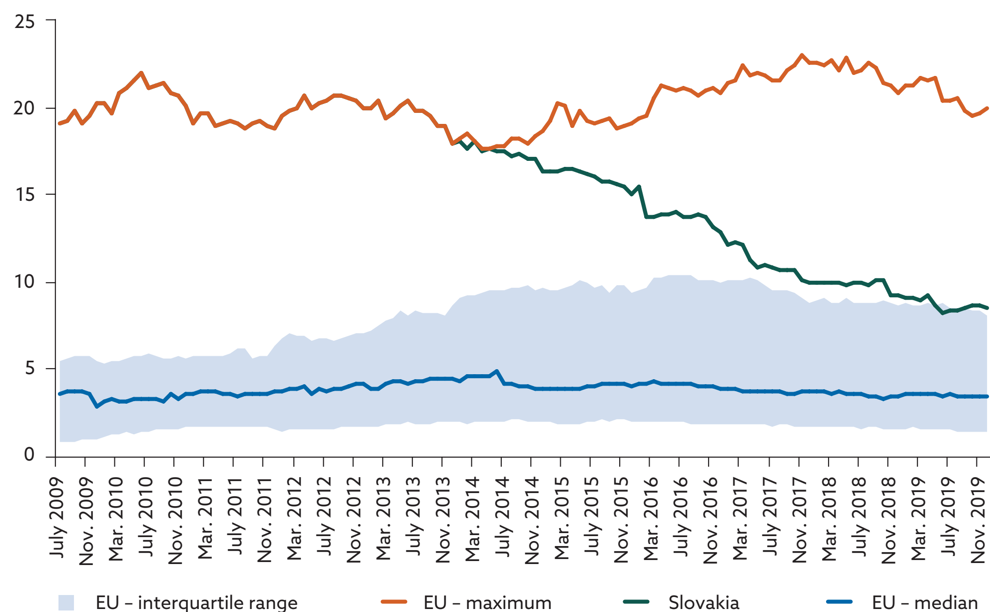
Banks' increased their investments in foreign government bonds, bank bonds and, only to a slight extent, Slovak government bonds

Domestic banks' investments in debt securities increased, year on year by almost 7% in 2019. The share of Slovak government bonds in the aggregate portfolio was 8.5% at the end of 2019, which was lower compared with a year earlier because the amount of these holdings increased only slightly, to €7.4 billion. Five other EU countries reported a higher share of domestic government bonds in total banking sector assets, namely Romania, Hungary, Poland, Italy and Croatia.

Chart 17

Domestic government bonds as a share of total banking sector assets in individual EU countries

(percentages)



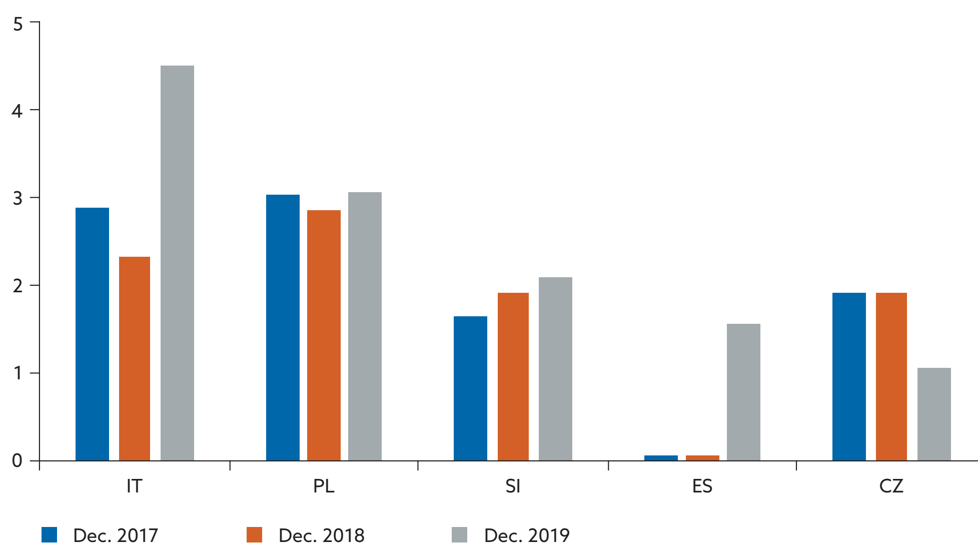
Source: ECB SDW.

The increase in bank's aggregate holdings of foreign government bonds and bank bonds in 2019 was greater than that of Slovak government bonds. The amount of foreign government bond holdings therefore reached a historical high of €1.8 billion. In the breakdown of the overall bond portfolio by country of issuer, only Italy and Poland had a share of more than three per

cent, with the next highest positions held by Slovenia, Spain and Czechia. The number of countries of issuer increased in 2019 with the addition of Belgian and Luxembourgian government bonds to the portfolio. The largest increases, accounted for by only a few banks, were in holdings of Italian and Spanish government bonds, while the largest decreases, also accounted for by only a few banks, were in holdings of Czech government bonds. Only a few banks invested to any significant extent in foreign government bonds in 2019, while the portfolio remained diverse in terms of its country-of-issuer composition. At the levels of both the sector and individual banks, investments in other types of debt security remained less significant in 2019.

After foreign government bonds, one of the fastest increasing components of the aggregate debt securities portfolio in 2019 was foreign bank bonds. Like holdings of foreign government bonds, these holdings increased to a historically high amount, in this case €630 million. This was still less, however, than the overall holdings of domestic bank bonds, which amounted to €854 million. The growth in foreign bank bond investments was driven by only a few banks. In its breakdown by country of issuer, the overall portfolio of foreign bank bonds is diverse (including Canada, France, Poland and the United Kingdom).

Chart 18
Foreign government bonds with the largest shares in the banking sector's bond portfolio
(percentages)



Source: NBS.

Banks reported a larger increase in their available-for-sale bond portfolio than in their held-to-maturity portfolio

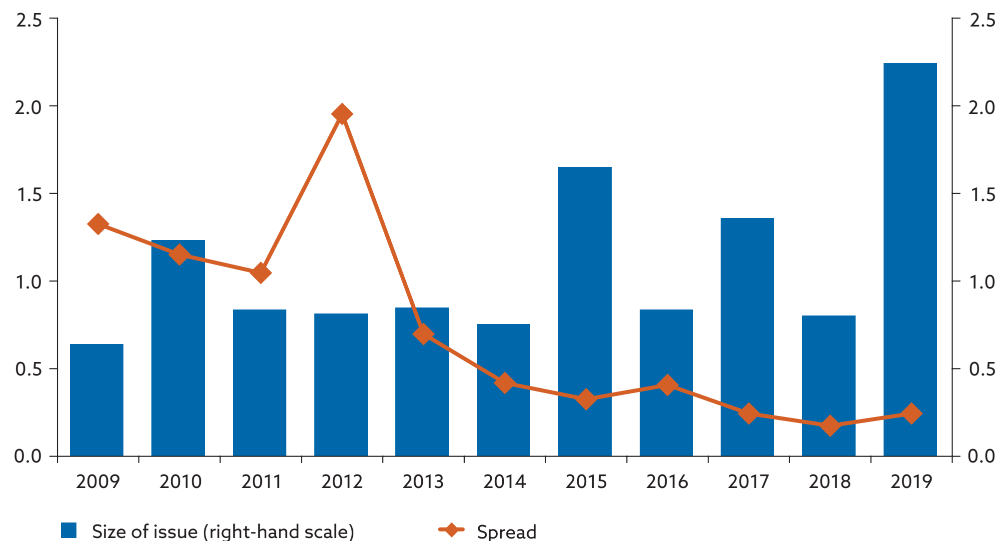
The form in which banks hold securities did not change significantly in 2019, even after the applicable legislative framework was amended in 2018.

As a share of the banking sector's aggregate debt securities, the held-to-maturity portfolio (loans and receivables) decreased slightly owing to an increased allocation to the available-for-sale portfolio (FVOCI), whose share of the aggregate portfolio increased from one-fifth to one-quarter.

Banks issued a substantial volume of covered bonds in 2019, mainly in the first half of the year

Domestic banks' issuance of covered bonds in 2019 was concentrated in the first half of the year; only one issue took place thereafter. Four banks issued a total of €2.25 billion worth of covered bonds in the period under review, and four of the five bonds they issued met the definition of a benchmark issue. The amount of covered bonds issued in the first half of the year far exceeded the annual average amount of mortgage bonds issued by banks between 2009 and 2017. This difference reflected the fact that the legislative conditions for covered bonds mark an improvement on those that were applied to now defunct mortgage bonds; the issuance of mortgage bonds was dependent on the volume of mortgage lending, whereas the issuance of covered bonds is not, thus giving banks greater flexibility in issuing bonds appropriate to both their own requirements and financial market conditions. The covered bonds issued in 2019 had maturities of between five and ten years and coupon rates of between 0.01% and 0.5% per annum.

Chart 19
Aggregate amount and average spreads of bonds issued by domestic banks
(percentage points; EUR billions)



Source: NBS.
Notes: The spreads are weighted by the nominal amount of covered bonds issued or mortgage bonds issued (until the end of 2017). The average spreads are calculated for fixed coupon covered bonds issued in euro as the difference between the coupon rate and the euro swap rate with a maturity matching that of the issued bond.

3.2.2 Interbank market

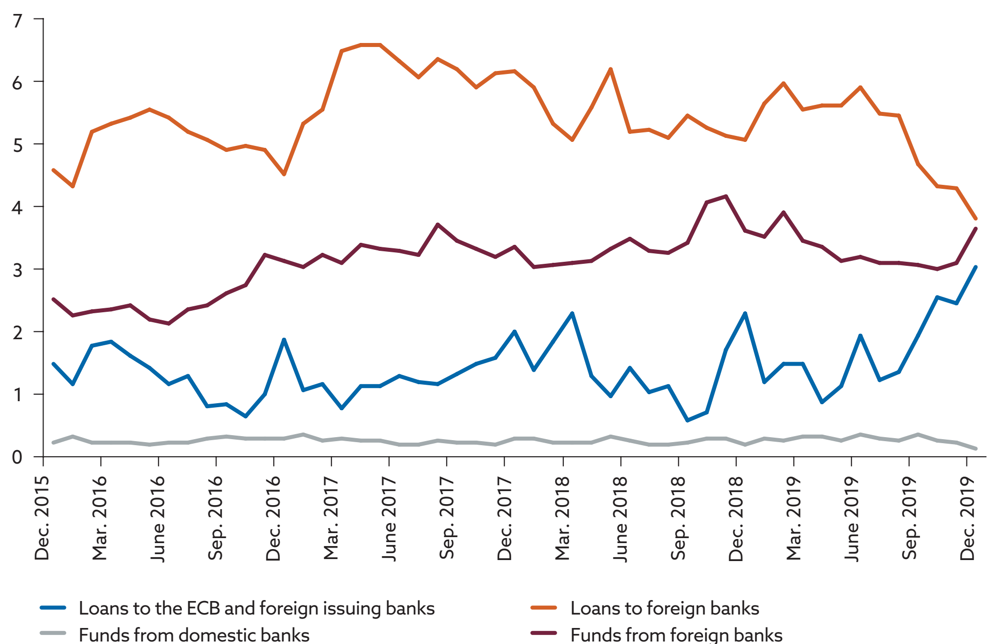
The interbank market experienced a liquidity inflow from covered bond issues in 2019, which resulted in a decline in banks' borrowing from the central bank and an increase in funds deposited with the central bank

The largest increase in bank funding in 2019 came from certain banks' issuance of covered bonds. This increase in stable funds may have been reflected in reduced intra-group funding from other banks and reduced borrowing from the central bank through the repayment of targeted longer-term refinancing operations. Central bank borrowing was further displaced by intra-group borrowing from Czech banks.

Some banks moderately increased their intra-group funding without participating in refinancing operations with the central bank. The banks in question, however, were those which have been engaging in intra-group borrowing for an extended period. Foreign currency borrowing declined in 2019 and was confined to certain banks' borrowing from Czech banks.

The increase in funds on the liabilities side of the banking sector's balance sheet translated into an increase in surplus liquidity deposited with the central bank, given that the amount of funds provided to non-residents remained almost unchanged in year-on-year terms. The sharp decline in funds deposited with foreign banks was entirely accounted for by a reduction in foreign currency funds deposited by a few domestic banks with Czech banks.

Chart 20
Principal components of the interbank market
(EUR billions)



Source: NBS.

3.2.3 Liquidity risk

Most banks saw a balanced trend in their liquidity coverage ratio (LCR) during 2019

From a liquidity perspective, it is good that all banks in the sector were comfortably meeting the regulatory liquidity coverage ratio (LCR) in 2019. Although the LCR is not a systemic risk indicator, its level suggests that individual banks have the wherewithal to cope with a run on deposits as simulated. The composition of banks' aggregate liquid assets did not change significantly during the period under review; Slovak government bond continued to have a predominant share, and there was a gradual increase in the share of foreign government bonds, in particular Spanish and Italian sovereign debt.

The gradual slowdown in loan growth eased upward pressure on the maturity mismatch between assets and liabilities

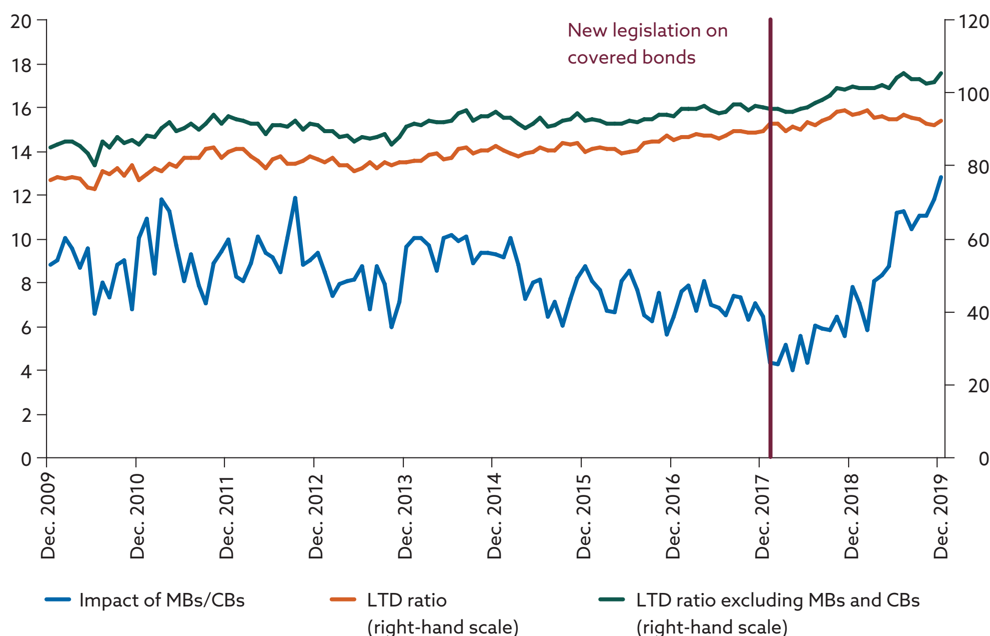
Although the banking sector's liquidity gap-to-assets ratio reached a new historical high in December 2019, it was only marginally worse compared with the start of the year. Across retail banks, whose average maturity mismatch between assets and liabilities is greater than the sector average, the ratio of the maturity mismatch to total assets actually decreased in 2019. It must also be stressed, however, that current elevated liquidity gap is increasing the fragility of the Slovak financial sector. The ratio to the sector's total assets of aggregate long-term illiquid assets and short-term deposit liabilities is among the highest in the EU.

The loan-to-deposit ratio stopped rising in 2019

After rising above 100% in 2018, the banking sector's ratio of total loans to total deposits – loan-to-deposit (LTD) ratio – stopped rising in 2019 and remained just above that threshold. If covered bonds are included in the LTD ratio calculation, its level at the end of 2019 falls to 91.3% (see Chart P45 in the section 'Macroprudential indicators').

The positive impact of covered bond issues is most apparent among retail banks. Under a new legislative framework in effect since the start of 2018, retail banks have been able to issue covered bonds, which are of higher quality than the mortgage bonds they previously issued. By issuing covered bonds in 2018, four banks not only gained an additional source of stable funding, but also benefited from exceptionally favourable issue prices.

Chart 21
Impact of mortgage bond/covered bond issues on the loan-to-deposit ratio
(percentage points; percentages)



Source: NBS.
Notes: MB denotes mortgage bonds; CB denotes covered bonds, including bonds originally issued as mortgage bonds. The chart shows data for universal retail banks.

3.3 Financial position of the banking sector

3.3.1 Profitability

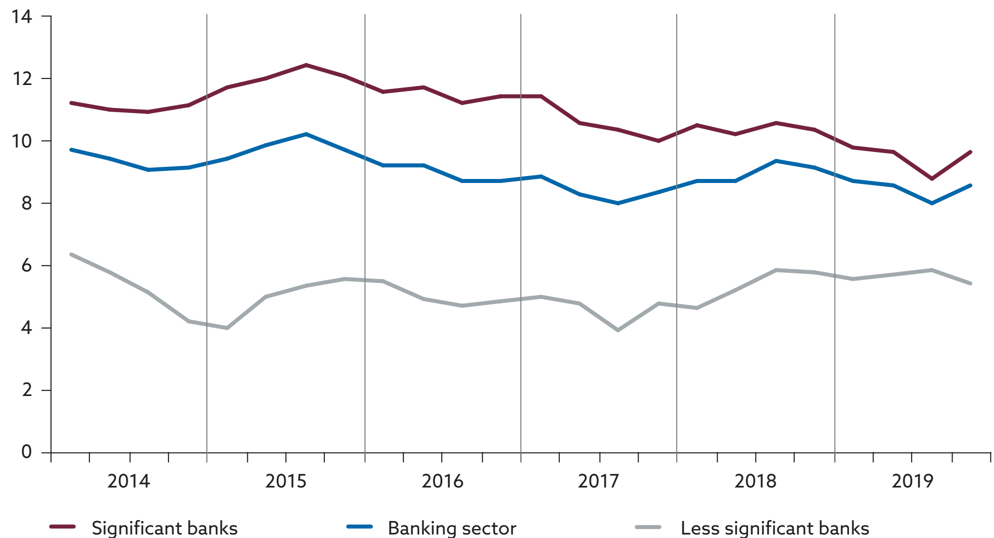
Due to the ongoing interest margin compression, banks were no longer able to maintain stable profitability in 2019

The banking sector's net profit for 2019 was €643 million, which represented a year-on-year increase of 0.4%. The sector's pre-tax profit decreased, however, by 1.5%. All banks reported a profit. The aggregate return on equity (ROE) declined from 9.2% in 2018 to 8.5% in 2019. Significant banks were the main contributor to that decline (as their overall ROE fell from 10.4% to 9.6%), but less significant banks, whose ROE has long been at a lower level, also had a downward impact (as their ROE fell from 5.8% to 5.4%).

Chart 22

Profitability fell year on year, in particular among significant banks

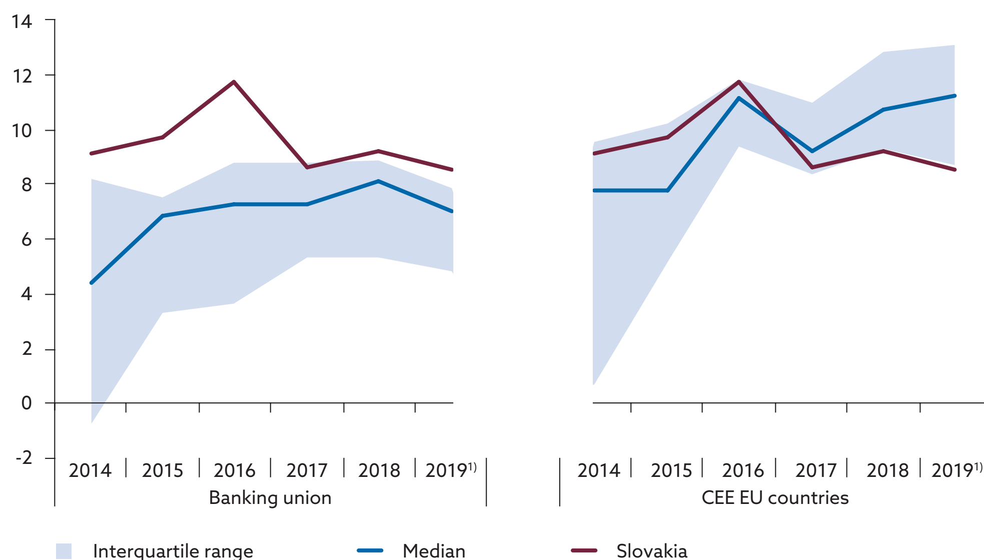
Return on equity (percentages)



Source: NBS.
Notes: The chart does not include extraordinary income from the sale of holdings in VISA company or the reversal of provisions for litigation. ROE was calculated as the ratio of the sum of quarterly net profits/losses over a one-year period to shareholders' equity.

Compared with other banking union countries, the profitability of banks in Slovakia remains relatively high; among CEE EU countries, however, it is one of the lowest. In terms of the aggregate ROE of its banking sector, Slovakia remained one of the highest-ranked euro area countries in 2019. The domestic banking sector also ranked among the highest for its provisioning coverage of NPLs, and its operation efficiency was slightly above the euro area median. On the other hand, the position of Slovak banks is expected to deteriorate in the period ahead. This is firstly because interest margins in banks' retail business are falling faster than those in other euro area countries. A second reason is the increase in the bank levy, which will weigh heavily on banks' profits. In terms of profitability in 2019, the Slovak banking sector was less successful when compared with other CEE countries, ranking second-lowest. This situation is particularly important from the perspective of foreign parent groups of domestic banks, since it implies that Slovak banks are becoming less attractive. With the increase in the bank levy, this problem will become more apparent and may in the longer term weigh on investment in the Slovak banking sector and possibly lead to further consolidation in the sector.

Chart 23
The Slovak banking sector's profitability in international comparison
Return on equity (percentages)



Sources: ECB and NBS.
Notes: The chart is based on aggregate profit, including extraordinary income (e.g. the sale of holdings in VISA company in 2016). 1) The 2019 figures for the banking union and for CEE EU countries are calculated as at 30 September 2019 for the previous four quarters.

The cause of the decline in the Slovak banking sector's profitability in 2019 was a decline in net income from the retail sector. This income fell by 7.7% year on year, owing mainly to a further substantial drop in returns on loans (from 3.2% in 2018 to 2.7% in 2019), which are on an extended downtrend. In addition, retail loan growth decelerated, so banks had less capacity to offset margin compression with loan book growth. Another factor was net interest income on the bond portfolio, which fell significantly in 2019 (by 13% year on year). As they redeem their higher-yielding bond holdings, banks are replacing them with bonds offering far lower yields. On the other hand, in 2019 banks benefited from a sizeable drop in interest rates on their own bond issues (from 1.1% to 0.7%), owing mainly to new legislation which since the start of 2018 enables banks to issue high-quality covered bonds attractive to investors. Banks' net interest income from the NFC sector increased in 2019, by 8.7% year on year, supported mainly by a moderate increase in returns on loans (from 2.9% in 2018 to 3.0%). The banking sector's overall net interest income decreased by 2.8% year on year.

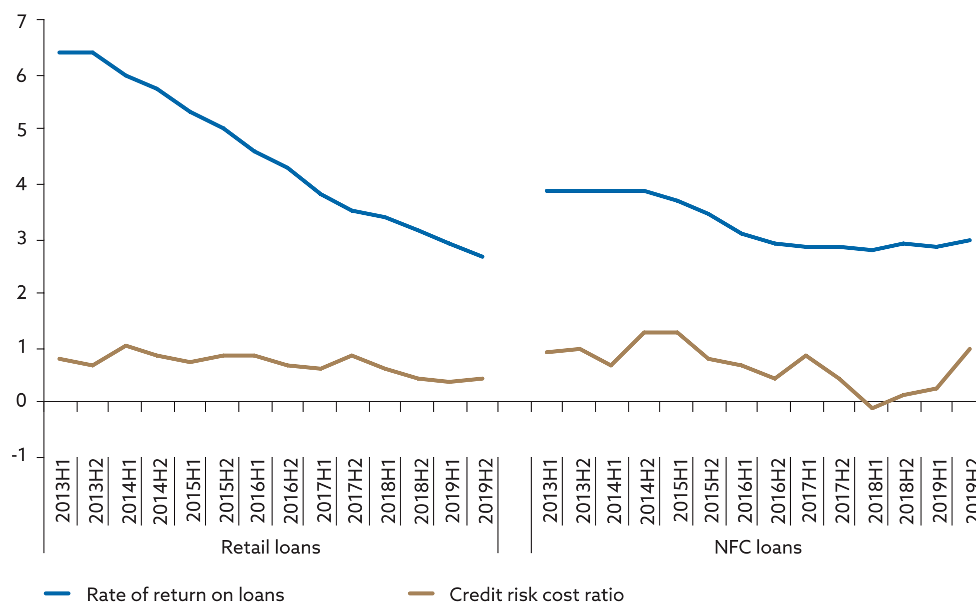
Mitigating the impact of lower net interest income in 2019 were increases in dividend income and further reductions in credit risk costs. The sector's aggregate credit risk costs decreased, year on year, by 8% in 2019. The reduction centred on the retail loan book; by contrast, credit risk costs related to the corporate loan book increased. The sector's aggregate profit was also boosted by an increase in extraordinary dividend income. The impact of the adverse interest income trend on banks' profits was further

mitigated by an increase in net fee income. This was driven mainly by fee income from the retail sector, which increased by 13.2% year on year. The share of net fee income in banks' aggregate net interest and non-interest income increased from 26.5% in 2018 to 27.6% in 2019.

Chart 24

Returns on retail loans remain on a marked downtrend

Returns on retail and NFC loans and the credit risk cost ratio for retail and NFC loans (percentages)



Source: NBS.

3.3.2 Solvency and leverage

The banking sector's solvency remained largely unchanged in 2019. The aggregate total capital ratio of domestic banks was 18.2% at the end of 2019, the same as its level a year earlier. The sector's Common Equity Tier 1 (CET1) ratio increased marginally, from 15.8% to 15.9%. In terms of capital adequacy, the differences between the group of significant banks and the group of less significant banks became more pronounced in 2019. For significant banks, the aggregate total capital ratio fell slightly (from 18.0% to 17.8%), whereas for less significant banks it increased (from 18.7% to 19.2%). The sector's leverage ratio edged down from 8.1% at the end of 2018 to 7.9% a year later.

The capital adequacy trends in 2019 reflected mainly the continuing upward impact of loan growth on capital requirements and the banks' response: to increase their capital, primarily by retaining 40% of their earnings for 2018.

The Slovak banking sector's total capital ratio at the end of September 2019 was 0.8 percentage point below the EU median.

Capital buffers are strengthening the banking sector's resilience. The countercyclical capital buffer (CCyB), which is currently set at a rate of 1.5% and was introduced in the past in response to gradually accumulating risks, is increasing the loss-absorbing capacity of domestic banks. Furthermore, if banks should be faced with rising losses due to the economic repercussions of the coronavirus pandemic, Národná banka Slovenska will not hesitate to consider releasing the buffer with immediate effect, so that banks can cover their losses with existing capital without incurring any economic sanctions. This instrument would also facilitate the flow of loans if banks' lending activity were constrained by capital adequacy requirements. The structure of capital requirements also enables, if necessary, the adoption of further regulatory relief aimed at containing the impact of the coronavirus pandemic on the financial sector and credit market.

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4 Insurance sector[6]

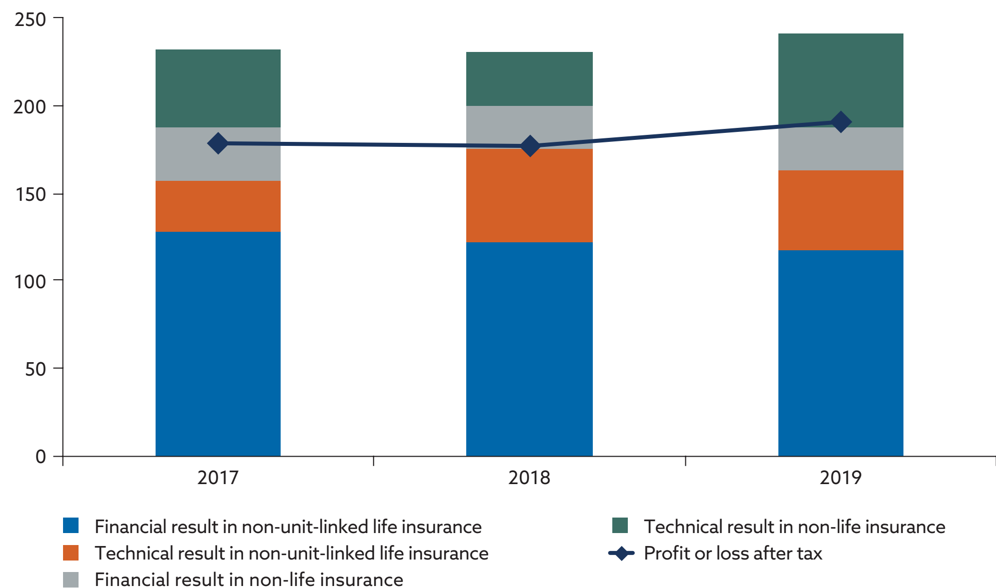
The insurance sector's aggregate profit recorded an increase based on non-life insurance business

The aggregate net profit of the Slovak insurance sector increased in 2019 by 7.2%, year on year, to stand at €190 million. The improvement stemmed mainly from a reduction in operating costs in the non-life segment. The sector's pre-tax profit rose by 3.7%. The vast majority of insurers reported a profit for the period under review.

Chart 25

The insurance sector's profit broken down by component

(EUR millions)



Source: NBS.

The aggregate return on equity (ROE) of domestic insurers fell to 13.32% in 2019, from 14.04% in the previous year. Alongside an 8.2% increase in their net profit, domestic insurers recorded a 14.0% increase in their equity capital in 2019, which had a significant impact on the ROE denominator.

In the life insurance segment in 2019, traditional business maintained its established trend and unit-linked business had a successful year. The aggregate technical result in life insurance (adjusted for investment

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[6] The profitability analysis is based on the financial statements of insurers and branches of foreign insurers. The data for a few branches of foreign insurers, accounting for 0.6% of gross premiums written, were not available at the time of writing. The analyses of trends in premiums, claims/benefits paid, and technical provisions are based solely on data for domestic insurers.

returns in unit-linked business) was slightly lower in 2019 than in the previous year (by €8 million). The decline corresponded approximately to the change in volume of extraordinary accounting transactions, which were confined to only a small part of the market. Absent these effects, the technical result for 2019 increased by €2 million year on year. The financial result in non-unit-linked life insurance fell in 2019 by 3.0%, year on year, to €118 million, so continuing a gradual downtrend that included declines 4.8% in 2018 and 0.8% in 2017. By contrast, unit-linked insurance had a successful year in 2019, as its financial result climbed to €185 million (after falling by €86 million in 2018 and increasing by €84 million in 2017). In traditional life insurance, aggregate investment returns on assets covering technical provisions were 11 bp lower in 2019 than in the previous year, at 2.86%. For the period under review, the average interest rate guaranteed under life insurance contracts was not available at the time of writing.

The overall technical result in non-life insurance increased in year-on-year terms, as technical income increased and technical expenses remained flat. The non-life technical result increased to €53 million in 2019, from €30 million in the previous year, and made the largest contribution to the insurance sector's annual profit. The main driver of the technical result increase was a quite large drop in operating expenses in the form of the administration costs for insurance contracts, which fell by €26 million (7%). This was their largest decrease in recent years and indicated a stepping up of rationalisation measures in investment services. The financial result remained unchanged year on year.

In 2019 insurers paid €58 million in tax on non-life insurance business, €5 million in a premium levy on non-life business, and €28 million in levies to the Slovak Interior Ministry under motor third policy liability insurance. Furthermore, the sector is also subject to a special levy payable by firms in regulated industries, under which it paid €15 million in 2019. For the period under review, these charges on the insurance industry amounted to €107 million.

The sector maintained its solvency level in 2019

Compared with 2018, the insurance sector's solvency remained virtually unchanged in 2019. At the end of the year the solvency capital requirement (SCR) coverage ratio averaged 192% and the median level was 180%. The insurers whose SCR coverage ratio fell the most in 2019 were among those with the highest ratios, and the insurers that posted increases in 2019 were among those with the lowest ratios. By the end of December the SCR coverage ratios of individual insurers ranged from 141% to 291%. As for

the minimum capital requirement (MCR) coverage ratio, the sectoral average increased from 482% at the end of 2018 to 510% at the end of 2019, when the ratios of individual insurers ranged between 234% and 1,085%.

In insurers aggregate eligible capital, the share of *expected profits included in future premiums (EPIFP)* remained elevated in 2019, at 49%, even though it fell from 58% in 2018. Across individual insurers, however, there was considerable heterogeneity in the size of its share. If this volatile component were reassigned to Tier 3 capital, where by its nature it belongs, the insurance sector's average SCR coverage ratio would fall to 114%. In that case, the number of insurers that would fall below the regulatory minimum of 100% decreased from seven to four in 2019.

Premiums written maintain a downtrend in traditional life insurance premiums and remained almost unchanged in unit-linked life insurance

After falling in the previous year, gross premiums written in traditional life insurance business decreased further in 2019, ending the period 3.3% lower year on year. At the end of 2019 they amounted to €683 million and accounted for 67% of overall gross premiums written in the life insurance segment. All domestic insurers reported a drop in these premiums.

The decline in traditional life premiums was not mirrored by an increase in the principal substitution product – unit-linked insurance – in which gross premiums written posted a marginal year-on-year increase of 0.5%. At the year-end they amounted to €254 million and accounted for 25% of the total in the life segment.

Other life insurance classes, typically offered under traditional life and unit-linked contracts, saw their aggregate gross premiums increase by 15% in 2019, though their share in the life segment total fell by 8%.

Data on the amount of life insurance surrenders in 2019 were not available at the time of writing, owing to reporting deadlines. In 2018 the ratio of surrenders to gross premiums written during the year stood at 28%. This ratio has been falling in recent years (from 34% in 2017 and 49% in 2016). The levels of this ratio in traditional life insurance and unit-linked insurance were 45% and 36% respectively, while the ratio in health insurance was less than 0.1%. In other life insurance classes, no surrenders were reported.

Reinsurers' share in life insurance gross premiums written increased from 3% in 2018 to 5% in 2019. The placement of outward reinsurance was more prevalent among certain medium-sized and smaller insurers.

Accepted reinsurance business does not exist in the life segment of Slovakia's insurance sector.

Premium growth slowed in the non-life insurance segment

In non-life insurance business, growth in both gross premiums written and accepted reinsurance slowed, year on year, from 11% in 2018 to 4% in 2019. This slowdown was broad-based across all the main insurance classes and almost all institutions in the sector. Trends in the sector may have been significantly affected by an insurance premium tax in force since the start of 2019, at a rate of 8%. The available data do not make it possible to clearly abstract the tax's impact on sectoral-level trends, partly due to the premium levy in force in 2017 and 2018, the implementation of which was subject to legal disputes over interpretation. Unlike the insurance premium tax, this levy was included in the amount of premiums.

In motor third party liability (MTPL) insurance, the year-on-year growth in gross premiums written fell from 9% in 2018 to 5% in 2019. This insurance class is the only one not directly affected by the insurance premium tax. On the other hand, MTPL insurance has for a long time been subject to other levies (an 8% levy payable to the Slovak Interior Ministry and a levy payable to the Slovak Insurers' Bureau). Given the compulsory nature of this insurance class, it may be assumed that its trends are largely determined by the actual number of motor vehicles on the road in Slovakia.

As for premiums in comprehensive motor insurance, the year-on-year decrease in their growth was greater than that in MTPL insurance, from 10% in 2018 to 3% in 2019. The slowdown corresponded approximately to the proceeds from the insurance premium tax. It may therefore be the case that this tax substantially accounted for the deceleration in comprehensive motor insurance premiums.

The net combined ratio in motor insurance recorded a moderate technical decrease in 2019 (to 98.2%), but after taking into account levy payments to the Slovak Interior Ministry and to the Slovak Insurers' Bureau, it increased to 102.5%. Even so, motor insurance losses in 2019 were the lowest in recent years.

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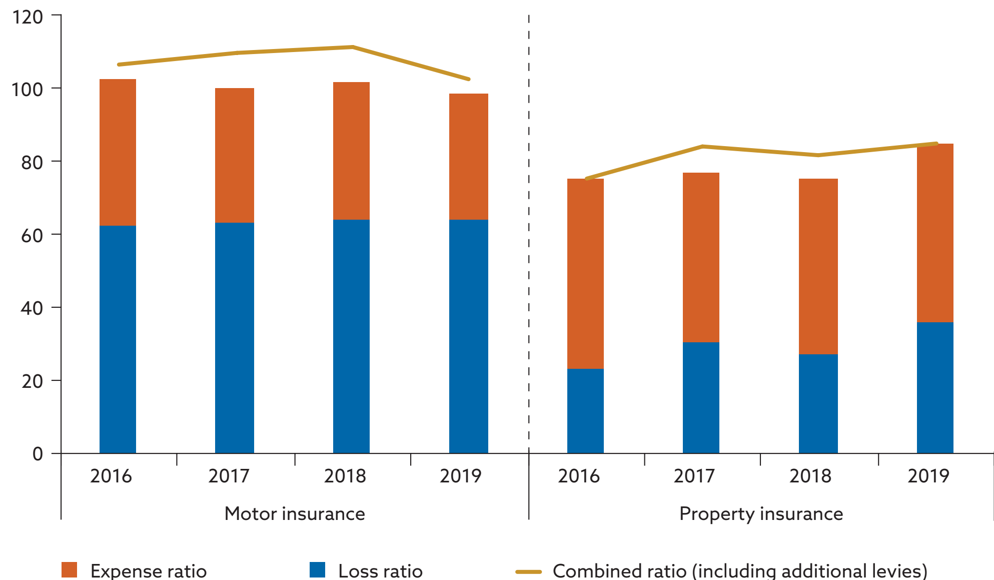
Chart 26

The combined ratio in non-life insurance has for a long time been showing losses in motor insurance

The loss ratio, expense ratio and combined ratio for motor insurance (including additional levy payments), adjusted for outward reinsurance (percentages)



Source: NBS.
Note: The combined ratio for motor insurance (MTPL and comprehensive motor insurance) includes levy payments to the Slovak Interior Ministry and the Slovak Insurers' Bureau (applied under MTPL insurance in all of the years shown) and the special insurance premium levy (applied on comprehensive motor insurance in 2017 and 2018).

A slowdown in premium growth was also observed in the third-largest non-life insurance class – property insurance. Compared with motor insurance, however, property insurance has been showing greater volatility in terms of year-on-year premium growth, with rates of 1% in 2017, 6% in 2018 and 1% in 2019. The impact of the insurance tax on this insurance class is therefore not clear-cut. The net combined ratio in property insurance reached an all-time high of 84.5% in 2019, even though in 2017 and 2018 the ratio also included the impact of the insurance premium levy. The ratio's increase stemmed mainly from increases in claims paid (including changes in provisions) reported by several insurers.

For other non-life insurance classes, aggregate premium growth in 2019 was 5%. Premium trends in these classes have, however, been volatile in recent years, with the aggregate growth surging by 27% in 2018 and then falling by 1% in 2018. In no individual class was the combined ratio close to 100% in 2019.

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Technical provisions increased more slowly compared with the previous year, and the credit quality of the assets held to cover them deteriorated

The aggregate amount of life insurance technical provisions in insurers' accounts increased in 2019. Technical provisions for traditional life insurance and unit-linked insurance increased respectively by 1.0% and 10.8%, year on year, appreciably less than they did in 2018 (4.4% and 19.6%). Non-life technical provisions increased only slightly, by 0.2%.

In assets covering life insurance technical provisions, government bonds continued to make up more than half of the portfolio in 2019, though their share fell by 5 percentage points, year on year, to 51%. By contrast, the share of corporate bonds increased by 2 percentage points, to 33%. Equity investments edged up by 0.3 percentage point.

Looking at the assets covering unit-linked technical provisions, precisely half of the aggregate portfolio originated in Slovakia, 7% in the Netherlands and 6% in France. No other country of origin had a share of more than 5%.

Of the assets covering technical provisions for traditional life insurance, the share for which a credit rating was available as at end-2019 was 82%. Of that share, the proportion of assets of credit quality step 2 (corresponding to an A rating) fell from 58% to 50% and those of credit quality step 3 (BBB) fell from 15% to 12%. On the other hand, the share of assets of credit quality step 4 (BB) rose from 0% to 8%. As for assets of credit quality steps 0 (AAA) and 1 (AA), their shares stood at 8% and 17% respectively.

In the aggregate portfolio of assets covering unit-linked technical provisions, investment fund shares/units have by far the largest share. In 2019 that share increased by a further 2 percentage points, year on year, to 85%. Structured securities had the next largest share (9%, down by 2 percentage points), followed by corporate bonds (4%, unchanged).

As for their country of origin, 26% of the assets covering unit-linked technical provisions originated in Slovakia, 20% in the Netherlands, 16% in Luxembourg and 15% in Austria. No other country of origin had a share of more than 5%.

Of the assets covering unit-linked technical provisions, the share for which a credit rating was available as at end-2019 was only 9%. Of that share, assets of credit quality steps 3 (BBB rating) and 2 (A) accounted for 51% and 43% respectively.

The portfolio of assets covering non-life technical provisions has also experienced a downtrend in the government bond component, from 42% in

2016 to 26% in 2019. Corporate bonds showed the opposite trend in 2019, when their share increased from 32% to 48%. Remaining as relatively significant components of the portfolio were bank deposits (9%) and real estate investments (9%).

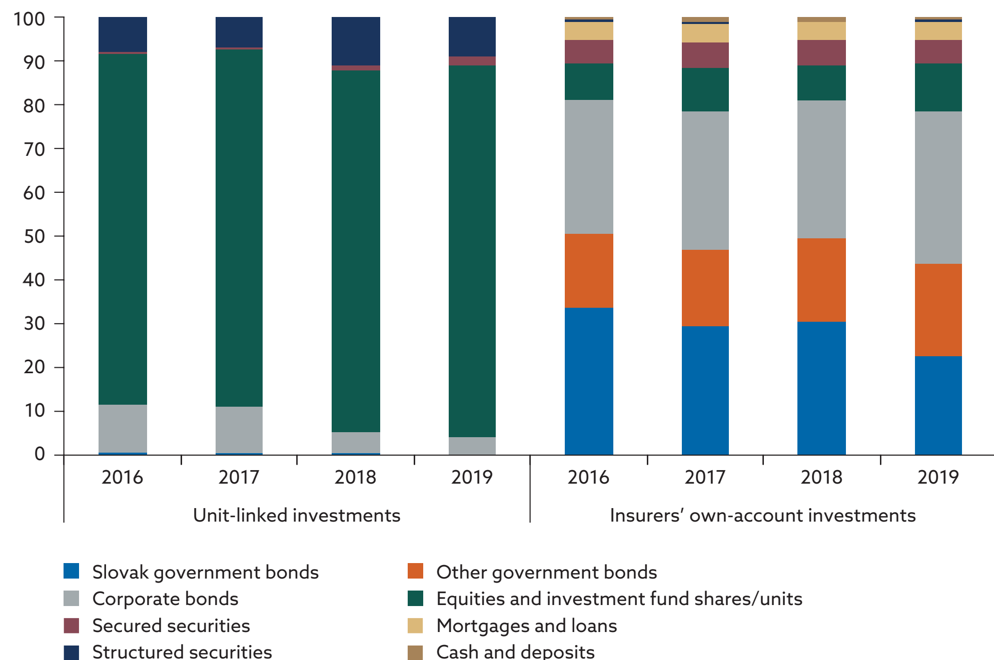
As for their country of origin, 30% of the assets covering non-life technical provisions originated in Slovakia, 9% in the United States, 8% in the Netherlands and 6% in Austria. Other countries of origin had only marginal shares in the portfolio. Some 9% of assets did not have a determined country of origin, since they were real estate investments and therefore unlisted.

Of the assets covering non-life technical provisions, the share for which a credit rating was available as at end-2019 was 71%. As a share of this volume, assets of credit quality step 2 (A rating) declined from 59% in 2018 to 49% in 2019 and those of credit quality step 3 (BBB) fell from 24% to 17%. By contrast, assets of credit quality step 4 (BB) increased from 2% to 16%. Assets of credit quality steps 0 (AAA) and 1 (AA) had shares of 4% and 11% respectively.

Chart 27

Unit-linked investments are focused on investment funds, while bonds are the largest component in insurers' own-account investments

Unit-linked investments and insurers' own-account investments broken down by type of financial instrument (percentages)



Source: NBS.

5 Financial market segments focused on asset management

5.1 Old-age pension scheme[7]

Significant increases in the number of savers and the amount of assets under management

The figures for savers in the second pillar of the pension system recorded several notable milestones in 2019. Not only did the total number of savers continue to grow, its pace of growth accelerated for a fourth year in a row. The number joining the scheme in 2019 was almost 77,000, the highest in the scheme's history if we exclude the initial influx following its launch. The new enrolments resulted in the total number of savers reaching a new historical high of 1,564,152 as at 31 December 2019, which surpassed the previous high recorded at the end of 2007. So, after more than a decade, the impact of the scheme's several 're-openings',[8] each of which resulted in a sharp drop in the number of registered savers, has been eliminated.

As in previous years, many savers were gravitating towards equity investments, in particular towards index pension funds. Nevertheless, around 70% of all savers were invested in bond pension funds.

The period under review saw an event that had quite a significant impact on the make-up of the PFMC market. The pension fund management company Aegon, d.s.s., a.s. ceased its operation in 2019, after being in the market since the launch of the second pillar 15 years earlier. Its portfolio of savers was taken over by NN, d.s.s, a.s., another PFMC. As regards the market shares of individual PFMCs, they underwent a change for the first time in a long time, with NN rising from third to fourth in the ranking. Another consequence of this event was a reduction in the overall number of pension funds, as two funds managed by Aegon, an equity fund and a bond fund, were merged with the corresponding funds managed by NN. Aegon's index fund was added to NN's suite of funds.

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7 The second pillar of the Slovak pension system – the old-age pension scheme – is a largely compulsory defined-contribution scheme operated by pension fund management companies (PFMCs). The third pillar – the supplementary pension scheme – is a voluntary defined-contribution scheme operated by supplementary pension management companies (SPMCs).

8 A re-opening of the scheme is a temporary period when existing savers are permitted to leave it.

The rate of growth in assets under management in the second pillar gained significant momentum in 2019. The aggregate net asset value (NAV) of second-pillar funds increased by €1.25 billion, which was comfortably higher than any previous annual increase. The growth rate of 16% was the fastest in seven years. As at 31 December the funds' overall NAV amounted to more than €9.3 billion.

The above average NAV growth was driven mainly by returns on pension funds' assets. More than 40% of the asset growth came from this channel. At the same time, however, the strong performance of funds and its contribution to their asset growth must be seen in the context of market developments back towards the end of 2018, when prices, especially those of equity investments, fell sharply. A proportion of funds' asset returns in 2019 represented simply the recouping of previous losses.

Further supporting the uptrend in the asset growth of second-pillar funds were the regular contributions paid by the savers. Aggregate saver inflows in 2019 amounted to €737 million, which was 17% more than in 2018. For several years now, contribution growth has been buoyed by a combination of favourable labour market conditions, a rising number of savers, and increases in the rate of mandatory contributions as a percentage of the assessment base.

In the breakdown of aggregate NAV growth by fund type, index pension funds had the largest share, followed closely by bond pension funds. For each of these fund types, overall assets increased by nearly €0.5 billion in 2019. By the end of the period under review, index funds had replaced equity funds in second place in the ranking of fund types by NAV. At the same time, the share of bond funds in the sector's NAV decreased slightly, from 78% to 72%.

The main change in the second-pillar portfolio was an increase in the duration of the bond component

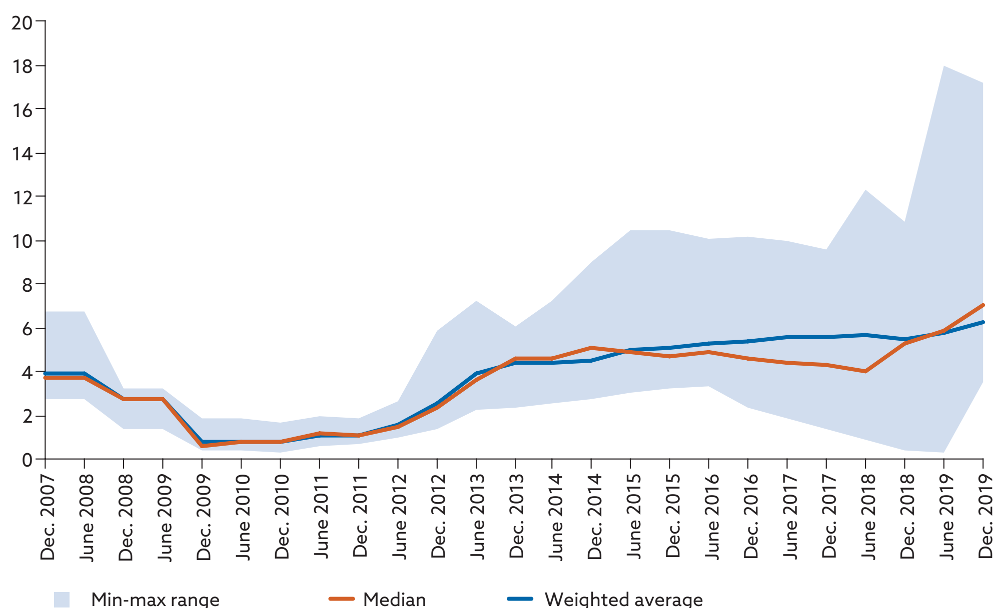
In terms of its composition, the aggregate portfolio of second-pillar funds did not change significantly in 2019. The only notable change was an increase in the equity component of mixed pension funds' aggregate NAV, which increased from 38% to 44%. This occurred at the expense of the bond component, with the result that equity and bond components of the mixed fund portfolio were almost equal by the end of the year.

Across equity pension funds, the share of equity-focused investments in the aggregate portfolio edged up in 2019, to stand at 70% at the end of the year. Added to these funds' portfolio in 2019 were several instruments constituting indirect commodity exposure, although their share did not

exceed 3% of the total NAV. As for bond pension funds, their structure did not change significantly; the bond component predominated and there was a smaller, liquid component in the form of bank deposits.

Changes in monetary policy outlook resulted in PFMCs modifying their strategies in regard to the composition of the bond portfolio of second-pillar funds. Even until around April 2019, the weighted residual maturity of debt securities remained unchanged. Thereafter, once it was apparent that interest rates would be remaining "lower for longer", the second-pillar sector saw a pick-up in demand for longer-maturity bonds. By the end of 2019, the average residual maturity of second-pillar funds' bond assets stood at a historical high of 6.3 years, which was almost one year longer compared with the end of 2018. The increase was broad-based across all types of pension funds except index funds, and it was more pronounced in those funds in which this parameter was already relatively elevated. As the average residual maturity increased, so too did the duration of funds' bond portfolios. The upward impact on interest rate sensitivity was, however, only limited, since a large share of the bonds that accounted for the increase in the average duration across funds were included in the part of the portfolio valued at amortised cost. Despite this shift towards the longer end of the yield curve, the average coupon rate and yield to maturity of bond investments continued to decline year on year.

Chart 28
Average residual maturity of debt securities in second-pillar fund assets
(years)



Source: NBS.

In the breakdown of the second-pillar bond portfolio by sector of issuer, the share of non-financial corporations increased in 2019, reaching the

30% mark for the first time ever. As for the portfolio's composition by country of issuer, the most notable movements were in the general government bond component. In particular there was a year-on-year decrease in the share of Italian and Spanish bonds. On the other hand, bonds issued by Israel, the United States, Ireland and Germany were added to the portfolio to an increasing extent.

As a share of the aggregate NAV of second-pillar funds, non-derivate assets denominated in a currency other than the euro increased by 1.5 percentage points, to 7.3% at the end of 2019. Equity pension funds had the largest foreign exchange exposure, averaging 40% of their overall NAV.

For second-pillar pension funds as a whole, 2019 was one of their best ever years from a performance point of view. The weighted average nominal return on second-pillar funds was 6.7% in 2019. This result, however, masked significant cross-fund heterogeneity related mainly to fund type. As always, strongly performing equity markets benefited index pension funds, which made an average return of 28.3%. The next highest returns were recorded by equity funds (18.9%) and mixed funds (12.1%). Bond pension funds had the lowest return, 1.9%, due to the absence of an equity component in their portfolio.

5.2 Supplementary pension scheme

New enrolments in the scheme slowed, while the aggregate NAV of third-pillar funds recorded an all-time high increase based mainly on investment performance

After reaching its highest level in ten years at the end of 2018, the number of participants in the third pillar of Slovakia's pension system continued its upward trend throughout 2019. But whereas new enrolments in the scheme had been accelerating steadily over the previous five years, their pace of growth slowed during the period under review. The total number of participants in the third pillar increased by around 30,000 in 2019, which was two-thirds as large as the increase in the previous year. The number of participants invested in growth-focused third-pillar funds has for a long time been gradually increasing and approaching the number invested in balanced funds. At the end of 2019 the total number of participants in the third pillar stood at around 834,000. After declining in the previous year, the number of beneficiaries under the scheme remained stable at just over 26,000.

As regards the NAV of third-pillar funds during the period under review, 2019 was a notable year. The funds' aggregate NAV increased by €364 million, its largest ever increase in a single calendar year. Its year-on-year

growth rate of 18% was, by some margin, the highest since 2007. At the end of 2019 the total amount of assets under management in third-pillar funds was €2.37 billion.

The NAV growth in 2019 differed from the previous year in regard to the positive contribution from returns on assets. In the third pillar, as in the second pillar, the aggregate amount of funds' NAV growth in 2019 resulted about equally from investment returns and other financial flows. Around half of the overall returns on funds' assets represented, however, simply the recouping of losses made during the financial market turbulence at the end of 2018.

The amount of new contributions paid by participants and their employers maintained a linear uptrend from the previous year. Even with a gradual increase in the amount of benefits paid, the net balance of flows into and out of the scheme increased by 5% year-on-year, to €195 million.

The overall number of third-pillar funds increased by one in 2019, with launch of a new index fund in February. The establishment of this fund followed that of the first ever third-pillar index fund in the second half of 2018. Hence the passive investment strategies that were increasingly popular in the second pillar were finally gaining traction in the third pillar, too.

Third-pillar equity funds saw an increase in the equity component of their asset portfolios

Looking at third-pillar funds subject to a balanced investment policy, the share of equity investments in their aggregate NAV was 23% at 31 December 2019, two percentage points higher than a year earlier. The increase was largely based on the upward market valuation of equities. Since, however, the volume of new equity purchases for the funds' portfolios was relatively low, the proportion of equities in their overall NAV remained slightly below the level it was at for most of 2018, before the equity market slump.

A different trend was observed in third-pillar growth funds. The share of equities and indirect equity investments in their aggregate NAV increased during 2019, from 40% to 50%. This component therefore surpassed the levels it reached during the first three quarters of 2018. As corollary of the equity component's increase in 2019, the share of bond investments in growth funds' overall NAV dropped from 30% to 24%. The share of bank deposits also declined year on year.

As for third-pillar distribution funds, the composition of their aggregate asset portfolio remained stable in 2019. The investment mix continued to

comprise bond instruments and bank deposits in a ratio of two-thirds to one-third respectively.

Across the asset portfolio of third-pillar funds, the weighted average residual maturity of debt securities increased by a relatively sizeable 1.4 years in 2019. By the end of the year, the average maturity stood at a historical high of 7.3 years. Its increase was, however, driven mainly by two large-sized funds managed by a single SPMC, as the average residual maturity of their bond assets, already far above the sectoral average, increased significantly. Among the other third-pillar funds, the situation was heterogeneous. The moderately prevailing development was for the average residual maturity to decrease, as evidenced by the small decline in its median value across all third-pillar funds.

Given the prolonged low interest rate environment, the average coupon rate of funds' bond investments continued to decline in 2019. By the same token, the remuneration of bank deposit assets, already below 0.1%, also decreased. In no fund, however did the remuneration of these assets turn negative.

In the bond portfolio of third-pillar funds, the predominant general government bond component fell slightly, while the corporate bond component increased. A notable development in the bond portfolio was the disposal of a large volume of Italian government bonds. In the breakdown of the portfolio by country of issuer, Italy held the leading position at the turn of the year (mainly through Italian government bonds), with its share of 16% even surpassing that of Slovakia, traditionally the principal source of securities in the third-pillar bond portfolio. By the end of 2019, the share of Italian bonds had decreased by precisely one-half. Also moving down were the shares of Romanian, Spanish and Polish bonds. The increase in the corporate bond component was largely attributable to inflows of Czech and US corporate bonds.

In the aggregate NAV of third-pillar funds, the share of non-derivative assets denominated in a currency other than the euro fell in 2019, from 18% to 16%. At the level of individual funds, however, there were both decreases and increases in the foreign exchange component of asset portfolios.

In the majority of the third pillar's contributory funds, pension-point values were on an upward path for a large part of 2019. As a result, this group of funds recorded their best performance in several years. The weighted average nominal return on their assets in 2019 stood at 8.6%. As for distribution funds, whose assets do not include an equity component, the average return on their portfolio was 1.6%. All third-pillar funds recorded a positive nominal return in 2019.

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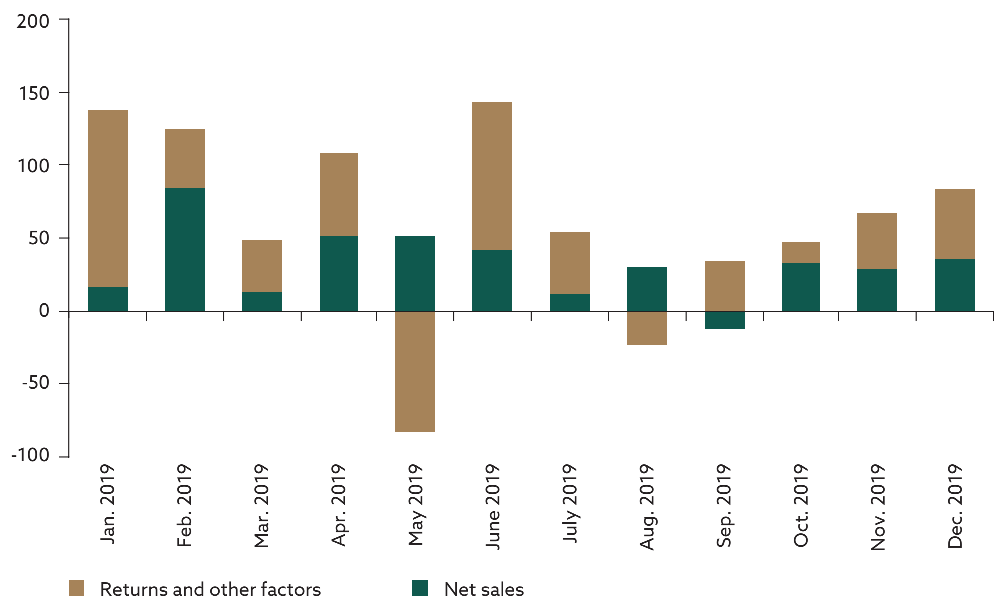
5.3 Investment fund sector

Customer inflows and asset price growth ensured a record increase in the amount of assets under management in investment funds

Slovakia's investment fund sector recorded its largest ever increase in managed assets in 2019. The aggregate NAV of domestic investment funds and foreign collective investment undertakings marketed in Slovakia climbed, year on year, by €1.224 million during the period under review, which represented an annual growth rate of 15% and brought the total amount of assets under management in the sector to €9.6 billion. This growth was in contrast to the previous year, when the amount of managed assets remained virtually unchanged over the twelve months.

Domestic investment funds accounted for around two-thirds of the growth in the sector's NAV. Their overall NAV increased by €808 million, one of the highest ever single-year increases, though not the highest. In the case of foreign investment funds, however, customer inflows reached an all-time high. Their NAV corresponding to their sales in Slovakia increased by €416 million. Thus, foreign investment funds maintained their trend of increasing market share, which by the end of the year was close to one-quarter.

Chart 29
Domestic investment funds' NAV growth broken down by principal components
(EUR millions)



Source: NBS.

The record increase in investment funds' assets was based on a combination of customer inflows and strong returns on assets. These two com-

ponents contributed about equally to the funds' aggregate NAV growth. In terms of demand for investment funds, 2019 was about average for recent years. The net issuance of domestic investment funds' shares/units amounted to €383 million in 2019, around three-quarters higher than in the previous year. Compared with 2017, however, customer inflows were somewhat lower.

The growth in investment funds' NAV during the period under review was strongest in the first quarter, due to a notable upward revaluation of the equity component. Thereafter, the pace of growth gradually slowed, especially during the summer months, before picking up again toward the end of the year on the back of increases in both demand for investment funds and returns on their assets.

All domestic asset management companies reported an increase in their investment funds' aggregate NAV in 2019. On this metric, however, there was quite significant heterogeneity across companies, with growth rates ranging from 2% to 29%. This had a notable impact on market shares in the sector, but without resulting in any change in the companies' ranking by market share. The number of asset management companies marketing domestic investment funds increased by one in 2019.

The number of domestic investment funds marketed in Slovakia increased in 2019, from 86 to 93, even though some such funds were dissolved during the year. The largest expansion of funds was in the category of mixed funds, followed by real estate funds.

In terms of the breakdown of NAV growth and net sales by fund category, 2019 continued the trends of recent years

In 2019, as in previous years, the growth in investment funds' aggregate NAV was driven mainly by mixed funds, whose overall NAV grew by €0.5 billion during the year. Of that amount, the net issuance of shares/units constituted one-half. In four of the last five years, however, these funds reported higher net sales.

There was a partial shift in investor demand towards real estate funds and equity funds. Aggregate net sales in both categories were higher in 2019 than in 2018, with real estate funds recording a total of €159 million and equity funds around half of that amount. Given the high returns on equity funds, the aggregate growth in their NAV and the growth in real estate funds' NAV was almost the same in 2019, each at just under €200 million.

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Chart 30
Net sales and the change in NAV of each type of domestic investment fund in 2019
(EUR millions)

Source: NBS.

For a fifth year in a row, bond investment funds recorded net redemptions in 2019. Their net redemptions amounted to €112 million, which at least was much reduced from the outflow recorded in the previous year. The returns on their asset portfolios narrowed the year-on-year decline in these funds' aggregate NAV to €74 million. Even so, in terms of overall NAV, the lead of bond funds over real estate funds became marginal in 2019.

In the sectoral breakdown of shares/units issued by domestic investment funds, households continued to have the largest share in 2019. At the same time, however, their position was less dominant than in the past. Also contributing significantly to net sales were purchases of shares/units by pension funds, insurers and other investment funds.

Among foreign investment funds, equity funds recorded the highest NAV growth in 2019 owing mainly to the upward revaluation of their portfolio. Significant NAV increases were also reported in bond funds and mixed funds, in their case mainly owing to net sales.

At the category level of domestic investment funds, the composition of asset portfolios remained stable in 2019. In the case of real estate funds, the share of real estate-related investments fell slightly, while the share of bank deposits, a liquid component, increased.

Annual returns on investment funds were significantly above average in 2019. Weighted by asset volume, the average nominal return on domestic

and foreign investment funds was 8%. The average for equity funds was far higher, at 23%, while the averages for mixed funds and structured funds were around the sectoral average. For the other fund categories, the average returns were in a range between 3% and 4%.

Asset management companies marketing domestic investment funds made an aggregate profit of €30.4 million in 2019. Compared with the previous year, their profit increased by 14%. This improvement stemmed mainly from savings on fee and commission expenses and, in the case of some companies, also from increases in fee and commission income.

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6 Macro stress testing of the Slovak financial sector

6.1 Banking sector

While the stress test's zero scenario assumes stable growth (without factoring in negative effects related to the current coronavirus pandemic), its adverse scenarios assume a substantial shock and the second of these scenarios does not envisage a speedy economic recovery

Like last year's stress test, this year's exercise simulated three scenarios of potential economic developments. The zero scenario (Scenario 0) assumes a situation in which the coronavirus pandemic does not exist and there are no factors weighing on economic and financial developments. This scenario is based on the projections contained in NBS's December 2019 Medium-Term Forecast (MTF-2019Q4), which envisages that the Slovak economy will grow without any significant impact on the labour market. In addition, the exercise includes two adverse scenarios that assume deterioration in both the global and domestic economy. Neither the MTF-2019Q4 forecast, nor the stress testing exercise, were completed by the time the pandemic's adverse implications for the economy and financial market were known. There were no available data that would capture the impact of the pandemic. In these circumstances, the headwinds resulting from the pandemic could not be incorporated into Scenario 0. The adverse scenarios assume a modellable deterioration in economic and financial market developments resulting from different factors: a sharp decline in foreign trade that may happen, for example, due to increasing market uncertainty about the future situation, to the continuance of protectionist measures, and, above all, to the spread of the coronavirus in Slovakia and the rest of the world.[9] The more severe adverse scenario, Scenario 2, does not assume that there will be any significant economic recovery before the end of the stress test period. The stress test exercise covers the three-year period from 2020 to 2022.[10]

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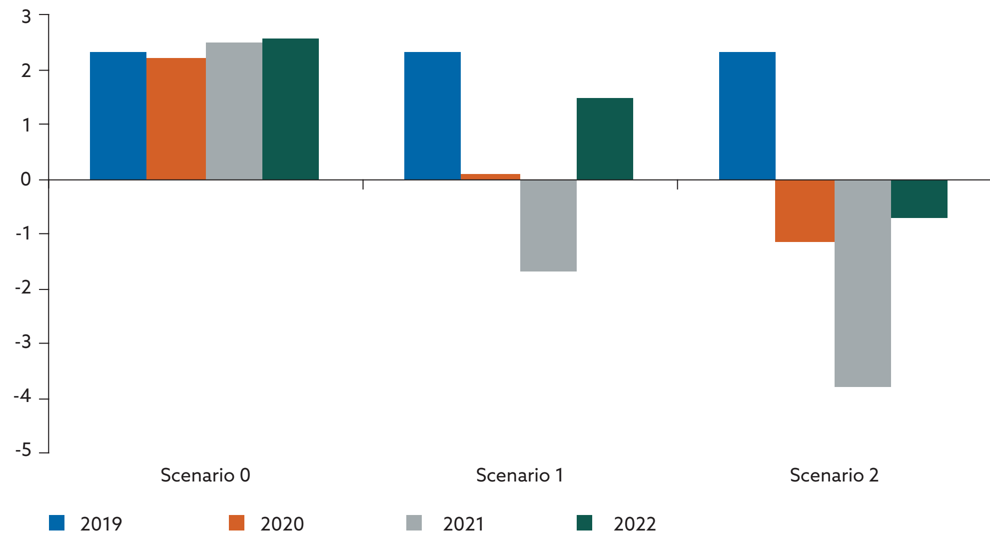
[9] The scenarios do not, however, represent estimations of the expected fallout from the pandemic; they are simply modelled scenarios for macro stress testing of the financial sector.

[10] The macro stress testing of the Slovak financial sector was conducted using data as at 31 December 2019.

Chart 31
Real GDP growth



Source: NBS.

Scenario 0, which does not envisage the impact of the coronavirus pandemic, assumes stable economic growth that has no significant impact on the labour market and inflation. Slovakia's GDP growth is assumed to accelerate moderately over the stress test period, but not to exceed 2.6% in any of the three years. The domestic side of the economy and export performance contribute about equally to GDP growth, with exports benefiting from the gradual pick-up in foreign demand. The unemployment rate does not change significantly, while employment growth is little more than moderate in view of the headwinds from demographic trends and the fact that economic activity is weaker than in previous years. In this context, inflation pressures moderate and the annual headline inflation rate approaches the inflation target of below 2%.

In Scenario 1 of the macro stress test, Slovakia's economic growth is assumed to decelerate and turn negative due to the above-mentioned trends in the cooling global economy, before rebounding moderately. In the first year of the stress test period, Slovakia's GDP is assumed to remain flat, year on year, while in the second year it contracts by 1.7%. The economy does not pick up again until the third year, and even then its growth is a sluggish 1.5%. Adverse economic trends are reflected in the labour market: the unemployment rate climbs gradually, from just under 6% at the end of 2019 to 9.25% at the end of 2022. The headline inflation rate gradually moderates, reaching 1.6% by the end of the stress test period.

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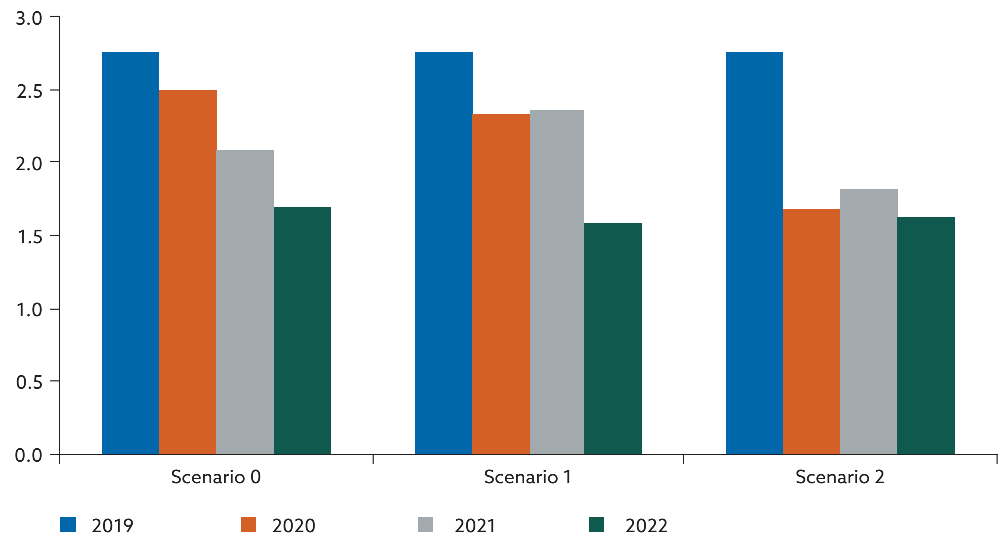
Chart 32
Inflation
(percentages)



Source: NBS.

In Scenario 2, Slovakia is assumed to experience a more pronounced and more prolonged GDP downturn. In what may be dubbed the "lower-for-longer" scenario, the elimination of the negative effects of cooling global trade on the economy is a slow process, and GDP growth does not turn positive before the end of the stress test period. In the first year, the economy contracts by 1.1%, while the second year sees a more severe decline of 3.8% and the third year a more moderate decline of 0.7%. This adverse trend weighs heavily on the labour market situation. The unemployment rate almost doubles over the three years, up to 11.7%. In these circumstances, Slovakia's headline inflation rate remains below the ECB's target inflation rate. At the same time, there is mounting nervousness in financial markets which is reflected in increasing credit spreads and interest rates.

Developments in recent weeks have, however, been severely affected by the global coronavirus pandemic, which is starting to have substantial negative repercussions for the economy and financial markets. The trend starting to develop in 2020 is therefore that originally envisaged in the macro stress test's adverse scenarios. In Table 2, some of the stress test's input indicators are compared with actual developments during the first months of 2020.

Table 2 Comparison of certain input indicator developments in 2020 with assumptions used in the macro stress test

	Actual data	Scenario 0	Scenario 1	Scenario 2
Change in the USD/EUR exchange rate	-4.6%	-0.1%	-0.1%	-15.0%
Oil price in USD	-59.1%	-5.8%	-4.8%	-23.3%
Change in the three-month EURIBOR	1 bp	-2 bp	-2 bp	-2 bp
Change in equity prices	-28%[1]; -32%[2]	0%	-35%	-50%
Change in the iTraxx Senior Financials 5Y index	68 bp	0 bp	203 bp	353 bp
Real GDP growth	-1.4%[3]; -4.5%[4]; -9.4%[5]	2.2%	0.1%	-3.8%
Average annual inflation	2.3%[3]; 2.1%[4]; 2.0%[5]	2.5%	2.3%	1.7%

Sources: Bloomberg and NBS.
Notes: The column "Actual data" shows the percentage or basis point change in the given indictors between 31 December 2019 and 20 March 2020. The "Scenario" columns show the changes in the indicators which each scenario (0, 1 and 2) assumes for 2020.
1) S&P 500 index.
2) EURO STOXX 50.
3) Under the first scenario used in NBS's March 2020 Medium-Term Forecast.
4) Under the second scenario used in NBS's March 2020 Medium-Term Forecast.
5) Under the third scenario used in used in NBS's March 2020 Medium-Term Forecast.

The banking sector shows relatively strong resilience under the stress test, though in Scenario 2 some banks are unable to meet capital requirements

Under Scenario 0 (with no coronavirus impact), the capital adequacy of the banking sector is estimated to remain basically unchanged. After taking into account the expected retention of earnings from 2019, the sector's aggregate total capital ratio at the outset of the stress test period is estimated to be 18.5% of risk-weighted assets. In the first and second years of the stress test period, banks' solvency increases moderately due to retained earnings,[11] while in 2022, as a result of an assumed increase in lending activity, the total capital ratio drops back to 18.4%. In this scenario, all banks meet the 8% capital requirement and the 10.5% requirement (including a capital conservation buffer).

In Scenario 1, the less severe of the adverse scenarios, the banking sector's capital adequacy is estimated to drop to 14.9% 2022. This 3.6 percentage point decline in banks' aggregate total capital ratio is accompanied by a decrease in the sector's profit (owing to an increase in credit risk costs) and by an assumed increase in risk weights. Even under this scenario, however, banks meet the capital requirement without difficulty.

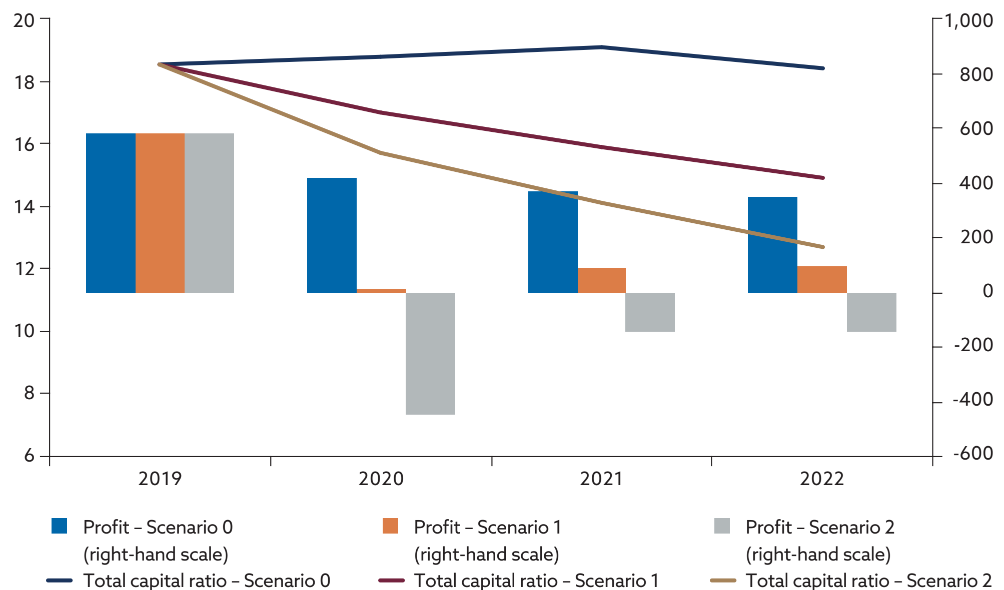
[11] The profit distribution in these years is assumed to be similar to that in 2019.

In Scenario 2, the situation is much different, as the banking sector's solvency declines to such an extent that, by the end of the stress test period, some banks are struggling to meet the capital requirement. The sector's total capital ratio is estimated to fall by 5.8 percentage points over the period, to 12.7% in 2022. The decline in solvency stems from persisting adverse trends in the financial market, with a majority of banks unable to generate a profit. The banking sector as a whole makes a loss over the three-year period. Faced with losses, some banks are no longer able to increase their capital and thereby offset the increase in risk-weighted assets; hence they struggle to meet the capital requirement. The sector's capital shortfall against the 10.5% capital requirement is estimated to be €182 million (equivalent to 2.7% of banks' aggregate own funds as at end-2019).

Chart 33

The banking sector's aggregate profit and total capital ratio under the stress test scenarios

(percentages; EUR millions)



Source: NBS.
Note: Total capital ratios as at the end of 2019 are adjusted to include the assumed impact of capital increases.

The banking sector's profit is significantly affected by the bank levy and by developments in interest income, which is quite exposed to interest rate movements

In Scenario 0, the banking sector's aggregate net profit is estimated to decline gradually, from €582 million in 2019 to €346 million in 2022, representing a drop of 40%. Despite aggregate loan book growth, the sector's profit declines due to the continuing downtrend in interest rates on the outstanding amount of loans and the consequent compression of interest margins. The profit also falls because there is not assumed to be any signif-

icant income arising from more volatile sources, such as equity markets or foreign currency transactions. Further weighing on the sector's profit is the doubling of the bank levy as from January 2020. In these circumstances, the sector's ROE falls from 8.5% in 2019 to 4.9% in 2022, below the current average for euro area banks. In Scenario 1, the banking sector is under greater pressure amid adverse economic trends and financial market stress. In the first year of the stress test period, the sector's profit is estimated to fall sharply, to €9 million, with seven banks making a loss. This decline results not only from a substantial rise in credit costs (by more than €220 million per year), but also from market risk losses – the negative impact of the repricing of portfolio equity components and securities – which reduces the sector's profit by one-third. Over the next two years, given the easing of pressures and financial stress, the banking sector's profit increases, reaching €92 million in 2022. In Scenario 2, where the adverse economic and financial market trends are more pronounced and more prolonged, the banking sector is estimated to report a loss of €448 million in the first year of the stress test period. Thereafter, the losses gradually moderate, and in 2022 the sector reports a loss of €144 million. Under this scenario, only two banks make a profit. Behind the severe deterioration in the banking sector's financial performance is the decline in interest income, which results from a sizeable slowdown in loan growth and large increase in credit costs.

The banking sector's profitability remains heavily dependent on interest income. Even under the adverse scenarios, this income is the main source of the banking sector's overall income. At the same time, however, interest income is significantly affected by the volume of lending, which decreases under the adverse scenarios due to the assumed deterioration in the economic situation. In these scenarios, banks' interest income is further squeezed by falling interest rates, especially on the corporate loan book, resulting from the accommodative monetary policy response to adverse developments. In Scenario 0 there is an assumption of gradual monetary policy normalisation accompanied by a moderate increase in retail interest rates. The sector's profit is still reduced by the doubling of the bank levy, which is linked to the amount of deposits in the banking sector. Since, however, banks' deposit holdings are less exposed to financial cycle developments than is their interest income, the increase in the bank levy represents a substantial burden on the Slovak banking sector's profitability. In Scenario 2, the cost of the levy is €22 million lower than the cost in Scenario 0, but banks' interest income drops by almost €107 million. Hence the bank levy has a procyclical impact on the sector's financial performance. Banks' credit costs are also sensitive to financial cycle developments and increase sharply under the adverse scenarios.

Table 3 Credit risk costs

	2019	2020	2021	2022
Scenario 0	0.34%	0.30%	0.31%	0.33%
Scenario 1	0.34%	0.81%	0.75%	0.70%
Scenario 2	0.34%	1.38%	1.08%	0.94%

Source: NBS.
Note: Credit risk costs are expressed as percentage of total claims on customers.

The requirement to comply with the MREL does not have a significant impact on the banking sector's profit under Scenario 0, but its impact increases markedly under the adverse scenarios

Another factor affecting the banking sector's profit is the obligation to comply with the minimum requirements for own funds and eligible liabilities (MREL), which is intended to help ensure that banks are able to adopt effective resolution actions. At the end of 2019 the MREL was for the first time set for certain banks in Slovakia, with a four-year transition period for the phasing-in of full compliance. The banks subject to the MREL must therefore have sufficient capital or instruments (liabilities) eligible for the MREL, representing an additional cost affecting their profitability. In Scenario 0, the impact on these banks' aggregate profit is not significant; it increases from €7 million in the first year to €19 million in 2022, and the cumulative impact over the three-year stress test period amounts to almost €39 million. In Scenarios 1 and 2, despite a decline in liabilities that is not present in Scenario 0, the impact on profit is greater due to the increase in interest on MREL-eligible instruments. Compared with Scenario 0, the impact on the banks' profit is approximately 1.8 times greater in Scenario 1 and 2.5 times greater in Scenario 2.

In terms of profitability and capital adequacy trends, differences between significant and less significant banks persist

Significant and less significant banks[12] differ considerably in their profit-generating capacity, even under the adverse scenarios. While significant banks are still able to generate a profit under Scenario 1, and some of them also under Scenario 2, the profits of less significant banks are far more contingent on economic and financial market developments. In Scenario 1, only one of the less significant banks is able to turn a profit, and in Scenario 2 none of them are. Banks' profit-generating capacity also relates to their capital adequacy, which in the case of less significant banks is estimated to fall significantly under the adverse scenarios as a result of the institutions' losses.

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[12] Significant banks are directly supervised by the ECB.

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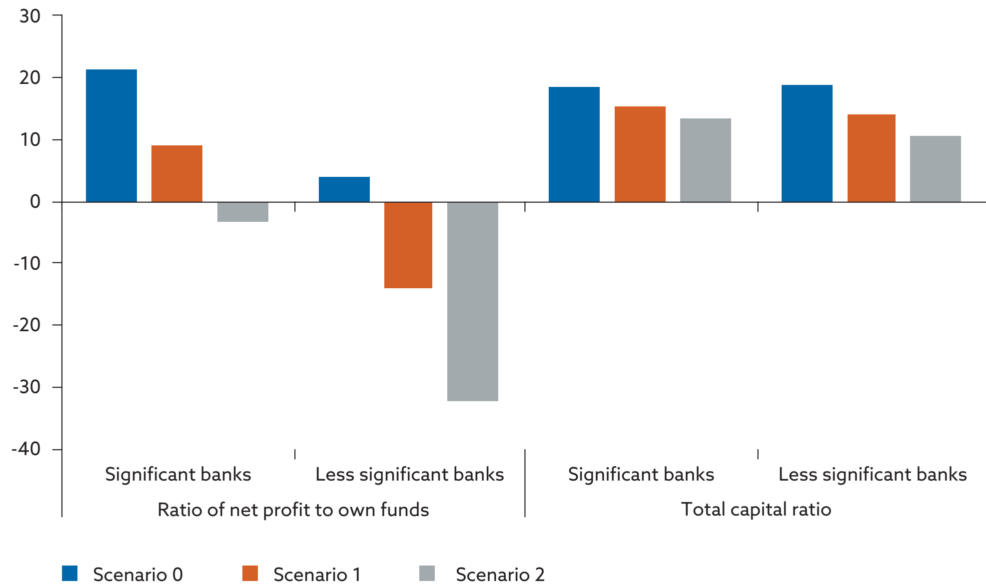
Chart 34

The profitability and total capital ratio of significant and less significant banks under the stress test scenarios

(percentages)



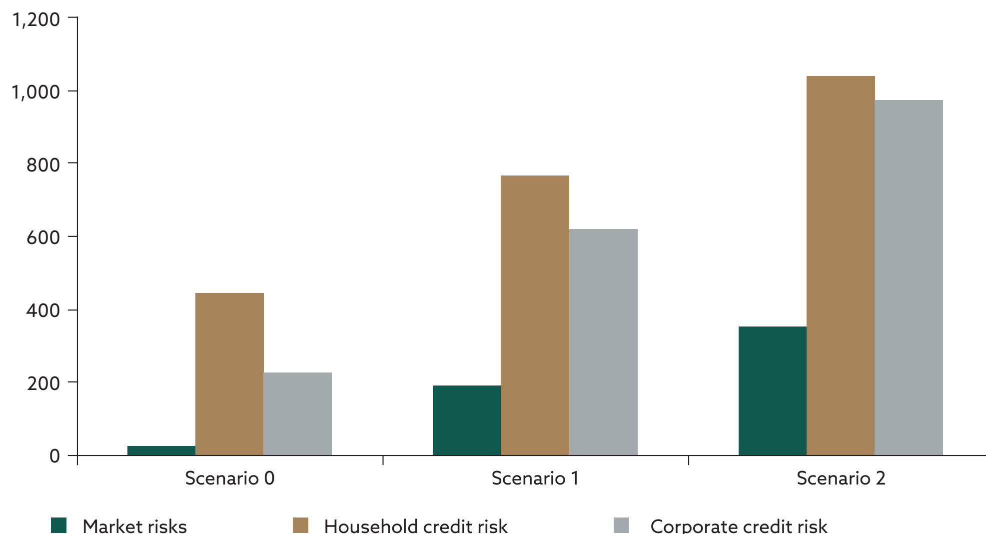
Source: NBS.
Notes: The net after-tax profit covers all three years of the stress test period and is expressed as a ratio to own funds as at 31 December 2019. The total capital ratio is weighted by the amount of risk exposures and is expressed as at end-2022.

The importance of market risks is falling, while credit risk is increasing

Chart 35

Risk losses broken down by type

(EUR millions)



Source: NBS.
Note: The chart shows the overall loss for the stress test period.

Under each scenario, losses arising from credit risk in both the corporate and household loan books are a few times greater than losses arising from market risks. Although the amount of market risk has increased since the previous macro stress test exercise, its importance remains relatively low. This relates to the fact that a considerable share of bond holdings remains in the portfolio of securities held to maturity (loans and receivables). These securities are therefore not being revalued at fair value, so they are not sensitive to increases in interest rates or risk premia.

Compared with the previous stress test exercise, credit risk losses on the household loan portfolio have decreased slightly; nevertheless, in all three scenarios they continue to exceed credit risk losses on the corporate loan portfolio. The fact that credit risk in the household loan book is lower than it was in the previous exercise seems to be related to the adoption of measures by NBS in in the area of household lending. Their impact is gradually being observed in the loan book, as an increasing share of loans are being provided under tighter conditions. At the same time, however, the amount of credit losses is greater on loans to households than on loans to NFCs, even though the riskiness of NFC loans is rising faster than that of household loans; this is because the volume of lending to households is around twice as high as the volume of lending to NFCs.

6.2 Insurance sector

The insurance sector is prepared in the event of additional losses

The insurance sector was stress-tested for additional costs from three sources: losses arising from market risks; costs arising from an increased loss ratio in non-life insurance; and surrender costs in life insurance. In the market risk module, the assumptions for economic developments were the same as those applied in the stress testing of the banking sector. In the non-life insurance module, it is assumed that insurers' aggregate claims paid in the first year of the stress test period are 10% higher than their historical average. In the life insurance module, the surrender rate is assumed to increase to 20%[13] in the first year. The impact of such increase is estimated to be half of the amount that is included in the solvency capital requirement for the coverage of losses arising from a run of policy surrenders.

The stress test includes Scenario 0 and the two adverse scenarios (Scenarios 1 and 2) covering a three-year period. The non-life and life modules are

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[13] The degree of stress applied is based on the European-wide stress test of the insurance sector carried out by EIOPA in 2018.

the same for both adverse scenarios. Other expenses and income in each year of the stress test period are assumed to be the same as those in 2019, as are the solvency capital requirements.

The stress test results (see Chart P56 in the section 'Macroprudential indicators') show an increase in asset value under Scenario 0. No insurer is constrained to use its available capital to cover losses, and the solvency of each insurer either remains flat or increases.

In the first adverse scenario, the insurance sector records equity-reducing losses. In the first year of the stress test period, the additional costs arising under this scenario amount to €374 million, while in the subsequent two years, owing to asset repricing, these costs fall gradually, by €75 million and €113 million respectively. In the first year, the sector makes an aggregate loss and its equity falls by 11%. If its available capital falls to the same extent as its equity, the average SCR coverage ratio falls by 21 percentage points, to 172%. In this scenario, nine of the 13 tested domestic insurers record a drop in capital, and one insurer's SCR coverage ratio is just below 100% for the whole of the stress test period.

In the second scenario, the sector makes greater losses, but not to an extent that poses a risk to its capital position. The aggregate loss in the first year amounts to €537 million, while the losses in the next two years are mitigated by upward repricing, in the respective amounts of €49 million and €70 million. After the first year, the sector reports an average SCR coverage ratio of 149%, while among the 13 insurers tested, 11 record a decline. As in the first adverse scenario, one insurer's SCR coverage ratio falls below 100% and remains below it throughout the three-year exercise.

6.3 Other financial market segments

Sectors focused on asset management are exposed mainly to market risks

The stress testing exercise for 2019, like that for the previous year, included entities from sectors focused on the management of customer assets. In contrast to banks and insurers, these entities were tested only in regard to market risk scenarios. Scenario 1 assumes that equity markets decline by 35% in one year and that there are increases in risk-free interest rates and credit risk premia. Scenario 2 is even more severe, assuming that equity prices slump by 50%, that the increase in market rates is even more pronounced than in the first scenario, and that the exchange rates of certain foreign currencies weaken against the euro.

In the adverse scenarios, second-pillar funds are affected more than the other market segments. The average pension-point value falls by 5.3% under the first adverse scenario and by 7.1% under the second. The greater vulnerability of second-pillar funds may be explained by the significant share of equity investments in their asset portfolios and by the longer duration of their debt securities compared with the other sectors covered by this part of the stress test exercise.

The impact of the adverse scenarios on investment funds is also quite significant. The sector's average loss peaks in the first year under both the first and second adverse scenarios, at -4.1% of NAV and -6.9% of NAV respectively. Over the next two years of the stress test period, the effect of falling asset prices is partly offset by the accrual of interest income, but only to a moderate extent, by around 2 percentage points of NAV. The losses are concentrated in equity investment funds and certain mixed investment funds that have a significant equity exposure. In the second adverse scenario, the average devaluation of portfolio assets in equity funds is close to 30%. Investment funds accounting for almost one-third of the NAV of this category face losses of 40% and higher.

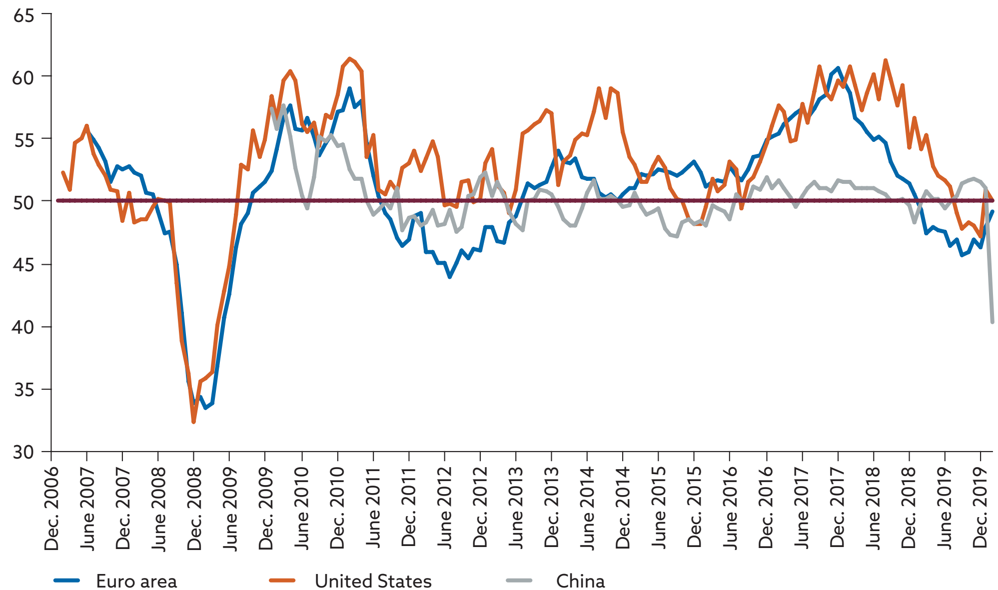
The greatest resilience to the predefined shock is shown by second-pillar pension funds and unit-linked insurance products. In both segments, the average loss peaks at below 3% of NAV under the first scenario and at around 4% of NAV under second scenario. At the same time, in the case of second-pillar funds, interest income inflows have by the end of 2022 largely offset the negative impact on the pricing of portfolios, and in the case of unit-linked insurance products they have entirely cancelled it out.

Macroprudential indicators

General note: '31 December 2019 = 1' means that the given index was normalised so that its value on the specified date (31 December 2019) was equal to 1.

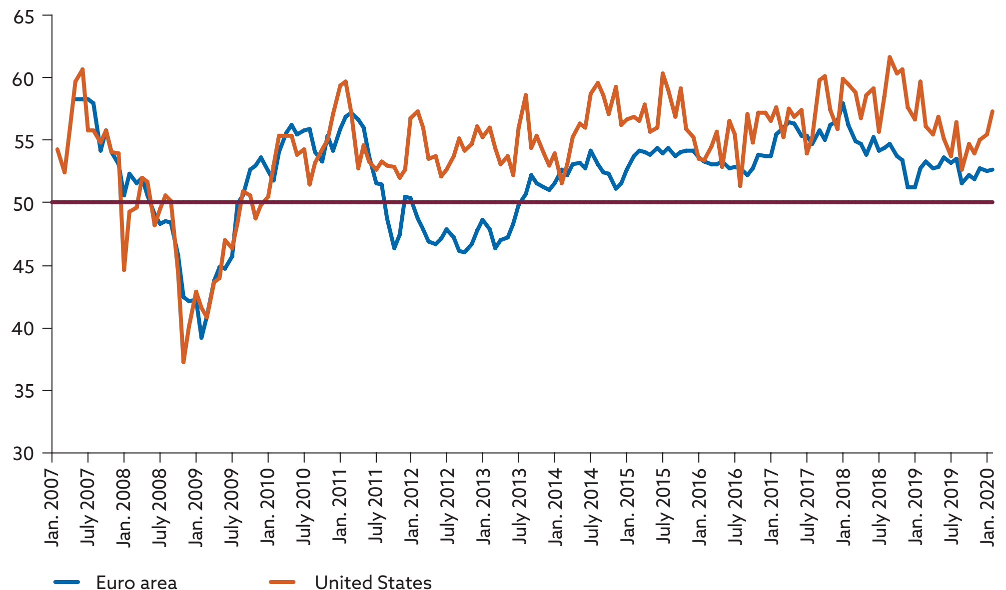
Macroeconomic risk indicators

Chart P1
Manufacturing Purchasing Managers' Index (PMI) in selected economies



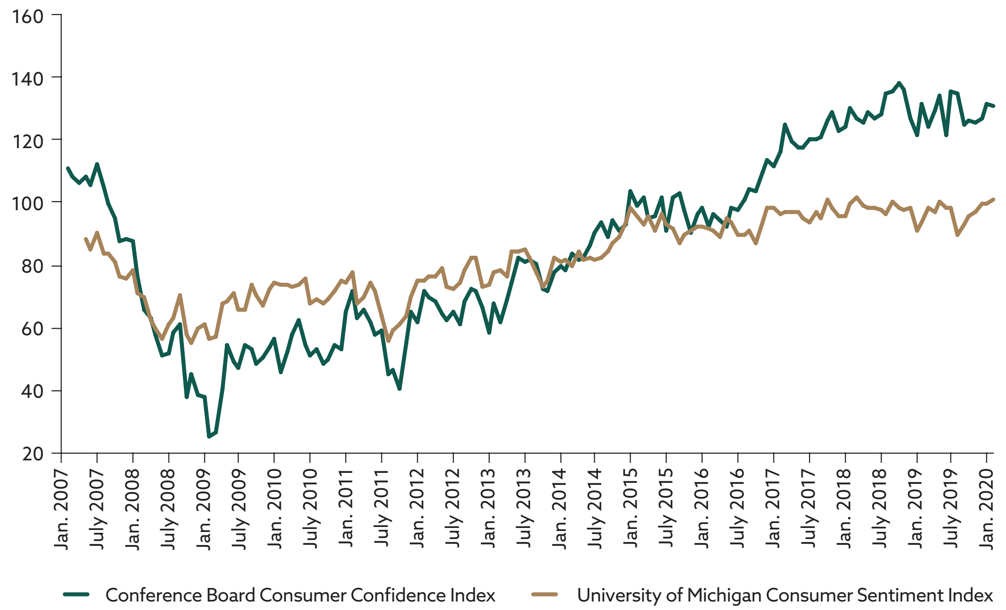
Source: Bloomberg.
Note: The indicator is defined in the Glossary.

Chart P2
Services Purchasing Managers' Index (PMI) in selected economies



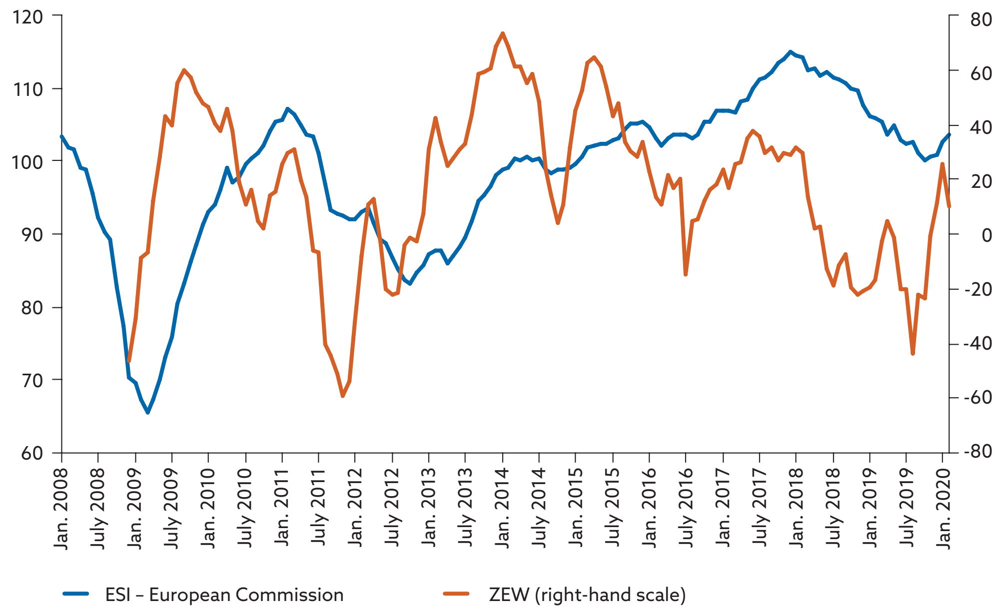
Source: Bloomberg.
Note: The indicator is defined in the Glossary.

Chart P3
Consumer confidence indicators in the United States



Source: Bloomberg.
Note: The chart refers to US consumer confidence indices produced by two different institutions.

Chart P4
Economic sentiment indicators in the euro area



Source: Bloomberg.
Note: The indicators are defined in the Glossary.

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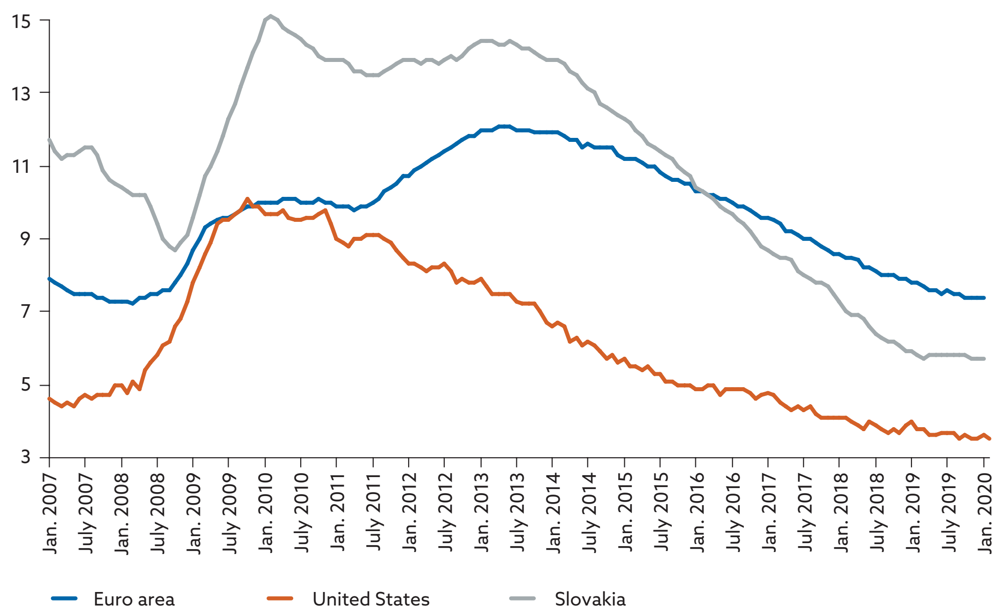
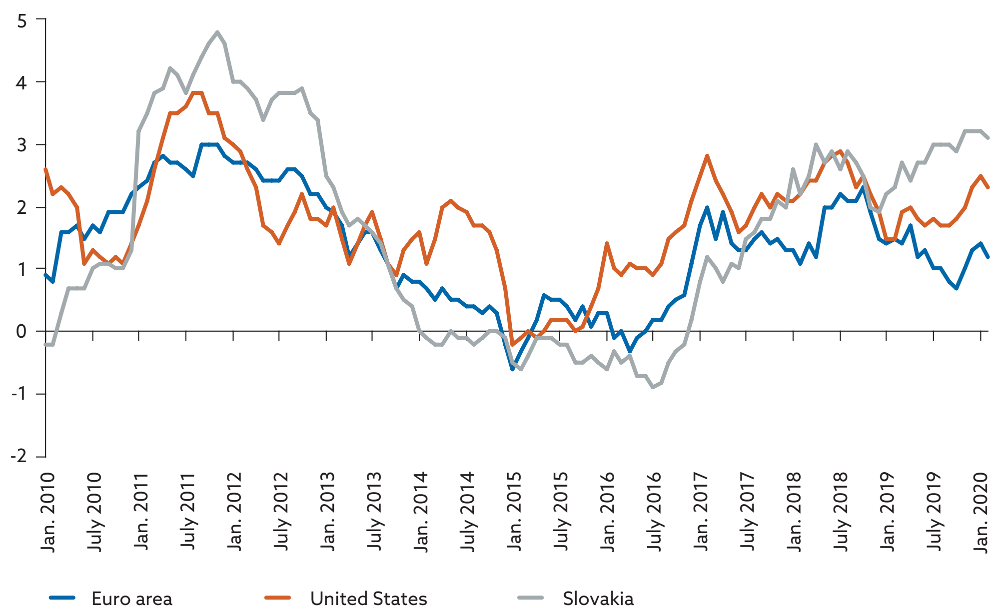
Chart P5
Unemployment rates in selected economies
(percentages)



Sources: Eurostat and Bureau of Labor Statistics.
Note: Seasonally adjusted.

Chart P6
Consumer price inflation in selected economies
(percentages)



Sources: Eurostat and Bureau of Labor Statistics.
Note: Annual percentage changes in the consumer price index.

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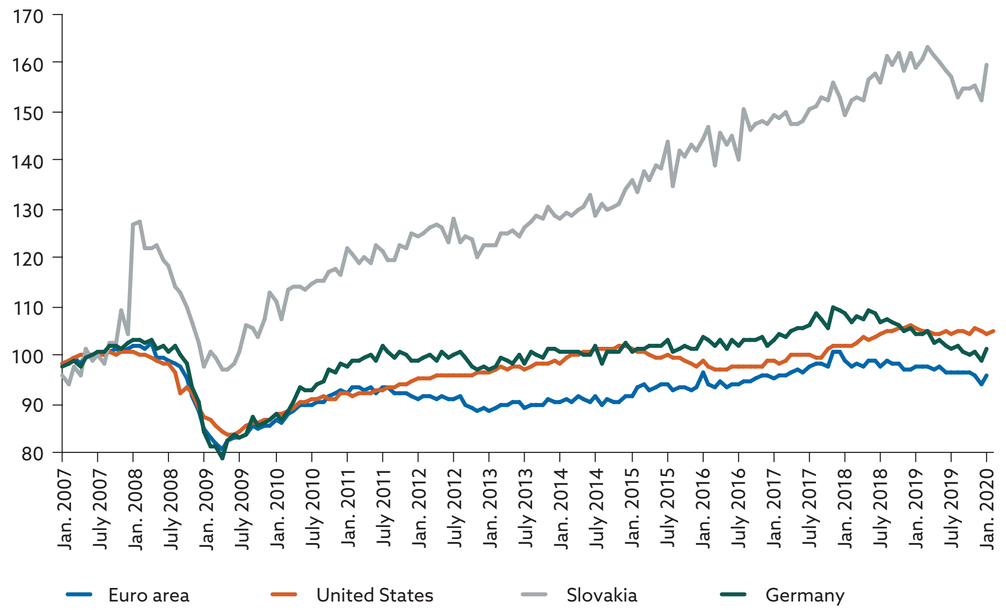
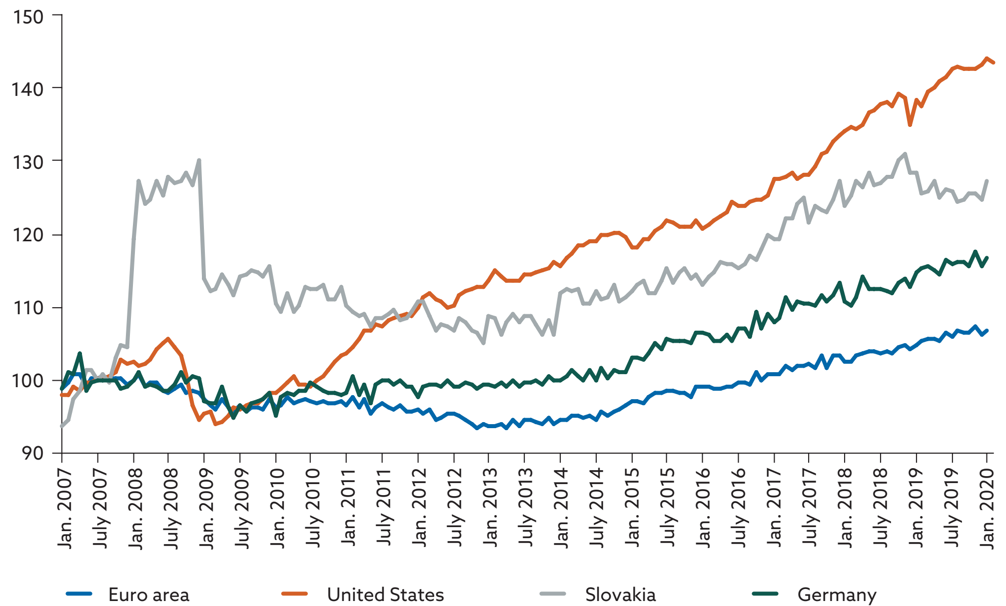
Chart P7
Industrial production indices in selected economies



Sources: Eurostat and US Federal Reserve.
Note: Rebalanced (average: 2007 = 100); seasonally adjusted.

Chart P8
Retail sales indices in selected economies



Sources: Eurostat and US Department of Commerce.
Note: Rebalanced (average 2007 = 100); seasonally adjusted.

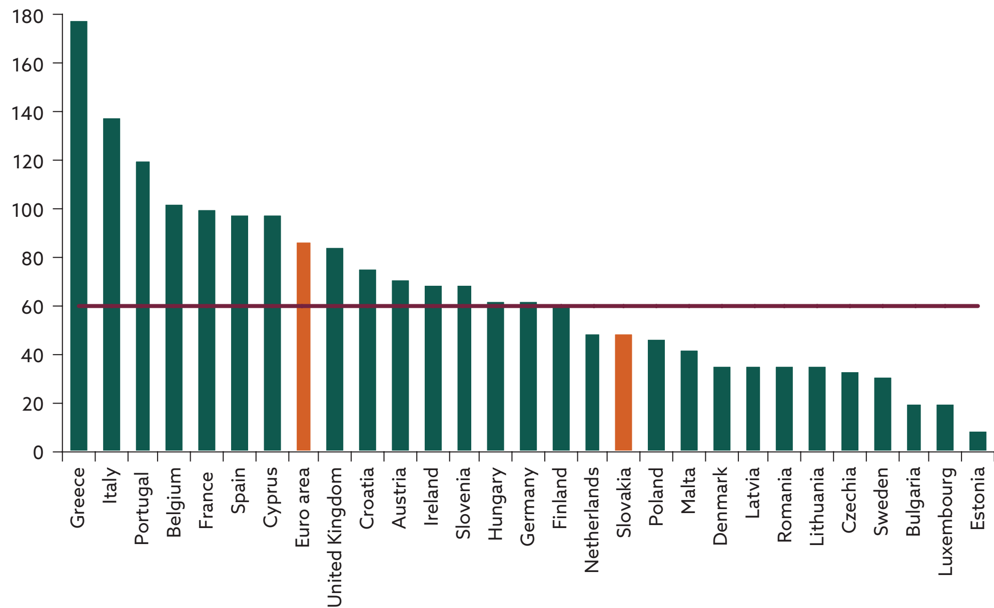
Chart P9

General government balances of EU countries in 2018
(percentages)

Source: Eurostat.
Note: The balance is expressed as a ratio to GDP.

Chart P10

Gross government debt of EU countries in the third quarter of 2019
(percentages)



Source: Eurostat.
Note: The gross debt is expressed as a ratio to GDP.

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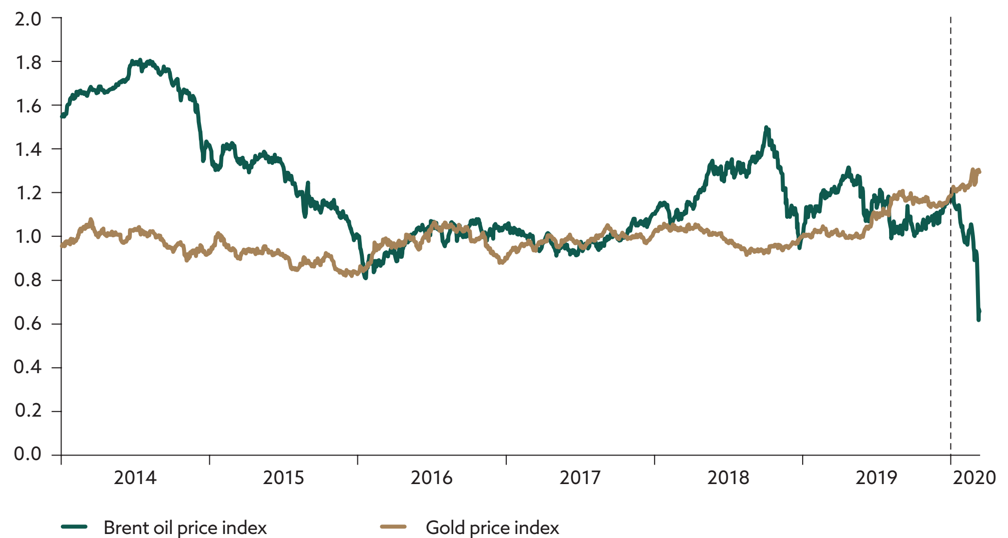
Financial market risk indicators

Chart P11

Price commodity indices

(31 December 2019 = 1)

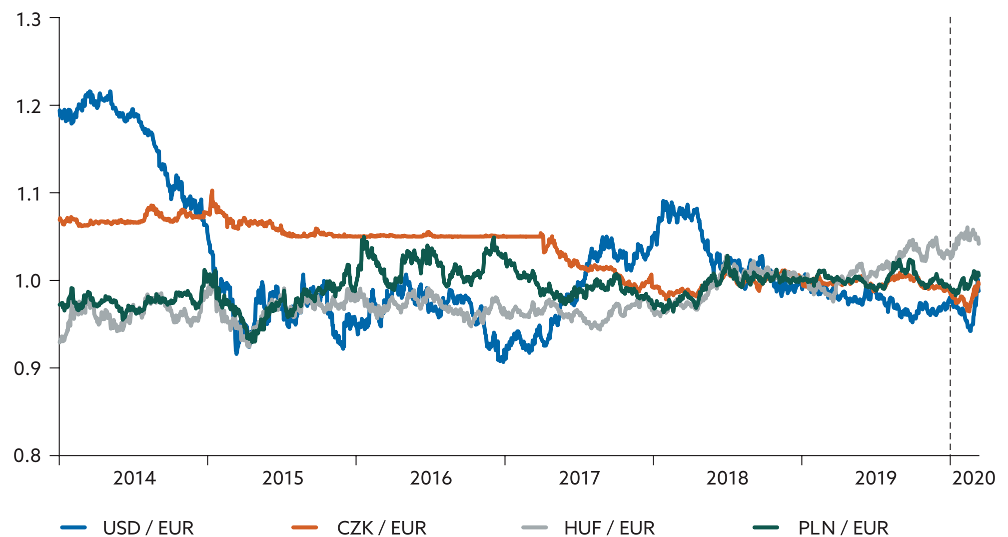


Sources: Bloomberg and NBS.

Chart P12

Exchange rate indices

(31 December 2019 = 1)

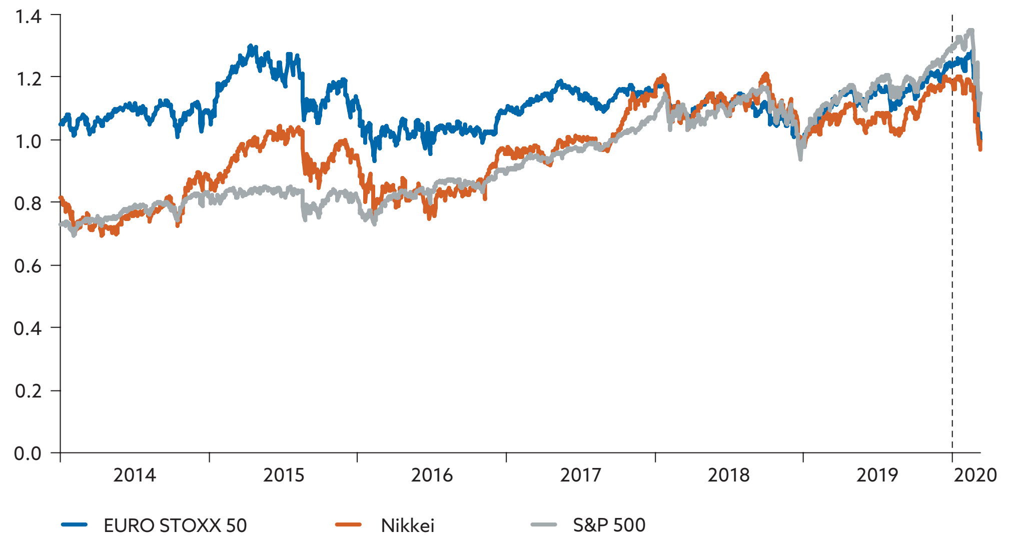


Sources: Bloomberg and NBS.

Chart P13

Equity indices

(31 December 2019 = 1)

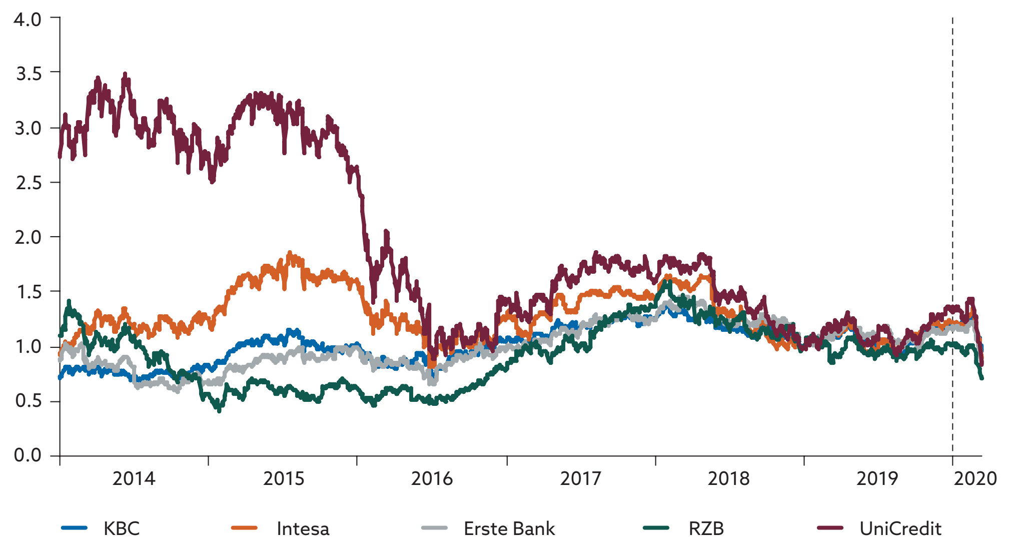


Sources: Bloomberg and NBS.

Chart P14

Share price indices of the parent institutions of the five largest domestic banks

(31 December 2019 = 1)



Sources: Bloomberg and NBS.

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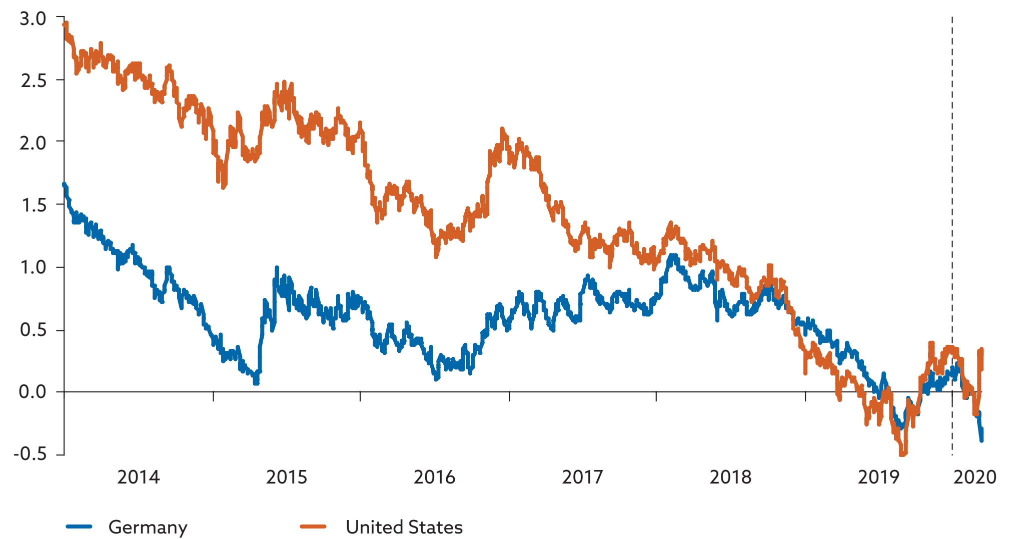
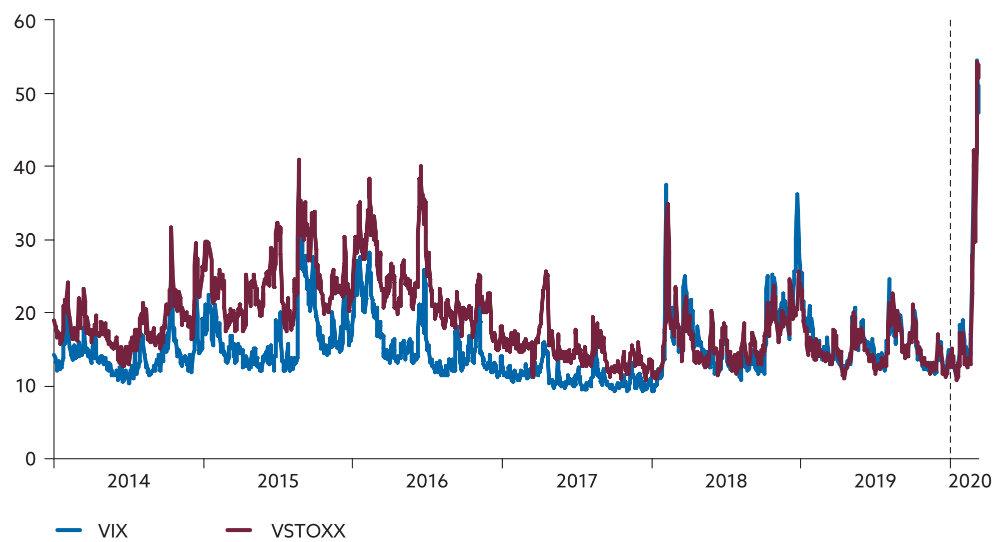
Chart P15
Yield curve slope in selected economies



Sources: Bloomberg and NBS.
Note: The yield curve slope is expressed as the difference between the yield to maturity on 10-year and 3-month government bonds.

Chart P16
Volatility of equity indices

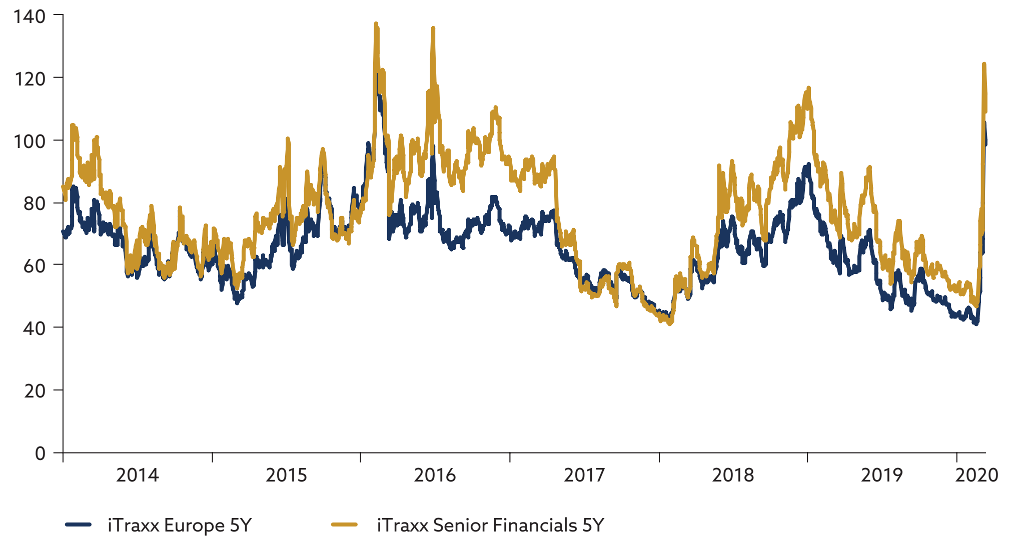


Source: Bloomberg.

Chart P17

CDS spread indices

(basis points)

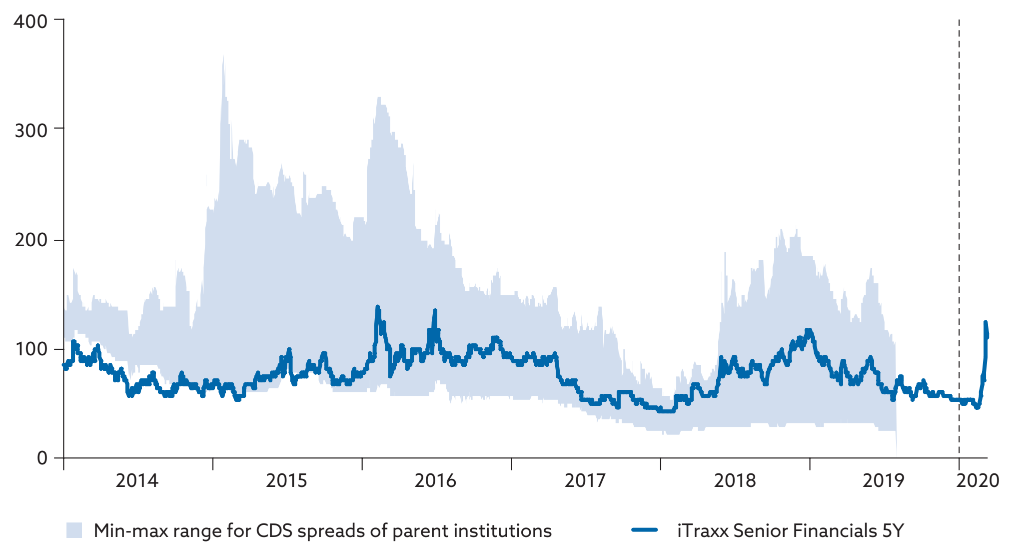


Sources: Bloomberg and NBS.

Chart P18

CDSs of the parent institutions of the largest Slovak banks

(basis points)



Sources: Bloomberg and NBS.

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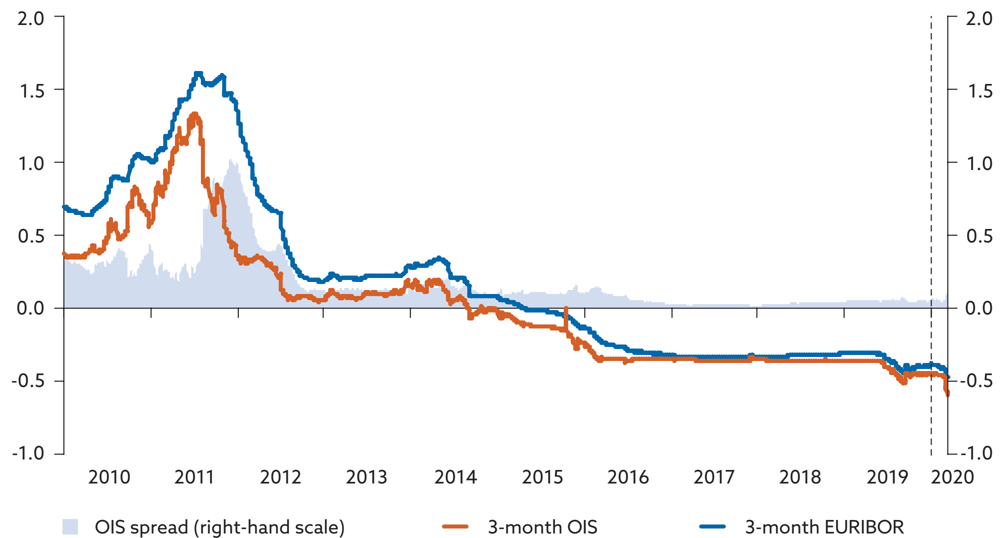
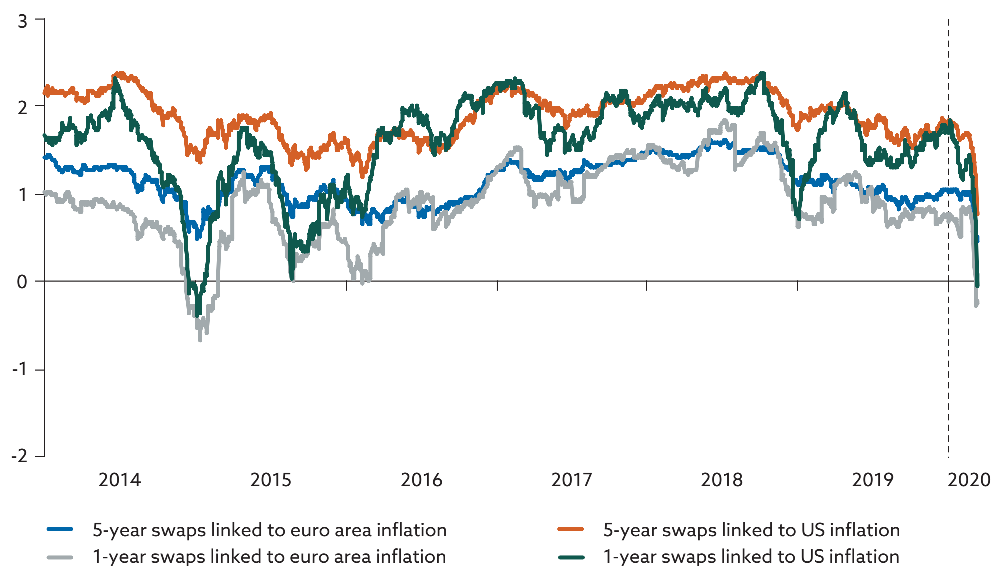
Chart P19
Three-month rates and the OIS spread
(percentages; percentage points)



Sources: Bloomberg and NBS.

Chart P20
Inflation-linked swap prices
(percentages)



Sources: Bloomberg and NBS.
Note: The inflation-linked swap price is defined in the Glossary.

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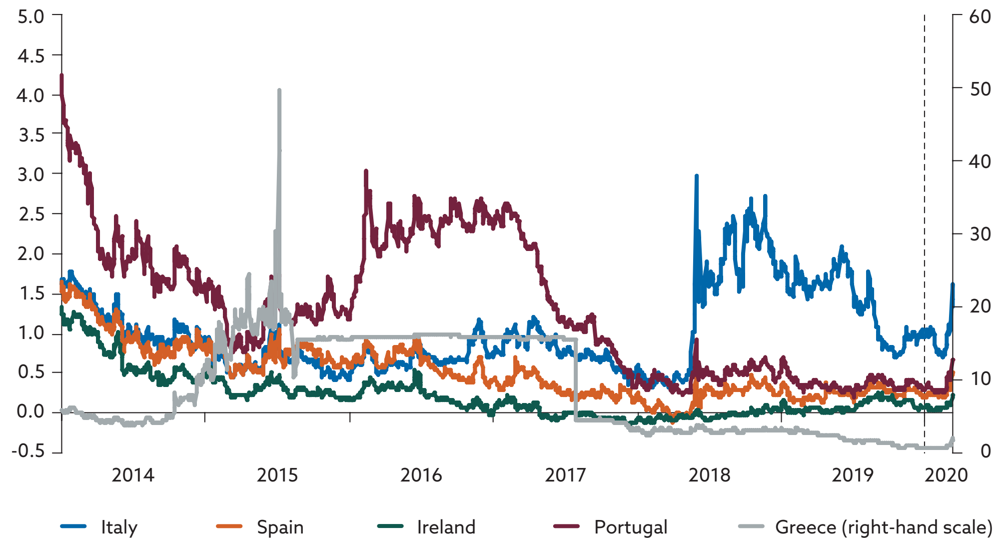
Chart P21

Credit spreads on higher-risk 5-year government bonds

(percentage points)

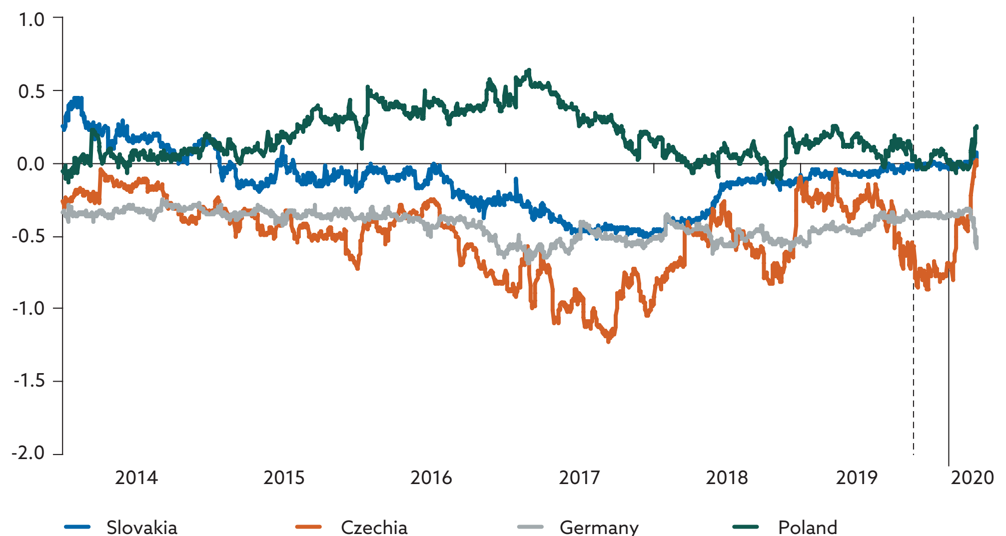


Sources: Bloomberg and NBS.
Note: The left-hand scale shows the difference between the yield on 5-year bonds issued by the given countries and 5-year OIS rates, representing a 5-year interest rate on high-rated bonds.

Chart P22

Credit spreads on 5-year government bonds issued by selected central European countries and Germany

(percentage points)



Sources: Bloomberg and NBS.
Note: The chart shows the difference between the yield on 5-year government bonds denominated in the domestic currency of the given country and 5-year swap rates for the respective currency.

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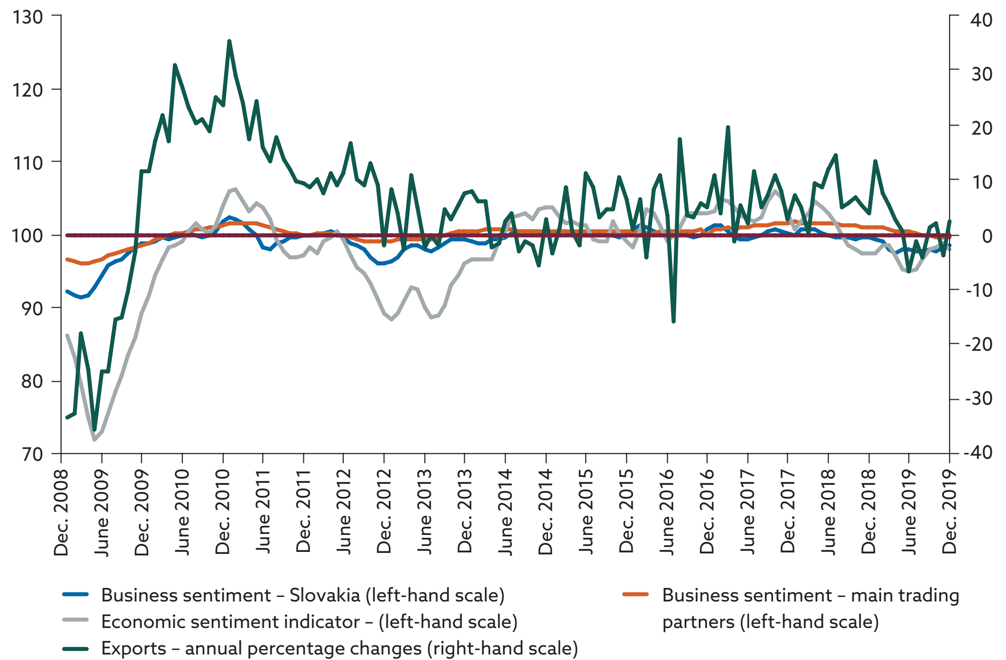
Corporate credit risk indicators

Chart P23

Exports and the business environment

(percentages)

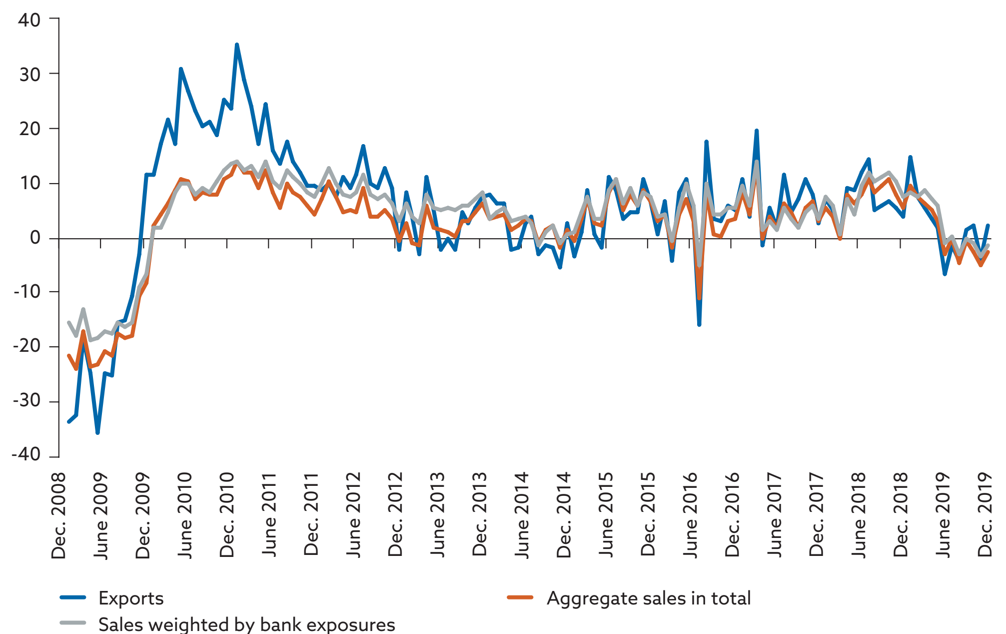


Sources: NBS, OECD and SO SR.

Chart P24

NFC exports and sales

(annual percentage changes)



Sources: SO SR, Slovak Ministry of Economy, OECD and NBS.

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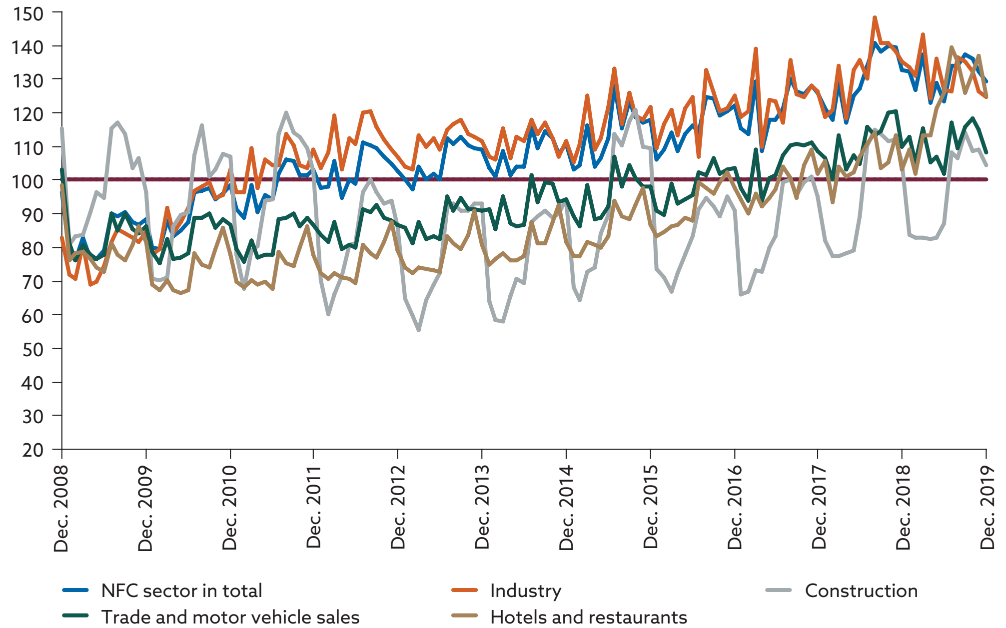
EUROSYSTÉM

Chart P25

Sales in selected sectors compared with their level for the period June 2007 to June 2008

(percentages)

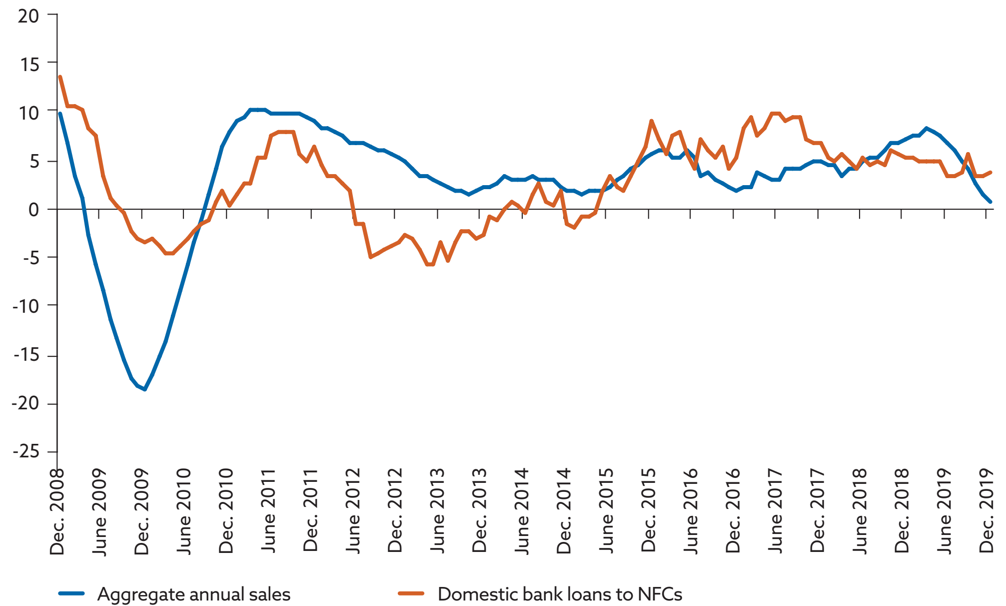


Source: SO SR.

Chart P26

NFC loans and sales

(annual percentage changes)

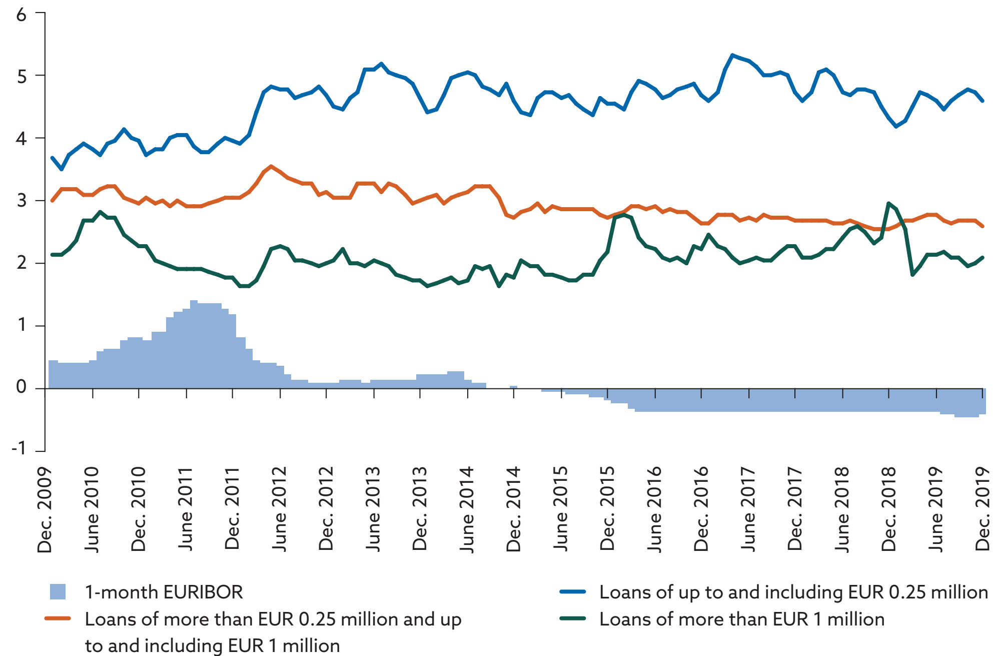


Sources: NBS and SO SR.

Chart P27

Interest rate spreads on new loans to NFCs

(percentages)

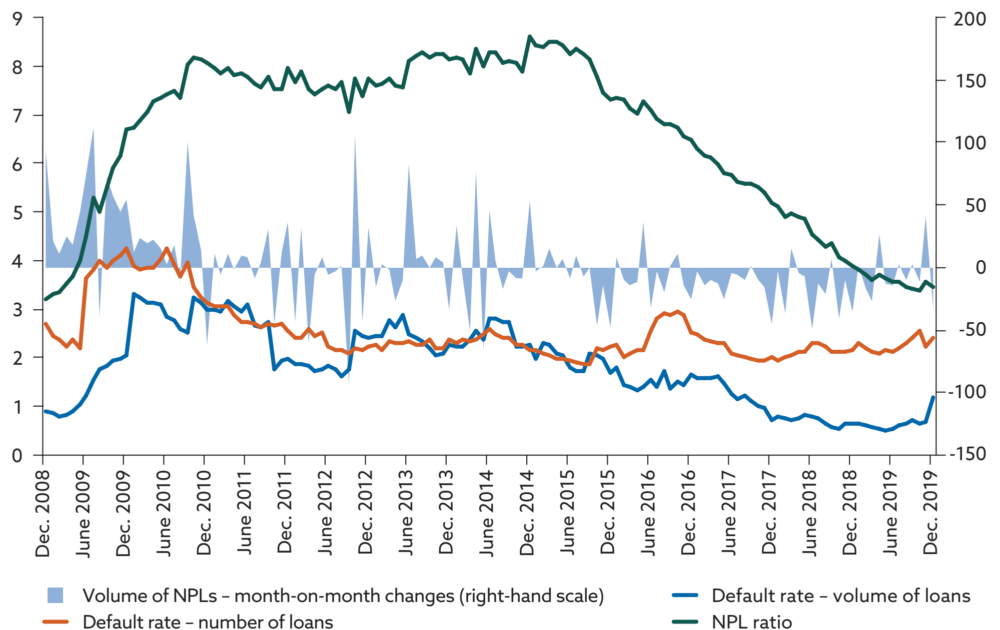


Sources: NBS and www.euribor.org.
Note: The spread is defined as the difference between the monthly EURIBOR rate and the average rate on new loans in the respective category.

Chart P28

Non-performing loans (NPLs) and default rates

(percentages; EUR millions)

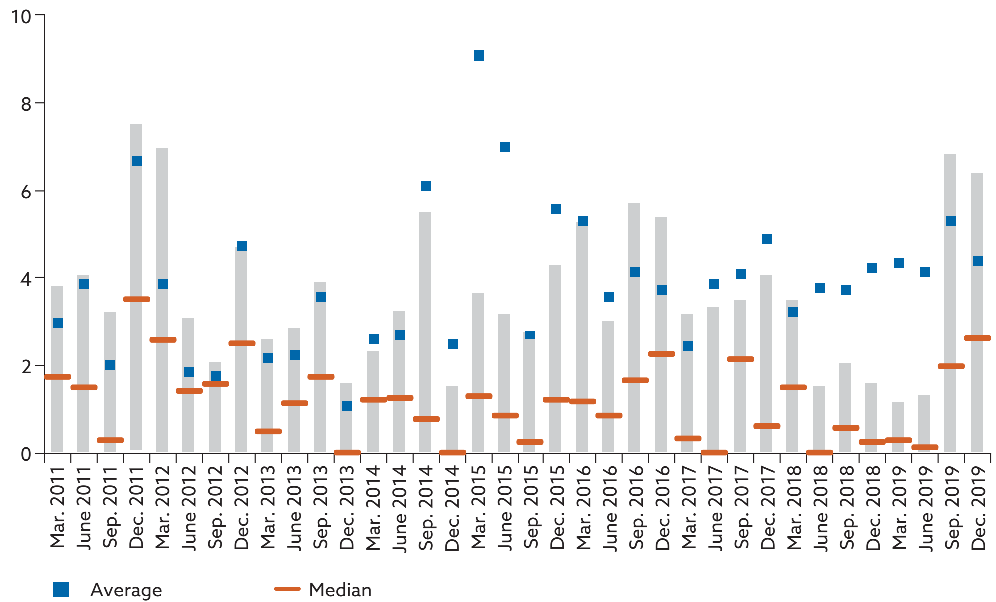


Source: NBS.
Note: The default rate denotes the ratio of the number/volume of loans that defaulted within a period of one year to the number/volume of non-defaulted loans at the beginning of the one-year period.

Chart P29

Loans at risk

(percentages)

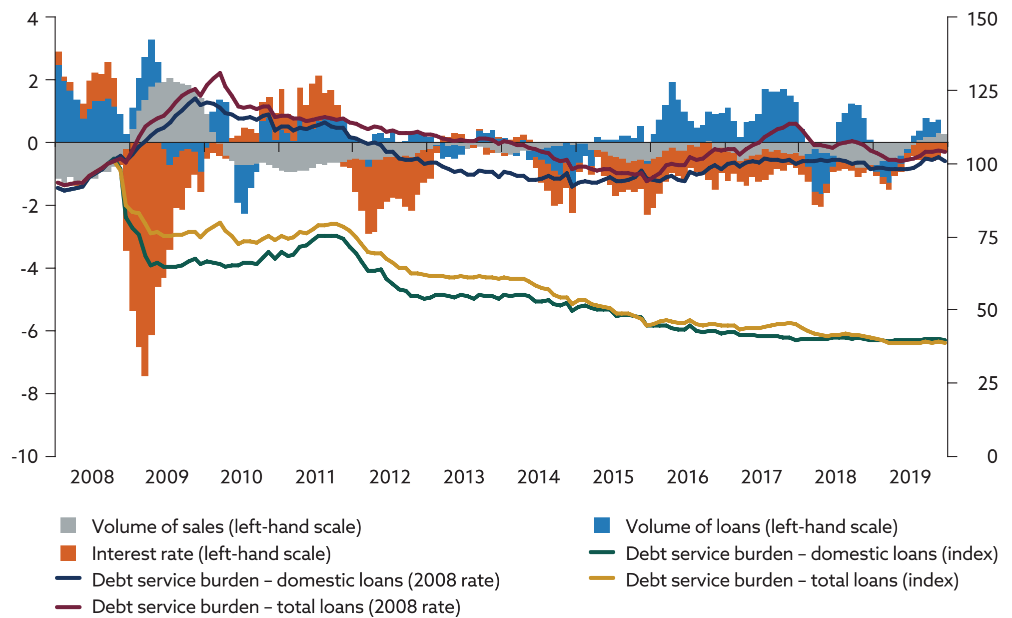


Source: NBS.
Notes: The chart shows interquartile ranges. The indicator expresses the share in total NFC loans of loans to NFCs which in the given quarter recorded both a loss and a year-on-year decline in sales of more than 30%.

Chart P30

The debt service burden and its components

(percentages; EUR millions)



Sources: NBS and SO SR.

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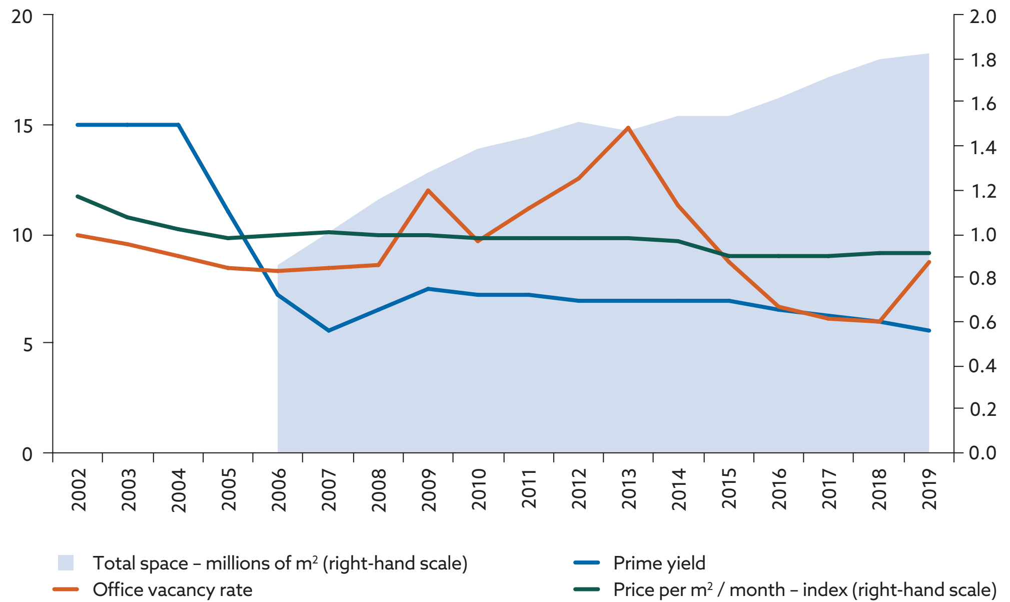
Chart P31

Commercial real estate: developments in the office segment

(percentages; millions of m²)

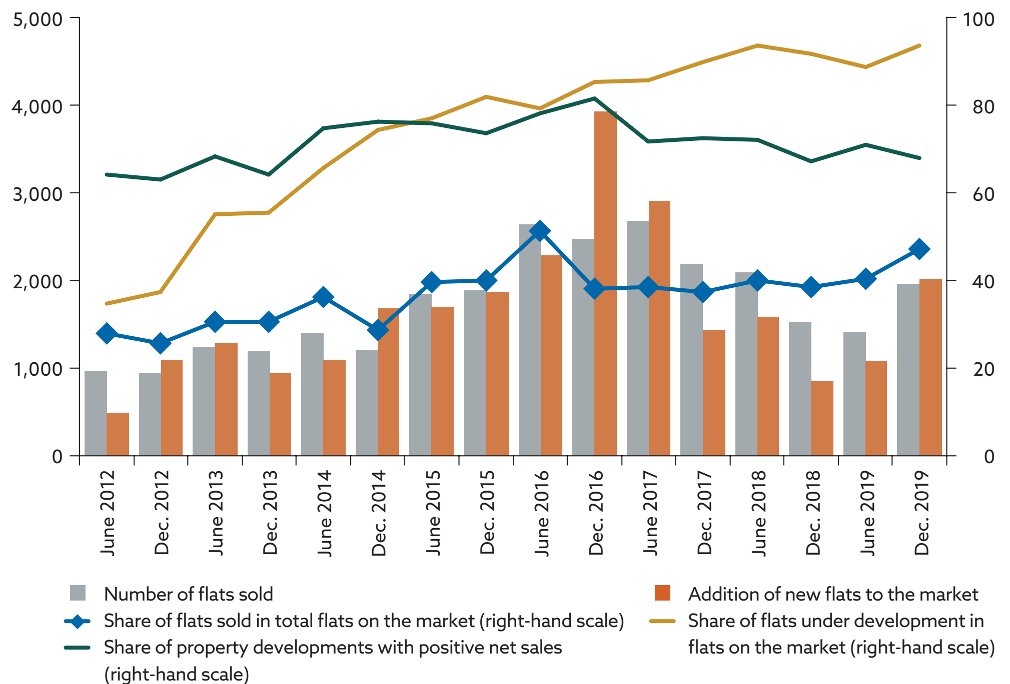


Sources: JLL, CBRE and NBS.
Note: The data are for the office segment in Bratislava.

Chart P32

Commercial real estate: sales in the residential segment (new flats)

(number; percentages)

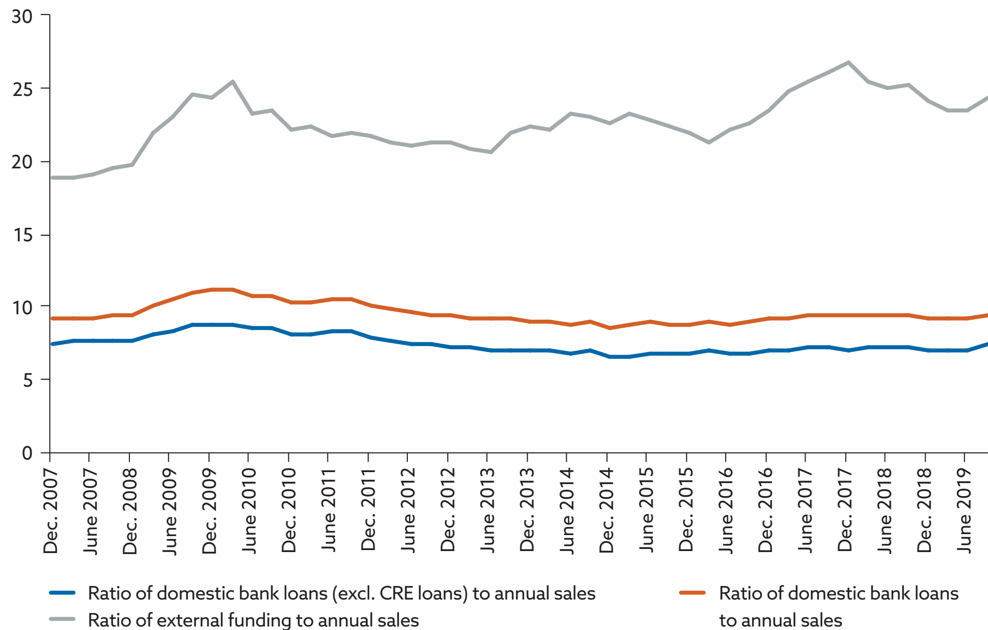


Sources: Lexxus and NBS.
Note: The data are for the residential segment in Bratislava.

Chart P33

Comparison of the NFC sector's balance sheet and sales

(percentages)

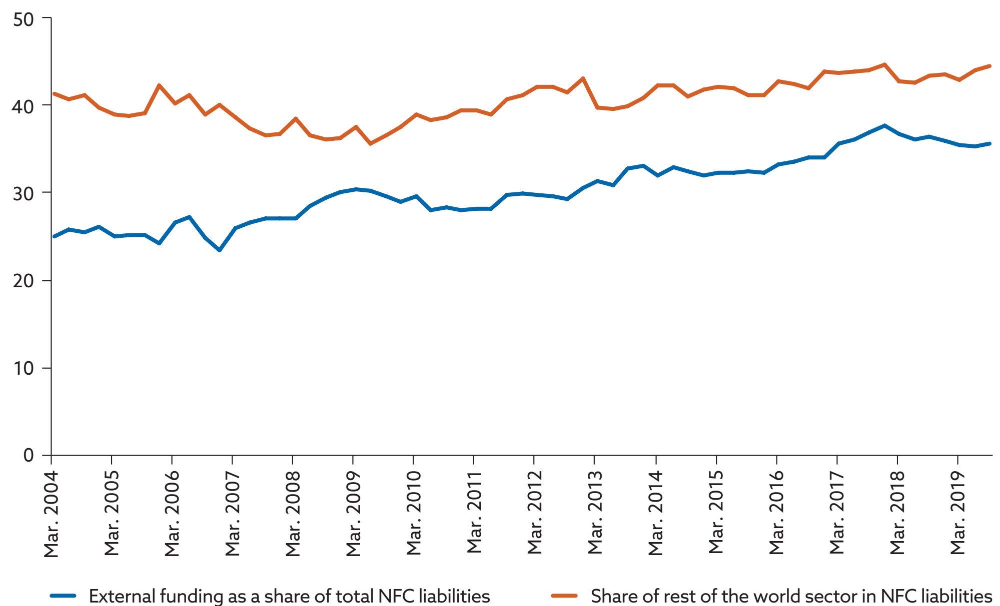


Sources: NBS and SO SR.
Note: CRE – commercial real estate.

Chart P34

Structure of NFC liabilities

(percentages)



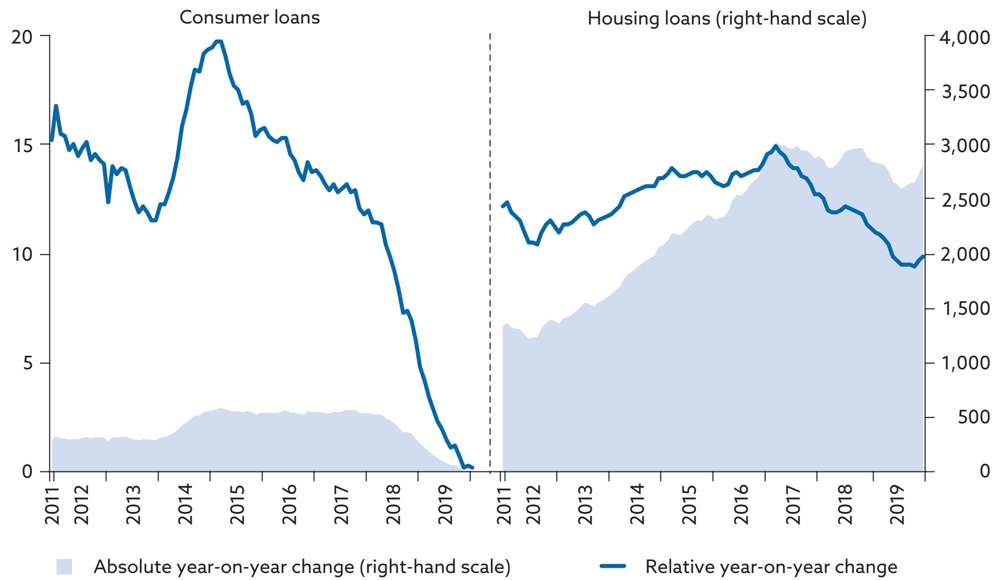
Source: NBS.

Household credit risk indicators

Chart P35

Total retail loans

(annual percentage changes; EUR millions)

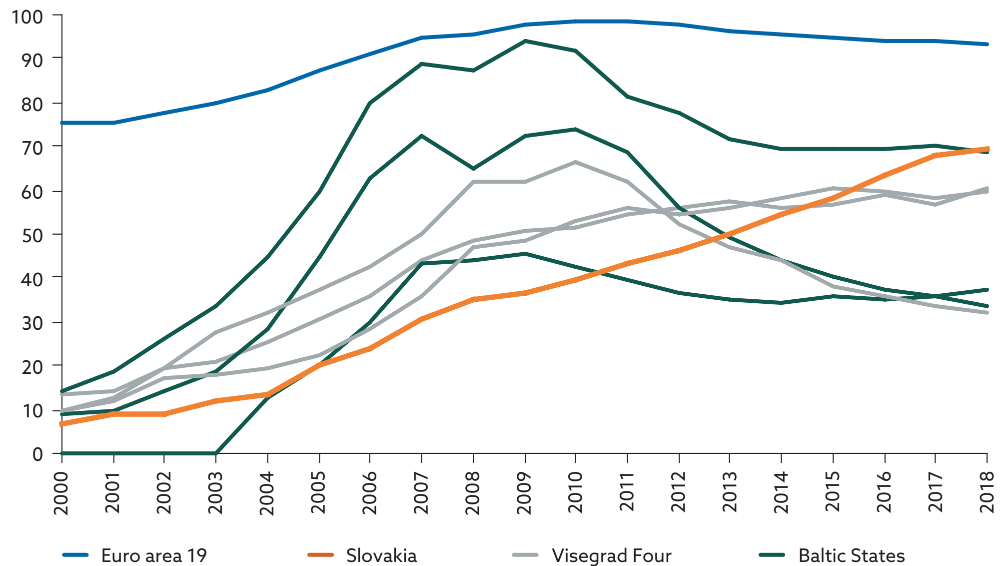


Source: NBS.

Chart P36

Household indebtedness in Slovakia and in selected countries

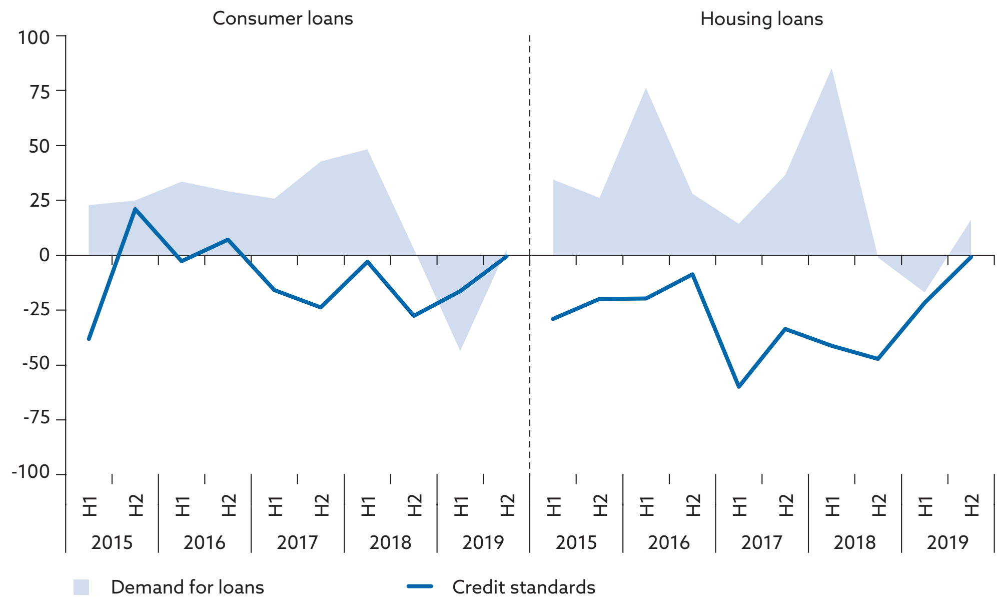
(percentages)



Source: Eurostat.
Notes: The indicator is calculated as the ratio of households' total debt to their disposable income.

Chart P37

Changes in credit standards and credit demand according to the bank lending survey

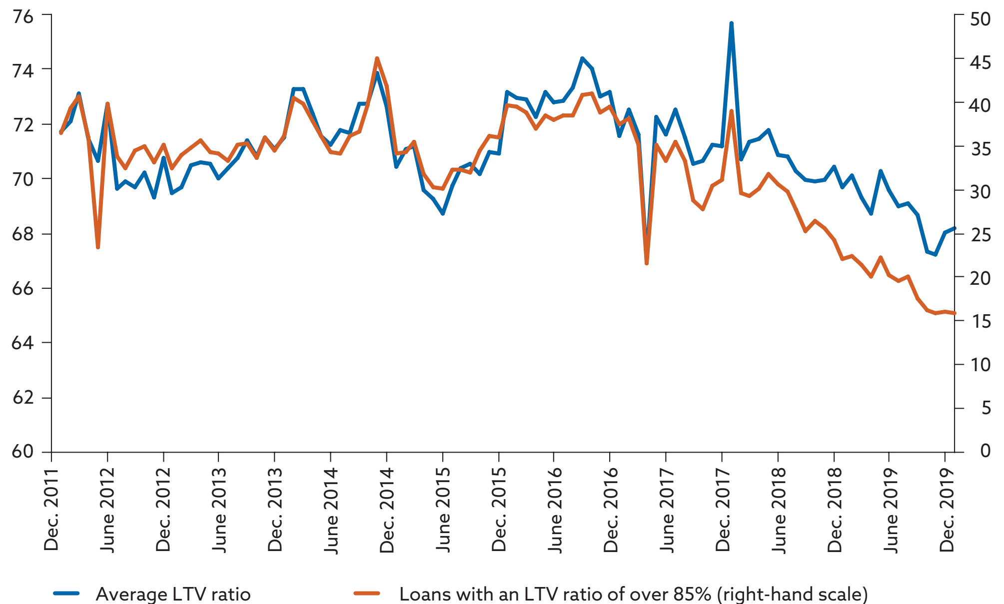


Sources: Bank lending survey and NBS.
Note: The data show net percentage shares, with positive values denoting an increase in demand or an easing of standards.

Chart P38

Loan-to-value (LTV) ratio for new loans

(percentages)

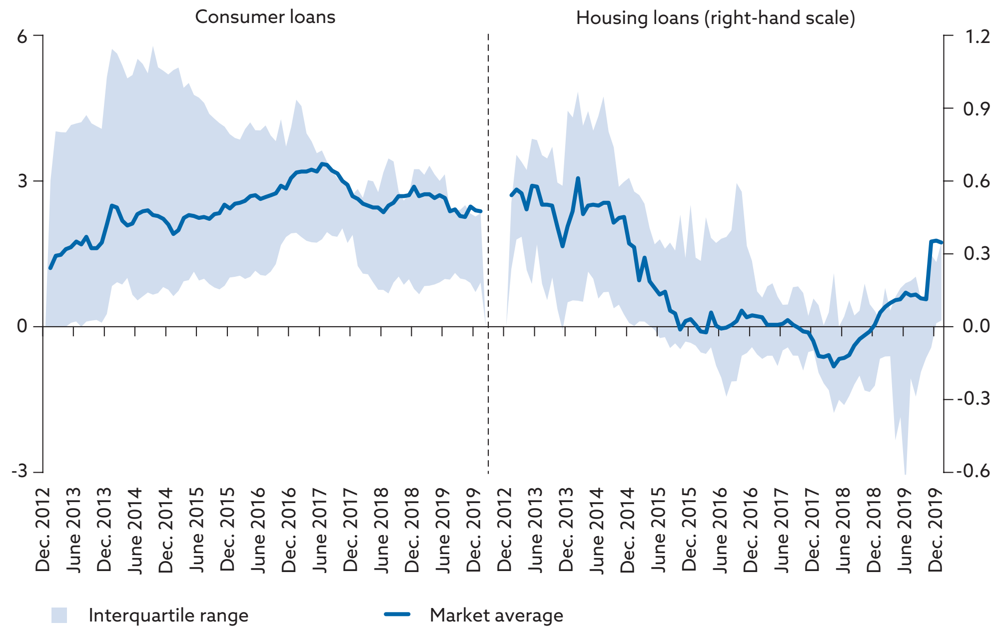


Source: NBS.
Note: The indicator is defined in the Glossary.

Chart P39

Net default rates for retail loans

(percentages)

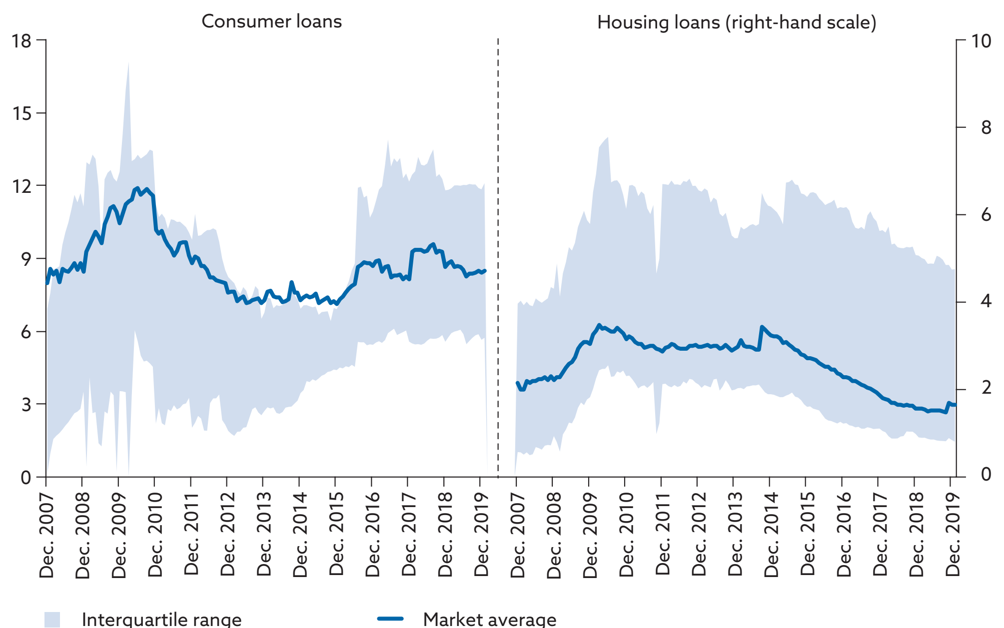


Source: SO SR.
Note: The net default rate denotes the net change in the amount of NPLs over a 12-month period as a share of the outstanding amount of loans at the beginning of the period. The numerator is adjusted for the effect of loan write-downs/offs and sell-offs.

Chart P40

NPL ratios for retail loans

(percentages)



Source: NBS.

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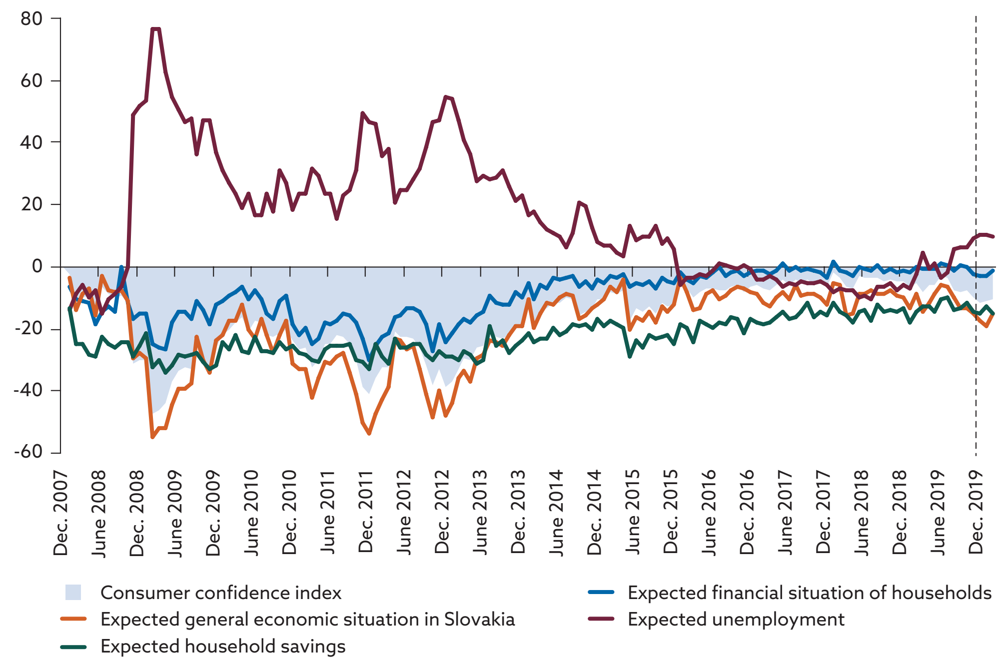
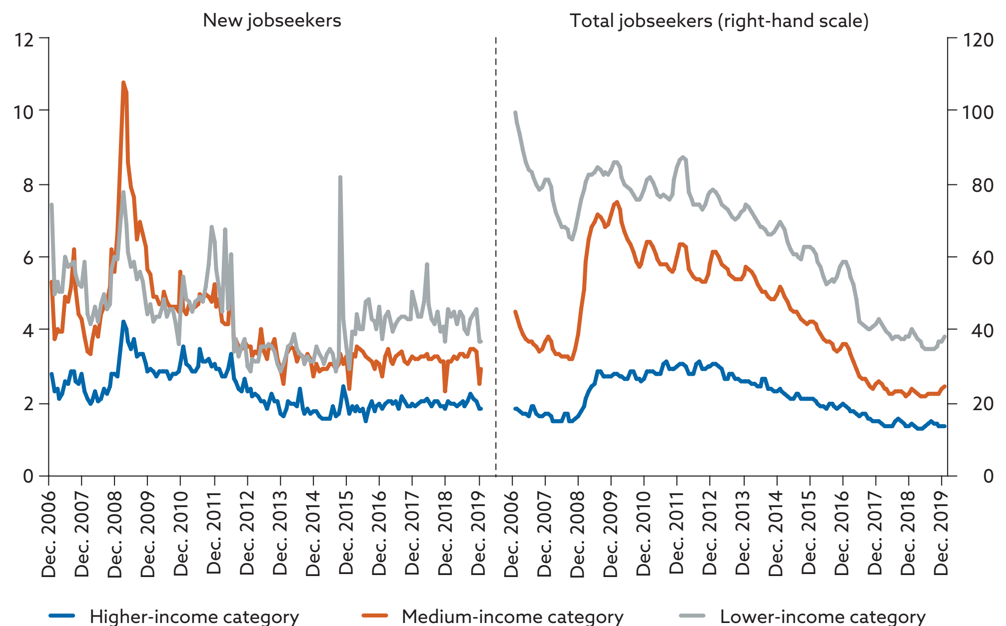
EUROSYSTÉM

Chart P41
The consumer confidence index and its components



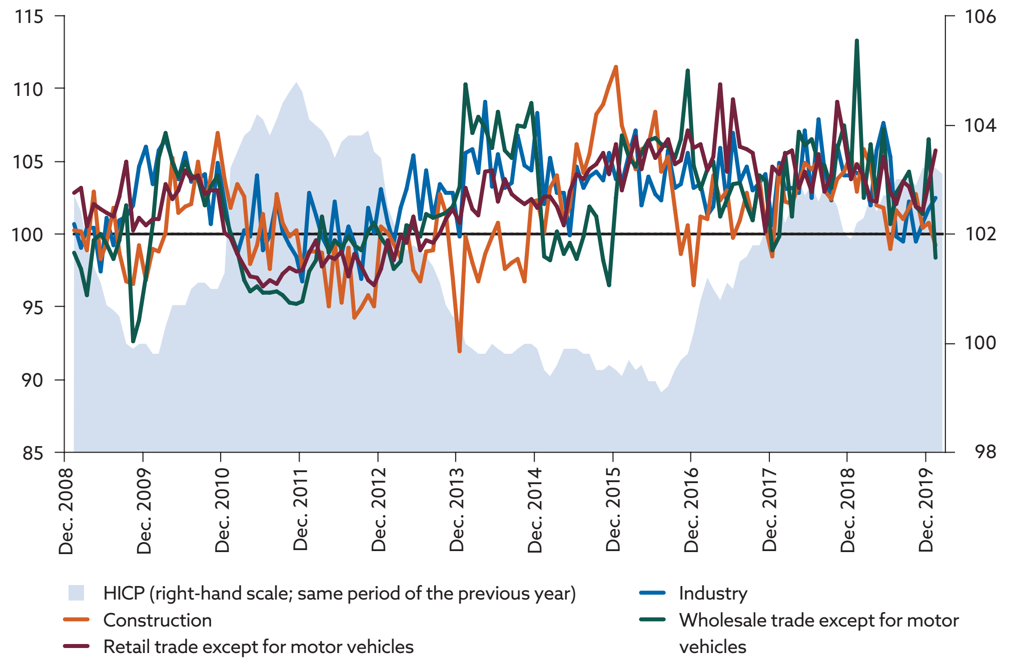
Source: SO SR.

Chart P42
New jobseekers and the total number of jobseekers by income category



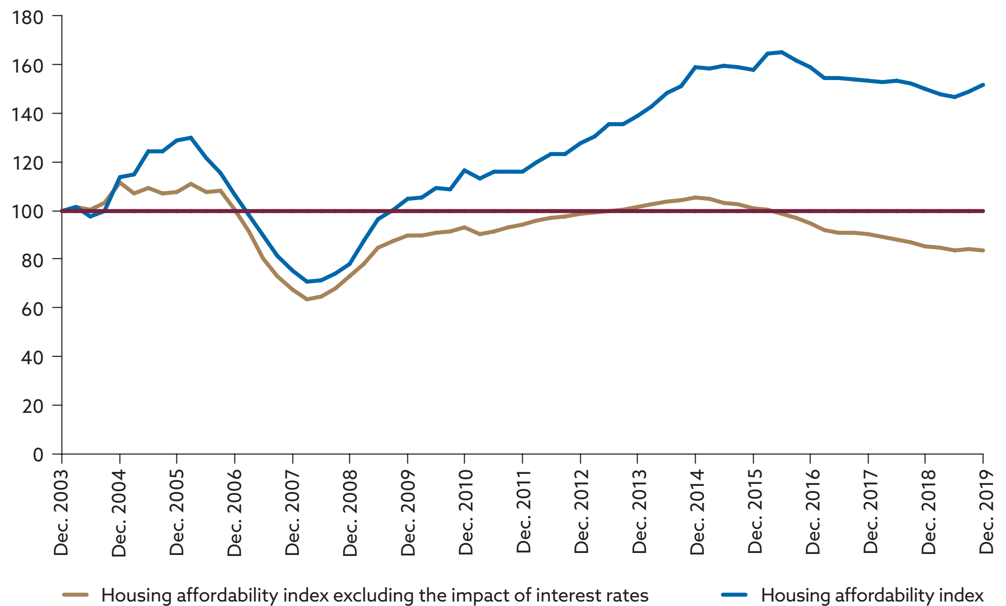
Source: Central Office of Labour, Social Affairs and Family of the Slovak Republic.
Notes: The left-hand and right-hand scales show numbers of jobseekers in thousands. The income categories are defined in the Glossary.

Chart P43
Real wage index in selected sectors



Source: SO SR.

Chart P44
Housing affordability index



Sources: NBS and SO SR.
Note: The housing affordability index is defined in the Glossary.

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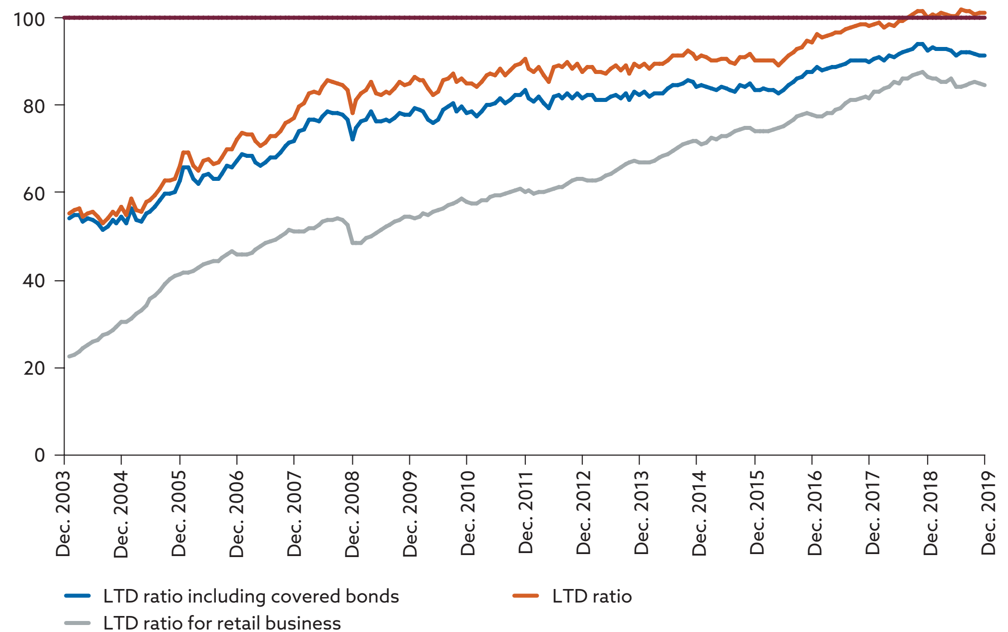
Market risk and liquidity risk indicators

Chart P45

Loan-to-deposit ratio

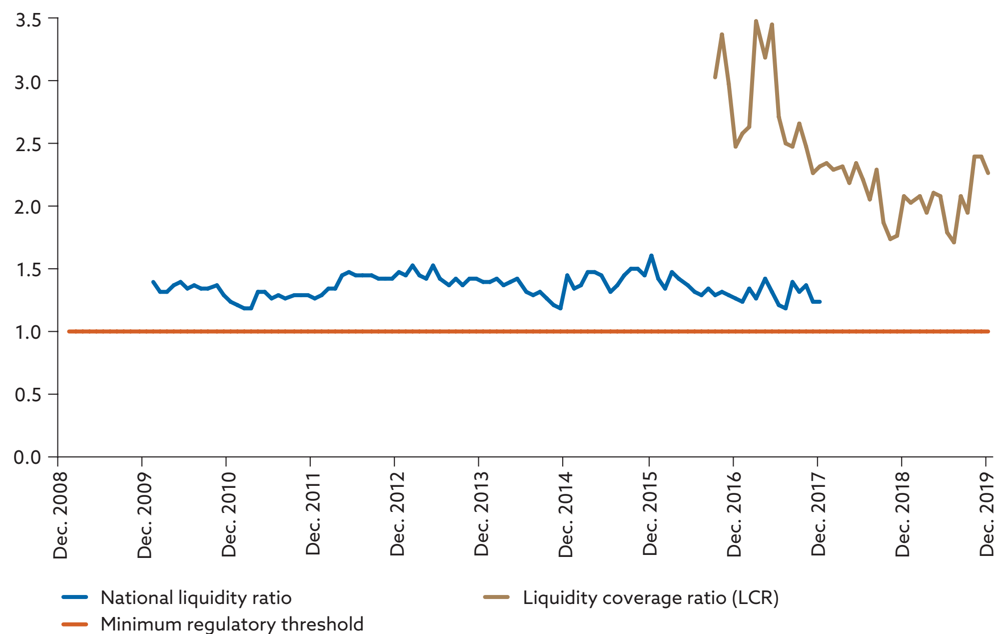
(percentages)



Source: NBS.

Chart P46

Liquid asset ratio and liquidity coverage ratio



Source: NBS.

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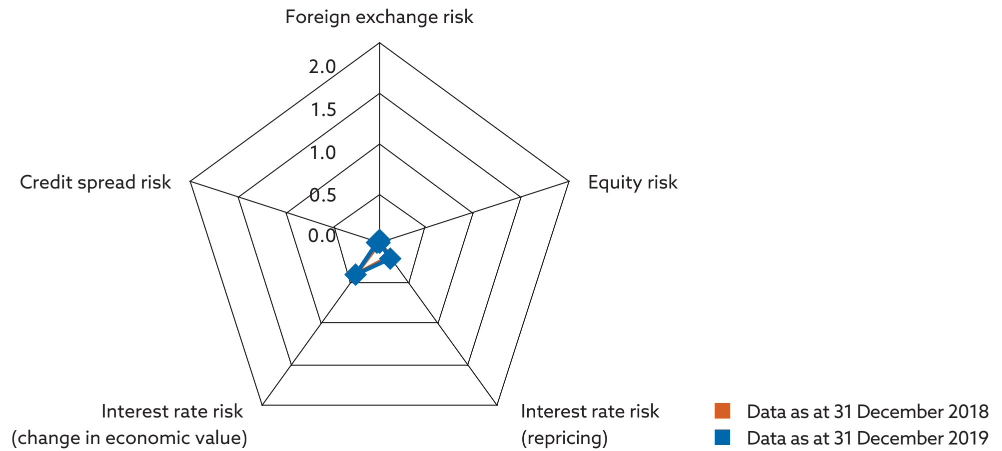
Chart P47

Sensitivity of the banking sector to different risk types

(percentages)

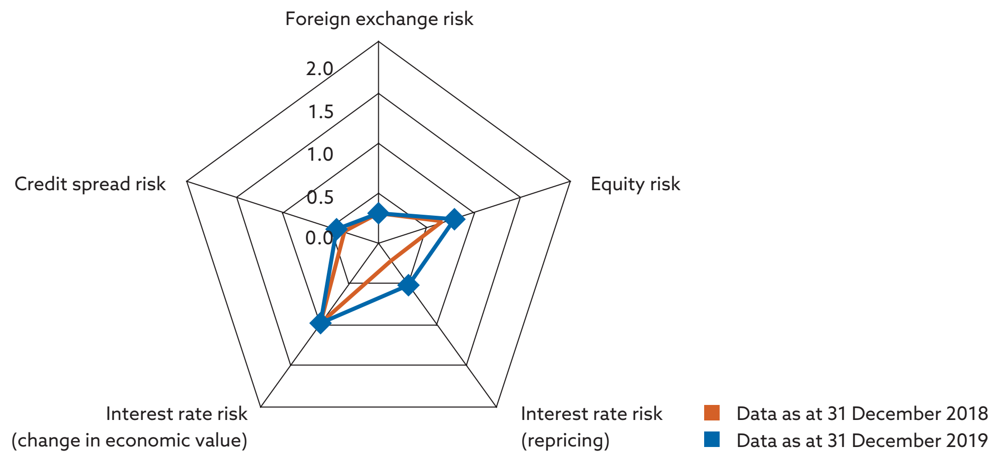


Sources: Bloomberg and NBS.
Notes: The data represent the loss (as a percentage of assets) under each scenario of the sensitivity analysis. The sensitivity analysis is described in more detail in the Glossary.

Chart P48

Sensitivity of second-pillar pension funds to different risk types

(percentages)



Sources: Bloomberg and NBS.
Notes: The data represent the loss (as a percentage of NAV) under each scenario of the sensitivity analysis. The sensitivity analysis is described in more detail in the Glossary.

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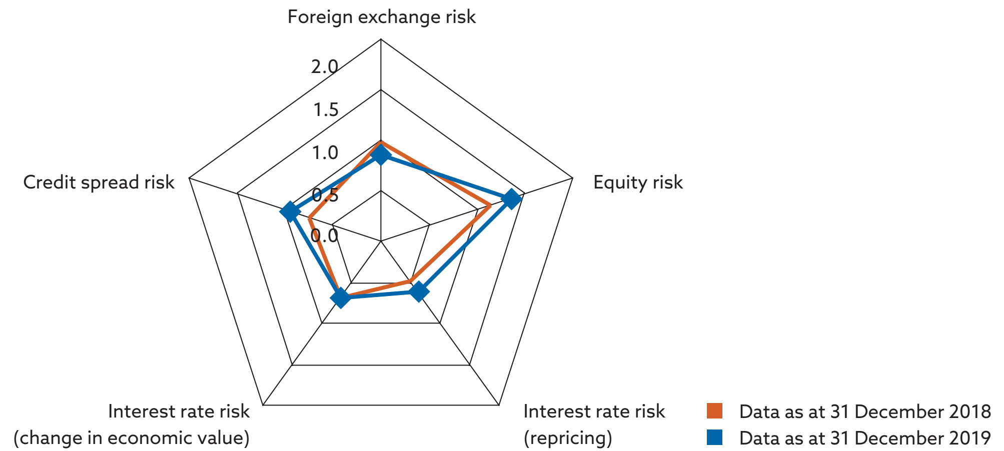
Chart P49

Sensitivity of third-pillar pension funds to different risk types

(percentages)

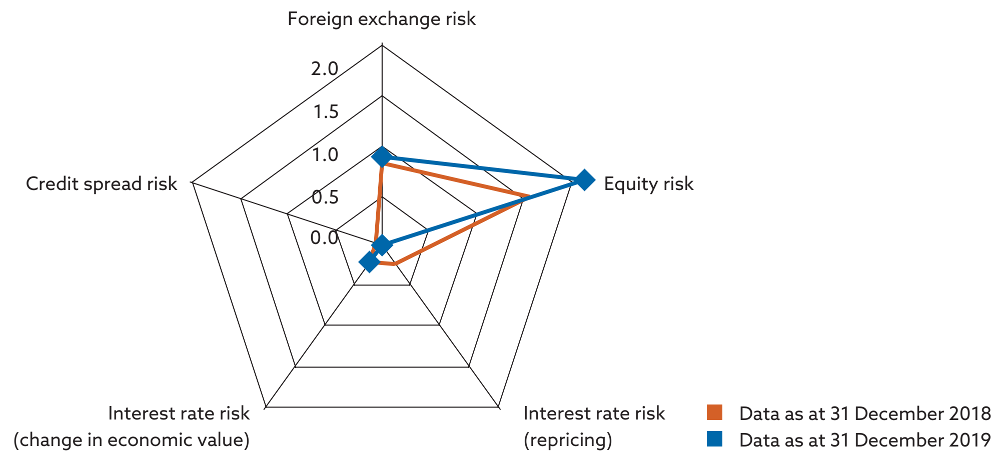


Sources: Bloomberg and NBS.
Notes: The data represent the loss (as a percentage of NAV) under each scenario of the sensitivity analysis. The sensitivity analysis is described in more detail in the Glossary.

Chart P50

Sensitivity of investment funds to different risk types

(percentages)



Sources: Bloomberg and NBS.
Notes: The data represent the loss (as a percentage of NAV) under each scenario of the sensitivity analysis. The sensitivity analysis is described in more detail in the Glossary.

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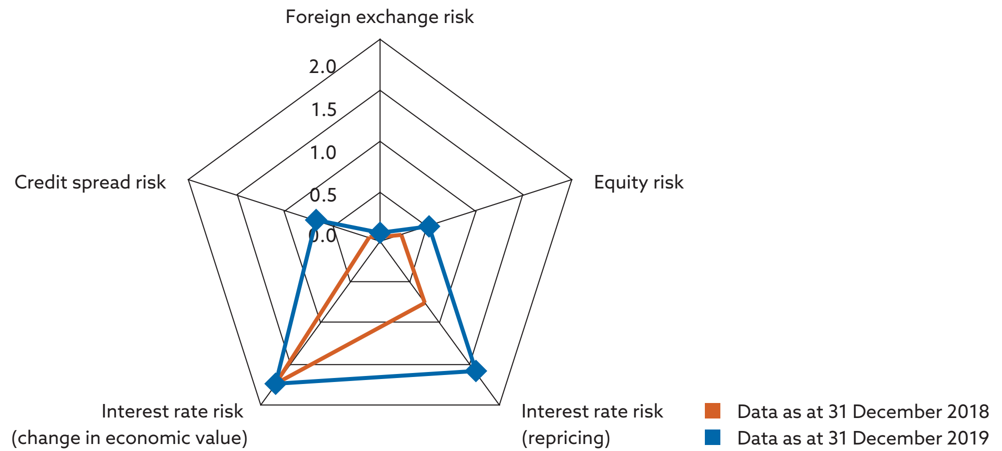
Chart P51

The sensitivity of insurers' assets to different risk types

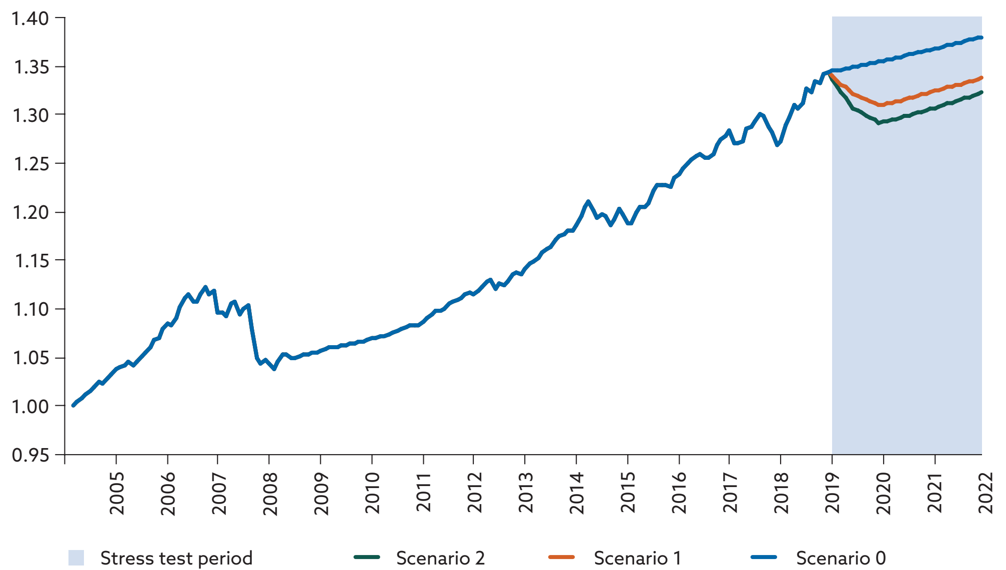
(percentages)



Sources: Bloomberg and NBS.
Notes: The data represent the percentage decline in the value of assets under each scenario of the sensitivity analysis. The sensitivity analysis is described in more detail in the Glossary.

Chart P52

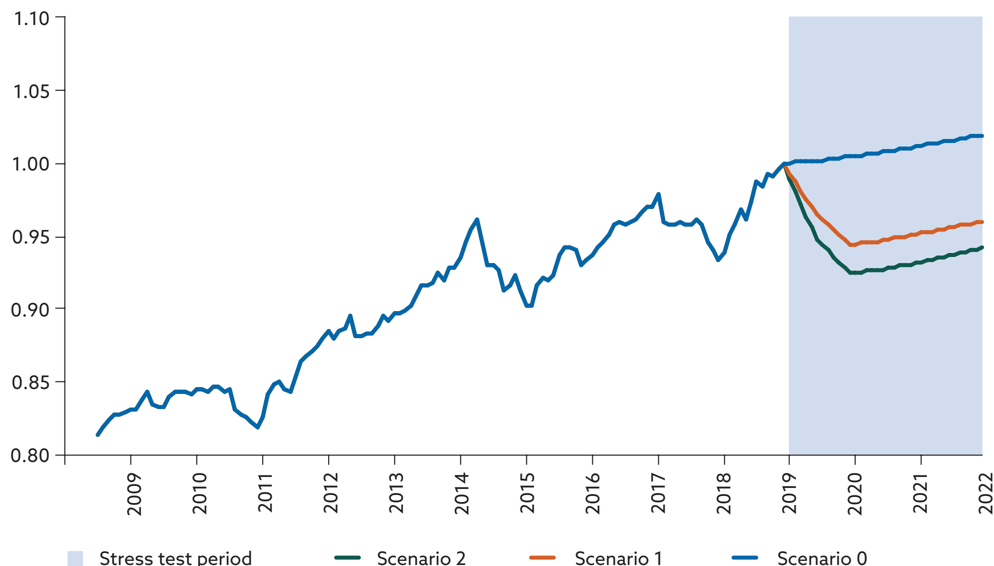
Impact of stress test scenarios on second-pillar pension funds



Sources: NBS, ECB, Bloomberg and internet.
Note: The left-hand scale shows the average of the index of the current pension-point value weighted by the NAV of individual funds.

Chart P53

Impact of stress test scenarios on third-pillar pension funds

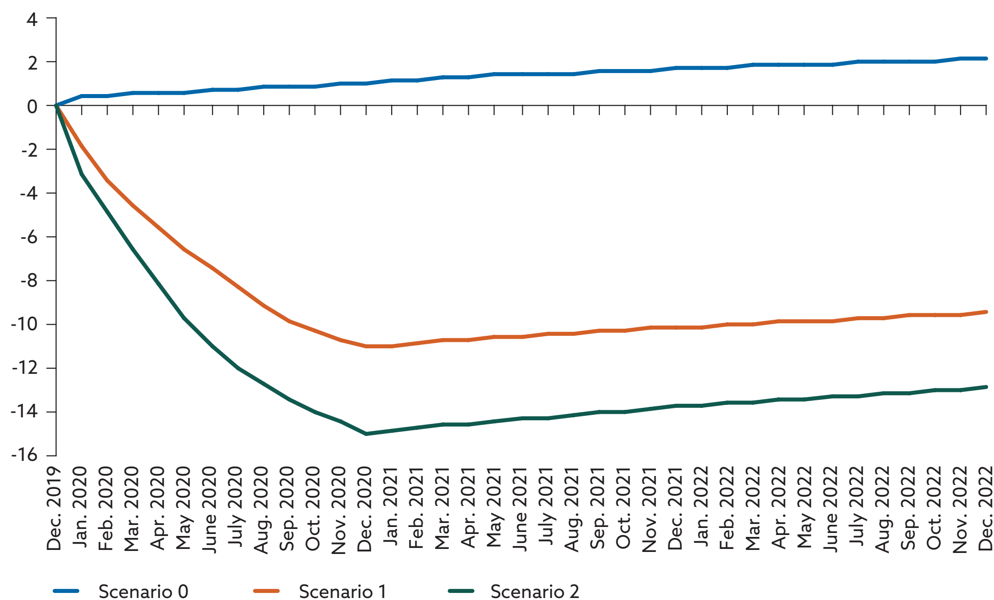


Sources: NBS, ECB, Bloomberg and internet.
Note: The left-hand scale shows the average of the index of the current pension-point value weighted by the NAV of individual funds.

Chart P54

Impact of stress test scenarios on investment funds

(percentages)

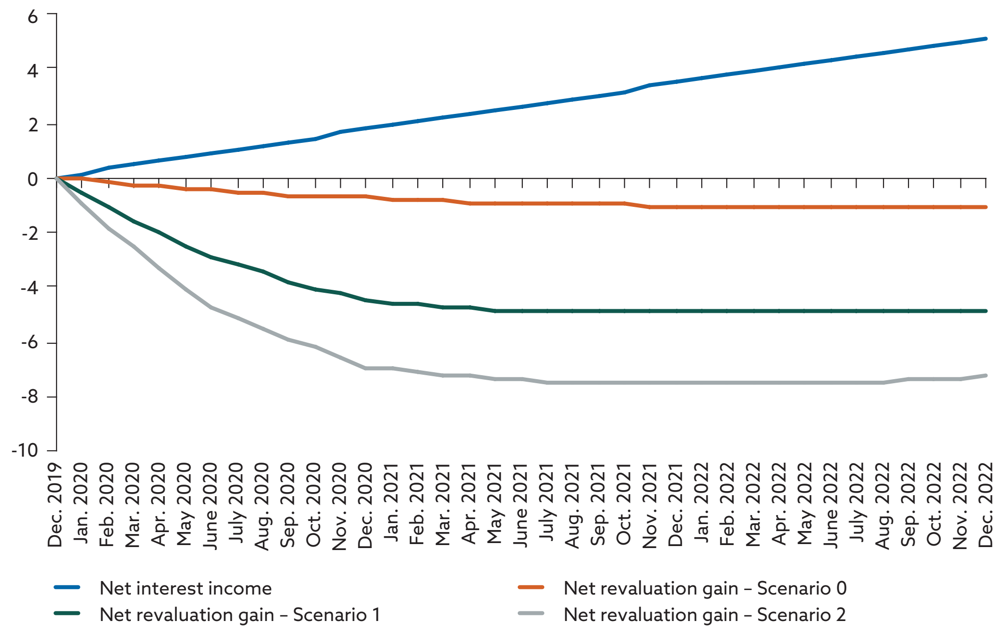


Sources: NBS, ECB, Bloomberg and internet.
Note: The left-hand scale shows the estimated profit or loss as a share of the NAV weighted by the NAV of individual funds.

Chart P55

Impact of stress test scenarios on insurers' assets

(percentages)

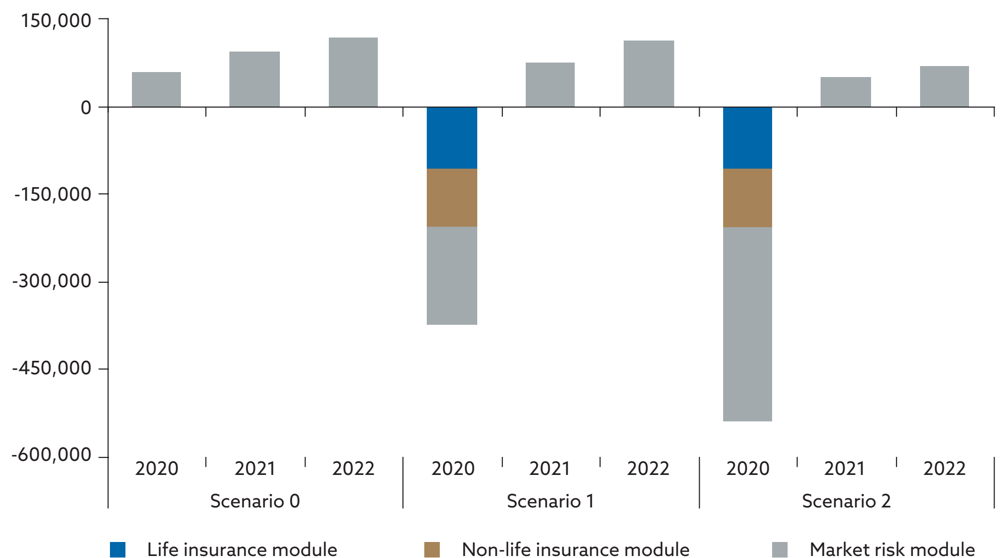


Sources: NBS, ECB, Bloomberg and internet.
Notes: The left-hand scale shows the estimated profit or loss as a share of assets (except for assets covering technical provisions in unit-linked insurance) weighted by assets of individual insurers. The impact of the stress test scenarios on the value of liabilities was not taken into account.

Chart P56

Additional expenses of the insurance sector under stress test scenarios

(EUR millions)

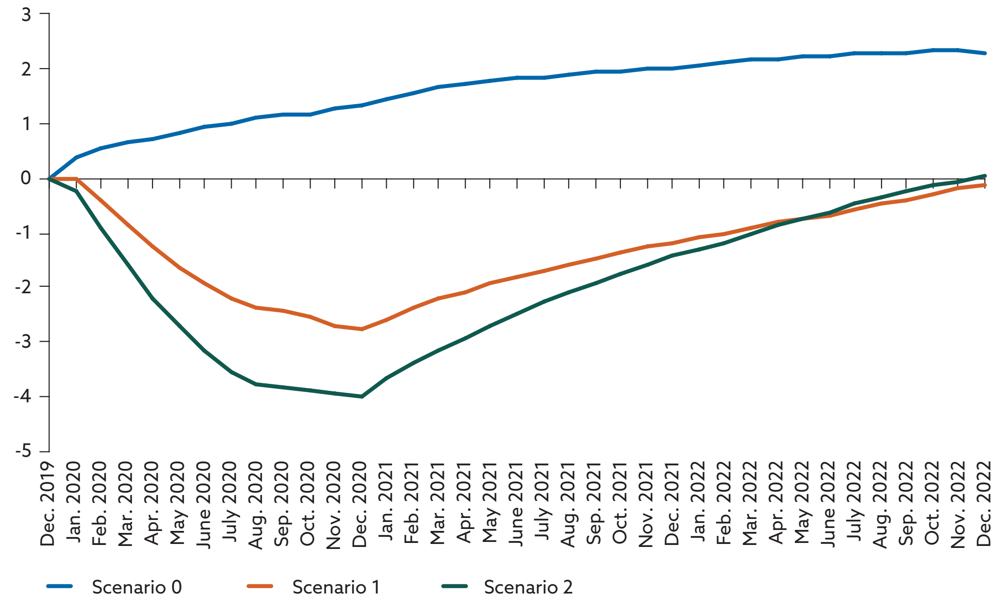


Source: NBS.

Chart P57

Impact of stress test scenarios on unit-linked insurance assets

(percentages)



Source: NBS, ECB, Bloomberg and internet.

Note: The left-hand scale shows the estimated profit or loss as a share of NAV weighted by the net value of assets covering unit-linked insurance in individual insurers.

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Glossary

Bank lending survey (BLS) – A survey of supply and demand in the credit market conducted among individual banks.

Default rate – The percentage of loans defaulting over the period under review.

Household income categories – A categorisation based on the KZAM employment classification and KZAM income data; it consists of three categories: *higher-income category (income of over €800 per month)* – legislators, senior officials and managers, scientists, professionals, technicians, health professionals, and teaching professionals; *middle-income category (income between €600 and €800 per month)* – office workers, craft and skilled workers, processors, and plant and machinery operators; *lower-income category (income of up to €600)* – service and retail workers, agricultural and forestry workers, auxiliary and unskilled workers.

Households – The population (individuals' accounts).

Housing affordability index – An index expressing the ratio of disposable income to loan repayments. The calculation of disposable income takes into account the average wage and average expenditure of households. The calculation of the amount of loan repayments takes into account the average price of a flat, the average interest rate, the average maturity, and a constant LTV ratio (75%). The calculation methodology is described in the following paper in Slovak: Rychtárik, Š. and Krčmár, M. (2011), "Vývoj na trhu úverov na bývanie a jeho interpretácia", *Nehnuteľnosti a bývanie,* 2010, No 2, Bratislava.

Leverage ratio – The ratio of Tier 1 capital to the total value of all on-balance sheet and off-balance sheet exposures (not risk weighted).

Liquidity coverage ratio (LCR) – The ratio of liquid assets to volatile liabilities over a horizon of one month. Its level should not fall below 1.

Loan-to-deposit ratio – The ratio of customer loans to the sum of retail deposits, deposits of non-financial corporations, deposits of financial corporations, and issued mortgage bonds. It indicates the extent to which loans are financed with stable funds from customers. The lower the value, the greater the extent to which loans are financed with customer deposits, and therefore the lesser the extent to which they are financed through the more volatile financial markets.

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Loan-to-value ratio – The loan value divided by the value of the loan collateral.

Net default rate – The net change in the amount of non-performing loans over a 12-month period as a share of the outstanding amount of loans at the beginning of the period. The numerator is adjusted for the effect of loan write-offs/downs and sell-offs.

Non-performing loans – The definition is governed by Article 178 of the Regulation (EU) No 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 648/2012.

Purchasing Managers' Index (PMI) – An indicator of the economic health of the manufacturing or service sector: an index value of more than 50 represents expansion, while a value of below 50 represents contraction.

Retail interest rates – The interest rates applied by banks to households and non-financial corporations.

Retail sector – Households, sole traders and non-profit institutions serving mostly households.

Tier 1/2/3 – categories of capital used in the calculation of capital ratios.

Total capital ratio – ratio of own funds to 12.5 times the minimum capital adequacy ratio requirement

Unit-linked life insurance – Insurance as defined in points 1 and 3 of Part A of Act No 8/2008 on insurance (and amending certain laws) as amended, where the policy is linked to an investment fund (where the insured sum is payable on death or survival or the insurance is coupled with an investment fund-related capitalisation contract).

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Abbreviations

APRC	annual percentage rate of charge
bp	basis point
CDS	credit default swap
CEE	central and eastern Europe(an)
CET1	Common Equity Tier 1 (capital)
DTI	debt-to-income (ratio)
ECB	European Central Bank
ECB SDW	ECB Statistical Data Warehouse
EU	European Union
FVOCI	fair value through other comprehensive income
IMF	International Monetary Fund
KZAM	Employment Classification / Klasifikácia zamestnaní
LCR	liquidity coverage ratio
LTV	loan-to-value (ratio)
MREL	minimum requirements for own funds and eligible liabilities
MTPL	motor third party liability (insurance)
NAV	net asset value
NFC	non-financial corporation
NPL	non-performing loan
NAV	net asset value
OECD	Organisation for Economic Co-operation and Development
PFMC	pension fund management company
PMI	Purchasing Managers' Index
RBUZ	Register of Bank Loans and Guarantees / Register bankových úverov a záruk
ROE	return on equity
SCR	solvency capital requirement
SPMC	supplementary pension management company
SO SR	Statistical Office of the Slovak Republic
ÚPSVaR	Office of Labour, Social Affairs and Family / Ústredie práce, sociálnych vecí a rodiny

NÁRODNÁ BANKA SLOVENSKA EUROSYSTÉM

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