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Foreword

In March 2020 the world economy had the breath knocked out of it by the sudden and severe impact of the coronavirus pandemic. The repercussions were naturally felt in small Slovakia, too. Today, however, we have already recovered from this unwelcome surprise, and the work of Národná banka Slovenska (NBS) has been adjusted in the light of the new regime. This not just means protecting our employees by having them work remotely, but mainly refers to our work objectives, which protect Slovakia's economy and its financial sector. We have made every effort so that the veil of uncertainty shrouding the current economic situation can be pulled further and further back. Although significant risks remain in several areas, there is a gradually increasing inflow of good news.

Despite the second wave of infections, the financial situation of Slovak households appears to be relatively healthy. This is shown, for example, by granular household data that Národná banka Slovenska began collecting at the outset of the pandemic crisis. Likewise, the non-financial corporation sector looks to be less vulnerable than we envisaged several months ago. Even so, its vulnerability is increasing with each month that the crisis continues. Compared with other countries, Slovakia took a somewhat cautious approach to assisting firms during the first wave of the crisis, so we now have greater scope for providing targeted aid to viable firms.

Good news is also coming from the banking sector. Crucially, and in line with NBS recommendations, banks have taken a responsible approach by opting to halt dividend payments and rather increase their capital. This is partly why, as widespread stress testing confirms, banks are well prepared for any potential worse times.

In the economy, as in life, we fall and get back up again. I believe we are gradually emerging richer from this experience and better prepared to continue the fight by taking more finely tuned decisions. Now, for example, NBS is better able to estimate how much capital to free up for banks and knows what position to take on dividend payments next year. Furthermore, the crisis has shown the importance of having profitable and stable banks at such times. Unlike during the global financial crisis, banks have continued lending to firms and households. This activity is essential for economic recovery.

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Overview

The coronavirus (COVID-19) pandemic has radically weakened the world economy, and the persisting uncertainty and unbalanced recovery continue to require vigilance. In addition to losses of life and health, this crisis has wrought massive economic damage, and while the roll-out of vaccines is very good news for future progress, it is necessary to maintain monetary and fiscal relief measures. Slovakia, just like the rest of the world, has come through the largest economic contraction in modern history, though the downturn here will probably not be as severe as envisaged in the summer.

Central banks, governments and other institutions responded to the outbreak of the crisis with exceptional swiftness and adopted measures of unprecedented scope to protect Europe's citizens and economy. Without these measures, the economic impact would have been even heavier, including the loss of millions more jobs.

But the gradual upturn remains extremely fragile and is accompanied by serious risks. The global economy is recovering on the back of relief measures, while the flow of financing has picked up and the financial market situation has stabilised. Nevertheless, the pandemic is still not under control, as is evident from the intensity of its autumn wave. The vaccination of populations is expected to play a key role, but it remains some time away. The gradual economic recovery could yet be stifled by the return of necessarily stringent containment measures.

To assess the effects of potential future developments on the financial sector, we are working with two scenarios:
- a baseline scenario in which GDP is assumed to return to its pre-crisis level in mid-2022;
- an adverse scenario in which GDP remains flat in 2021, at its 2020 level.

The pandemic crisis is also coupled with a trend of rising indebtedness in the government, corporate, and household segments. In the case of public debt, the increase stems from the large-scale measures providing relief to firms and households. The increase in corporate debt has largely been a corollary of offsetting firms' significant income losses. The sharp rise in debt naturally raises questions about debt sustainability. Now more than ever, it is important to look at reforms that could ensure stable and strong economic growth in the future.

As regards financial stability in Slovakia, it is important to analyse the impact of the coronavirus crisis on households and firms, and to look at banks' resilience and credit market developments.

1) An important issue for the economy is the crisis's impact on the financial situation of firms and households and on their debt servicing capacity.
2) A second key issue is the capacity of banks and other financial institutions to cope with crisis-related losses without jeopardising their solvency and liquidity.
3) A third important matter is the presence of a functioning credit market which enables firms to bridge temporary revenue losses, maintains financing to households, and contributes to a rapid economic recovery.

There is a risk of a sharp rise in non-performing loans, despite relief measures mitigating the impact of the crisis

During the pandemic's first wave in the spring, many households lost a large part of their income and many firms suffered significant revenue losses. More than one-half of households reported a drop in income owing to the deterioration of their employment or business situation. Corporate revenues were one-fifth lower in June 2020 than in the same month of the previous year, and in some services sectors the decline in revenues was even steeper. The situation gradually began to improve during the summer months; however, neither household income nor corporate revenues returned to pre-crisis levels, and it cannot be ruled out that the economic recovery will be stalled by the second wave of the pandemic.

It is estimated that, because of crisis-related revenue losses, some 8.6% of firms in Slovakia will become at risk of insolvency during 2020 and that a further 3.1% (or 5.1% under the adverse scenario) will do so in 2021. In 2020 the firms hardest hit by the crisis have been those which went into it in weak financial shape; in 2021, by contrast, even healthy firms may start facing existential problems because of the crisis.

In Slovakia, the negative effects of the coronavirus crisis have been mitigated effectively by government measures, in particular the "First Aid" and "First Aid Plus" relief packages. Without these measures, the economic repercussions of the crisis would have been even more severe. This applies not only to the aid received to date, but also to crisis relief that will be provided in the period ahead. Given the existing imbalances in the non-financial corporation (NFC) sector and the ongoing uncertainty about the further progress of the pandemic, very careful consideration must be given to the unwinding of individual relief measures. The continuing relief measures should be targeted at viable firms with a sustainable business model in order to help them get through a temporary period of revenue losses.

A law change facilitating loan moratoria has also had an important impact. By using this option, many firms and households have gained additional time to work through their temporarily impaired financial situation. As at the end of September, 12% of loans to NFCs and 11% of loans to households were under moratoria. These figures were each slightly above the EU average. Moratorium applications may be made throughout the pandemic period. We do not consider it necessary for the law change facilitating moratoria to be prolonged. The banking sector is ready to continue granting loan moratoria on the basis of individual agreements with borrowers, which, in our view, is a more effective approach for banks and borrowers alike.

Loan moratoria have been used largely by households and firms hard hit by the crisis from the worst-affected economic sectors. Of household applicants for moratoria, sole traders have accounted for a significantly higher share. The household applications more often concern loans that have worse risk parameters (debt service burden, debt-to-income ratio, loan-to-value ratio). The firms applying for moratoria have mainly been those that are more indebted and less liquid or reporting worse activity indicators.

Thanks to the widespread provision of loan moratoria, loan delinquencies have not so far been increasing; nevertheless, banks will be facing a rise in non-performing loans in the period ahead. As at September 2020 the aggregate non-performing loan ratio for banks in Slovakia was at a historical low. However, under the baseline scenario, we estimate that 6.4% of NFC loans and 1.7% of household loans may become non-performing by the end of 2021; under the adverse scenario, those figures rise to 7.7% and 3.2% respectively.

According to a survey, indebted households expect not to be able to service 0.8 % of their loans. This survey, however, was conducted in the second half of October, when household expectations did not necessarily take full account of the tightening of containment measures in response to the rising number of infections.

Credit risk losses will erode banks' profitability; nevertheless, the stability of banks and other financial institutions is not expected to be greatly disrupted

The pandemic crisis has resulted in a sharp drop in banks' profits. The net profit of the Slovak banking sector for the first nine months of 2020 was more than one-third lower compared with the same period of the previous year. In the first half of the year, the sector's drop in profit was the third largest in the EU. The main cause of the decline was an increase in loan loss provisioning. The provisioning rate even reached the level recorded

during the 2009 crisis. Although loan defaults were not yet increasing, several banks stepped up their provisioning, largely in anticipation of a future rise in defaults. This is good news from a financial stability perspective. Banks' provisioning now covers almost one-third of the losses envisaged under the baseline scenario, thereby mitigating the future impact of the crisis following the expiry of loan moratoria.

Besides facing rising credit risk costs, banks are experiencing long-lasting gradual interest margin compression. This situation, concerning mainly retail loans and the securities portfolio, is gradually eroding banks' profits and is expected to continue even after the coronavirus crisis has passed. Banks have been seeking to compensate for these trends by increasing their operational efficiency, including by reducing their workforces and closing branches. On the other hand, banks have not sought to offset falling margins or credit risk losses via fee income, which as a ratio of loans and deposits has actually declined.

The banking sector has strengthened its capital position in the recent period, mainly because banks have opted, in accordance with recommendations by NBS and international institutions, not to pay dividends for 2019. The sector's total capital ratio increased over the first half of the year, from 18.2% to 19.5%.

Banks are braced for credit risk losses. They have sufficient capital to ensure not only that they remain stable after the expected crisis-induced rise in credit risk losses, but also that they can continue lending to the real economy. Although the banking sector has an aggregate total capital ratio slightly below the EU average (19.8%), it is not expected to be at serious risk from pandemic-related losses. In the baseline scenario, these losses are estimated to be around the normal level of the sector's pre-crisis annual profit, while in the adverse scenario they are estimated to be one-third higher than that. Most of the losses pertain to NFC loans, and banks' recent provisioning activity has already covered part of these losses.

The banking sector's profitability is expected to continue declining in 2021, but not to the point that it would report a significant year-end loss. The aggregate profit in 2020 is estimated to be around one-third lower compared with the pre-crisis period, while next year's profit is estimated to be around two-thirds lower. Under the adverse scenario, the banking sector may not report a profit for 2021, but nor is it expected to make a significant loss. As regards the distribution of crisis-related losses by type of bank, the largest losses are expected to be recorded by the group of small and medium-sized banks.

It is not expected that crisis-related losses will cause the sector's capital adequacy to drop below its pre-crisis level. Under the baseline scenario, the total capital ratio is estimated to increase by around 0.6 percentage point in 2021, while under the adverse scenario it remains largely unchanged, at a still relatively high 20.6%.

Banks' long-term stability has been greatly supported by the abolition of the bank levy. The levy's abolition and banks' continuing responsible approach to provisioning and capital management are the core pillars for ensuring that the crisis does not jeopardise banks' financial stability, nor disrupt the functioning of the credit market. Because the levy jeopardised the sustainability of business model of banks in Slovakia, the significance of its abolition will become more evident in the long term.

The solvency of insurers has fallen slightly. The insurance sector's solvency ratio fell by 18 percentage points over the first half of the year, to 177%. At the same time, the sector's capital structure underwent a qualitative deterioration as the share of its volatile component increased. NBS recommended major insurers not to pay dividends between 1 August 2020 and the end of the year, so as to increase the sector's resilience during the pandemic crisis.

The impact of the coronavirus crisis on the insurance sector has so far been relatively moderate. The most notable impact has been a drop in premiums written in life insurance and a decline in the financial result. On the positive side, there has been a decrease in claims paid on motor insurance policies, owing largely to the temporary decline in mobility in the spring months and the related decrease in loss ratios. At the same time, several potential risks associated with the pandemic crisis have not so far materialised, in particular the following risks: an increase in risk premia; an increase in surrenders due to the worsened financial situation of households; the downgrading of investment-grade ratings; and a sharp rise in loss ratios in credit insurance and travel agency insurance.

Pension funds and investment funds suffered heavy losses at the outset of the coronavirus crisis, but they had largely, or some cases completely, recouped those losses by the end of the third quarter of 2020. What is positive from a financial stability perspective is that in the midst of financial market stresses, investors in domestic investment funds did not panic and moved hardly any of their money out of the sector. As early as April, funds' net sales were again back into positive territory, and they remained there throughout the rest of the period under review.

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The availability of housing loans for households and working capital loans for firms has not been seriously affected by the crisis, and banks are expected to maintain this lending activity in the period ahead

Annual growth in housing loans has slowed slightly during 2020 and remained high in September, at 9.2%, still the second highest rate in the euro area. The growth rate has not fallen more sharply than it did in pre-crisis periods. Meanwhile, housing loan interest rates have remained stable. This segment of the credit market has so far, with the exception of a brief decline, not been significantly affected by the coronavirus crisis.

By contrast, total consumer credit has been falling, and in September it recorded its largest ever year-on-year drop, declining by 5.7%. The volume of consumer credit was stagnating even before the crisis, and its downward trend during the crisis has become more pronounced. This trend is caused not only by banks reducing the supply of credit amid uncertainty about future developments, but even more so by reduced demand for credit at a time when consumers are reining in expenditure and banks are raising interest rates. Another factor behind the decline may have been the gradual tightening of debt service-to-income ratio limits during the first half of 2020, although several banks have not made full use of the permitted exemptions. In the third quarter, signs of improvement on both the supply and demand sides were starting to appear, but any talk of a recovery would be premature.

So far it has not been necessary to ease regulatory lending limits. The flow of loans to households remains relatively strong. This growth is driven mainly by housing loans, not by consumer credit, which is on a downtrend. The situation is similar in other EU countries and is largely due to declining consumer demand for loans. Banks are permitted to provide a share of their new loans at conditions exceeding regulatory limits, but in the context of their heightened caution and the softening of demand, banks are not using these exemptions to the full. In the meantime, NBS is closely monitoring the credit market situation. If regulatory limits start having a significant impact on the availability of credit, NBS will consider easing them, especially during a period of economic recovery. Any loosening of conditions should not, however, significantly increase the risk posed by new lending in the banking sector.

Despite some easing, growth in loans to NFCs remains relatively favourable. In the summer months, the total amount of these loans increased by 4.4%, year on year, and in September their growth slowed to

2.9%.[1] This was the fastest NFC loan growth across central and eastern European EU countries. In western EU countries, growth is even faster, owing mainly to large volumes of government stimuli. New lending fell by 20%, year on year, over the first nine months of 2020. There continued to be demand for NFC loans, mainly for working capital financing, and banks eased their credit standards slightly after tightening them during the first months of the coronavirus crisis. The availability of financing to firms was also increased by the introduction of public loan guarantee schemes as part of the pandemic relief measures. Despite getting off to a slow and difficult start, government-guaranteed loans ended up accounting for 13% of the total volume of NFC loans provided in the third quarter of 2020. As regards the availability of financing, it is positive to note that, largely as a result of government relief measures, lending to sectors badly affected by the crisis has also increased.

The coronavirus crisis has had quite a significant impact on the commercial real estate (CRE) market. This has been most notable in the office and retail segments. The increasing use of remote working and the curtailing of expansion plans has reduced rental demand, so causing an increase in the vacancy rate. Property developers responded to this trend by scaling back their new construction projects.

As uncertainty increases during the second wave of the pandemic, it is crucial that financing remains available to firms. We expect that more than one-tenth of all NFCs will require additional liquidity because of revenue losses. The total amount of additional liquidity required in the period 2020–21 is estimated to be between €2 billion and €2.4 billion. More than half of that demand is expected to be met by the First Aid (Plus) package, or by loan moratoria and the government loan guarantees already provided. The remainder may be covered by the take-up of government-guaranteed loans, as well as standard non-guaranteed loans. Several large enterprises will manage to cover their additional liquidity needs through financing from intra-group financing.

Given the ongoing uncertainty about the future situation, any hindrance to the use of government guarantees must be removed. The uptake of government-guarantee loans was lower during the first wave of the pandemic, so creating greater potential for their higher uptake in the case of a further slump in revenues. On the positive side, additional funds are now availa-

[1] The loan growth data have been affected to some extent by a new relief measure that facilitates the availability of loan moratoria. Absent that measure, the growth rates for the summer months and September would have been 3.7% and 2.5% respectively.

ble under the guarantee schemes, and both banks and borrowers are more knowledgeable about the schemes since the first wave of the pandemic.

Neither capital requirements nor liquidity requirements are currently an obstacle to the flow of loans. The banking sector's available capital has increased significantly during 2020, and at the end of June it stood at €1.8 billion (or even €2.7 billion if the option of using the capital conservation buffer is factored in). The capital increase was largely attributable to the retention of earnings for 2019, the ECB's easing of regulatory requirements, and NBS's reduction of the countercyclical capital buffer rate. Furthermore, the banking sector has sufficient sources of stable and cheap funding. Banks in Slovakia are also not being constrained by the new leverage ratio, which they meet with ease.

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1 Macroeconomic environment and financial markets

1.1 Developments in the global economy

The global economy has entered into a deep recession caused by the massive shock of the coronavirus (COVID-19) pandemic

In addition to health damage, the COVID-19 pandemic has wrought enormous economic damage over the past months. The arrival of this economic crisis was totally unexpected; its onset was unusually rapid and its geographical extent so broad, that it affected not only every region of the world but virtually every country, too. The contraction of economic activity was severe and would have been worse but for the direct and large-scale mix of stimuli from all major economic policies. These measures have partially mitigated the negative impact of the current situation on the revenue and income of firms and households, hence limiting the extent of the upticks in unemployment and business failures. The bad news is that the medical dimension of the crisis is still far from under control. Therefore, considering also the severe economic repercussions already related to the crisis, the world must be prepared for the continuation of difficult times in the period ahead.

The most acute phase of the economic downturn was from March to early May 2020, i.e. during the period of the initial intensive global spread of the virus. In order to slow the spread of the pandemic, very strict virus containment measures were in force during these months. These measures severely restricted economic activities and transactions. As regards quarterly national accounts, the crisis was already weakening performance in the first quarter of 2020, but its main impact came in the second quarter. In that period, euro area GDP contracted by a historically high 11.8%, quarter on quarter. Other regions of the world also experienced economic contractions of around one-tenth of GDP.

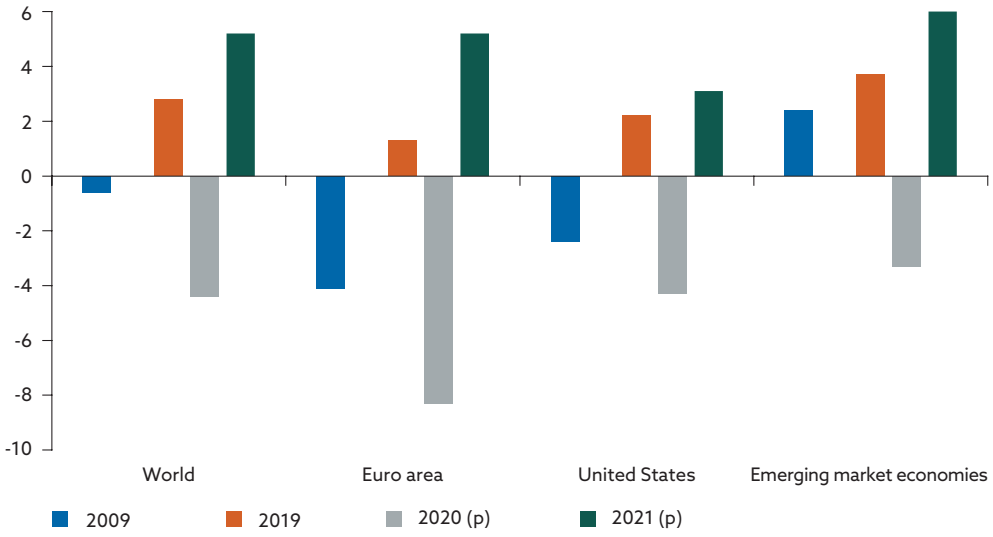
From around the second half of May, most countries began easing their stringent containment measures, thus enabling a slow increase in population mobility and economic activity. A positive surprise, particularly in advanced economies, was the return of retail trade to its pre-crisis norm. After falling by one-fifth during April, retail sales in the euro area were already back to their start-of-year level in June. It was a similar situation in

the United States. As regards industrial production, its substantial contraction was also followed by a relatively rapid recovery in most countries, with its levels during the summer months generally stabilising at levels that were 5% to 10% lower than in late 2019/early2020. The crisis has been felt most keenly by services sectors that typically involve a great deal of social contact, including tourism, hospitality, and culture. Not only were these sectors hardest hit by social distancing rules, their performance remained well below par even when these rules were eased, owing to the heightened caution among customers. The euro area unemployment rate has so far increased by 1 percentage point this year, and it reached 8.3% in September. The rise in job losses would have been greater but for the extraordinary measures taken to preserve employment.

Chart 1

Economies will contract far more sharply in 2020 than they did during the global financial crisis

Actual and expected GDP growth (percentages)



Source: IMF World Economic Outlook.
Note: (p) – projection.

Even on the optimistic assumption that the remaining months of the year pass without any further economic shock, it is already almost certain that the global economy's performance for the whole of 2020 will go down in history as its worst since the interwar Great Depression. The International Monetary Fund (IMF) projects that global GDP will decline by 4.4% in 2020. The euro area economy will probably do much worse, with both IMF and European Central Bank (ECB) estimating its contraction to be around 8%. In 2021 the global economy is projected to undergo a recovery that would return GDP to just above its 2019 level. In Europe and other advanced economies, the process of recovery will take longer, with economic activity not expected to return to its pre-crisis level of intensity before 2022.

Without an unprecedented expansion of fiscal and monetary policy, the internal dynamics of the crisis would probably have been far more adverse

In order to prevent an even greater economic collapse, and with particular regard to minimising the long-term repercussions of the coronavirus crisis, public institutions and authorities have taken robust measures. To quantify the effectiveness and quality of these measures, whether individually or as a whole, is extremely difficult. In general, however, these measures have one positive feature in common: the flexible timeframe of their introduction. Fiscal and monetary policies naturally have the key role, but other policies, especially ones focused on the financial sector, are also making a significant contribution.

Over the previous decade, especially in Europe, consolidation efforts were dominating the fiscal space and central banks were the principal actors against economic shocks; this year, however, has seen public finances deployed to an unprecedented extent. Public funds are being focused on a broad range of relief programmes, beginning with increased funding for healthcare systems facing rising costs, and also including such measures as job preservation schemes, the compensation of firms for revenue losses (whether provided to firms in all sectors or just those in the hardest hit sectors), and capital injections for strategic firms. A smaller part of the fiscal stimulus, going through the revenue side of the national budgets, involves various forms of relief from, and deferral of, the payment of tax advances and social security contributions. Loan guarantees are a further public relief measure that involves a significant allocation of funds, their purpose being to support the availability of loans to firms so as to help them bridge temporary liquidity shortages. These guarantees do not represent a direct fiscal burden, but only a potential commitment that may or may not materialise in the future. Across advanced economies, the overall packages of such measures introduced before the end of summer amounted to, on average, around 20% of national GDPs, with a little less than half of that amount taking the form of direct fiscal aid.

In the European Union, a large part of the financial relief has been mobilised by individual national governments. However, a significant amount has also been allocated at the level of the EU as a whole. The size of fiscal relief packages is relatively heterogeneous across European countries, and the greatest variability is seen in the area of guarantee schemes. In the first round of its centralised response to the crisis, the EU put together a €540 billion safety net with funds from the European Commission, European Investment Bank and European Stability Mechanism, its aim being to provide relief during the acute phase of the coronavirus crisis. Next up was the approval

of the €750 billion Next Generation EU (NGEU) recovery fund, designed to support the acceleration of economic recovery and the modernisation of the European economy. Although the disbursement of loans and grants under NGEU will not begin until 2021, the instrument is already making a positive contribution by improving confidence and sentiment among financial market actors, which then has a positive impact on the real economy.

Monetary policy plays an indispensable role in stabilising financial markets and supporting risk appetite. The actions of central banks have been marked by timeliness, extensiveness, and the use of a wide range of instruments. From a global perspective, the most significant steps have been taken by the major central banks. In the advanced world, where with the exception of the United States there was little scope for reducing key interest rates, the central bank support has focused heavily on asset purchase programmes and the provision of liquidity. This year has seen central bank balance sheets record their fastest and largest ever expansions, with just the balance sheets of the ECB, US Federal Reserve, Bank of Japan, and Bank of England posting an aggregate increase of more than €5 trillion. Furthermore, a number of emerging market countries have started to engage in asset purchasing as a supplement to the standard instrument of interest rate reduction.

The bulk of the ECB's asset purchases are now being made through its new pandemic emergency purchase programme (PEPP), which was initiated in March 2020 as a response to the deteriorating situation in financial markets. The PEPP had an initial envelope of €750 billion, which was increased in June to €1 350 billion. By the end of September 2020 total purchase under the PEPP amounted to almost €570 billion. Another key element of the ECB's policy instrument response to the pandemic crisis has been the easing of conditions for the third series of targeted long-term refinancing operations (TLTRO III). This included mainly increasing the borrowing allowance for banks and reducing the interest rate on TLTRO III operations from June 2020 to June 2021, to -0.5% or to as low as -1% for banks meeting specified criteria related to lending activity. In the first two TLTRO III auctions conducted at the new conditions, banks' aggregate borrowing amounted to €1.7 trillion.

The overall central bank response to the crisis will probably result in the entrenchment of the existing low interest rate environment over coming years. Compared with the pre-crisis period, risk free yield curves have shifted down and flattened, reflecting financial market expectations that the situation of zero-level base rates in advanced economies will continue at least over the medium term. This conviction was reinforced at the end of August, when the Federal Reserve announced changes to its monetary policy strategy, as a result of which it will temporarily tolerate inflation of

more than 2% in order to compensate for periods when inflation runs persistently below that target.

At the very outset of the crisis, financial markets were gripped by panic related to plummeting asset prices, before the situation stabilised quite rapidly

In February and March 2020 there was short-lived but very intense turbulence in global financial markets, before the situation settled down and financial conditions eased. Towards the end of the first quarter and over the course of the next 30 days or so, most of the major stock market indices slumped by between 30% and 40%, thereby ranking this crash among the worst ever. After the worst of the panic was calmed, mainly by central bank interventions, investor demand rebounded and stock markets started gradually to recoup their previous losses. The MSCI World Index, a broad global index, recorded an uptrend until the end of August, when it was almost back to where it stood just before the wave of sell-offs. Share price trends from early September were already less clear-cut. Recoveries were seen in all regions, but their strength varied. In the United States, the S&P 500 not only regained its lost ground, but even continued climbing to all-time high levels. This resurgence, however, was relatively unbalanced and was largely driven by a small group of "big tech" firms. In Europe, by contrast, the stock market rebound lasted only until the beginning of June, after which the EURO STOXX 50, an index of euro area stocks, stagnated at more than 10% below its level at the start of the year. The recovery of share prices was accompanied by a decrease in their volatility, which nevertheless remained slightly higher compared with the previous year.

Chart 2

After collapsing, equity prices rebounded relatively quickly

(index, rebased to December 2019 = 100)

Source: Bloomberg.

In credit markets, too, there was a surge in risk aversion after the virus spread globally. The spreads between yields in these markets and those on least risky assets increased to their highest level since the global financial crisis, although their peak this time was only around half of their peak during that crisis. In the segment of speculative-grade corporate bonds, spreads increased threefold, on average, during the critical period in February and March, and were briefly as high as 10%. They subsequently fell by around one-half and remained at around their long-term median, somewhat higher than their level at the beginning of 2020. As for higher quality investment-grade bonds, the increase in their required premia was naturally lower and it was almost completely wiped out in the second quarter.

Future macroeconomic and financial developments are subject to huge uncertainty and heightened risks

For now, the world is making a gradual economic recovery and the situation in financial markets and the financial sector is calm and stable. This equilibrium is, however, exceptionally fragile and the risk of it being disrupted is very high.

The greatest risk in the macroeconomic sphere is clearly the uncertain pandemic situation and its potential for further deterioration. The gravity of this medical threat far outweighs other economic and financial factors, which nevertheless are also significant. Looking at the published projections of all relevant institutions, their baseline scenarios share the similar assumption of resurgence of COVID-19 infections in the autumn. At the same time, however, they expect that the infection curve can be kept at a still acceptable level by means of localised measures and without subjecting general economic life to constraints of a more stringent nature. As time passes, though, these base assumptions are becoming ever more detached from reality. The autumn wave is global and, in terms of case numbers, already stronger than the first wave. Several countries, including in Europe, have already had to resort to stricter measure entailing a broader shutdown of their economies. This situation is reflected in mobility indicators, which after some time have again started to decline. There is a danger of economic paralysis approaching, or even matching, that seen in the spring. This, on the one hand, would see the imposition of measures resulting in enforced declines in both supply and demand and, on the other hand, would probably have a negative impact on consumer confidence and business sentiment, thereby leading to a secondary exacerbation of negative dynamics in the economy.

The progress and duration of the pandemic are major unknowns that represent a source of considerable uncertainty. A key turning point from

both a medical and psychological perspective could be the arrival of safe and effective vaccines. Around the world there are currently hundreds of projects focused on the development, testing and approval of such vaccines. It is widely expected that the first vaccines may reach the market sometime during the first half of next year. Even if they do, it would still be several months later before vaccines will be available in sufficient quantity to ensure the inoculation of a critical mass of the population. Until then, the pulse of the global economy will apparently be set to a large extent by the hard-to-predict cycle of pandemic waves. Furthermore, the expectations for vaccine deployment may prove to be overly optimistic, and it may be some time further in the future before the COVID-19 virus is suppressed. The longer this situation persists, the greater will be both the immediate effects on economies' potential output and the effects for years to come.

Even with the materialisation of a more optimistic pandemic progression scenario, economic conditions will remain heavily reliant on the continuation of relief policies. Many of the exceptional pandemic-related measures adopted in the spring are due to expire at the end of 2020 or, at the latest, before the end of the first quarter of 2021. If at least some of these measures are not prolonged, there is a risk of households and firms facing a sudden loss of all their crisis-related government aid. Such a shock, at a time of incipient economic recovery, could thwart the sustainable return of economic performance to a path that would close the gap between pre-crisis and post-crisis GDP trend within at least the medium term. This does not mean, of course, that relief measures should not be unwound sooner or later. Their unwinding will ensure that unviable firms and jobs are not preserved and that public finances are not unduly burdened. It is important, however, that this process is implemented according to a well thought-out, phased, and coordinated schedule.

The crisis triggered by the coronavirus pandemic has had an especially hard economic impact on the corporate sector, resulting in a sharp rise in the risk of firm bankruptcies. The broad mandatory shutdown of businesses seen during the first phase of the pandemic resulted in a dramatic drop in revenues and the disruption of normal cash flows. Many firms lacked the reserves needed to cope with such an extreme situation and were saved from insolvency only by the compensation they received under government aid schemes and by their borrowing from banks and on the capital market. These measures have proved their worth, and the share of firms that cannot service their debts has so far remained relatively low. Although this is a positive result, it indicates only that a corporate sector liquidity crisis has been avoided for now.

The overall financial situation of non-financial corporations (NFCs) has deteriorated appreciably in recent months, and a not insignificant number of firms may finally be facing insolvency. The increase in credit risk is evident from the rise in default rates among larger speculative-grade firms operating in sectors that are most sensitive to a decline in mobility. Compared with the past, the numbers of corporate credit rating downgrades have increased significantly. The level of deterioration in the financial condition of firms in advanced European economies has been revealed in general terms by an IMF simulation based on micro data. It shows that even after all relief policies are taken into account, some 7% of firms that were solvent at the end of 2019 may be insolvent by December 2020. A further 11% of such firms may face liquidity shortages. For comparison, if the impact of government aid is excluded from the simulation, these percentages increase to 12% and 27% respectively. In addition, this study shows that small and medium-sized enterprises are more vulnerable and that they have benefited less than large enterprises from extraordinary government measures.

If the economy recovery slows or stops, particularly in the context of further pandemic waves, the materialisation of credit risk in the corporate loan book will increase and expand across its breakdowns by firm size, economic sector, and creditworthiness. An undistorted picture of the state of the corporate sector will become apparent only with the phased unwinding of government aid. As firms in certain European countries and the United States have been increasing their borrowing, and in some cases their issuance of bonds, during the crisis, the already elevated share of external funds in their balance sheets has increased further, hence so has the risk that their income will not be enough to cover their loan repayments and that they will therefore not avoid bankruptcy. This risk would be further amplified if there were also increases in interest rates and credit risk premia, i.e. in debt financing costs.

The increase in risky asset prices is raising the risk of a further bout of financial market turbulence. The majority of asset prices have quickly rebounded close to, or back to, where they were before the onset of the pandemic crisis. In the case of equities and bonds, much of that increase has been a function of the fall in risk-free yield curves and risk premia compression. The movements of these factors reflected to a large extent the easing of monetary policy and the presence of other above-mentioned relief policies. Although the strengthening of sentiment is a desirable element in the transmission of these policies, it remains to be seen whether the response has gone too far. Several institutions (including the IMF and Bank for International Settlements) are pointing out that, according to their models, risky asset prices have recently been showing signs of overvaluation. Such

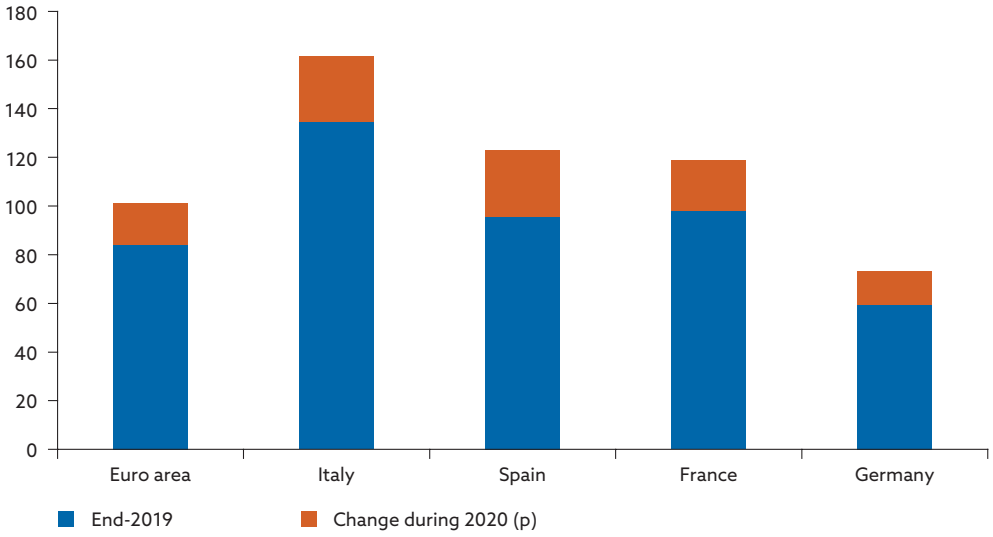
a mismatch between the real economy's condition and financial market developments raises the threat of a further round of sudden risk repricing, particularly if the economic recovery runs into obstacles, such as no let-up in the intensity of the pandemic.

The unprecedented extent of fiscal aid will cause an upward jump in public debt. There is general consensus that massive government intervention in the case of a crisis such as the one we are in now is absolutely necessary if it should prevent an even worse situation. The only way, however, that governments can fund such rescue packages is by borrowing on financial markets. In doing so, they put upward pressure on general government deficits, which in 2020 have surged in advanced countries by an average of fivefold. For the euro area as a whole, this year's fiscal deficit is expected to be around 10% of GDP, while for the United States it is estimated to be as high as 19% of GDP. The fiscal deficit in conjunction with other determining factors will be reflected in an even larger increase in public debt. Euro area public debt will increase from 84% of GDP at the end of 2019 to 101% of GDP at the end of 2020. In Italy, public debt is set to surge by 27 percentage points in 2020, to rise above 160% of GDP. Despite these dramatic figures, bond markets are not showing signs of sovereign debt burdens being evaluated as unsustainable. Sovereigns, even those considered more vulnerable, are not finding it difficult to issue bonds on the primary market, and these bonds are then being traded on the secondary market at historically low required yields. In the euro area, this calm state of affairs is due in large part to the ECB's policy stance, and in particular to its new PEPP programme through which it is buying up large volumes of government bonds. In the medium term, however, the issue of the sustainability of certain countries' sovereign debt may begin to have a destabilising impact on financial markets, especially if the coronavirus crisis lasts for a longer time and requires additional fiscal injections. Furthermore, the materialisation of an adverse economic scenario may see the activation of government guarantees requiring the payment of liabilities of failing firms, thereby causing a further shock to states' financial positions.

Chart 3

Unprecedented fiscal aid is having a substantial upward impact on the already relatively high indebtedness of certain euro area countries

General government debt and its increase (percentages of GDP)



Source: IMF Fiscal Monitor.
Note: (p) – projection.

In the circumstances, the euro area banking sector has remained exceptionally stable this year and has therefore helped stabilise conditions in the rest of the economy. In contrast to the global financial crisis, when they largely cut off lending to the real economy and so crippled its performance, banks have responded differently this time around. Not only has banks' lending activity not decreased, it has actually increased in the corporate loan book. Banks have accommodated firms' increasing demand for working capital loans by not tightening, or in some countries slightly easing, credit standards despite the difficult economic situation. Growth in loans to NFCs in the second quarter of 2020 was, at 8%, more than three times higher than its long-term average. Besides the sound capital and liquidity positions of the banking sector, another factor playing a positive role in this area has been public loan guarantee schemes, especially so in certain countries. Banks have also gained further leeway for real economy financing as a result of the ECB, as well as national supervisory authorities, deciding to ease some regulatory capital buffers.

It may be some time before banks start reporting more notably adverse repercussions of the ongoing crisis. In terms of default rates, the quality of bank loan books has remained good. Given the financial relief that governments are providing to households and firms, as well as other extraordinary measures such as temporarily facilitating loan moratoria, the real picture of credit risk is currently unclear. Banks have already reflected this uncertainty and the expectation of potential future defaults in their loan loss provisioning, whose increase this year has significantly reduced banks' profitability. The longer the crisis goes on, the greater the risk that

the expiry of relief measures will herald a marked rise in the number of borrowers who are no longer able to keep up their loan repayments. This would push the banking sector into loss-making territory, with a consequent negative impact on its capital position. While the sector as a whole has sufficient capital to cope with broader losses, there may be difficulties in store for individual banks that find themselves at the wrong end of the profit and solvency distributions.

1.2 Trends in the domestic economy

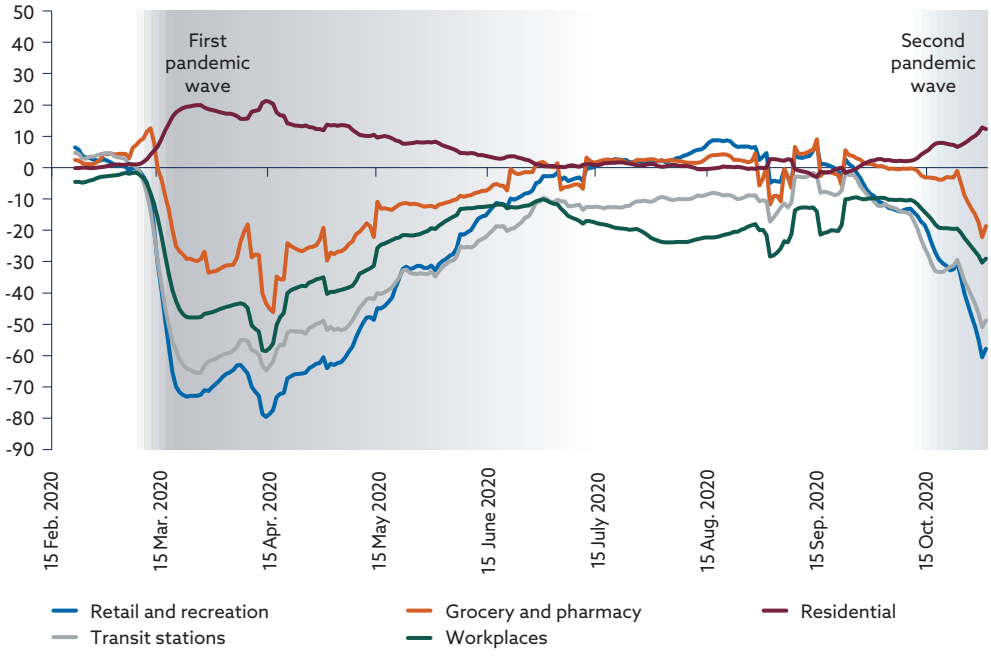
After contracting sharply in the second quarter, the economy began to recover, but that recovery will be slowed by the second wave of the pandemic

In Slovakia, as in most countries of the world, the economy was hit by the COVID-19 pandemic crisis in early 2020. After Slovakia reported its first positive tests for the virus in March 2020, events gained quite rapid momentum. In mid-March the government announced a state of emergency and adopted a series of pandemic containment measures. This situation, like that in Slovakia's trading partners around the world, subdued the activity of Slovak firms, in some cases forcing them to shut down completely for several weeks.

Chart 4

The pandemic has severely dampened activity and mobility in the Slovak economy

Google Mobility Index (percentage changes compared with the pre-pandemic period; seven-day moving average)



Sources: Google Community Mobility Reports and NBS.
Notes: The chart shows how visits and length of stay at different places change compared to the pre-crisis baseline period (3 January 2020 – 6 February 2020). The results are based on data from users who have opted-in to Location History for their Google Account.

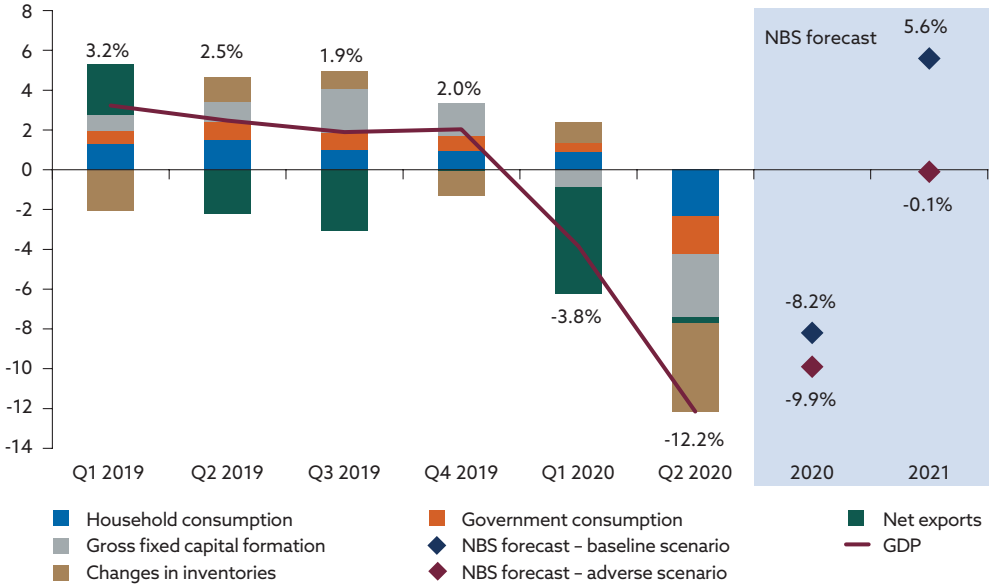
In response to the emerging situation, the Slovak government adopted a series of measures to temper the adverse effects of the pandemic crisis on firms and households. Despite these measures, the Slovak economy experienced its largest ever contraction, as GDP plummeted, year on year, by 12.2% in the second quarter of 2020, shrinking by twice as much as it did during the 2009 crisis. In the first quarter of 2020 GDP had also declined, owing mainly to a worsening of goods and services exports; in the second quarter all GDP components, including domestic demand, contributed to the downturn. During this period, the Slovak economy was buttressed by the household sector, as the rate of decrease in household consumption expenditure was among the most moderate in the EU. On the other hand, inventories and investment posted relatively large declines in the second quarter. Both government and private investment recorded procyclical decreases, as did government consumption.

The third quarter brought a major easing of pandemic containment measures and a consequent pick-up in economic activity. Most economic indicators showed an improvement in the summer months, with several of them[2] approaching or even surpassing their 2019 levels. This was reflected in the Economic Sentiment Indicator, which in September 2020 regained two- thirds of the ground it lost in the first half of the year, doing so with increases in each of its sub-indicators.

Chart 5

The Slovak economy recorded its largest ever contraction

Annual changes in Slovakia's GDP at constant prices and the contributions of its components to the rate of change (percentages)



Sources: SO SR and NBS's September 2020 Medium-Term Forecast (MTF-2020Q3).
Note: The figures show the annual percentage change in GDP or the projection of that change.

[2] Industrial production, total goods exports, and retail sales.

The outlook for the economic situation remains highly uncertain. The incoming second wave of the pandemic will put a brake on the Slovak economy's recovery. The key questions in this regard will be to what extent and for how long the Slovak government will be compelled to impose an economic lockdown. According to NBS's current forecast, the Slovak economy is projected to undergo a V-shaped recovery. The economic contraction is assumed to have bottomed out in the second quarter of 2020, and annual GDP growth for the year as a whole is projected to be -8.2%; thereafter, GDP is forecast to grow by 5.6% in 2021 and to return to its pre-crisis level in mid-2022. Under the adverse scenario, the pandemic is assumed to last longer and to necessitate a re-tightening of containment measures, resulting in the economy shrinking by 9.9% in 2020 and stagnating in 2021 with a year-on-year decline of 0.1%.

Relief measures have for now mitigated the impact of the pandemic crisis on the labour market

The pandemic crisis has had an impact on the labour market, but because of the relief measures taken in response, that impact has not so far been severe. The number of registered unemployed increased by more than 68 thousand over the first nine months of this year. The registered unemployment rate climbed from just below 5% at the start of the year, to 7.65% in July, its highest level since the first half of 2017. Subsequently, as the economy began to rebound upon the easing of pandemic containment measures, the unemployment rate edged back down to 7.43% in September 2020. The increase in the jobless rate and number of unemployed during the first nine months of 2020 is approximately one-quarter lower compared with a similarly long period during the 2008-09 crisis. The more moderate deterioration this time around is due in part to structural changes in the economy, but largely to the adoption of relief measures[3] that have eased the pressure on firms to engage in layoffs. Hence the crisis's impact on the labour market has been mitigated; the number of hours worked in the first half of the year decreased more sharply (by almost one-fifth) than did the number of people in employment (by only around 2%). While all of the key economic sectors have recorded net job losses this year, the most pronounced declines have been in the services sector, the entertainment and recreation industry, and the industry sector. Advertised job vacancies fell sharply following the onset of the pandemic crisis and were 60% fewer in April than at the start of year. They then rebounded in the summer months, reversing almost two-thirds of their previous decline. With the arrival of the pandemic's second wave in September, however, job vacancies again began to drop.

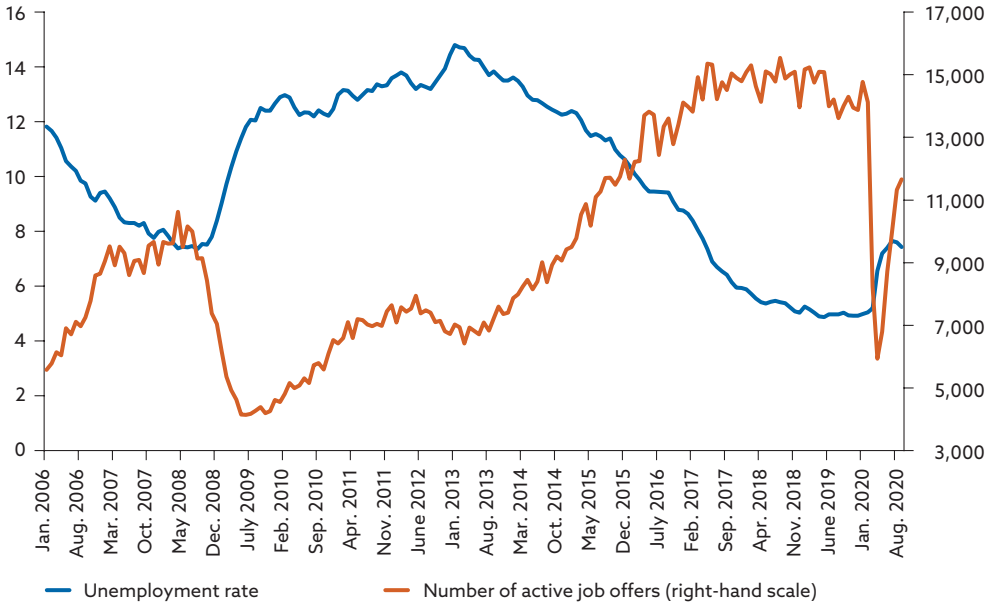
[3] NBS's September 2020 Medium-Term Forecast (MTF-2020Q3).

The worsening labour market situation was reflected in the average wage level in the economy, which in the second quarter of 2020 fell by 2% year on year. This, the first ever negative rate of average annual wage growth, was a consequence of the pandemic crisis, which resulted in production and business closures and many firms introducing short-time work. A corollary of this was income losses in the household sector. At the same time, the household saving rate increased, as widespread business closures meant households' consumption of services was below its usual level. NBS's current forecast projects that the unemployment rate will continue rising, up to 8.4% in 2021, and that the average wage will not turn negative again in that scenario.

Chart 6

The rate of decline in job vacancies has been larger than the rate of increase in the unemployment rate

The registered unemployment rate and the seasonally adjusted number of jobs advertised on the Profesia online job portal (percentages; number)



Sources: Profesia online job portal, ÚPSVaR SR and NBS.

The recovery of firms' revenues has been interrupted by the pandemic's second wave

While the services sector has been hardest hit by the pandemic crisis, manufacturing industry has also reported significant losses. Slovakia's non-financial corporation sector has been hurt by pandemic containment measures, as many firms, particularly in the services sector, have been compelled to shut down business. At the same time, export-oriented manufacturing firms in particular have been badly affected by declining foreign demand, caused by the adoption of similar containment measures in other countries. Overall, firms' revenues were one-fifth lower in the first half of

2020 than in the same period of 2019. The situation was therefore coming close to that seen in 2009. Some services sectors experienced a particularly sharp decline in revenues, including the accommodation sector and food service activities sector, where income fell respectively by as much as three-quarters and around one-quarter. In industry, income dropped by around one-quarter, as the temporary shutdown of all the country's carmakers had a significant impact. According to data from the Financial Administration of the Slovak Republic,[4] the situation improved in the third quarter, as most firms' revenues were buoyed by the easing of pandemic containment measures. In the services sector, however, not even the summer months brought revenues back to pre-crisis levels. With the arrival of autumn and a second pandemic wave, most firms' revenues began weakening again.

The pandemic crisis has caused a sharp rise in public debt

As a consequence of the pandemic crisis, both the fiscal deficit and public debt are expected to rise sharply. The ongoing crisis will affect the public sector balance sheet in two ways. First, the economic downturn is expected to cause a shortfall in budget revenues; second, containment measures will have an upward impact on budget expenditure and also, owing to the partial waiving of social security contributions and fees, result in a further decline in revenues. These effects will be directly reflected in an increase in public debt. NBS's current forecast for 2020[4] projects that the fiscal deficit will increase to 6% of GDP and that the public debt will climb by almost 15 percentage points to just under 63%, pushing up its financing requirements by more than €10 billion. The current market situation for public debt financing is favourable. In the initial financial market turbulence following the onset of the crisis, interest rates and risk premia on Slovak bonds increased almost threefold from their pre-crisis levels; in the summer, however, they stabilised and returned back down to those levels, where they have remained until now. The situation has calmed down, and there has been no recurrence of what happened in March 2020 when, because of low investor demand, the allocation of government bonds in an auction conducted by the Debt and Liquidity Management Agency was less than one-tenth of the volumes allocated in previous months. Going forward, the situation could deteriorate if certain heavily indebted EU countries see an escalation of their difficulties, such that would increase risk aversion in financial markets amid concerns about the sustainability of these countries' debt financing and therefore also have an impact on the interest rate and price of Slovak bonds.

[4] Source: eKasa data from the Financial Administration of the Slovak Republic.

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Box 1
Macroeconomic development scenarios for assessing the impact of the COVID-19 pandemic on the banking sector

The outlook for the Slovak economy is currently subject to considerable uncertainty in the light of many risks. Hence NBS's most recent macroeconomic projections[4] include three scenarios of potential developments. For this Financial Stability Report, the potential effects of the ongoing pandemic crisis on the banking sector were estimated using two scenarios: a baseline scenario that assumes a V-shaped recovery of GDP, and an adverse scenario that assumes a longer-lasting crisis and a sluggish economic recovery.

The baseline economic outlook assumes that the economic downturn bottomed out in the second quarter of 2020 and that GDP undergoes a V-shaped recovery. In this scenario, the virus continues spreading, but without necessitating a shutdown of the whole economy; the situation gradually improves and the pandemic is fully suppressed when a vaccine becomes available next year. Over the longer term, GDP growth recovers and returns to its 2019 level in 2022. In this scenario, the crisis's adverse effects on the labour market take some time to fade and unemployment peaks in 2021. Wage growth is around one-third below its pre-crisis level. After falling sharply this year, foreign demand gradually recovers back to pre-crisis levels.

Table 1 Macroeconomic development scenarios

	Actual data	Baseline scenario			Adverse scenario		
	2019	2020	2021	2022	2020	2021	2022
GDP	2.4	-8.2	5.6	4.2	-9.9	-0.1	3.8
Employment	1.2	-2.2	-1.3	1.1	-2.4	-2.8	0.1
Unemployment rate (%)	5.8	6.9	8.4	7.7	7.1	9.9	10.1
Wages	7.8	1.3	4.9	4.2	1.1	2.8	3.7
Inflation	2.8	1.9	0.7	1.3	1.9	0.7	1.0
Foreign demand	2.4	-12.1	6.1	4.5	-15.1	-2.2	4.3

Source: NBS.

The adverse scenario assumes that the pandemic's adverse effects are more protracted and weigh more heavily on economic growth. In this scenario, a COVID-19 vaccine takes longer to develop and to distribute throughout the population, so the second wave of the pandemic is extended. This scenario envisages a re-tightening of pandemic containment measures, not excluding the possible closure of several areas of economic activity, especially in the services sector. However, the economic lockdown is not as severe as it was in the first wave of the crisis. The economic recovery progresses slowly, and some of the economy's losses are of a permanent nature, so causing a decline in potential output. In this scenario, the contraction of GDP in 2020 is one-fifth larger compared with the baseline scenario, and the economy stagnates in 2021, as does foreign demand. Economic growth does not begin to recover until 2022, more slowly than the recovery under the

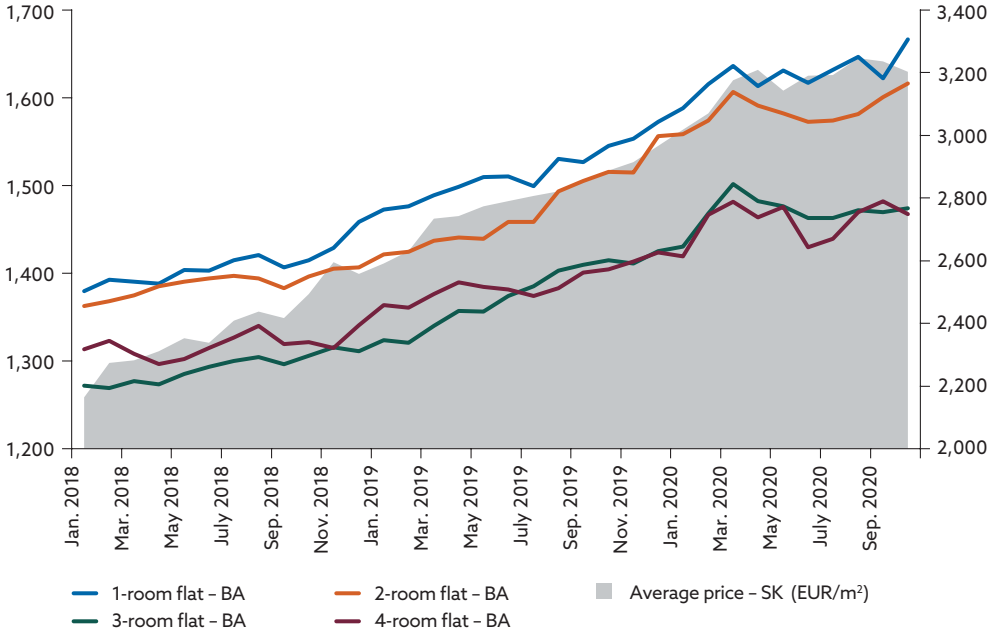
baseline scenario. The impact on the labour market is greater: the unemployment rate doubles from its 2019 level and does not reach its peak until 2022, while wage growth in the economy is one-third to one-half slower than the baseline rate. In consequence, GDP does not return to its pre-crisis level before the end of the medium-term projection period.

Prices of flats have decelerated slightly because of the pandemic crisis

The COVID-19 pandemic has also changed the situation in Slovakia's property market. Although annual growth in prices of flats has remained relatively strong, its trend since March 2020 has been affected by the pandemic. In recent years before the onset of the pandemic, flat prices were increasing at around 10% year on year and reached their highest level since the financial crisis. Thereafter, the property market faced new conditions. In the first months of the pandemic, deals initiated prior to the crisis were probably still being completed, but gradually, owing to lockdown measures, the majority of new business decelerated as both property owners and prospective buyers sought, in the circumstances, to defer flat sales and purchases. The cooling of the property market also reflected the significant impact of the economic uncertainty stemming from the decline in household disposable income. Although the property market slowed to some extent during the pandemic's first wave, it gradually began picking up following the easing of lockdown measures.

The average price of existing flats continued increasing, year on year, following the onset of the pandemic crisis, but it was gradually easing. In October the growth rate stood at 7.4%, down from 10.4% in December 2019. In the six months from March 2020 the average price of existing flats therefore stagnated to some extent, increasing by only 0.6%. The slowdown in average flat price growth is even more pronounced when looking at the average of total prices of flats, since its level is partly affected by purchases of smaller flats. By contrast, the annual growth rate of house prices has shown no signs of easing during the crisis, remaining at more than 10%.

Chart 7
Average prices of existing flats in Slovakia and in Bratislava
(EUR/m²)



Source: CMN.
Note: SK – Slovakia, BA – Bratislava.

In Bratislava, year-on-year growth in prices of existing flats remains at around 9%, underpinned mainly by increases in prices of 1-room and 2-room flats. Since the pandemic crisis began, the average price of these flats has risen only slightly, while prices of 3-room and 4-room flats have stagnated or even fallen moderately. A similar trend of only slightly increasing average flat price growth over the past six months has been observed in some of Slovakia's other main regional towns and cities (Banská Bystrica, Nitra, Trenčín, and Žilina).

As for new flats in Bratislava, the pandemic crisis has had a more moderate impact on their average price, which during this period has continued to increase by 12.5% year on year and so has risen to its highest level since the 2008-09 financial crisis. During the first wave of the pandemic, the number of flats sold as a percentage of total flats on the market reached its lowest level in six years; it then rebounded significantly following the easing of containment measures. A decline, or even partial slowdown, in flat prices has been prevented, however, by the continued low supply of new flats for sale.

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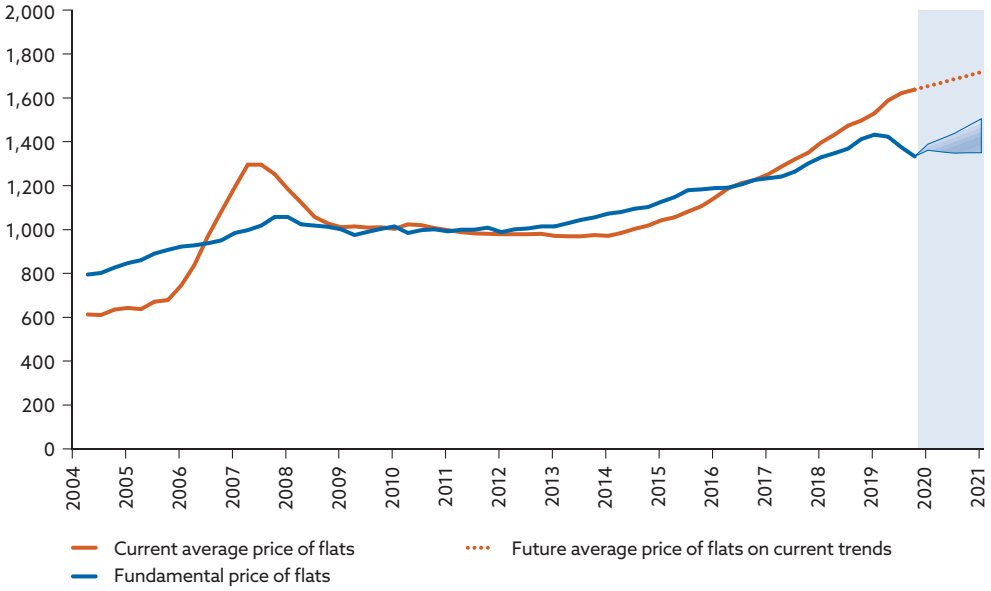
Chart 8
Estimation of the fundamental price of flats
(EUR/m²)



Sources: NBS, SO SR and CMN.
Notes: The fundamental price is estimated from the long-run linear relationship between prices of flats and potential demand. Potential demand is calculated as the product of the number of workers and the average wage in the given age cohort, less living costs and debt-servicing expenditure.

A number of fundamentals[5] affecting flat prices have deteriorated in 2020. The most significant factor, apparent even before the pandemic crisis, is a combination of a decline in the number of workers and a decline in average incomes. The purchasing power component of potential demand for flats is therefore lower than it was last year. Partly countering this trend has been a decrease in interest rates and the consequent easing of household debt burdens. The uptrend in the average price of flats between 2014 and 2019 may, with some exceptions, be explained by certain fundamentals. The fundamental price of flats has fallen markedly in 2020, specifically because of declines in the number of workers and the average wage. In other words, current flat prices can no longer be explained by purchasing power as defined by average available disposable income. Alternative explanations may include, for example, the declining number of flats on the market, the assumption among households that the decline in income is a blip, expectations for future price developments, or changes in the understanding of housing quality and value as people have started to spend more time at home. Expectations may also have been improved by the fact that some households that suffered income loss during the pandemic's first wave saw their income later recover to its pre-crisis level. According to a survey of households conducted in July 2020, the share of

[5] Number of workers broken down by age cohort, average wage, and loan repayments.

households whose income was below its pre-crisis level stood at one-half, while in later surveys (conducted between August and October), that share stood at between 26% and 33%. It remains the case, however, that the relationship between average housing prices and average wages has fallen to its worst level since the global financial crisis.

2 Financial sector trends and risks

2.1 Lending to households and their financial situation

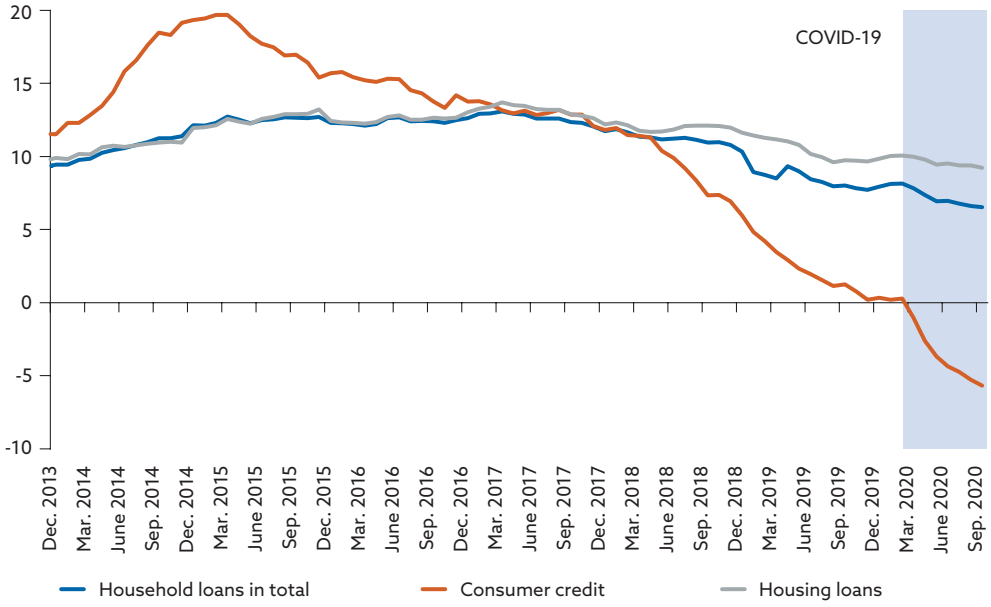
Slower growth in loans to households

The annual growth rate of retail[6] loans was down to 6.5% in September 2020, after being around 8% before the onset of the pandemic crisis. There was, however, a contrast between consumer credit and housing loan trends. In terms of retail loan growth, several EU countries reported a slowdown and Slovakia's ranking among EU countries shifted from fourth to fifth or sixth. From the first month of the coronavirus crisis, i.e. from March, the main factor behind the softening in lending to households was a marked decline in consumer lending. By contrast, housing loan growth, after easing up briefly in spring, returned to its growth of previous years.

Chart 9

Growth in loans to households was dragged down mainly by consumer loans

Outstanding amount of loans (annual percentage changes)



Source: NBS.

The coronavirus crisis has had an adverse impact on household indebtedness. Even before the onset of the crisis, household indebtedness in Slovakia surpassed that in other central and eastern European countries and

[6] For the purpose of this report, the retail sector comprises households, sole traders and non-profit institutions serving mostly households.

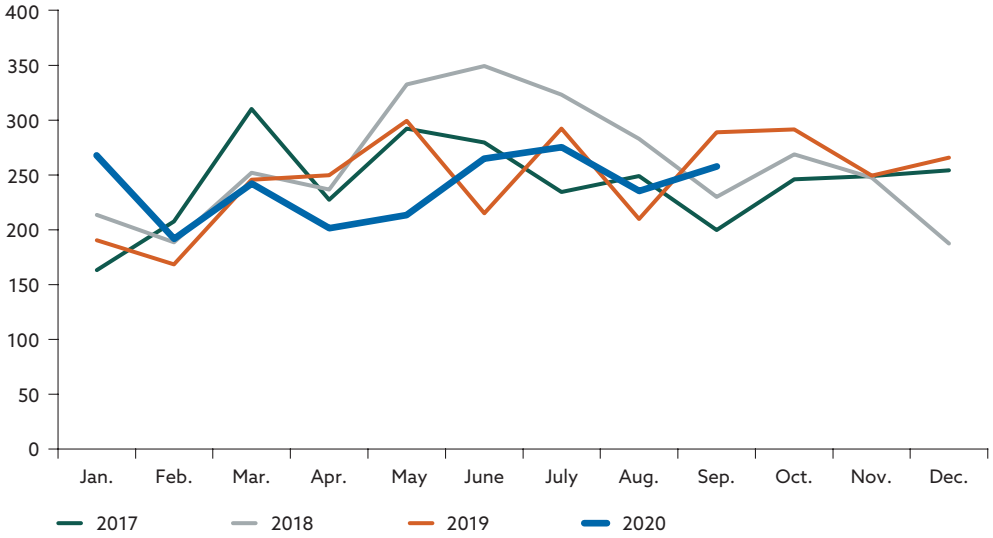
was approaching the levels in Italy and Germany. The crisis brought, on the one hand, declines in household disposable income and GDP, and, on the other hand, a continuation of household debt growth. Hence the ratio between households' debt and their income available for debt servicing deteriorated still further.

Housing loans have maintained growth

Chart 10

Housing loan growth quickly rebounded to pre-crisis levels

Month-on-month change in the outstanding amount of housing loans (EUR millions)



Source: NBS.

Annual growth in housing loans stood at 9.2% in September. Although that rate represented an all-time low, it was only a minor change compared with growth rates in previous years. The absolute increase in total housing loans between March and September 2020 (during the first six-months of the pandemic crisis), amounted to €1.45 billion, just slightly less than the increase for the same period of the previous year (€1.55 billion). New lending experienced a temporary drop in April and May, before quickly rebounding to the levels seen in previous years. Compared with the euro area average (4.1%), housing loan growth in Slovakia remained more than twice as high. On this metric, Slovakia maintained its second place among euro area countries. Among those banks in Slovakia that provide housing loans, most reported positive results for this portfolio.

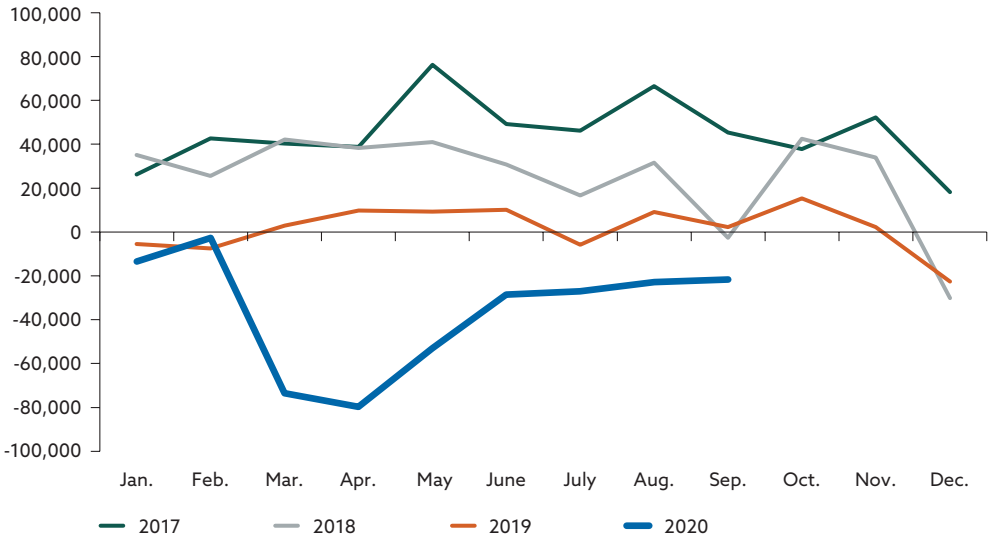
In April 2020 the average interest rate on housing loans rebounded from a historical low of 1.1% and has since remained at 1.2%. This figure is based on loans actually provided during the period under review. It reflects changes in banks' fees and interest charges, as well as changes in credit standards – for example, the exclusion of certain risky groups of customers from borrowing. The decrease in lending to risky customers is having a downward impact on the average lending rate in the loan book.

The volume of loans under moratoria began to fall slightly from August. In other words, although new moratoria may have been arranged in August, the existing moratoria on a greater volume of loans came to an end and repayment of these loans resumed. As at the end of September around 49 thousand housing loans amounting to €3.1 billion, i.e. some 10% of the aggregate housing loan portfolio, were under moratoria.

Consumer credit fell to a historic low

Consumer credit has decreased significantly during the period under review, and in its annual growth in September stood at an all-time low of -5.7%. After a period of stagnation, the consumer credit portfolio contracted sharply in the first months of the pandemic crisis, by between €50 million and €80 million per month. From June 2020 the monthly decreases stabilised to more moderate levels of between €20 million and €30 million, around -0.5% of the portfolio. All the banks providing consumer credit have been reporting monthly decreases in this portfolio.

Chart 11
Consumer lending has continued to decline
Month-on-month change in the outstanding amount of consumer credit (EUR millions)



Source: NBS.
Note: The data are adjusted to take account of one bank's acquisition of part of a non-bank company in January 2018.

The consumer credit portfolio trends stem from several factors, the most significant being a genuine slowdown in new lending and, to a lesser extent, the topping-up of existing loans. Because of the pandemic crisis, there was broad tightening of bank credit standards in the second quarter of 2020. One such standard was the available loan amount, which was capped by new debt service-to-income (DSTI) ratio limits laid down in NBS Decrees. This factor, however, was reported by banks to be among the less significant. Another factor was an increase in the margins on riskier loans, which apparently also

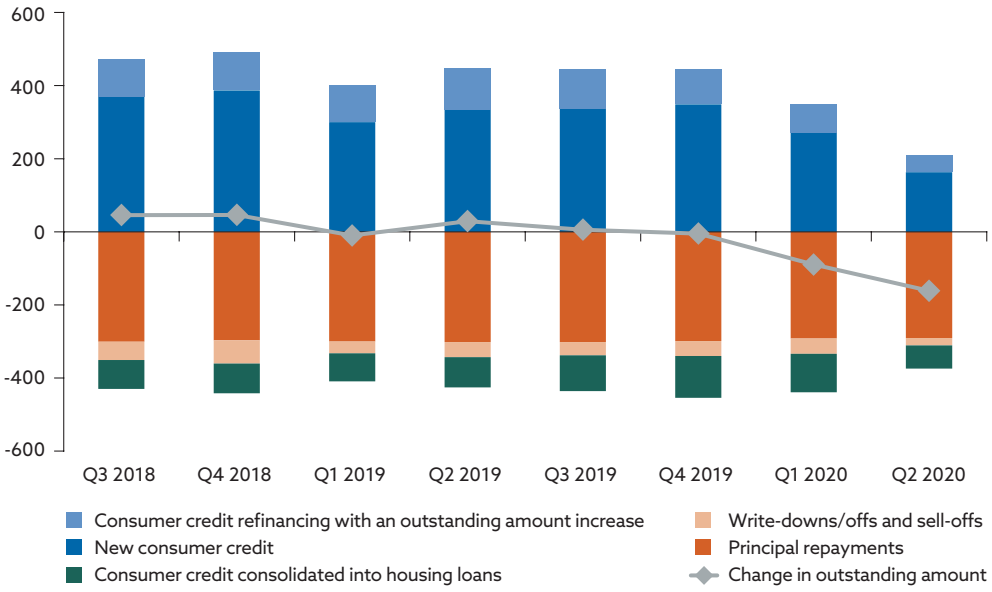
contributed to the increase in the average consumer credit interest rate. This rate has climbed by 0.5 percentage point since the end of 2019, to around 8.4%.

Despite the tightening of credit standards, the loan application rejection rate has declined in 2020, which indicates that demand for consumer credit has weakened even more than its supply. This is probably due to a decline in consumption demand, consistent with the decline in aggregate consumption in the economy. In the third quarter of 2020, signs of improvement were starting to appear on both the supply and demand sides, although talk of a recovery would be premature at this stage. Of particular note will be developments in the last quarter of 2020, as a re-tightening of pandemic containment measures is juxtaposed with the traditionally strong pre-Christmas demand for credit.

Chart 12

A decline in new consumer credit has resulted in the portfolio contracting

The impact of different factors on the quarter-on-quarter change in the outstanding amount of consumer credit (EUR millions)



Source: NBS.

Besides the factors affecting new borrowing, part of the consumer credit portfolio became subject to the new loan moratorium scheme, which moderated the drop in consumer credit. As at the end of September, the outstanding amount of consumer loans under moratoria stood at €767 million. In August that sub-portfolio declined slightly, as happened with housing loans.

Exemptions from NBS limits have only been partly used

During the coronavirus crisis, the use of exemptions from certain regulatory credit standard limits has fallen to around half of the permitted level. Even before the outbreak of the crisis, these exemptions were not being used to the full, owing partly to banks' stricter internal standards and

partly to the "managerial reserves" which banks need in order to manage the allocation of exemptions. In the most recent amendments of its Housing Loan Decree and Consumer Loan Decree, NBS sought to increase the use of exemptions by allowing them to be managed in a simpler way with effect from the first half of 2020. However, the pandemic's impact has been substantial, resulting in the exemptions being used less rather than more.

The largest decline in exemption use has been in the exemption from the loan-to-value (LTV) ratio limit. This NBS exemption allows up to 20% of a bank's new housing loans to have an LTV ratio of between 80% and 90%. In the second half of 2019 and also in the first quarter of 2020, almost 15% of all new housing loans were subject to this exemption, but in the second quarter of 2020 that share dropped to just 10.3%, around half of the permitted level.

More moderate has been the crisis's impact on the debt-to-income (DTI) ratio limit. This ratio is monitored for both housing loans and consumer credit. The exemption allows 5% of all new loans to have a DTI ratio of more than 8. In addition, a further 5% of new housing loans may have a DTI ratio of between 8 and 9 provided that the borrower is not older than 35 years and has an income not exceeding 1.3 times the average wage. In the second half of 2019, 3.3% of new loans were provided under the general exemption, and 1.2% under the conditional exemption. In the first half of 2020, only the share of loans provided under the general exemption decreased, down to 2.7%.

The DSTI ratio limit underwent phased-in tightening from January 2020, so distorting the comparison over time. From the second quarter of 2020, up to 5% of new loans could be provided with a DSTI ratio of more than 60%. Housing loans and consumer credit were subject to different upper limits on the exemption. Of the exemption capacity, banks used 2.6%. A further 1.0% of consumer loans were earmarked for low-debt borrowers (DTI of up to 1), i.e. those able to obtain without further restriction loans with a DSTI of up to 100%.

The non-performing loan ratio has remained subdued under the effect of government relief measures

Despite the pandemic crisis, the non-performing loan (NPL) ratio for the first eight months of 2020 fell moderately, from 2.9% to 2.6%. The shares of housing loans and consumer credit in overall NPLs changed slightly, but not outside the range of normal volatility. After an extended period at zero or negative values, the net default rate for housing loan climbed to 0.4% during the first months of the crisis , before falling back to 0.2% in September. By contrast, the net default rate for consumer credit showed a more downward trend, falling to 1.9% in September 2020, its lowest level since 2013. The developments in both cases were closely connected with the new widely available provision of loan moratoria. Given, however, the pandem-

ic's second wave and the new lockdown measures, the current situation cannot be considered settled.

Large demand for loan moratoria among retail borrowers

A scheme facilitating loan moratoria has been among the most significant pandemic relief measures. On the one hand, it has helped households get through a temporary deterioration in their financial situation, while, on the other hand, it has contributed to the low level of NPLs in banks' loan books. The loan moratorium scheme was one of the first relief measures introduced and has been one of the most effective. From the outset of the crisis it has allowed households to temporarily improve their financial situation in a relatively quick and uncomplicated way by deferring their loan repayments. This measure has also had a positive impact on the banking sector. Despite a marked decline in household income and a deterioration of the labour market, banks have seen hardly any increase in new loan delinquencies.

While, on the one hand, moratoria have been easing loan repayment pressures, on the other hand they may be distorting the real state of credit risk in banks' loan books. A more in-depth view of the financial situation of households that have loans under moratoria and of the risks they are exposed to is therefore crucial for understanding the credit risk from households.[7]

By the end of June 2020 11.1% of the retail loan book was under loan moratoria. The share of loans under moratoria was slightly higher in the consumer credit portfolio than in the housing loan portfolio. This share recorded its sharpest rise in the first months after the outbreak of the pandemic crisis. In the summer months, by contrast, the share of loans under moratoria was already no longer rising. By the end of September around 49 thousand housing loans and 85 thousand consumer loans were under moratoria.[8]

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[7] Since July 2020 the agency Focus has, on behalf of NBS, been conducting a monthly survey of indebted households (ca. 1,000 respondents) concerning the impact of the coronavirus crisis on their financial situation. The results of the survey's first wave are analysed in the following paper (in Slovak): Cesnak M., Cupák A., Jurašeková Kucserová J., Jurča P., Klacso J., Košútová A., Moravčík A. and Šuster M. (2020), "Vplyv koronakrízy na finančnú situáciu a očakávania zadlžených domácností", Occasional Paper, No 3/2020, Národná banka Slovenska, Bratislava. The results of the next three waves are examined in three NBS analytical commentaries (in Slovak): "Prieskum zadlžených domácností – výsledky druhej vlny", "Prieskum zadlžených domácností – výsledky tretej vlny" and "Prieskum zadlžených domácností – výsledky štvrtej vlny".

[8] The number of consumer loans under moratoria in September is higher than numbers reported in the previous month owing to data revision, not to an actual increase of moratoria. The actual number of moratoria was virtually the same as in August (marginally lower by less than two thousand).

Table 2 Share of loans under moratoria		
	Housing loans	Consumer credit
Loans under moratoria as a share of total loans	10.5%	13.8%
Loans to households with at least one loan under a moratorium as a share of total loans	12.0%	18.3%

Source: NBS.
Notes: Data are as at 30 June 2020. The shares are expressed as a percentage of the outstanding amount of the retail loan book.

Many households with multiple loans did not apply for moratoria on all of them. Around one-half of indebted households have more than one loan, and some 56% of them applied for moratoria on all of their loans. Where household arranged a moratorium on only part of their loan debt, they mostly did so on the larger part.

Moratoria were provided mostly for loans showing certain risky characteristics

Instalments of loans under moratoria were almost 50% higher than instalments of loans not under moratoria, although the median income of households that have applied for a moratorium has been only slightly higher than that of other households. Among household applicants for moratoria, there is a higher share of sole traders (almost by 50%) and people with secondary education. Loans under moratoria during the crisis had already been considered by banks as higher risk at origination and, on average, had been assigned a higher probability of default. It has not been shown, however, that loans under moratoria were more prone to delinquency in the past.

Table 3 Comparison of risk characteristics of loans under moratoria and loans not under moratoria		
	Loans under moratoria	Loans not under moratoria
Indebtedness and financial assets (EUR)		
Median income of borrowers	1,000	898
Median payment	383	269
Median amount of financial assets held with the lending bank	214	916
Average outstanding amount of housing loan	57,865	47,369
Average outstanding amount of consumer credit	8,560	5,567
Risk characteristics of borrowers		
Share of borrowers who have secondary education as their highest educational level	64%	51%
Share of housing loans provided to single borrowers	47%	45%
Share of loans where one or some of the co-borrowers are entrepreneurs or sole traders	12%	9%
Share of loans where the single borrower or all of the co-borrowers are entrepreneurs or sole traders	6%	4%
Share of loans where the borrower will be older than 64 years at the loan's maturity	34%	27%
Share of loans with a high debt service burden (a DSTI ratio of more than 60%)	46%	31%
For housing loans, median probability of default at origination	0.8%	0.4%
For consumer credit, median probability of default at origination	1.9%	1.6%

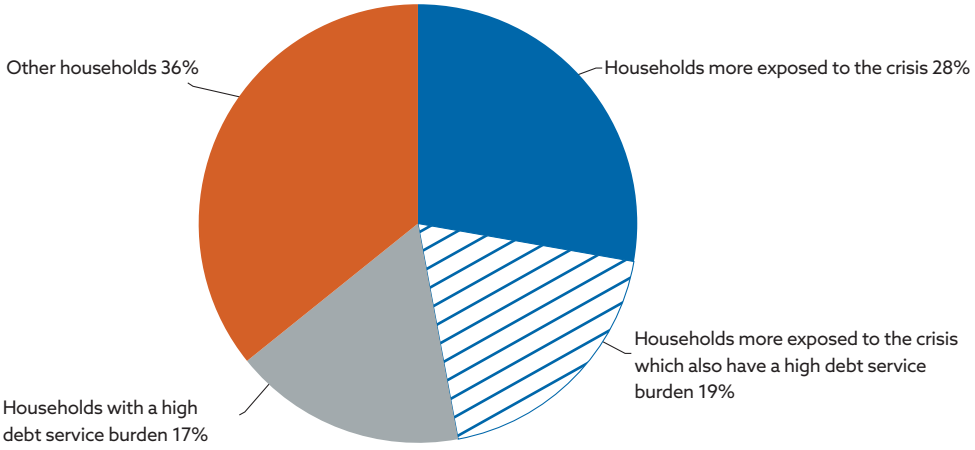
Source: NBS.

According to a survey of indebted households, most of the household applicants for loan moratoria fall into one of two groups: households with certain risk characteristics and households with a high debt service burden.[9] The first group of applicants comprises households that have been exposed to a greater impact from the pandemic crisis because of certain specific risk characteristics; for example, some of them are sole traders, or operate in the hardest hit sectors, or have lost their job or business as a direct result of the crisis. The second group is made up of households which, although not showing the above-mentioned risk characteristics, have a high debt service burden, i.e. a debt service-to-income ratio[10] of more than 60%.

Chart 13

Certain risky characteristics and a high DSTI ratio were the two main reasons for loan moratoria

(percentages)



Source: NBS (October's survey of indebted households).
Notes: The chart shows the shares of loans under moratoria broken down by different groups of households. The households more exposed to the crisis are deemed to be those households of which at least one member is a sole trader, works in a crisis-sensitive sector (accommodation and food service activities, arts, entertainment and recreation), or has lost his or her job or business because of the crisis. Households with a high debt service burden are deemed to be those whose DSTI ratio before the onset of the crisis stood at more than 60%.

[9] Only 13% of households' loan moratorium applications have been made for precautionary reasons, not because the household's financial situation had worsened.

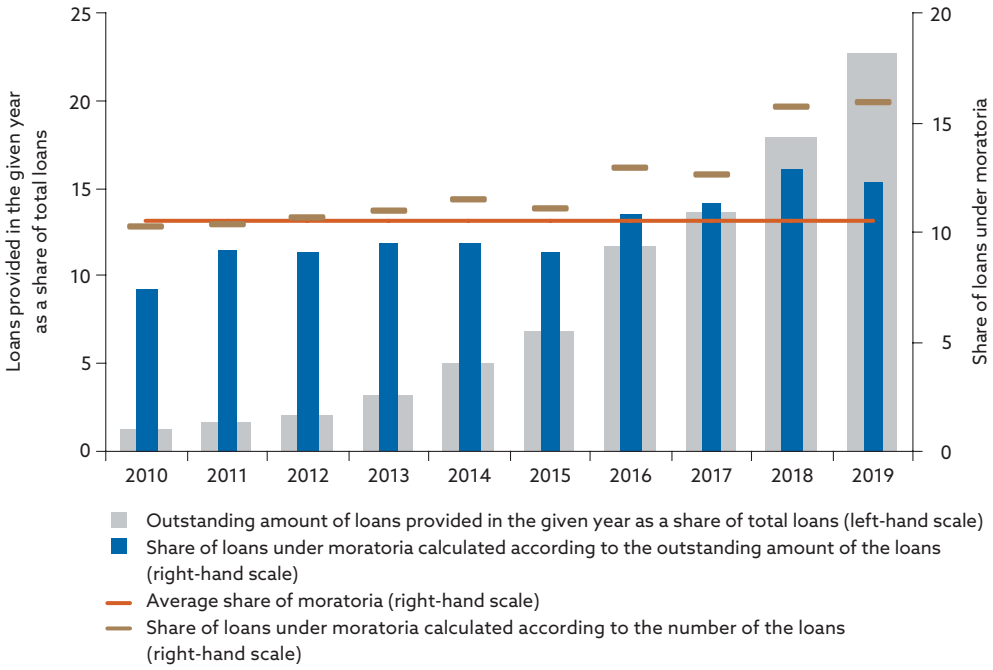
[10] The income component of the ratio is reduced by the minimum subsistence amount.

Loans provided in the years shortly before the coronavirus crisis are subject to a higher share of moratoria. In the case of housing loans, those provided in the years 2017–19 recorded the highest share of moratoria. This demonstrates that the riskiest loans are those provided shortly before the crisis. At the same time, however, regulatory lending limits appear to have had a positive impact after being gradually tightened in the pre-crisis period. Loans provided in 2019 are subject to a lower share of moratoria than are those provided in 2018.

Chart 14

Housing loans provided in the years just before the coronavirus crisis are subject to a higher share of moratoria

Housing loans under moratoria broken down by year of origination or refinancing (percentages; percentages)



Source: NBS.
Notes: The right-hand scale shows loans under moratoria as a share of the total amount or number of loans provided in the given year.

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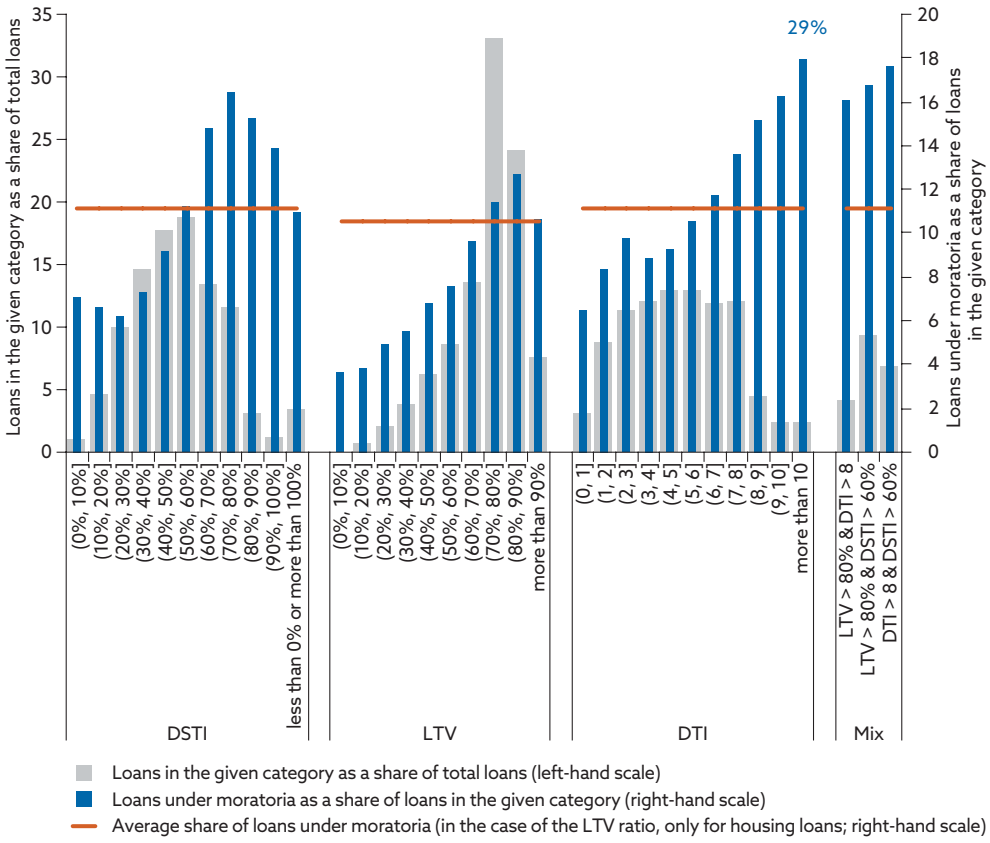
Chart 15

Loans with high DSTI, DTI and LTV ratios are subject to an above-average share of moratoria

Loans under moratoria broken down by DSTI, DTI and LTV ratio categories (percentages; percentages)



Source: NBS.
Notes: The part of the chart showing moratoria shares vis-à-vis DTI ratios, DSTI ratios, and a mix of parameters does not include borrowers whose income was reported as zero or about whom there was no income information. Among loans for which there is no DTI or DSTI value, the share of loans under moratoria is slightly above average (11.9% vs 11.0%).
Among loans with the highest risk parameter values (DSTI > 80%, LTV > 90%, DTI > 10), as well as among loans with the lowest LTV values (< 30%), there is a higher share of older loans (provided before 2017). On the other hand, a higher share of new loans is observed mainly in the category of loans that have an LTV ratio of between 70% and 80%. Across other categories, the shares of newer and older loans are approximately constant.

What has been observed is that the worse the loan risk parameters (DSTI, DTI, LTV), the more frequent the moratorium applications. Where the risk parameter values are low, the share of loans under moratoria is low, whereas higher values are accompanied by an increase in that share. This applies particularly to DSTI and DTI ratios, and less to the LTV ratio. Comparing the moratoria share for loans broken down by risk parameter categories and the moratoria share for the aggregate loan book, we see a significantly higher share of moratoria among loans with a DSTI ratio of more than 60%, or with a DTI ratio of more than 7, or with an LTV ratio of more than 80%. And the highest share of moratoria is seen among loans featuring a mix of these parameter values, especially the DTI and DSTI values.

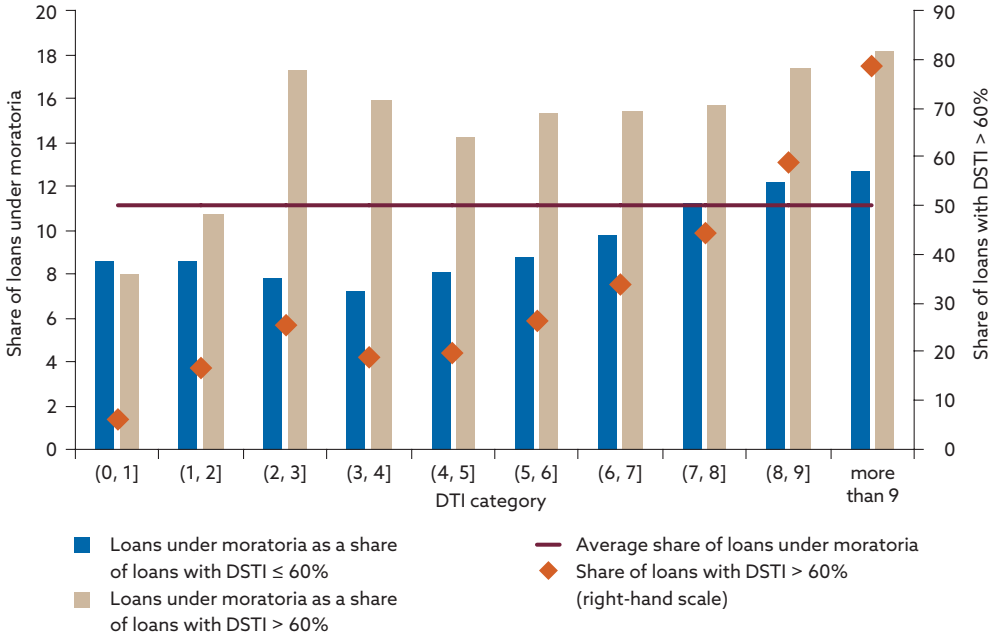
The main risk factor is a high debt servicing burden. Although the preceding analysis indicates that the share of loans under moratoria increases

significantly at higher DSTI ratios and DTI ratios, these aspects are closely interconnected. As regards riskiness, however, what matters is the debt servicing burden. This is also evident from the category of loans where the debt ratio is high (DTI > 8) but the debt servicing burden is not high (DSTI < 60%). In this case, the share of loans under moratoria is markedly lower.

Chart 16

The most significant risk factor is a high DSTI ratio

Loans under moratoria as a share of loans broken down by DTI ratio, separately for loans with DSTI ≤ 60% and loans with DSTI > 60% (percentages; percentages)



Source: NBS.
Notes: The left-hand scale shows loans under moratoria as a share of total loans in each DTI category. The right-hand scale shows loans with a DSTI ratio of more than 60% as a share of total loans in each DTI category. The chart does not include borrowers whose income was reported as zero or about whom there was no income information.

Moratoria are also more prevalent among housing loans that are due to mature after the borrower reaches retirement age. In this category, the share of loans under moratoria is 14%, against an average of 9% for other housing loans. One reason may be that these borrowers have less leeway in regard to changing the loan conditions, for example reducing repayments by extending the loan maturity. According to data from the third wave of the survey of indebted households, moratorium applications constituted only one-third of all applications to change the conditions of a loan.

Most borrowers expect to be able to service their debts again when the crisis is over

According to a survey conducted in the second half of October 2020, 4.2% of the borrowers with a loan under moratorium expected they might face loan repayment difficulties. Households who did not have a loan morato-

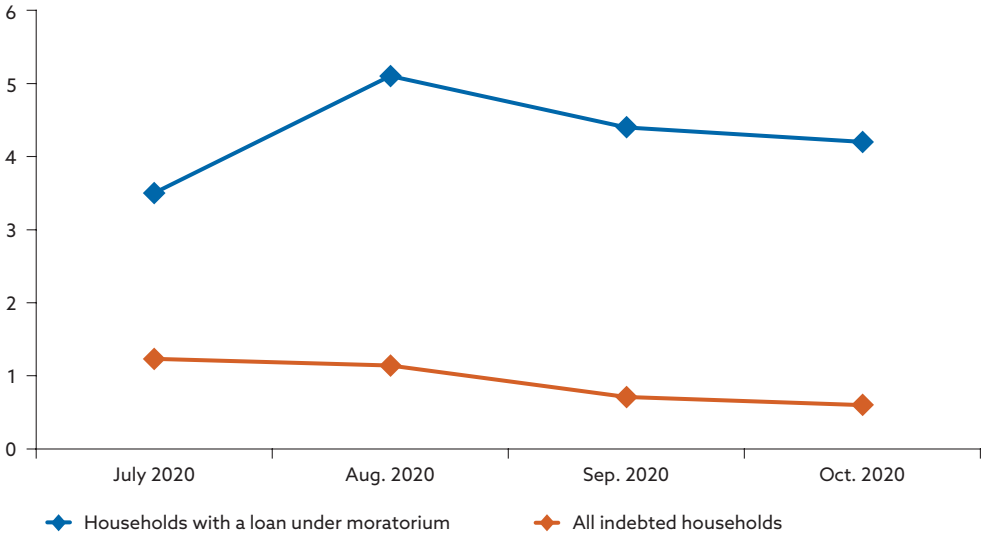
rium were more optimistic in their debt servicing expectations. A further 13.5% of households with loans under moratoria and 7.2% of other households expect that their worsened financial situation will persist but that they will be able to service their debts, for example by reducing consumption, by dipping into savings, or with help from family.

Overall, according to the October survey, only 0.6% of indebted households (not just those with loans under moratoria) are concerned that they will not be able to service their loans.[11] That figure represents around 4.4 thousand households. Loans to these households make up 0.76% of the aggregate retail loan book. Compared with previous surveys, expectations were noticeably brighter. The share of households who are concerned about their debt servicing ability fell gradually to one-half between the July and October surveys. Among sole traders and business owners the improvement in expectations was more marked, as this share fell from 4.4% in July to 0.9% in October. According to the survey results, the re-tightening of pandemic containment measures in the second half of October has not yet had a noticeable adverse impact on households' expectations about their post-crisis debt servicing ability. At the same time, however, around 4% of the households surveyed in October said they were considering applying for a moratorium of their loan payments.

Chart 17

Debt servicing concerns have fallen mainly among indebted households that do not have a loan under moratorium

(percentages)



Source: NBS (July, August, September, and October surveys of indebted households).
Note: The chart shows the share of households who do not expect to be able to continue servicing their debts.

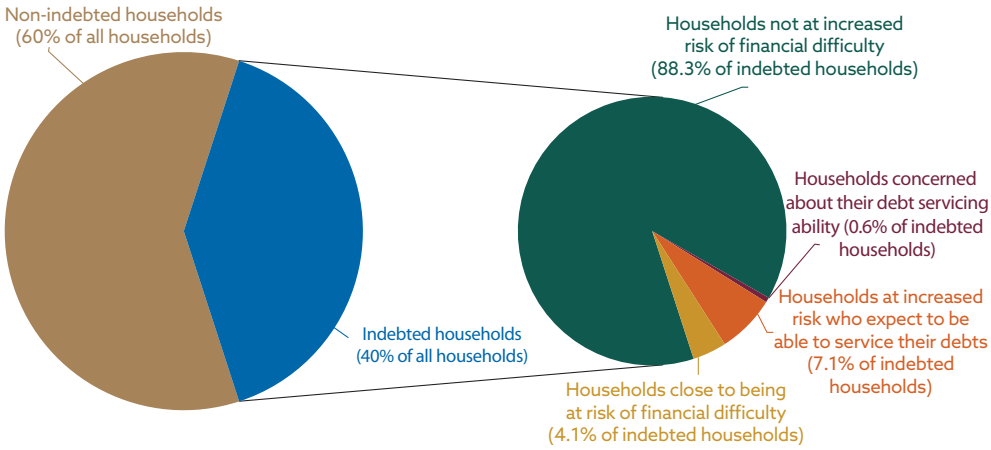
[11] The 95% confidence interval range is between 0.1% and 1.3%.

According to data on income decline as at October, the coronavirus crisis has put as many as 6.5% of households at risk of financial difficulty. In other words, if their income does not rebound, these households will not be able to meet loan repayments and essential living costs.[12] A further 2.7% of households already faced this risk before the onset of the crisis. Together, these figures represent around 70 thousand households.[13] Some of these households may escape this risk when their income recovers, or they may be able to cover their temporary drop in income by dipping into savings (these were not, however, touched on in the survey), by reducing expenditure, or with help from family.

Chart 18

In October the majority of indebted households expected to be able to service their debts

(percentages)



Sources: NBS (October's survey of indebted households) and SO SR.
Note: For this chart, households are deemed to be close to being at risk of financial difficulty if their DSTI ratio is between 80% and 100% (with the income component reduced by the minimum subsistence amount).

Estimation of the share of loans at risk of delinquency

The purpose of this part is to estimate the share of loans which, depending on developments, may become a delinquency risk during 2020 and 2021 at least in part because of borrowers being unable to service their

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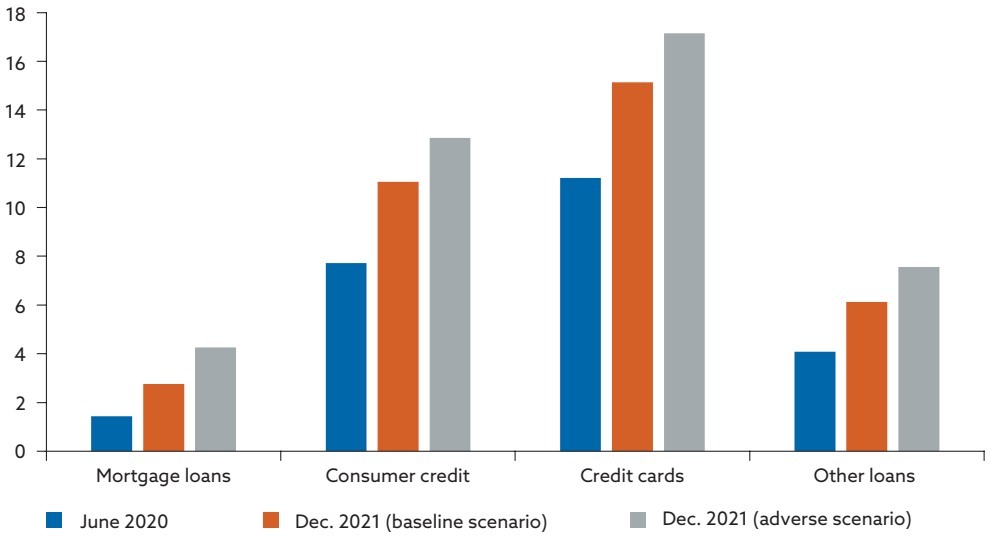
[12] The data on the number of households whose incomes may not necessarily be enough to cover loan repayments and living costs are not based on respondents' direct responses. They are indirectly derived from data on income (and income changes), repayments, and the number of dependent children. They do not take account of information on potential savings or on help from family, since questions about such matters were not included in the survey.

[13] The households that have, as a result of income loss, become at risk of not being able to meet loan repayments and essential living expenses are mainly households that have lost employment, low-income households, sole traders, and households with members working in the sectors hardest hit by the crisis (accommodation and food services activities; arts, entertainment and recreation).

debts following the ending of their loan moratoria. This is done on the basis of the macroeconomic development scenarios described in more detail in Box 1. The analysis is based on data on the financial situation of individual households. The calculation methodology is explained in Box 2.

Chart 19
Estimated increase in the non-performing loan ratio for retail loans
(percentages)



Source: NBS.

In the retail loan book, 1.7% of total loans may be at risk of delinquency owing to the coronavirus crisis. Compared with the survey-based expectations of indebted households, that is a slightly higher figure, and in the adverse scenario it increases to 3.2%. If the loans in question actually became non-performing, it is estimated that for housing loans, the NPL ratio would rise by 1.3 percentage points (2.8 percentage points in the adverse scenario), and for consumer loans, by 3.3 percentage points (5.2 percentage points).

Box 2
The methodology and assumptions for estimating the increase in the NPL ratio for retail loans

The main assumption is a general increase in the unemployment rate. In the baseline scenario, the unemployment rate is assumed to be 2.6 percentage points higher at the end of 2021 that it was in 2019; in the adverse scenario, 4.1 percentage points higher. The probability of a borrower losing their job depends on the borrower's socio-demographic profile, in particular educational attainment. At the same time, we also take account of the fact that borrowers who suffered income loss because of the crisis include borrowers who have not lost their job. In this case, too, the decline depends on the profile of the borrower, in particular educational attainment and economic status. In the baseline scenario, the average drop in income is 6.26%; in the adverse scenario, 10.04%.

Table 4 Model for estimating the percentage decline in income		
	Baseline scenario	Adverse scenario
Intercept	-3.909	-13.321
Age	-0.05	0.169
Education	6.727	-0.558
Self-employed	-8.84	-19.194
One household member unemployed	-24.398	-24.398
Two household members unemployed	-45.491	-45.491

Source: NBS.
Notes: The table shows logistic regression coefficients. The estimation is based on data from a survey of 1,000 indebted households conducted in the second half of September 2020.

A loan's probability of default depends on the probability of the borrower or co-borrower losing their job and on whether the borrower(s) financial assets and remaining income (after taking into account temporary unemployment support) are enough to meet their loan repayments and living costs (amounting to 1.5 times the sum of the minimum subsistence amount for each household member) for a period of at least one and a half years. If they are not, the borrower is assumed first of all to be unable to meet consumer credit repayments. If, despite that assumption, the borrower is unable to meet housing loan repayments, that loan defaults, too. At the same time, property prices are assumed to decline, by 5% in the baseline scenario and by 20% in the adverse scenario. For consumer credit, the loss given default is 80%, and for housing loans it is 10% of the sum of the outstanding amount of the loan and the positive difference between the LTV ratio and the ratio of the property's reduced value to the loan.

2.2 Lending to non-financial corporations and their financial situation

Despite a slowdown in lending activity in September, firms' access to financing can be described as relatively favourable. The uncertainty surrounding future developments in the NFC sector remains considerable.

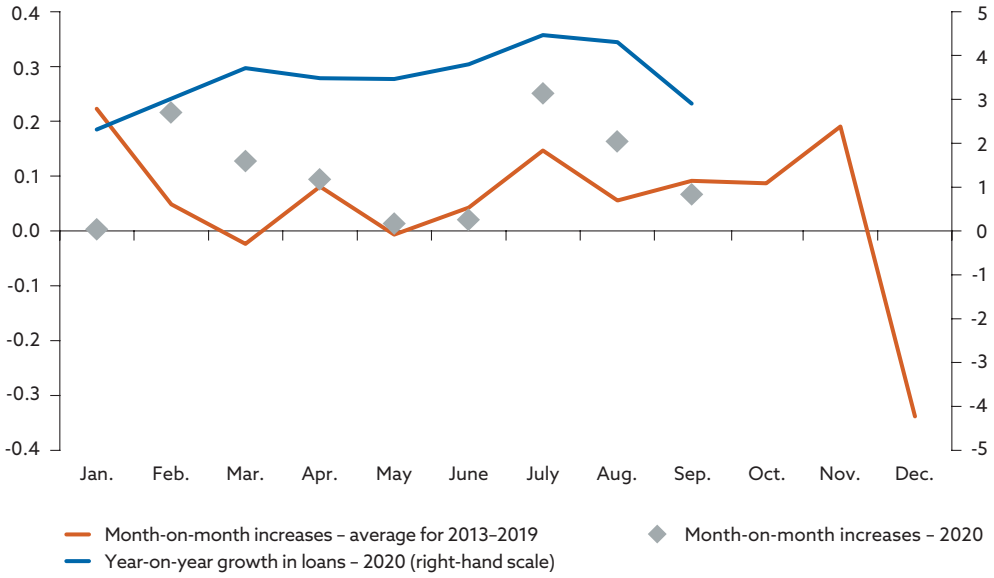
The annual growth rate of loans to non-financial corporations (NFCs) was 2.9% at the end of the third quarter of 2020. This slowdown followed strong growth in the summer months, when total NFC loans increased by 4.4% year on year. Looking at the month-on-month increases also shows a slowdown in September, but despite that decline, lending was only slightly down on its average for the period 2013 to 2019. At the same time, the decline in NFC loan growth may be partly explained by the fading of a base effect resulting from significant growth in the category of loans provided to foreign-owned NFCs.

Compared with other central and eastern European EU countries, the banking sector in Slovakia recorded the strongest growth in August. In most of these countries, lending activity moderated, while in several large western countries a contrasting trend was observed: lending to NFCs accelerated sharply, probably owing to a backdrop of substantial fiscal stimuli.

Chart 20

After the situation improved in the summer months, lending growth slowed in September 2020

Month-on-month increase in total NFC loans (EUR millions; percentages)



Source: NBS.

In the breakdown of annual loan growth by loan maturity, loans with a maturity of more than five years made the largest positive contribution. This did not apply to investment loans, however, as their growth remained subdued. The impact of the slowdown in investment loans was to a large extent offset by government-guaranteed loans. The annual growth of loans with a maturity of up to one year decelerated (largely because of the above-mentioned fading of the base effect); nevertheless, on the basis of month-on-month growth trends, lending activity can be considered favourable since it has dipped below the long-term average in only two months.

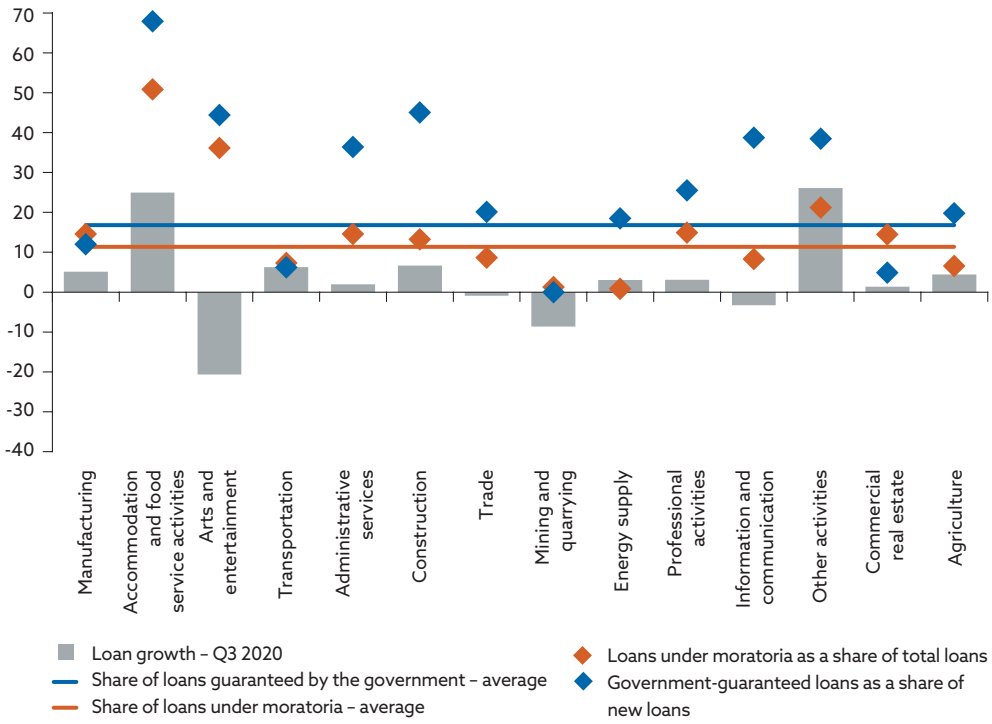
Annual loan growth has been heterogenous across economic sectors. In September 2020 it ranged between -21% and 26%, though in most sectors the total amount of lending increased year on year. Of the larger sectoral components of the NFC loan book, the only negative growth was recorded by retail trade (-6%) and information and communication (-3%). The largest decline in lending volume was seen in the sector hardest hit by the crisis: arts, entertainment and recreation (-21%). Bank borrowing increased in the industry sector (by 5%), construction sector (7%), and in a number of services sub-sectors. The largest increase was seen in one of the sectors hardest hit by the

crisis: accommodation and food service activities. Total lending to firms operating in one of several selected market services also increased, and some of these segments also experienced a relatively sharp drop in revenues.

Chart 21

The hardest hit sectors with a higher absorption of relief aid

Growth in NFC loans; ratio of moratoria and guarantees (percentages)



Sources: NBS and RBUZ.
Notes: The chart shows the average annual growth in loans in the third quarter of 2020. The sectors are listed from left to right according to their year-on-year decline in revenues, from the largest decline to the smallest. The decline in revenues refers to the year-on-year decline during the first wave of the pandemic (during April and May).

The loan moratorium scheme has had quite a significant impact on annual growth in loans to NFCs. In each of the first three quarters of 2020, the volume of loan repayments has, because of the moratoria, been more than one-quarter lower[14] compared with the same period in 2019. Given the lower rate of loan repayment, the year-on-year growth rate of total loans was maintainable with a lower volume of lending. If firms had not had the moratorium option and therefore had been making their loan repayments at 2019 levels, the annual growth rate of NFC loans would have been lower by 70 basis points in the second quarter and by 40 basis points in the first and third quarters.

Actual new lending to NFCs has decreased. New lending in the form of both new loans and the drawing down of existing loans declined in the sec-

[14] Referring to loans to which the moratorium option primarily applies. In general, these are NFC loans adjusted for overdrafts, credit card credit and revolving credit.

ond quarter by almost 20% year on year, and in the third quarter by a more moderate 10%. The new lending trend was supported by public guarantee schemes.

The greatest impact of government measures on loan growth has been seen in lending to firms from the accommodation and food service activities sector. More than half of the loans to this sector are or have under moratoria, thereby significantly reducing the downward impact of repayment on the outstanding amount of loans. At the same time, new guarantee schemes have had an upward impact on absolute increases in total loans. Government-guaranteed loans accounted for almost 70% of the loans provided to this sector in the third quarter.

Firms' demand for loans has been holding up. After tightening credit standards in the second quarter, banks eased them moderately in September. Demand increased on the back of firms' continuing need for working capital financing, while demand for financing of investment projects continued its downtrend. In the second quarter, banks responded to the coronavirus crisis with a broad, but relatively moderate, tightening of credit standards. In the third quarter, however, amid an improving economic situation, credit standards were gradually eased, mainly in regard to the amount and maturity of loans. Collateral requirements were eased to a lesser extent. Going forward, however, credit standards are expected to undergo further moderate tightening.

The commercial real estate market has been hit relatively hard by the coronavirus crisis

The COVID-19 pandemic crisis has also made its mark on lending to firms in the commercial real estate (CRE) sector. The annual growth rate of these loans has decelerated in 2020, and since March it has been slightly more than 1%, which is below the sectoral average. But despite this slowdown in lending activity, the CRE sector continues to account for the largest share of the NFC loan book, more than 20%.

The CRE sector is a major source of credit risk. Its riskiness can be gauged in several ways. A structural feature of this sector is its aforementioned concentration, which is present both at the level of the aggregate NFC loan book (with the largest share of loans) and at the level of individual loans (a small number of loans but significantly larger compared with other sectors). At the same time, commercial real estate has historically shown relatively high sensitivity to worsening economic conditions.

The crisis's impact on the CRE sector was more severe in the office and retail segments, and less severe in the industrial and logistics segments.

The situation in the industrial and logistics segment of the CRE sector was supported mainly by internet sales. As a result, in the case of e-commerce, demand for new space increased and this segment therefore maintained its rental level. Overall, however, the amount of new leases decreased in year-on-year terms. In the office segment, the slowdown in activity was more pronounced. The sharp drop in activity on the rental side stemmed from more people working remotely and from firms deciding to shelve expansion plans. This was also reflected in the vacancy rate, which by the end of the third quarter had climbed to 10%. Amid the slowdown in market growth, property developers scaled back new construction. The economic lockdown has also had a highly adverse impact on the retail segment.

With relief measures in place, the pandemic crisis has not so far been reflected in a deterioration of credit risk indicators

The non-performing loan ratio continued falling in the third quarter, down to 3.14% in September. Its downtrend reflected the impact of both growth in total NFC loans and a decline in NPLs. In the context of the loan moratoria scheme, as well as other measures aimed at mitigating the effect of the crisis, new loan defaults also declined. What happens when individual relief measures are unwound will be important for the credit quality of the NFC loan book, as will the progress of the pandemic crisis and its related measures.

The share of forborne loans (problem loans whose terms and conditions have been renegotiated) remained unchanged during the period under review. So far in 2020 these loans have accounted for around 3.5% of total NFC loans. Moreover, if that share is adjusted to exclude loans under moratoria, it has fallen quite notably. It may be, however, that the impact of the significant share of loans under moratoria on individual credit risk indicators is giving a distorted picture of the situation in the NFC sector.

Demand from firms for loan moratoria

The volume of loans for which a moratorium on repayments has been approved was more than €2.8 billion as at September 2020. Loans under moratoria as a share of total NFC loans stood at almost 12% in the third quarter. Almost all of the moratoria were approved during the first four months following the introduction of the loan moratoria scheme; moratorium applications in the third quarter were very low. The introduction of new measures in response to the pandemic's second wave may, however, bring an increase in demand for loan moratoria.

The loan moratorium option has been used to a greater extent by micro and small enterprises and by firms operating in the sectors hardest hit by

the coronavirus crisis. Of the total loans to micro and small enterprises, loans under moratoria account for 15%, while in the case of loans to large enterprises, that share falls to just 6%. This figure is lower, however, because the loan moratorium scheme introduced by law this year does not apply to large enterprises, whose repayment moratoria have been agreed with banks on a case by case basis. The sectoral breakdown of loans under moratoria shows that the largest uptake of the moratorium option has been by firms operating in industries hardest hit by the crisis. In the accommodation and food service activities sector, one-half of the outstanding amount of bank loans are loans under moratoria, while in the arts, entertainment and recreation sector, the share is one-third. One-quarter of total loans under moratoria are accounted for by loans to the industry sector, which compared with other sectors experienced the largest year-on-year drop in revenues in April–May. A further quarter is accounted for by loans to the CRE sector, which, however, lies at the opposite end of the revenue decline distribution.

Table 5 Share of loans under moratoria

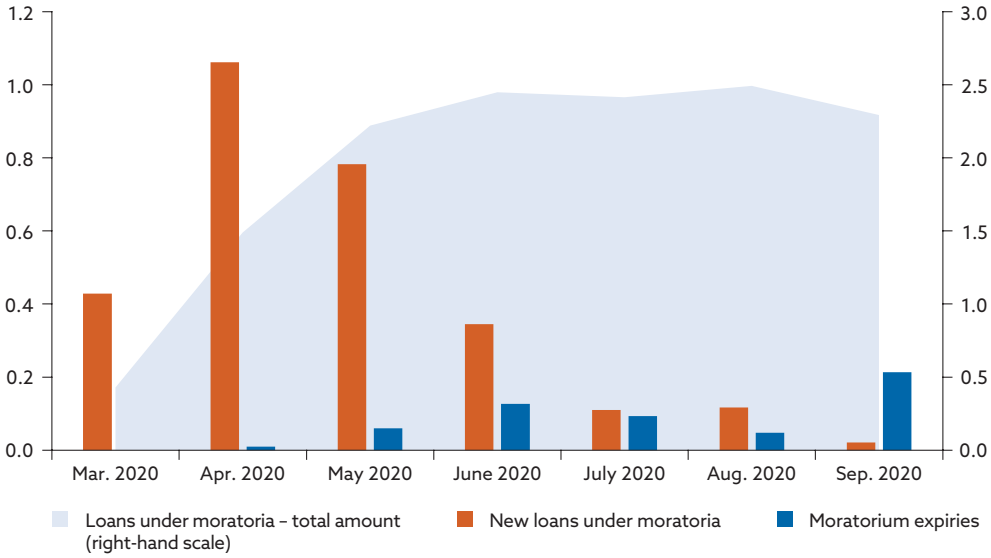
Data as at September 2019	Micro enter-prises	Small enter-prises	Medium-sized enter-prises	Large enter-prises
Share of loans under moratoria	15.0%	15.2%	11.8%	5.9%
Share of loans to firms that have at least one loan under a moratorium	17.7%	19.5%	21.0%	13.1%

Source: NBS.

Chart 22

Demand for loan moratoria fell in the third quarter; existing moratoria will gradually be expiring

Loans under moratoria – their amount, increases, and moratorium expiries (EUR billions; EUR billions)



Sources: NBS and RBUZ.
Notes: The right-hand scale shows the amount of loans under moratoria. The left-hand scale shows the month-on-month increase in the amount of these loans as well as the amount of loans that ceased being under moratoria in the given month.

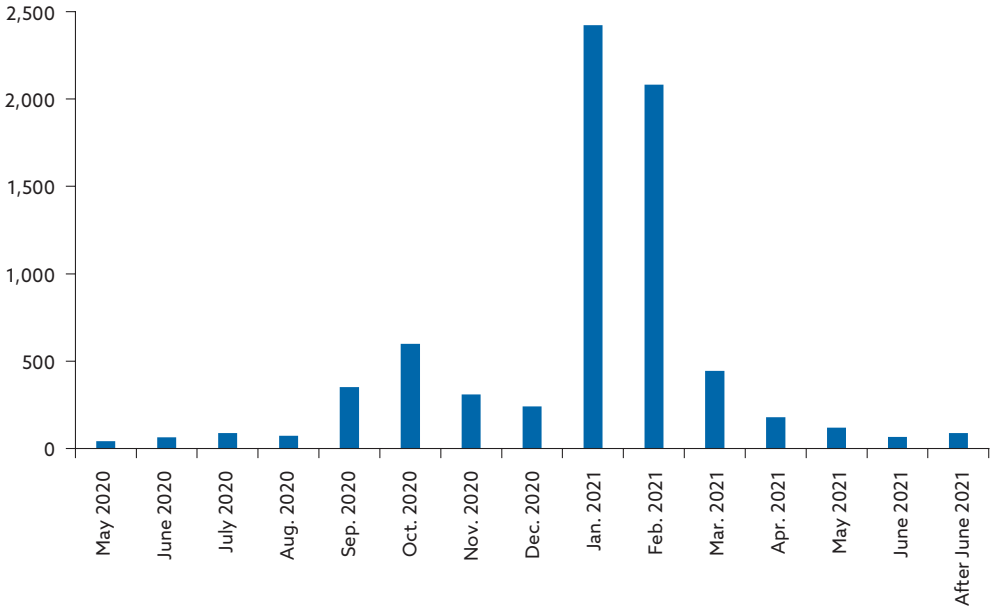
In September, for the first time, the amount of loans that ceased being under moratoria exceeded the increase in the amount of loans under moratoria. By the end of September, the overall amount of loans that had ceased being under moratoria stood at more than €500 million. Among those loans, the typical duration of the moratorium was three and four months. These loans numbered almost 1,400, of which 2.7% became past due following the expiry of the moratorium.

Two-thirds of the total amount of NFC loans under moratoria are under moratoria for nine months,[15] the maximum length of time permitted by law. As regards moratoria negotiated between firms and banks on a case by case basis, outside the new relief scheme, moratoria of more than one year are infrequent. Given these data, the expiry of moratoria is due to peak in the first two months of 2021. Important in this regard will be coordination with the unwinding of other relief measures so as to mitigate loan delinquency risk.

Chart 23

Moratorium expiries will peak in early 2021

Loans under moratoria broken down by date of moratorium expiry (number)



Sources: NBS and RBUZ.
Notes: The moratorium expiry date was calculated according to the change in loan maturity. The chart shows data only for loans for which the duration of the moratorium was determinable from the change in maturity. These loans constitute 65% of the total loans under moratoria.

[15] Using data from the Register of Bank Loans and Guarantees (RBUZ), where it is possible to determine the duration of NFC loan moratoria on the basis of changes in loan maturities. By September-end, such loans constituted 65% of the total loans under moratoria.

Loans under moratoria show a greater prevalence of risk characteristics

The first risk characteristic is the actual structure of the loans that are or have been under moratoria. Two-thirds of the loans that are or have been under moratoria are loans to small and micro enterprises, which generally represent a greater credit risk than do larger enterprises, and loans to firms operating in the sectors hardest hit by the crisis (accommodation and food service activities; arts, entertainment and recreation).

Several financial indicators suggest that loans under moratoria represent a higher risk. On the one hand, loans under moratoria have higher median margins, but, on the other hand, they typically have higher debt ratios, lower liquidity, and worse activity indicators. The firms concerned also fare slightly more poorly in terms of their return on equity. Loans under moratoria are associated with worse financial indicator values partly because their actual structure is riskier; however, these observations apply across all size categories of firms.

Risk parameters from banks' internal models likewise indicate that loans under moratoria pose a greater risk. This is primarily apparent from such loans higher probability of default.

Table 6 Comparison of risk characteristics between NFC loans under moratoria and other NFC loans

	NFC loans under moratoria	Other NFC loans
Firms' financial indicators		
Gross margin	24.60%	17.90%
Return on equity	7.90%	8.30%
Debt-to-equity ratio	285%	210%
Cash liquidity	0.19	0.21
Current liquidity	1.58	1.7
Asset turnover	0.97	1.3
Liabilities repayment period (months)	125.7	105.7
Risk parameters		
Average probability of default (PD)	7.29%	6.15%
Average loss given default (LGD)	44.0%	48.2%
Historical riskiness		
Share of loans to firms that have previously (back to 2009) been past due on at least one loan	60.88%	54.39%
Share of loans to firms that have previously (back to 2009) defaulted on at least one loan	12.86%	15.03%
Share of loans to firms that have previously (back to September 2018) had at least one loan forborne	6.51%	4.64%

Sources: NBS and BISNODE.

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Box 3
Aid absorption under selected government relief measures

The current pandemic crisis had a relatively rapid and dramatic impact on the economic situation. Hence governments' responses in the form of relief measures for the real economy have been very extensive by historical standards. Slovakia, like other European countries, was quite prompt in adopting a large number of relief measures to support both firms and households. Although these measures were not directly intended to support the banking sector, the resulting aid absorption by firms and households has also had a positive impact on financial sector stability.

Although the relief packages introduced by several countries have been very sizeable, what matters is the extent to which the aid is absorbed. In some countries (Germany and Italy), the relief packages totalled almost 40% of GDP. The actual aid absorption figures, however, are significantly lower. In euro area countries, the aid absorbed by firms and households as at September 2020 amounted to around 10% of 2019 GDP (of which 9 percentage points was accounted for by loan moratoria). The median amount of aid absorbed in countries participating in the Single Supervisory Mechanism (SSM) was almost 16% of GDP, most of which was accounted for by loan moratoria. Aid in the form of loan moratoria has been widely used in all EU countries. Only in some countries have government loan guarantees been used to any great extent (in Spain, 73% of the aid available in this form has been absorbed; in France, 40%; in Italy, 23%; and Portugal, 49%).

In Slovakia, the relief measures amounted to some 10% of GDP, mostly in the form of a loan moratoria. The public loan guarantee schemes got off to a slower start and have been less used. On the other hand, the lower absorption of some types of aid in the first wave of the pandemic has provided scope for their greater uptake during the second wave.

The potential uptake of government loan guarantees remains high

One reason for the relatively lower demand for government loan guarantees is the still relative strong growth in loans to non-financial corporations. In September 2020 the annual growth rate of NFC loans stood at 2.9%, which, although slightly lower compared with previous months, still lay within the relatively narrow band of growth rates observed since the end of 2018, between 2.3% and 5.8%. Government-guaranteed loans accounted for just 13% of the NFC loans provided in the third quarter of 2020, and 11% of those provided since the guarantee schemes began (i.e. from May to September). Such a moderate uptake has also reflected the administrative demands of providing the loan guarantees. From the perspective of banks, a constraining factor has been uncertainty about the terms under which the government may revoke loan guarantees.

As at September a total of nine banks had participated in the public loan guarantee schemes, altogether providing more than 3.6 thousand government-guaranteed loans with a total volume of €311 million. Around a further €30 million such loans had been approved but were not yet drawn. After accelerating in the second quarter, the volume of government-guaranteed loans stabilised in the third quarter at between €80 million and €100 million per month.

Looking at the sectoral breakdown of government-guaranteed loans provided as at September, significant shares went to firms in the trade sector (30%) and manufacturing (24%). As for the share of such loans to total loans provided to firms in a given sector, the largest share was recorded by the accommodation and food service activities sector (53%), while the shares for trade and manufacturing were 14% and 10% respectively.

Considering the set-up and stated objective of the guarantee schemes, the fact that large enterprises have been its least significant beneficiaries is not surprising. As at September, just 5% of the total volume of government-guaranteed loans (and 0.3% of the total number) were loans to large enterprises. By contrast, loans to micro enterprises accounted for 35% of the total volume (71% of the number), and loans to small enterprises accounted for 37% (24%). Of the total volume of loans provided to small enterprises and micro enterprises between May and September, the respective shares of government-guaranteed loans were 23% and 17% (in the case of large enterprises, the share was a mere 1.4%).

The credit quality of government-guaranteed loans has been good so far. As at September 2020 around €0.7 million of these loans had become non-performing. Banks had reclassified approximately 20% of the government-guaranteed loans as "Stage 2" loans, but that does not necessarily imply a deterioration in the borrower's payment discipline; it may reflect, for example, the borrower's association with certain risk parameters (or their combination) which the lender deems to be risky (sector, geographic location, the distribution channels used, etc.). Because of the government guarantee, the provisioning rate for government-guaranteed loans is lower than for other loans.

More than one-tenth of the overall loan book is under moratoria

By the end of September the total volume of loans under moratoria was €6.9 billion. Of that total, loans under moratoria outside the terms of the "Lex Corona" relief legislation amounted to around €1 billion. The volume of NFC loans under moratoria stood at €2.8 billion, i.e. almost 12% of the entire corporate loan book.[16] Retail loans under moratoria amounted to almost €4.1 billion (of which housing loans accounted for €3.1 billion), or some 11% of total retail loans.[17]

Labour market support measures are playing an important role

In the areas of social policy and employment policy, the "First Aid" package has played an important role. Of the different First Aid schemes,[18] the most extensive is the short-time work scheme ("kurzarbeit"), which as at September 2020 accounted for €477 million (75%) of the total

[16] Further information about NFC loan moratoria is provided in Section 2.2.

[17] Further information about retail loan moratoria is provided in Section 2.1.

[18] Prvá pomoc Slovensku: priebežná správa o sociálnej pomoci pracujúcim a rodinám (Aktualizácia 6), November 2020.
(First Aid Slovakia: Interim Report on Social Assistance to Workers and Families (Update 6), November 2020.), published by the Ministry of Labour, Social Affairs and Family of the Slovak Republic.

€639 million First Aid package. The other schemes included payments to self-employed people as compensation for lost revenues, which amounted to €93 million (15 %) and payments to businesses as compensation for imposed restrictions of their operation, which stood at €58 million (9%).

Looking more closely at the structure of the employers who have received support under the package, the largest shares of the aid payments have been received by large enterprises (37%) and micro enterprises (27%). Micro enterprises gravitated towards the compensation for self-employed persons who have suffered pandemic-related revenue losses; this aid made up 51% of the total aid to micro enterprises. In the case of large enterprises, by contrast, almost the entirety (96%) of their aid absorption was through the short-time work scheme. A total of 417 thousand aid applications were made under the First Aid package, between March and September, of which 87% were made by micro enterprises and just 0.5% by large enterprises. If we look, however, at actual transfers (specific employees and self-employed persons who have received aid), there were 2.11 million in total, of which employees of large enterprises received the largest share (39%) and micro enterprises the next highest share (24%).

From a sectoral perspective, the largest share of the aid under the First Aid package has gone to manufacturing (44%) and the next largest, some way behind, to the trade sector (14%). The short-time work scheme has benefited mainly firms in manufacturing (recipients of 55% of the total aid provided under the scheme). As regards revenue loss compensation for self-employed people, the largest shares are accounted for by the construction sector (20%) and trade sector (18%). Business closure compensation has gone mainly to the sectors of trade (35%), accommodation and food service activities (26%), and arts, entertainment and recreation (10%).

Payments of the new pandemic-related carer allowance and sickness allowance, and compensation payments aimed at preserving employment (including the renewed SOS grants, have been extended until March 2021 and expanded (under the so-called First Aid Plus package). These payments are largely related to the second wave of the pandemic.

Estimating the share of firms at risk and the impact of relief measures

The purpose of this part of the report is to estimate the share of firms that could become insolvent or illiquid during 2020 and 2021 as a result of the coronavirus crisis. At the same time, we estimate the potential impact of the measures that have been taken to mitigate the repercussions of the crisis on the NFC sector. The most significant measures, whose impact is examined here in more detail, are the payment of wage cost compensation to firms under the First Aid (Plus) package, moratoria on loan repayments, the provision of government loan guarantees, the deferral of tax advances, and the possibility of waiving of social security contributions. This analysis is based on the baseline scenario of macroeconomic developments set

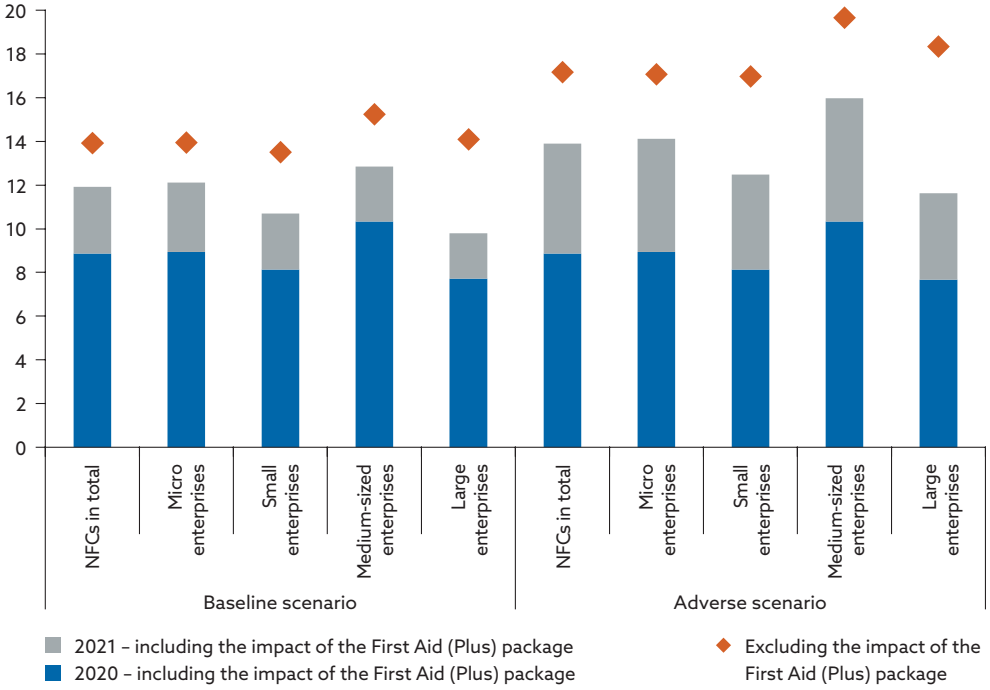
out in Box 1; however, it also takes into account the severe deterioration risks included in the adverse scenario. The baseline assumes that firms' revenues will be around one-third lower in 2021 than in 2020, while the adverse scenario assumes that revenue losses in 2021 will be on a par with those in 2020. The calculation scenarios, scheme and methodology are described in more detail in Box 4.

Firms at risk of insolvency

Chart 24

Share of firms at risk of insolvency and the impact of relief measures

The share of firms estimated to become insolvent because of declining revenues (percentages)



Sources: NBS and Bisnode.
Notes: In the adverse scenario, the estimation of the share of firms at risk of becoming insolvent in 2021 assumes that the period during which aid will be available will be extended to the end of 2021. The baseline assumes that firms' revenue losses will be approximately one-third lower in 2021 than in 2020, while the adverse scenario assumes that revenue losses in 2021 will be on a par with those in 2020.

The revenue losses expected under the baseline scenario imply that around 8.6% of firms will be at risk of insolvency by the end of 2020 and that a further 3.1% will be in that position at the end of 2021.[19] In the adverse scenario, 5.1% of firms are estimated to be at risk of insolvency at the end of 2021. These estimates take into account the estimated absorption of aid under the First Aid (Plus) package. The package is currently due to

[19] These estimations do not take into account any additional decrease in wage costs where revenue losses are compensated by making lay-offs or reducing wages. If the overall percentage reduction in firms' wage costs matched the percentage reduction in revenues, the share of firms at risk of insolvency would be slightly lower (by around 1 percentage point).

run until March 2021, but the adverse scenario assumes it will be extended. Absent this aid, the share of firms at risk of insolvency is estimated to be higher: 10.8% in 2020 and then rising by a further 3.1% under the baseline scenario or by 6.3% under the adverse scenario.[20] With aid absorption factored in, the NFCs most at risk of insolvency are micro enterprises, while the least at risk are large enterprises, which may be the major recipients of wage-compensation aid[21] (the share of wage costs in total costs is higher among larger enterprises).[22]

The firms getting into difficulty in 2021 may include a larger share of firms which in the pre-crisis period were in better financial shape and were more attractive borrowers for banks. This is mainly the case if the crisis continues having a severe impact on revenues in 2021. As Table 7 shows, compared with other firms, the firms becoming at risk of insolvency during 2020 have significantly worse profitability (most of them either made a loss in 2019 or have for some time been reporting very low profitability), higher indebtedness, and weaker liquidity. Next year, however, the ongoing crisis may put at risk of insolvency even firms whose financial indicators were substantially sound before the outbreak of the pandemic, albeit not quite as sound as those of other firms. This applies mainly in the adverse scenario, with not only less indebted and more liquid firms being put at risk, but also more profitable firms.

Table 7 Comparison of firms at risk of insolvency and other firms

	Firms becoming at risk of insolvency in 2020	Firms becoming at risk of insolvency in 2021 (baseline)	Firms becoming at risk of insolvency in 2021 (adverse scenario)	Firms expected to remain solvent
Profitability (ROA in 2019)	-4.4%	-9.8%	0.2%	6.1%
Long-term profitability (average ROA in 2015–2019)	0.7%	0.0%	3.2%	7.5%
Indebtedness (debt-to-equity ratio)	7.6	3.2	2.8	1.2
Liquidity (quick liquidity ratio)	0.87	1.01	1.10	1.61

Sources: NBS and Bisnode.
Note: The table shows the median value of each indicator in the given category of firms.

[20] We estimate that around 20% of the compensation will be paid to firms which, despite state aid, will not avoid significant insolvency risk.

[21] Without state aid, however, larger enterprises would face the highest insolvency risk. On the one hand, larger enterprises are better capitalised; on the other hand, their balance sheets and profit and loss accounts are more sensitive to revenue losses. Since their sales-to-assets ratio is higher, revenue losses have a greater impact on their assets.

[22] As many as 25% of NFCs have zero wage costs, hence are unaffected by the wage subsidy aid scheme. These NFCs are almost all micro enterprises.

Banks' loans to NFCs at risk of insolvency as a share of their total NFC loans is estimated to be 3.7% in 2020, rising in 2021 by a further 2.7 percentage points under the baseline scenario and by a further 4.0 percentage points under the adverse scenario. Large enterprises have the lowest probability of default, while micro enterprises have a PD two to three times higher than that. This is consistent with pre-crisis empirical experience and with banks' greater cautiousness related to lower growth in loans to the micro enterprise segment.

In the first year of the simulation (2020), the share of loans at risk of delinquency (3.7%) is significantly lower than the share of firms at risk of insolvency (8.6%). This is demonstrated by the fact that banks are financing riskier firms to a lesser extent or in lower volumes. In the case, however, that revenue losses remain heavy in 2021, the firms getting into difficulty include firms which in the pre-crisis period were in better financial shape and were more attractive borrowers for banks; in addition, the non-performing loan ratio begins to increase appreciably.

As for loans under moratoria, it is estimated that 3.2% will become a delinquency risk in 2020 and that a further 2.9% will do so in 2021 (or a further 4.8% under the adverse scenario).

An increase in corporate insolvency may have an impact on the labour market. Firms at risk of insolvency in 2020 and 2021 employ around 11.8% of the private sector workforce. In the adverse scenario, 14.1% of jobs are under threat. Without taking account of the First Aid (Plus) aid, the number of jobs under threat is one-third higher; this indicates how important the relief measures have been to preserving employment. Given, however, that the aid received is estimated to cover only 5% of revenue losses, firms are having to engage in some layoffs. In NBS's current Medium-Term Forecast,[4] unemployment is projected to increase during 2020–21 by 2.7 percentage points under the baseline scenario and 4.2 percentage points under the adverse scenario.

Table 8 Share of jobs under threat owing to corporate insolvency

	Baseline scenario		Adverse scenario	
	2020	2021	2020	2021
Including the impact of First Aid (Plus) compensation	9.2%	2.6%	9.2%	4.9%
Excluding the impact of First Aid (Plus) compensation	12.6%	2.9%	12.6%	7.2%

Sources: NBS and Bisnode.
Note: The figures denote the percentage share of private sector employees.

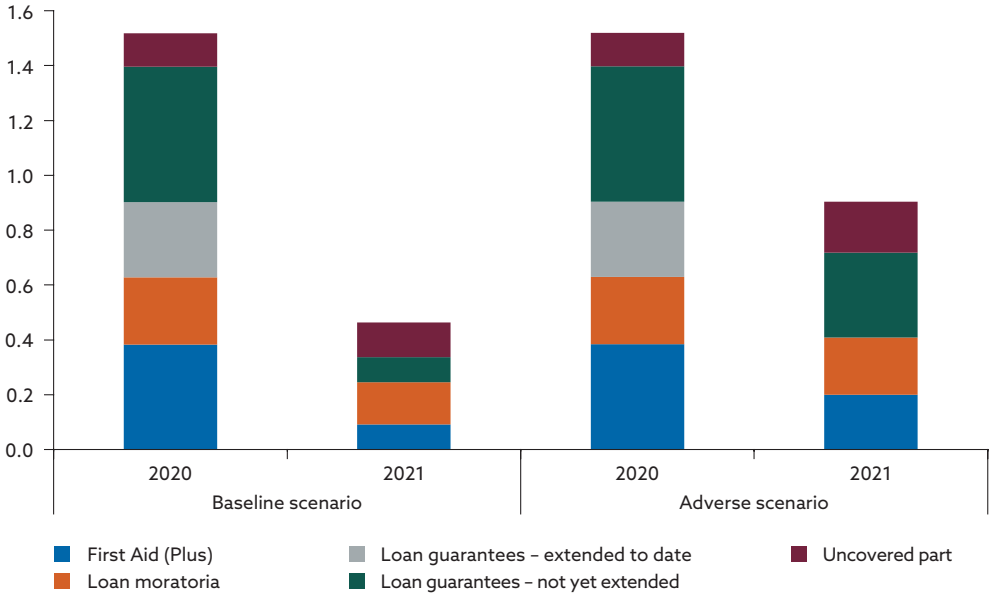
Firms at risk of illiquidity

More than one-tenth of still-solvent firms will require additional liquidity to bridge revenue losses. It is estimated that 10.2% of firms will face increased liquidity needs in 2020. If revenue losses continue in 2021, mainly in the adverse scenario, that figure is estimated to increase slightly, to around 11.3%. In this case, however, the firms concerned started experiencing liquidity shortages in 2020 and these shortages became more pronounced the following year. These estimates take into account the impact of First Aid (Plus) compensation. If that impact is excluded, the share of firms needing additional liquidity rises to 12.4%. On the one hand, according to the simulation results, the need for additional liquidity is greatest among large enterprises, in terms of both the volume of additional liquidity and the share of firms that require it; on the other hand, large enterprises are also better able than other firms to cover their additional liquidity needs, including through intra-group financing. Hence they can optimise liquidity flows to a greater extent and maintain a lower liquidity buffer.

Chart 25

Relief measures have to a large extent enabled firms to cover their additional liquidity needs

Additional liquidity needed to cover firms' revenue losses and the possible coverage of that liquidity need (EUR billions)



Sources: NBS and Bisnode.
Notes: The left-hand scale shows, in billions of euro, the amount of additional liquidity needed in each year. In 2021 further liquidity is needed on top of the additional liquidity needed in 2020. The absorption of aid under the First Aid (Plus) package in 2020 has a downward impact on the additional liquidity requirement in 2021, since this aid reduces the drain on liquidity (mainly as bank account funds) and leaves firms with more available liquidity going into 2021.

The relief measures adopted in response to the coronavirus crisis are greatly helping to cover the additional liquidity requirements resulting from

the crisis. Without these measures in place, it is estimated that the overall additional liquidity requirement would be around €1.5 billion in 2020 and an additional €0.5 billion in 2021 (or €0.9 billion under the adverse scenario). As Chart 25 shows, much of the additional liquidity requirement can be covered through the absorption of aid under the First Aid (Plus) package. The loan moratoria scheme also significantly reduces the need for additional liquidity, by between €0.2 billion and €0.3 billion.[23] These two measures cover more than one-half of the overall additional liquidity requirement, leaving between around €1.1 billion and €1.4 billion (cumulative for 2020 and 2021) still to be covered.[24] Most of that amount can be covered by new bank loans guaranteed under public guarantee schemes;[25] between €250 million and €300 million cannot be so covered owing to the borrowing cap on individual firms, and the remaining amount can be covered by non-guaranteed loans and, in the case of large enterprises, by intra-group financing.[26]

Overall assessment of the impact of relief measures and the need for their expansion

To sum up, the adopted relief measures have been effective in mitigating the impact of the coronavirus crisis on the NFC sector. Because of them, far fewer firms have become at risk of insolvency or illiquidity. It assumed, however, that there will be no obstacles to the use of these measures, nor any lack of demand for them on the part of firms or banks.

The conclusions of this analysis also imply that, if pandemic containment measures are tightened as a result of a rise in infections, the state should to some extent compensate firms for their resulting revenue losses. The firms at risk of insolvency in the first wave of the crisis were mainly those already in a worse financial situation. In the case of the second wave, or any further waves, the firms at existential risk will to an increasing extent include firms which went into the crisis in relatively sound shape and as more attractive borrowers for banks. The relief measures' main target group is supposed to be firms that need only temporary aid to mitigate the

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[23] This estimate assumes that loan moratoria are used by all firms facing a liquidity shortage. The actual share of firms whose loans are under moratoria is approximate to the share of firms facing a liquidity shortage.

[24] As at September 2020 the government guaranteed loans that had been extended covered between around 20% and 25% of that amount.

[25] The borrowing caps are absolute (€0.5 million for micro enterprises, €2 million for small and medium-sized enterprises, and €20 million for large enterprises) and may also not exceed two times the firm's average wage costs or 25% of the firm's revenues for 2019.

[26] During the pandemic's first wave, liquidity problems may also have been eased by the deferral of income tax payments. The duration of this deferral is, however, shorter than loan moratoria, so its impact is not included in the analysis.

impact of revenue losses resulting from the coronavirus crisis. These are firms which, given their situation before the crisis and their business model, can be expected to return to normal operation once the crisis is over, without requiring further aid. Any extension of the relief measures during the crisis should therefore be directed mainly at these firms. From this perspective, the prompt response to the second wave in the form of the extension and expansion of relief measures for firms, i.e. the First Aid Plus package, can be judged favourable.

But despite the relief measures, the risk of some firms becoming at risk of insolvency and then not being able to service their debts remains relatively high. Even if the relief aid is fully absorbed, we estimate that the non-performing loan ratio for NFC loans will have increased by between 6.4 and 7.8 percentage points by the end of 2021. Absent the measures, however, the increase is put at 9.8 percentage points. Going forward, another important factor may be the adoption of a law on the temporary protection of businesses in financial difficulty.

The existing public loan guarantee schemes are expected to be sufficient to cover the large increase in liquidity needs resulting from the coronavirus crisis, including the expected further increase in these needs in 2021. It is important, however, that these guarantee schemes are fully functional, since our analysis indicates that the need for this form of borrowing will remain relatively high. Bank financing at this time is primarily focused on large enterprises and sectors less affected by the crisis. A segment of the NFC sector, mainly at the level of small and medium-sized enterprises, is therefore quite heavily dependent on government-guaranteed loans. Any hindrances to the implementation of the guarantee schemes must be removed, including in particular those caused by risk coverage uncertainty and high administrative costs. One barrier to the full coverage of additional liquidity needs via government-guaranteed loans may be the current caps on how much individual firms can borrow under the schemes.

Compared with the situation in other countries, the lower uptake of government-guaranteed loans in Slovakia during the coronavirus first wave has created scope for their higher uptake during any further economic downturn that may result from the pandemic containment measures, the tightening of bank credit standards, and the worsening of firms' financial positions during the second wave of the crisis. What may now be an advantage is that the guarantee schemes still have ample funds available and that banks and borrowers alike are knowledgeable about the schemes – all of which is conducive to making the process of applying for and extending these loans as rapid as possible.

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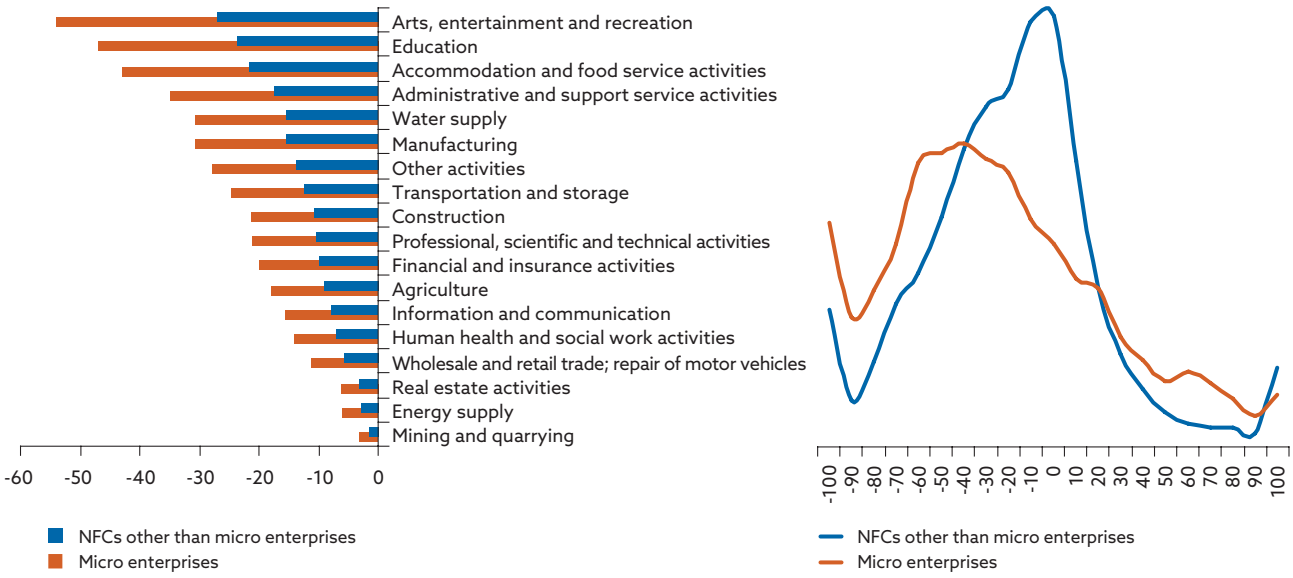
Box 4
The methodology for estimating the share of firms at risk and the impact of relief measures

The estimation of the share of firms at risk is based on a simulation of the impact of revenue losses in individual firms. The simulation covers the years 2020 and 2021 and is based on the baseline and adverse scenarios used in NBS's September 2020 Medium-Term Forecast (MTF-2020Q3), which are described in more detail in Box 1. We referred to firms' financial statements[27] data for 2019 and abridged financial statements as at June 2020. To the individual firms we applied revenue losses according to the firm's economic sector and size, as shown in Chart 26.[28] The greater the crisis's impact on the sector, the larger the assumed revenue losses. Even larger revenue losses were assumed for micro enterprises within each sector. The simulation's average year-on-year revenue loss is based on revenue trend data as at August 2020 and the particular macroeconomic scenario. The estimated average revenue loss values are shown in Table 9.

Chart 26
Simulated revenue losses broken down by economic sector and firm size
(percentages)



Source: NBS.
Notes: The statistical distribution for micro enterprises is based on the distribution of the average change in revenues for the months from March to July 2020 as compared with February 2020 (using eKasa data). The statistical distribution for other firms is based on the sampled firm's abridged financial statements as at June 2020.

[27] The simulation included only firms which reported activity (i.e. revenues) and which also had complete financial statements and positive equity.

[28] The simulated revenue losses are specific for each firm, i.e. different firms have different losses (even within the same sector). As at the analysis cut-off date, revenue trend data were not available for individual firms, so revenue losses were simulated using empirical statistical distributions. For micro enterprises, the basis was granular revenue loss data from the eKasa portal of the Slovak Financial Administration; for other firms, granular export data. Further information is provided in Chart 9 and in the notes to this chart.

Table 9 Assumed revenue losses compared with losses for 2019

	Baseline scenario		Adverse scenario	
	2020	2021	2020	2021
NFCs other than micro enterprises	-10%	-3%	-10%	-10%
Micro enterprises	-19%	-6%	-19%	-19%

Source: NBS.

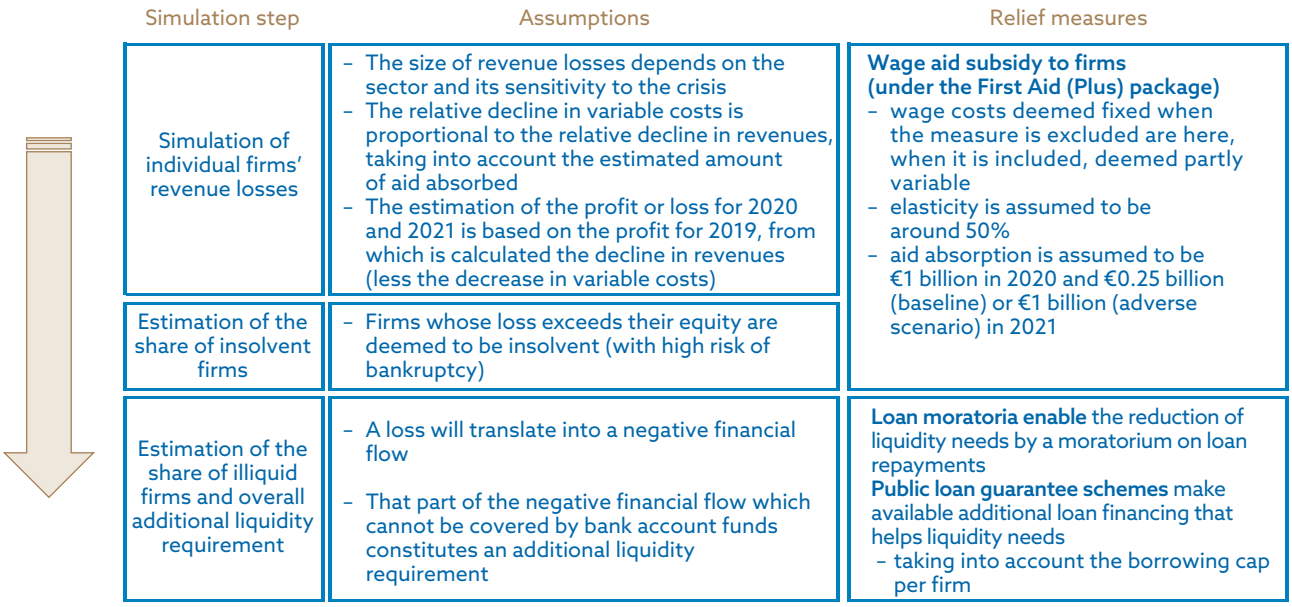
The solvency risk analysis is based on a comparison of the revenue losses and own funds of the sampled firms. A firm is deemed to be insolvent if its revenue losses (in 2020 or cumulatively for 2020-21) exceed its own funds. Account is taken of the compensation effect of the absorption of state aid via the First Aid (Plus) package, which means revenue losses can be partly offset by a decrease in wage costs. We assume that the percentage decrease in wage costs is approximately one-half of the percentage decline in revenues. This assumption corresponds to overall aid absorption of €1 billion in 2020.[29] In 2021 we assume that an additional €250 million of aid is absorbed, given that the package is at present due to run until March 2021. In the adverse scenario, however, we assume that the package will be extended until the end of 2021 and that therefore the absorbed aid will amount to €1 billion, as in 2020.

The additional liquidity requirement analysis is based on an estimation of still-solvent firms' ability, in terms of liquidity, to absorb revenue losses. Revenue losses weigh not only on firms' profitability, but also on their cash flows. Firms may cover part of the losses (less cost decreases) out of their funds held in bank accounts. A further part may be offset by temporarily reducing other negative financial flows, in particular by using the option of a loan moratorium or tax payment deferral. What remains is the firm's additional liquidity requirement, i.e. need for additional financing (mainly by taking out bank loans, whether loans guaranteed under public loan guarantee schemes or standard non-guaranteed loans). The analysis also takes account of the caps on the amounts of government guaranteed loans available to individual firms.

The overall scheme of the revenue loss impact simulation, including the impact of relief measures, is shown in the figure below.

[29] This estimation is based on data on the aid absorbed during the period March–September 2020, which is approximately €0.6 billion. Given that the available aid was increased by 50% from October, we assume that the amount of aid absorbed in the period September–December 2020 will be similar, i.e. €0.5 billion.

Figure 1
Simulation of the impact of revenue losses on firms' solvency and liquidity



Source: NBS.

2.3 Banks' credit risk costs during the coronavirus crisis

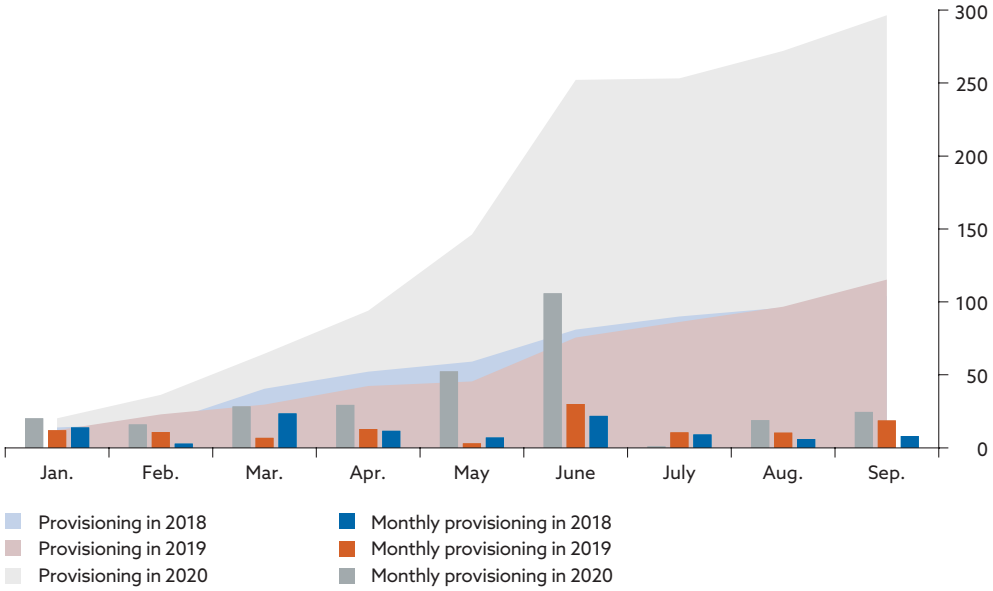
Aggregate net loan loss provisioning in the Slovak banking sector for the first nine months of 2020 amounted to €296 million, a year-on-year increase of 157%. In that period banks' net provisioning was greater than in 2018 and 2019 combined. On the other hand, provisioning slowed notably in the third quarter, amid an improvement in economic outlooks following the fading of the first wave of the coronavirus pandemic.

The peak intensity of loan loss provisioning in the first nine months came in the second quarter. At this time, when uncertainty was high and relief measures were still being drawn up, the pandemic's first wave was having its greatest impact. In the second quarter, banks' net allocation against credit risk amounted to €188 million, while in the first and third quarters it stood at €65 million and €44 million respectively.

Chart 27

Loan loss provisioning accelerated sharply in the second quarter

Monthly and cumulative provisioning (EUR millions)



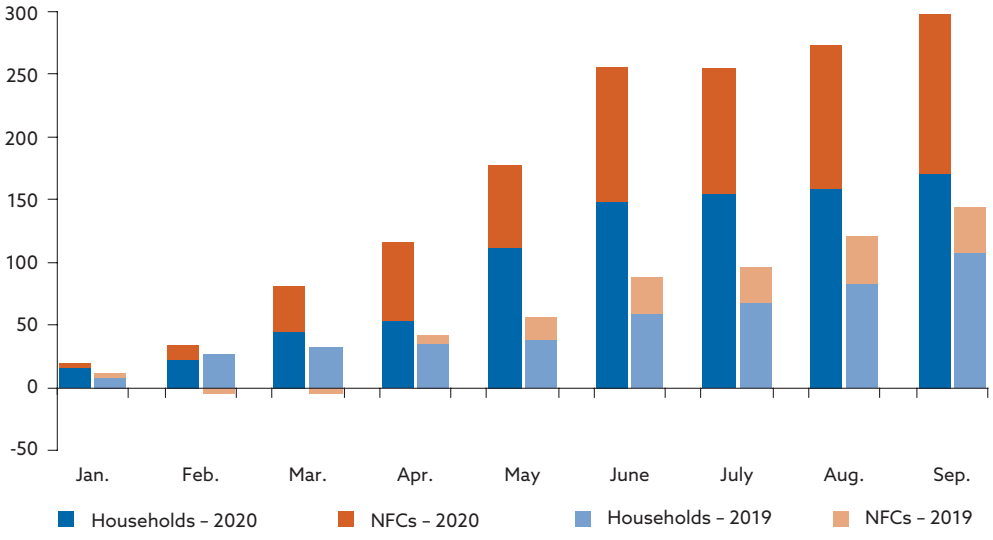
Source: NBS.

Provisioning for NFC loans during the period under review accounted for a greater share of aggregate provisioning than it did in previous years. Provisions for credit risk in the NFC loan book increased, year on year, by 250% in the first nine months, and by the end of September they amounted to around 42% of the net provisions for that period (up from a share of 25% in the previous year). Provisioning for retail loans climbed by 57% year on year, and its share of overall provisioning dropped to 56%, from 72% in 2019.

Chart 28

Large year-on-year rise in credit risk costs for both household loans and NFC loans

Year-on-year changes in credit risk costs for household loans and NFC loans (EUR millions)



Source: NBS.

It has been difficult for banks to assess credit risk during the coronavirus crisis. From their perspective, the crisis and loan moratoria have caused considerable economic uncertainty, which, regardless of how the moratoria have benefited borrowers, has been prolonged at least until the moratoria expire (mostly during the first quarter of 2021). Until then, banks will have to rely on qualitative monitoring of borrowers or, if available, current account transaction information.

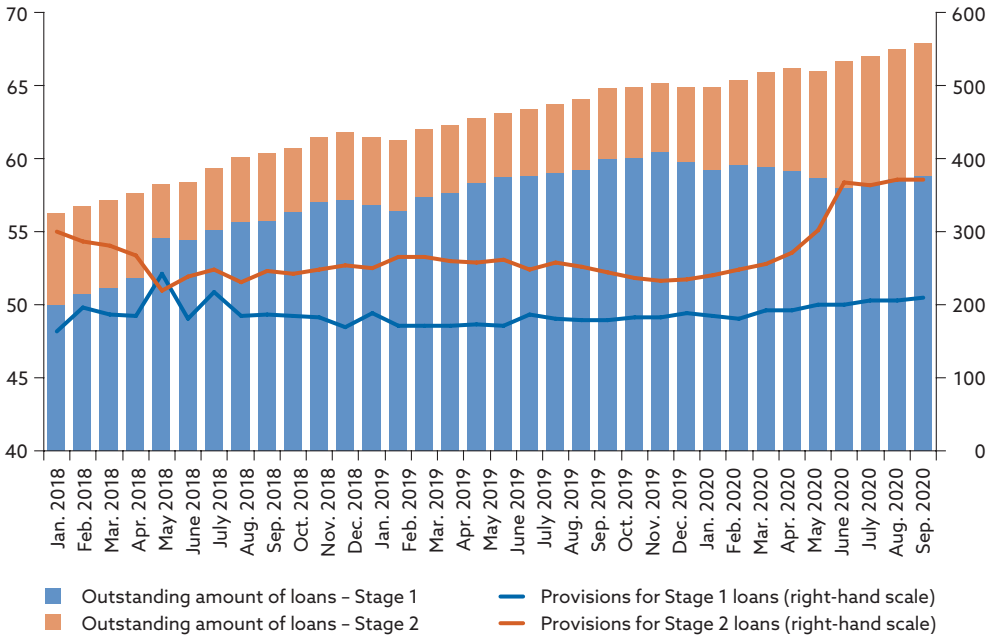
The increase in provisioning in 2020 is therefore still not reflecting direct loan impairment losses (Stage 3 loans under IFRS 9), but rather constitutes a buffer against performing loans that have experienced a significant increase in credit risk (Stage 2 loans under IFRS 9). Certain banks have been restaging loans as Stage 2 (higher-risk) loans after deciding that the loans show riskier characteristics; for example, being under moratoria, a worsening of the borrower's credit rating according to the latest available monitoring, the borrower being associated with a higher-risk economic sector (mainly in the case of NFCs); or the borrower's type of income or employment (in the case of retail loans). At the same time, in provisioning for loans whose credit risk has increased since the time of origination (Stage 2 and Stage 3 loans), the worsened macroeconomic fundamentals have gradually been factored in to the calculation as a forward-looking indicator.

Paradoxically, at this time of the coronavirus crisis, the aggregate NPL ratio for customer loans fell from 3.2% in September 2019 to 2.9% in September 2020 (the lowest it has been since IFRS 9 was implemented in 2018). The trends across banks are, however, heterogeneous. Meanwhile, loans with increased credit risk as a share of the aggregate portfolio reached an all-time high in September (13.6%), with a year-on-year increase of 6 percentage points. Several banks have been classifying into this category loans that they judge to be a higher impairment risk – on the basis of the loans' risk characteristics and combination of such characteristics; for example, economic sector and pre-crisis resilience (for NFC borrowers), type and level of income (for household borrowers). Total provisioning for this portfolio has surged by almost 50% since the onset of the coronavirus crisis in February. The provisioning rates at different risk levels have remained stable, and the overall provisioning rate has increased, year on year, by just 2 basis points, to 2.85%. Even the NPL coverage ratio has remained almost unchanged, edging up from 68.2% in September 2019 to 68.3% in September 2020.

Chart 29

The increase in credit risk costs for performing exposures was concentrated in the second quarter of 2020

Monthly developments in the distribution of customer loans and provisioning for Stage 1 and Stage 2 loans under IFRS 9 (EUR billions; EUR millions)



Source: NBS.
Notes: Stage 1 loans: their credit risk has not increased significantly since origination (provisioning is for expected credit risk losses over the next 12 months). Stage 2 loans: their credit risk has increased significantly since origination but they are still performing loans (provisioning is for expected credit risk losses over the remaining lifetime of the loan).

Banks' provisioning for NFC loans has this year focused mainly on loans to firms operating in the sectors worst affected by the pandemic crisis. According to data reported as at June 2020 by the most significant banks, the largest increases in provisions were for loans to firms in manufacturing (they increased by 61% year on year and by 53% from the first quarter to the second quarter), transportation sector (42% and 30%) and trade sector (17% and 13 %). Provisioning for loans to the accommodation and food service activities sector remained flat year on year, but in quarter-on-quarter terms it climbed by 36%. This sector also recorded the largest quarterly increase in the volume of non-performing loans (21%), while the overall volume of these loans decreased (by 3%).

The future trends in credit risk costs are difficult to predict. Their key determinants in coming months will include the rising intensity of negative risks associated with the pandemic's second wave, the increasing clarity about the actual credit quality of loan books following the gradual unwinding of first-wave relief measures, and future developments in the domestic and external economies.

Non-performing loans are expected to accelerate in the first half of 2021. But with NPL growth having been contained from the start of the second quarter

of 2020 by the introduction of various crisis relief measures, this acceleration will represent simply a sharp reversion to the status quo ante. Whether, however, the assumed increase in the default rate triggers additional loan loss provisioning in the banking sector will depend on the subsequent economic recovery. If the situation proceeds in line with banks' projections, it may be expected that the credit risk of existing Stage 2 loans (under IFRS 9) will moderate in the context of a recovering economy and improving financial situation and that the resulting decrease in provisioning for these loans (through their being restaged as Stage 1 loans, or through any reduction in Stage 2 provisioning per se) will offset the provisioning required for the increase in defaulting loans. Even if, however, provisioning balances out in this way (or even if it decreases slightly), the overall profitability of individual banks will have been adversely affected by their increased tax liability.

2.4 Insurance sector trends

The impacts of the coronavirus crisis on insurers have so far been cancelling each other out

The financial performance of insurers has so far been only moderately affected by the coronavirus crisis, as positive and negative fluctuations have been cancelling each other out. Firstly, there has been an expected decline in net premiums written. Their level in traditional life insurance business has decreased by 9.5% year on year (as at end-June 2020), so accelerating a downtrend that began in 2018. The share of traditional life insurance in total net premiums written in the life segment has dropped to 66%, down by 9 percentage points from its level in 2017. In unit-linked life insurance, growth in net premiums written has turned negative for the first time, going from a decelerating uptrend to a relatively large year-on-year decline of 9.9% as at end-June. The primary cause of these declines is the crisis-induced deterioration in households' financial situation and resulting downward impact on their expenditures, for example spending on insurance premiums. This may have led to an increase in life policy surrenders; however, these data are not yet available. This expectation is nevertheless also supported by technical provisions data, which for life insurance show a decline of 11% in technical provisions, and for unit-linked insurance, which directly reflects investment returns, a decline of 26%.

Secondly, the low interest rate environment has for a long time been reducing the attractiveness of life insurance returns, with the negative impact being most pronounced in traditional life insurance. In addition, according to qualitative market information, coronavirus lockdown measures have had an adverse effect by limiting contact between insurance agents and potential customers. This is a considerable complication for life insurance business, where contracts are traditionally concluded face to face.

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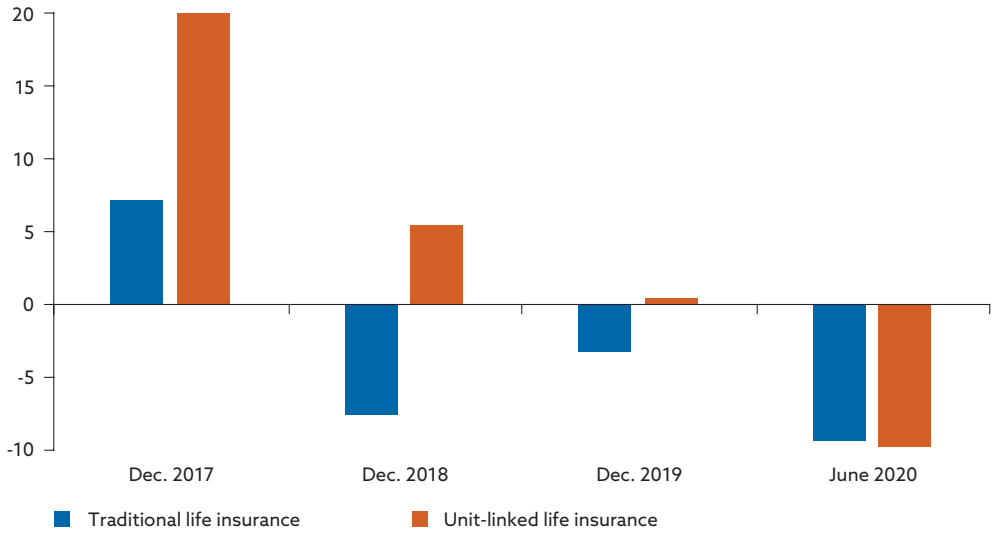
Chart 30

Premiums written have declined in both traditional and unit-linked life insurance during the pandemic crisis

Year-on-year change in gross premiums written (percentages)



Source: NBS.

As for risk insurance classes, a small component of life insurance business, their premiums written have recorded a substantial year-on-year increase of 27% (as at end-June 2020). This component comprises mainly health insurance. Unlike life insurance savings products, life insurance risk products are not affected by market interest rates. Their growth has accelerated during the pandemic crisis.

In non-life insurance, premiums written have continued to increase, albeit at a more moderate pace, while claim payments have decreased. Premium growth has been most pronounced in motor insurance business,[30] by far the largest class of non-life insurance. In this class, premiums written increased by 4.2% year on year in the first half of 2020, matching their growth in the same period of 2019. In property insurance, premiums written declined slightly (by 0.5%). In certain marginal insurance classes – travel health insurance, travel assistance insurance, and transportation insurance – they fell more sharply (by between 18.0% and 26.8%). Given that these classes are directly related to the travel industry, it is natural that they recorded falling premiums during the pandemic crisis.

On the other hand, the slump in economic activity during the spring lockdown resulted in savings on claim payments in motor insurance. It is interesting to note, however, that despite this favourable effect, motor insurance business made only a marginal profit and therefore did not manage to cover its losses of previous years.

[30] Comprising motor third party liability (MTPL) insurance and comprehensive motor insurance.

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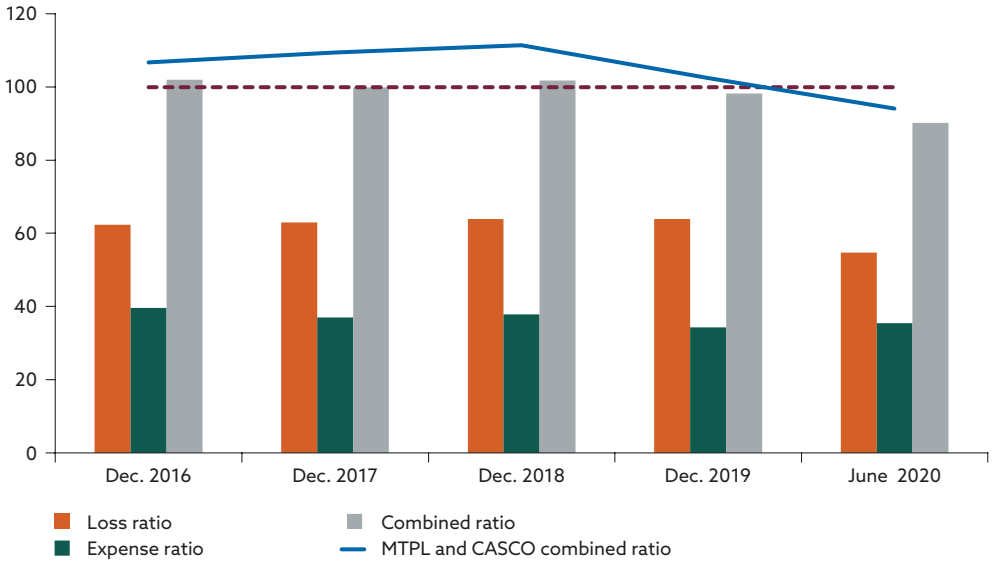
Chart 31

Motor insurance has reported positive results for the first time in several years

The loss ratio, expense ratio and combined ratio for MTPL insurance and comprehensive motor insurance (percentages)



Source: NBS.
Note: The MTPL and CASCO combined ratio includes levy payments to the Slovak Interior Ministry and the Slovak Insurers' Bureau and a special insurance premium levy applied on comprehensive motor insurance in 2017 and 2018.

The insurance sector's financial results have been reflecting general developments in financial markets. The available data for the first half 2020 show that investment returns fell steeply and then began to recover. This was most apparent in unit-linked insurance business, which posted a loss of €73 million for the first half of 2020). What then happened in the third quarter, when certain indices were rising to historical highs is not, however, captured by the available data. Returns on investments for the account of insurers also declined (by 18% year on year), but given the conservative profile of the portfolios in question, market volatility had only a limited impact on these returns. The rest of the decline in returns is therefore explained by the gradual replacement of older, higher-yielding bonds with new, lower-yielding securities.

Certain risks to the insurance sector have still not materialised

The insurance sector is also exposed to several risks not only stemming from the pandemic crisis, some of which have already been materialising to some extent. A long-standing risk to life insurance business is the so-called double-hit scenario comprising a decline in risk-free interest rates combined with an increase in risk premia. This implies an increase in the sector's liabilities arising under insurance contracts and, at the same time, a decline in the value of the assets covering these liabilities. This scenario partly materialised when financial markets tumbled in spring 2020; however, asset values soon rallied and the overall impact was therefore mitigated. Meanwhile, risk-free interest rates have remained on a downward

path. As at September 2020 the risk-free rate published by EIOPA on the basis of market data was negative for the whole range of maturities from 0 to 21 years.[31] The persisting economic uncertainty is therefore increasing the probability of a further manifestation of the double-hit scenario.

The current risks in life insurance also include a possible increase in policy surrenders and the related continuation of the downtrend in premiums written. As regards investment strategy, there remains the risk of existing investments being downgraded, resulting in an increase in capital requirements.

The risks in non-life insurance are associated mainly with the insurance of travel agencies against insolvency (travel agency insurance) and with credit insurance. The situation in the first of these classes will depend a great deal on the progress of the pandemic and government countermeasures, whether concerning rules for foreign tourism or direct financial relief for travel agencies. In the adverse scenario, a steep rise in travel agency bankruptcies would cause a similar spike in claim payments under travel agency insurance policies. On the other hand, the restrictions on travelling mean fewer tour package sales and therefore a lower risk exposure for the insurer.

In credit insurance, too, the situation will be largely determined by near-term economic developments and relief measures, particularly measures aimed at preserving employment and making loan moratoria broadly available among consumers. From the perspective of claim payments, what will be important is the way in which the measures are unwound or whether they are prolonged.

2.5 Trends in other financial sectors

Large losses on asset revaluations recorded in both funded pillars of the pension system and in the investment fund sector after the pandemic crisis outbreak have subsequently been largely recouped

The impact of the coronavirus crisis on asset management sectors, i.e. the second and third pillars of the pension system[32] and the investment fund sector, was most pronounced during the initial stage of the crisis. The cascade of falling prices across financial markets in February and March of this year had a major impact on the asset values of domestic pension

[31] The risk-free swap rate in euro unadjusted for euro volatility. The data for maturities from 0 to 20 years are market-based; those for maturities of more than 20 years are extrapolated so that they converge to the regulatory ultimate forward rate of 3.6%.

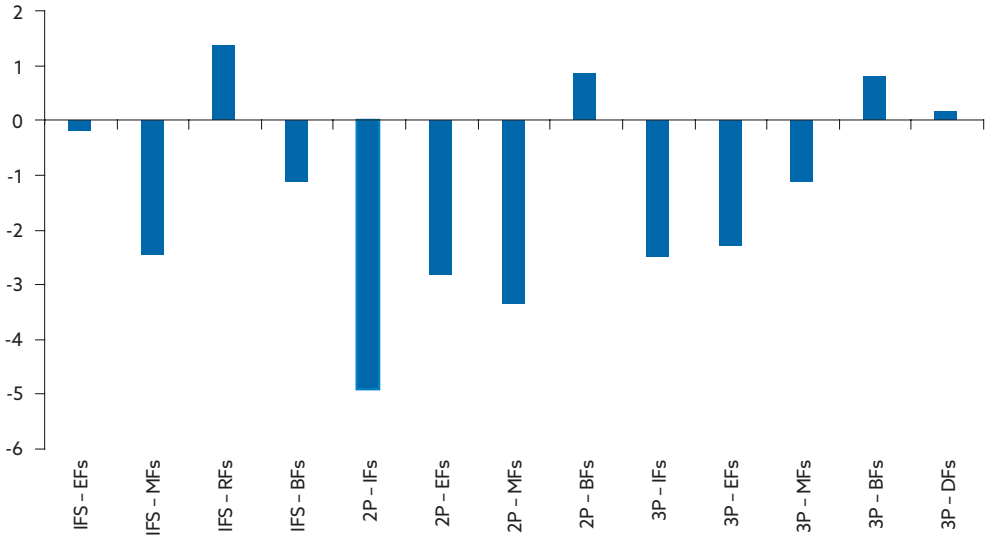
[32] The second pillar of the Slovak pension system – the old-age pension scheme – is a defined contribution scheme operated by pension fund management companies (PFMCs); enrolment is voluntary but savers may not leave the scheme after enrolment. The third pillar – the supplementary pension scheme – is a voluntary defined contribution scheme operated by supplementary pension management companies (SPMCs)

funds and investment funds. As usually happens during episodes of investor nervousness and rising risk aversion in financial markets, those funds that had the largest equity component in their portfolio recorded the largest decline in the value of their shares/units. The funds whose net asset value (NAV) fell most sharply because of the adverse market price developments were index funds, which invest exclusively in equities, directly or indirectly. Their decline peaked just before the end of March, at more than 30% of the index funds' aggregate NAV. Bond investment funds and bond pension funds performed relatively well; their return ranged between -5% and -3% depending on the sector. The only funds that did not record negative returns for this period were real estate investment pension funds, which maintained aggregate zero returns.

Chart 32

The large losses that funds suffered early in the coronavirus crisis were largely or even completely recouped by the end of the third quarter of 2020

The performance of different fund categories in the period 31 December 2019–30 September 2020 (percentages)



Source: NBS.
Note: IFS – investment fund sector; 2P – second pension pillar; 3P – third pension pillar; EF – equity fund; MF – mixed fund; RF – real estate fund; BF – bond fund; IF – index fund; DF – decumulation fund.

The accounting losses reported in early part of 2020 were fortunately only a blip and were rapidly reduced in subsequent months amid a general recovery of financial market prices. Around two-thirds of those losses had already been wiped out by the end of May, and the correction continued thereafter, albeit at a slower pace. By the end of September almost all the losses had been recouped, and the aggregate NAV of funds in all three sectors stood 1% lower than it did at the start of the year. Some fund types performed slightly better than that, and others did worse; however, the overall spread of results was relatively narrow. Bond funds in both pension pillars managed to achieve marginally positive nominal returns, as did third-pillar decumulation funds and real estate investment funds. Most of

the other fund types, in particular funds with mixed-investment and equity-focused portfolios, posted negative returns for the first three quarters of 2020, ranging between -3% and -1%. The worst-performing funds were second-pillar index funds, whose average pension-point value was 5% lower as at 30 September 2020 than as at 1 January 2020.

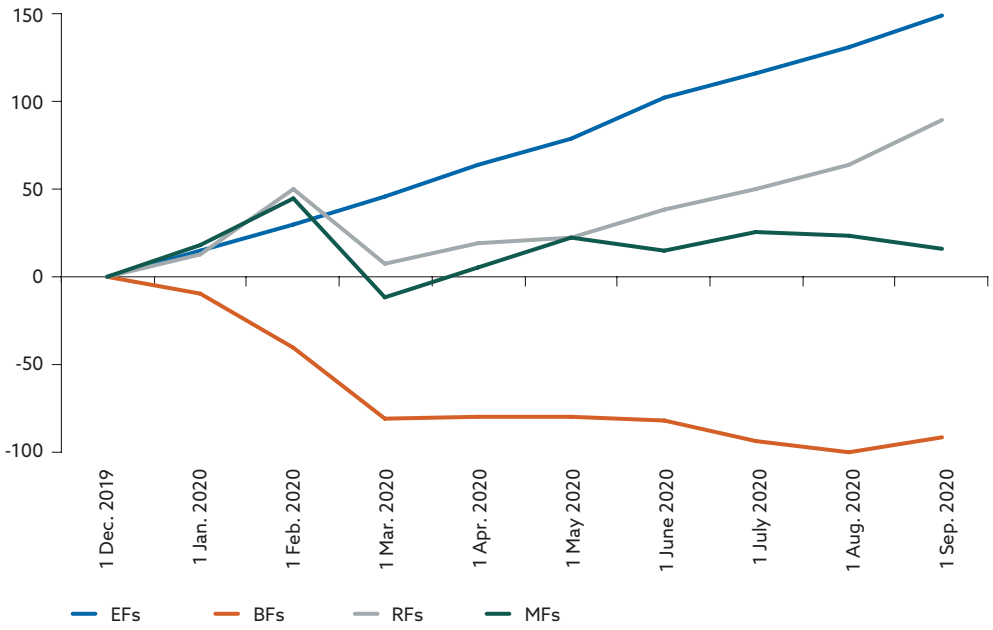
After a short period of relatively limited redemptions in March, investment funds' net sales returned to positive territory

What is positive from a financial stability perspective is that investors in domestic investment funds did not panic in response to financial market stress and moved hardly any of their money out of the sector. The only spate of fund redemptions occurred in March. The outflowing volumes were not systemically significant for the sector and were far lower than those seen in the past during similarly adverse economic and financial developments. Overall net redemptions in March amounted to €121 million, equating to just under 2% of domestic investment funds' aggregate NAV at the start of the year. Such a run of redemptions that would put fund management companies into difficulty was not even observed at the level of individual funds. It was important that net sales rebounded back into positive territory as early as April, and they remained there throughout the rest of the period under review. For the first three quarters of 2020, investment funds recorded net sales of €163 million.

Chart 33

Net sales have, unusually, been driven by equity investment funds, while the trend of bond fund redemptions has continued

Cumulative net sales during 2020 (EUR millions)



Source: NBS.
Note: EF – equity fund; BF – bond fund; RF – real estate fund; MF – mixed fund.

In the breakdown of aggregate net sales by fund type, equity investment funds had the largest share. It is worth noting that although this category recorded the largest decline in value, its net sales remained uniformly positive during the first three quarters of 2020, showing no sign of wobbling during the crisis month of March. Moreover, net sales of these funds were even higher than their usual levels in previous years. Real estate investment funds continued to report sizeable net sales. As for mixed funds, their net sales were just above zero during the period under review, whereas in previous years these funds were the most in demand. In March real estate funds and mixed funds experienced small redemptions; in the other months, they both reported higher inflows than outflows. Bond fund net redemptions were a trend during the second half of the last decade, and these funds continued recording a net outflow in the first three quarters of 2020. The volume of their redemptions was greater in the early part of the year and eased significantly thereafter.

The second and third pension pillars have not so far experienced any significant structural shifts resulting from the crisis

The impact of the current crisis on the second and third pillars of the Slovak pension system may lie more in its longer-term repercussions. Given the nature of the pension saving process as well as the statutory regulation of the two pillars, temporary fluctuations in the performance of second-pillar and third-pillar funds do not pose a significant risk to these sectors. The long-term nature of commitments under the pension schemes largely prevents the crisis from triggering any sudden and extensive withdrawals from them, such that is theoretically possible in the investment fund sector. The accumulation of assets in the pension schemes may decelerate owing to longer-lasting macroeconomic trends that the crisis brings in its wake. One such trend is the combination of an increase in unemployment and a decline in wage growth, which will be reflected in lower inflows from scheme members. Some signs that this may already be happening were seen in the pension contribution flows for the first half of 2020. Furthermore, the crisis has necessitated a further reduction in already low interest rates and established a presumption that rates will remain close to zero for the next several years. In these circumstances, second-pillar and third-pillar funds, in particular those with a more conservative investment profile, would probably report lower returns under the structure of their portfolios as they stand. Alternatively, the management companies may opt to bolster their funds' returns by turning to higher-risk investment strategies.

In the asset portfolios of both second-pillar and third-pillar funds, the shares of highest-rated bonds have decreased slightly. Bonds with the highest credit ratings (AAA to AA-), or their equivalent, have decreased

slightly as a share of funds' assets in both the second pillar and third pillar, while bonds with lower investment grade ratings (A+ to BBB-) have increased their shares. In both schemes, the share of high-level investment grade bonds in total bond holdings fell by around 5 percentage points over the first nine months, so as at 30 September their shares in assets of second-pillar funds and third-pillar funds were, respectively 24% and 11%. This shift reflects the net balance of bond purchases, bond sales, and maturing bonds during the period under review, which centred on mid- to lower-level investment grade securities. Also partly contributing to this trend were adjustments of individual debt securities' credit ratings, since, in the current macroeconomic environment, rating downgrades are more frequent than rating upgrades. This second factor was more significant in the case of second-pillar funds.

3 Financial sector resilience

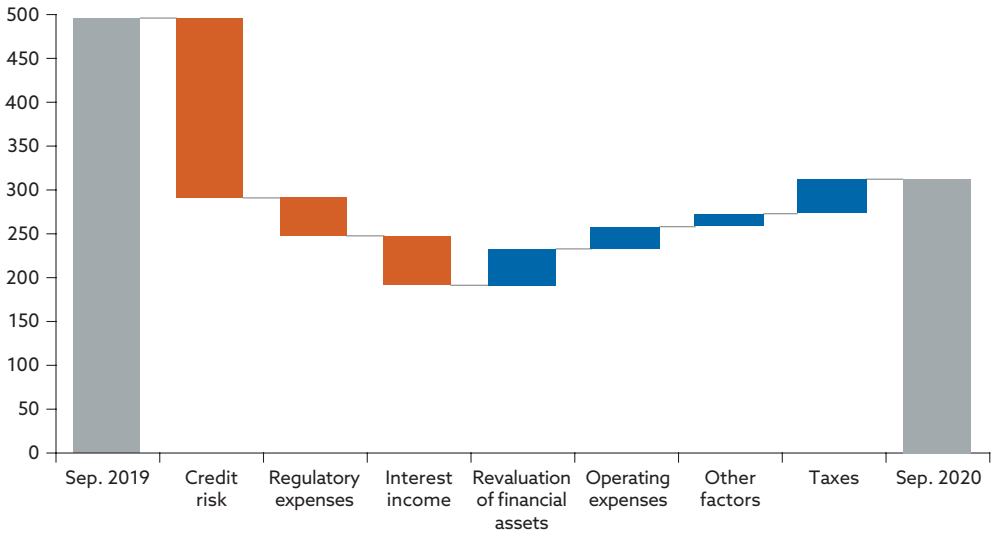
3.1 Solvency and financial position of the banking sector

Banks' net profit for the third quarter of 2020 surpassed their profit for the first half of the year

Chart 34

Banks' aggregate profit for the first nine months of 2020 declined by 37% year on year

Net profit and the most significant contributors to its year-on-year decline (EUR millions)



Source: NBS.
Note: Regulatory expenses include the bank levy, contributions to the Resolution Fund and the Deposit Protection Fund, and supervisory fees.

The banking sector's net profit for the first nine months of 2020 declined by 37%, year on year, to €313 million. The third quarter brought a silver lining, however, as the sector's profit for that period was 150%, or €188 million, higher than its profit for the first six months. This improvement stemmed largely from the cancellation of bank levy payments for whole of the second half of 2020 (the levy payments due for the third quarter would have amounted to around €78 million) and from a slowdown in loan provisioning (which was lower compared with the first and second quarters, by €20 million and €143 million respectively).

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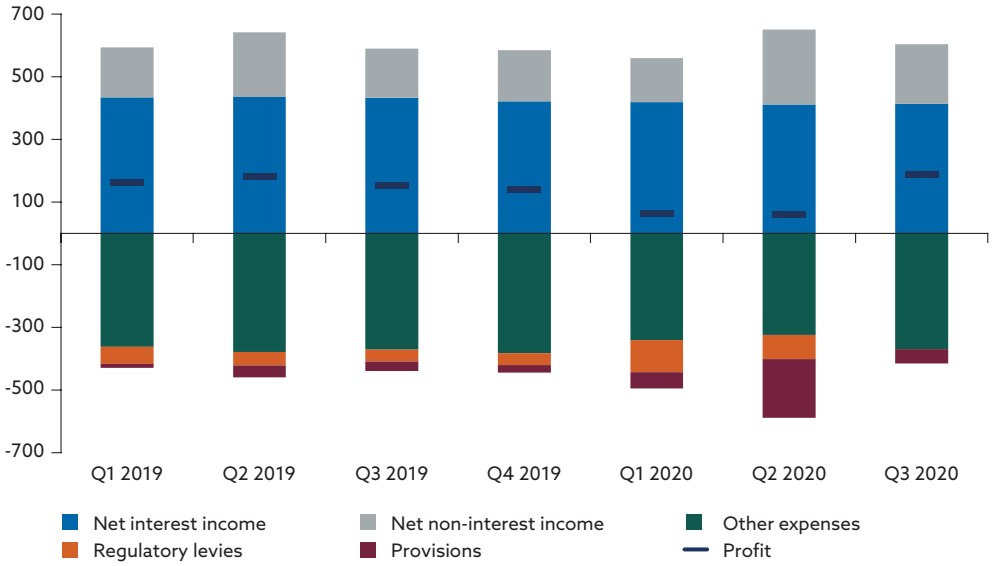
Chart 35

The bank levy cancellation and lower provisioning drove the acceleration of the banking sector's profit in the third quarter

The net quarterly profit and its most significant aggregates (EUR millions)

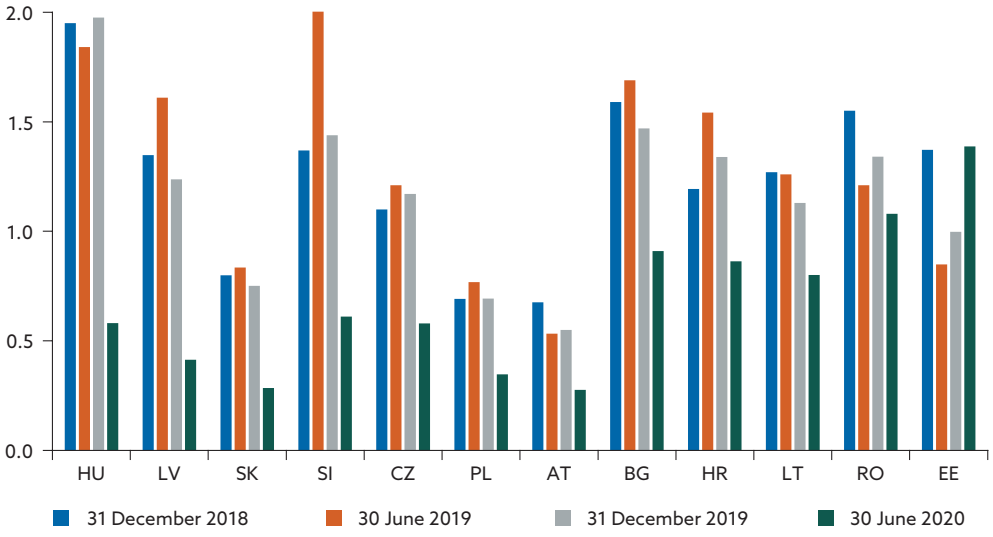


Source: NBS.

Chart 36

Banking sector profitability declined across central and eastern European Union (CEE EU) countries in the first half of 2020

Annualised return on assets in individual CEE EU countries (percentages)



Source: NBS.

Banking sector profitability in almost all CEE EU countries was far lower in the first half of 2020 than in the past several half-yearly periods. The profit slump in Slovakia, measured by the annualised return on assets (ROA), was the third largest in the region, after the declines in Hungary and Latvia. At the same time, Slovakia ranked second lowest in terms of banking sector profitability for the first half of 2020, only just ahead of its neigh-

bour Austria. The Slovak banking sector's profitability is expected to have been given a necessary boost by the cancellation of bank levy payments for the second half of 2020 (ROA rose from 0.28% for the first half of the year to 0.46% for the first nine months), which will help strengthen the sector's resilience to the consequences of the pandemic's second wave.

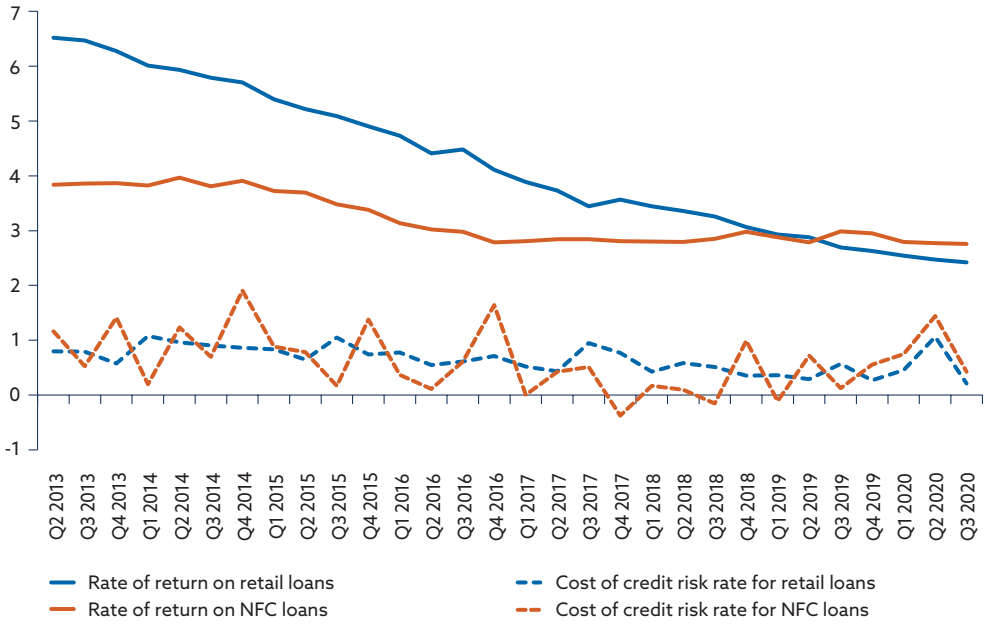
The Slovak banking sector's net provisioning for the first nine months of 2020 amounted to €296 million, representing a year-on-year increase of 157%. Further details about credit risk costs are provided in Section 2.3.

On the operational side, a process of optimisation has been underway in the banking sector for the past several quarters. General operating expenses decreased, year on year, by 2.5% in the first nine months of 2020; the only operating expenses that increased, as they usually do, were information technology expenses (by 5.6%) and personnel costs (0.7%). As for wage costs, their moderate uptrend is expected to decelerate in coming months, before they start declining as an expected result of the shrinking number of workers in the sector. In the first nine months of this year alone, the overall number of employees at the ten largest banks fell by more than 700 (4%). Optimisation is also affecting banks' retail networks, with the number of retail points declining by 44 (4.5%) during the period under review. Since the end of 2018 the sector's core workforce has declined by almost 850 people (5%) and the number of branches has fallen by 80 (8%).

Chart 37

Returns on retail loans remain on a long downtrend

Annual rate of return and cost of credit risk rate for retail and NFC loans (percentages)



Source: NBS.
Notes: The rate of return is the annualised ratio of the quarterly amount of interest income to the outstanding amount of loans as at the end of the given quarter.
The cost of credit risk rate is the annualised ratio of the quarterly amount of net provisioning to the outstanding amount of loans as at the end of the given quarter.

Besides pressure on the cost side, banks have for a long time, regardless of the current situation, been struggling with falling revenues from their financial activities. The year-on-year decline in net interest income (-4.3%) stems mainly from a decline in net interest income from households and from securities. The only significant segment in which banks have not recorded a drop in such income has been the NFC portfolio. Another current risk is the potential further reversal of interest income accumulated during the period of loan moratoria, which may happen where borrowers are unable to resume their loan repayments.

The decline in interest income, which is largely due to falling interest rates on housing loans, is a long-running trend that is having an adverse impact on the business model of banks in Slovakia.

Banks are not be able to offset the decline in interest income with the second traditional pillar of their profit, net fee income. This increased over the first nine months of 2020 by €1 million year on year, owing entirely to an increase in the volume of customer loans and deposits (up by 6.3%); the aggregate rate of charge decreased from 0.25% to 0.24%. By contrast, the net balance of financial asset and liability revaluation earned banks €114 million during the first nine months of 2020, €43 million more than it did in the same period of 2019. This outturn may be attributed to opportunities taken in financial markets during the elevated volatility brought on by the coronavirus crisis.

The outlook for banks' profitability in the near term remains uncertain due to a resurgence of the negative risks associated with the COVID-19 pandemic. On the positive side, however, are the cancellation of bank levy payments for the second half of 2020, which will add around €150 million to the sector's profit, and banks' cautious approach during the first wave of the crisis, when their provisioning activity established a sizeable buffer against any future credit risk losses. One of the greatest risks to profitability is an accelerated materialisation of losses following the expiry of the loan moratorium scheme introduced during the first wave of the crisis; another is the potential repercussions of the second (and any subsequent) waves. These could impair the credit quality of loan books, so necessitating a further increase in provisioning and perhaps a tightening of credit standards that would reduce access to loan financing. The decline in banks' net interest income remains a long-term problem, although its impact during the coronavirus crisis has been mitigated by increasing volumes of NFC loans and housing loans. Banks' capacity to offset the drop in interest income with fee income remains limited.

Increase in the banking sector's solvency

Despite the severe economic downturn, the banking sector's solvency improved during the first half of 2020. The sector's aggregate total capital ratio increased appreciably from December 2019 to June 2020, from 18.2% to 19.5%. As for its highest quality capital, Common Equity Tier 1 (CET1) capital, the CET1 capital ratio rose from 16% in December 2019 to 16.9%. This movement was affected by several factors whose impact differed from bank to bank.

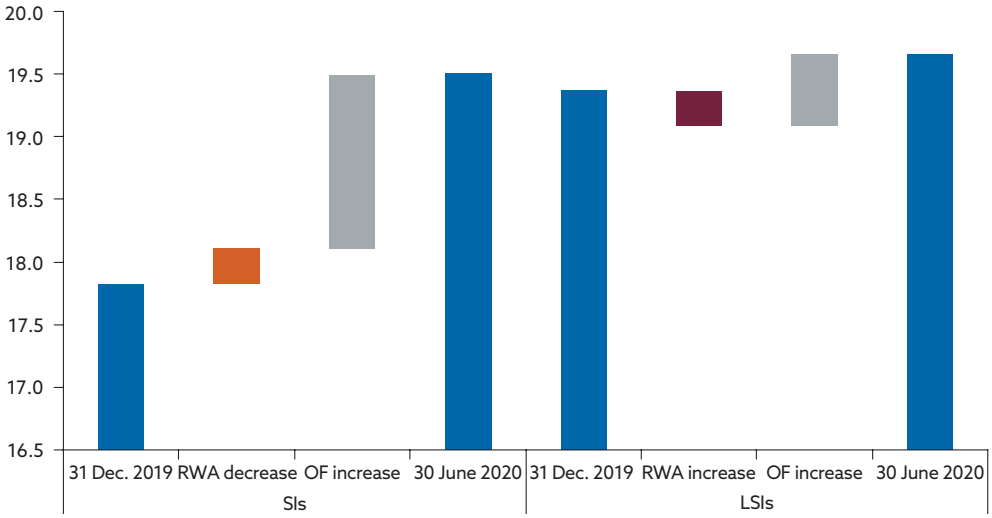
The main factor behind the improved solvency was the retention of earnings for 2019. These earnings accounted for almost the entirety of the increase in the banking sector's capital ratio. In some banks, the capital position was strengthened directly not only by the retention of 2019 earnings, but also by another form of capital. Because its capital position improved, the banking sector also recorded a moderate increase in its leverage ratio, from 7.92% at the end of 2019 to 8.27% at end-June. It subsequently rose even further, to 8.68% after the ECB decided to allow the temporary exclusion of certain central bank exposures from the leverage ratio. All banks are therefore comfortably meeting the minimum leverage ratio requirement of 3%.

A second factor was the decline in the amount of risk-weighted assets of banks that use an internal ratings-based (IRB) approach to assess credit risk. Despite the continuing growth in loans to NFCs and loans to households, the aggregate amount of IRB banks' risk-weighted assets has decreased by 2% since the start of the year. This decrease stemmed from specific factors at the banks in question (mainly in the first quarter of 2020) as well as from the application of a revised supporting factor for loans to small and medium-sized enterprises (from the second quarter of 2020).[33] On the other hand, some banks have recorded an increase in risk-weighted assets since the start of 2020, though its impact has been offset by capital increases resulting mainly from the retention of earnings for 2019.

[33] Based on EU Regulation 2020/873, which amends the Second Capital Requirements Regulation (2019/876); the revised supporting factor is part of the ECB's response to the COVID-19 pandemic.

Chart 38

Changes in the total capital ratios of banks categorised as significant institutions (SIs) and less significant institutions (LSIs)
(percentages)

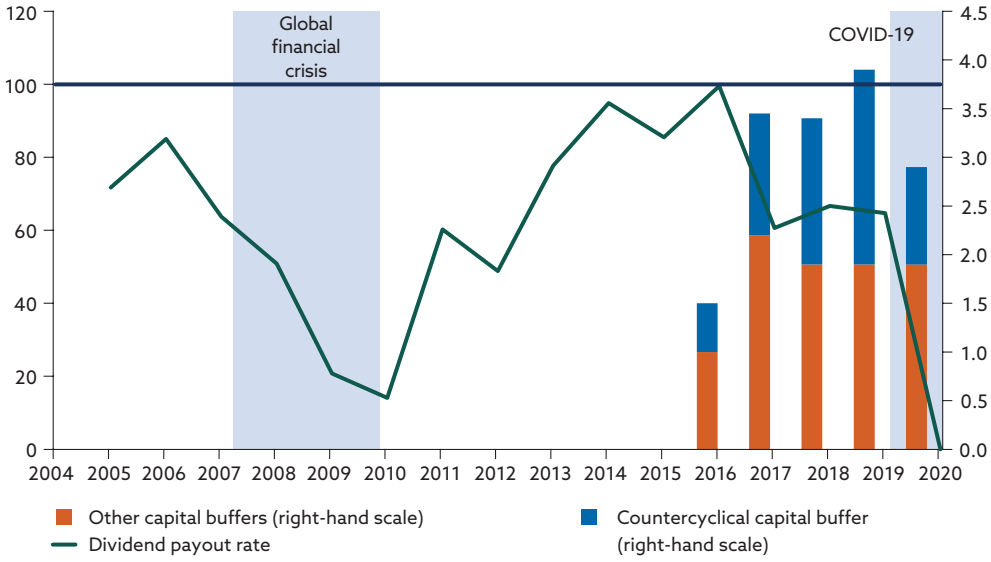


Source: NBS.
Note: RWA – risk-weighted assets; OF – own funds.

Although the aggregate total capital ratio of the Slovak banking sector is slightly below the EU average (19.8%), banks in Slovakia have sufficient capital reserves. In recent years banks have been increasing their capital buffers as required by NBS decisions. NBS has thus been seeking to ensure that banks are prepared for crisis periods and able to continue financing the real economy in difficult times. These decisions have also had a significant impact on banks' dividend policies.

Chart 39

NBS decisions on capital buffers and the dividend payout ratio
(percentages; percentages)



Source: NBS.

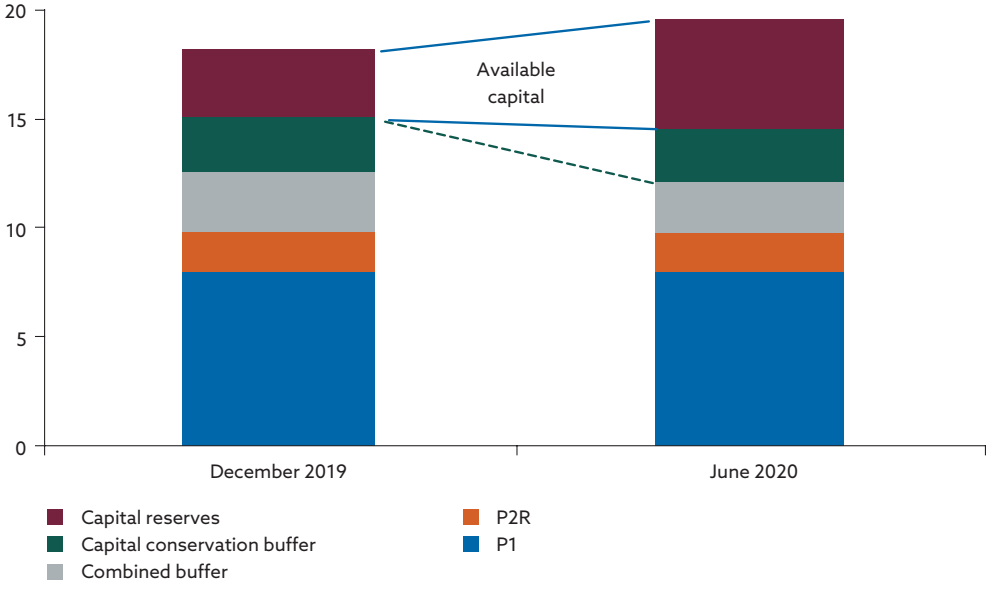
The pandemic crisis has from the outset necessitated rapid responses, including the easing of capital requirements by supervisory authorities. The ECB has allowed banks to operate temporarily below the level of capital defined by the Pillar 2 Guidance (P2G), the capital conservation buffer (CCB) and the liquidity coverage ratio (LCR). In addition, it has also allowed banks to partially use capital instruments that do not qualify as CET1 capital, for example Additional Tier 1 or Tier 2 instruments, to meet the Pillar 2 requirements (P2R). After this initial response from the ECB, Národná banka Slovenska decided in April 2020 to repeal a decision that would have increased the countercyclical capital buffer (CCyB) rate to 2%, and then in July 2020 it decided to reduce the CCyB rate from 1.50% to 1%. Given that capital buffers were being eased, it was important for banks to take a conservative approach to dividend policy; NBS responded to this situation by issuing Recommendation No 1/2020 in which it recommended banks to suspend dividend payments for a temporary period.

Because of the retention of 2019 earnings and the steps taken by regulatory authorities, the volume of available capital in the Slovak banking sector increased to around €1.8 billion as at 30 June 2020. Including the capital that could be freed, if necessary, by releasing the capital conservation buffer, banks' available capital amounted to more than €2.7 billion. Banks therefore have sufficient available capital to maintain new lending and so support the economic recovery.

Chart 40

Changes in the amount of available capital (December 2019–June 2020)

(percentages of risk-weighted assets)



Source: NBS.
Notes: P1 – Pillar 1 requirements; P2R – Pillar 2 requirements.
The combined buffer comprises the countercyclical capital buffer and the systemic risk buffers and O-SII buffers applicable to significant banks. Following the ECB's suspension of P2G, the capital defined by it is part of banks' capital reserves.

The combined capital requirement constitutes an additional buffer that is a softer form of capital requirement and, more importantly, may be reduced by an NBS decision if necessary. Besides the capital conservation buffer, which the ECB encouraged banks to use following the onset of the pandemic crisis, other capital buffers are at disposal. The principal such instrument is the countercyclical capital buffer (CCyB), which is currently tying up around €368 million of capital in the Slovak banking sector. The main advantage of this buffer is its broad-based character and the flexibility with which decisions on its level can be taken. NBS has stated repeatedly that it stands ready to reduce the CCyB rate if the banking sector needs additional capital. Further leeway is provided by additional buffers applicable to banks categorised as other systemically important institutions (O-SIIs), i.e. O-SII buffers and systemic risk buffers (SyRBs). Although these apply only to a few banks, the capital they are tying up amounts to €510 million. On the one hand, these requirements are softer than the minimum capital requirements, so it is expected that banks can dip into them if necessary. On the other hand, NBS is ready to be proactive in managing the amount of capital buffers, so that the banking sector is not short of capital to support lending to firms and households. In managing capital buffers, NBS also takes account of banks' conservative dividend policies.

The banking sector's scope for dipping into the combined capital buffer is not expected to be constrained by the leverage ratio. In other words, the main Tier 1 capital charge in terms of risk-weighted assets is, overall, lower than the amount of capital needed to meet the leverage ratio requirement. In the long term, the leverage ratio requirement could to some extent brake the further decline in risk-weighted assets. The question of capital adequacy could also, theoretically, affect the minimum requirement for own funds and eligible liabilities (MREL) for certain banks. This would only apply, however, to banks that were on the borderline of meeting the requirement and at the same time wanted to meet the requirement entirely with capital.

NBS Recommendation on capital and profit distribution

Given that financial market participants' profit-generating capacity is expected to be reduced during the coronavirus crisis, NBS in July 2020 issued a Recommendation concerning the restriction of capital distribution.[34] The Recommendation aims to strengthen the position of banks and insurers that have a significant impact on financial stability, so as to bolster their resilience at times of elevated risk and ensure their capacity to provide financing to the real economy through an economic downturn and subsequent recovery.

[34] Recommendation of Národná banka Slovenska No 1/2020 of 28 July 2020 on capital and profit distribution by banks and insurance undertakings during the COVID-19 pandemic.

The NBS Recommendation built on preceding steps taken by the ECB, EBA, ESRB and EIOPA. With this Recommendation, NBS was also formally confirming the position it took in March 2020 regarding the strengthening of banks' Tier I capital with profits from 2019. The capital distribution restrictions concern the following activities: (i) payments of dividends for 2019 as well as other years; (ii) payments of the variable part of remuneration to certain identified staff that have a material impact on the institution's risk profile, (iii) coupon payments on Additional Tier I capital instruments; and (iv) buybacks of certain instruments included in an institution's capital.

The principal boost to financial stability has come from the restriction of dividend payments. The weighted dividend payout rate across a sample of banks was 67% in 2018 and 60% in 2019, while the corresponding figure in 2020 is 0% after taking into account compensation operations. This change has had an upward impact on the banking sector's total capital ratio, which increased from 18.2% at the end of 2019 to 19.5% at the end of June 2020. The retention of earnings by the banks under review has this year had a positive impact of 1.4 percentage points on the sector's aggregate total capital ratio.

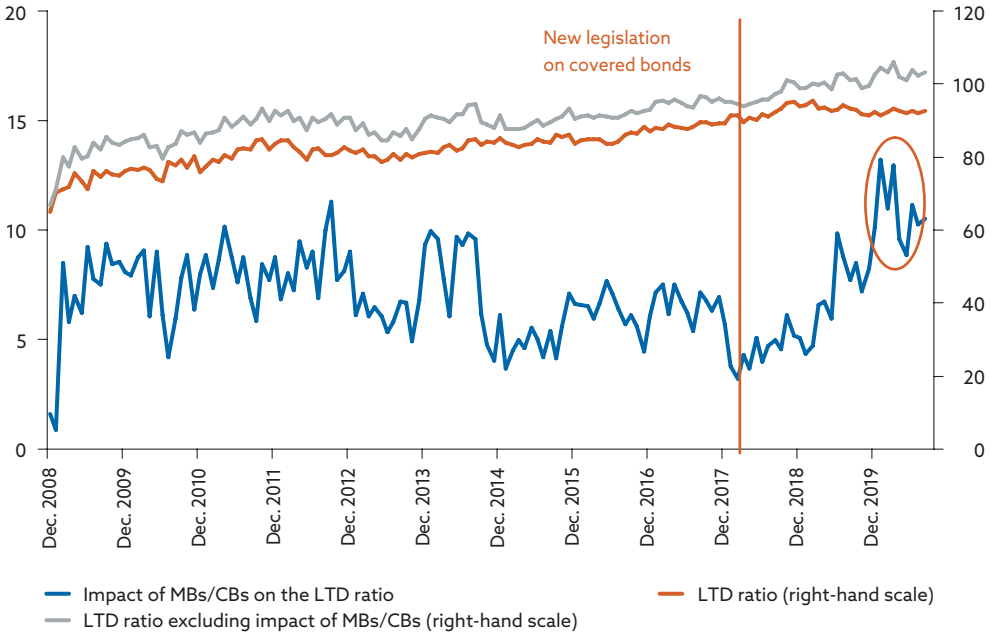
Given the ongoing uncertainty about the future economic situation and the increase in negative risks, the Recommendation is likely to remain in effect beyond the end of 2020. Consideration must also be given, however, to market sentiment and in particular to the expectations of banks' shareholders and investors regarding banks' other capital instruments. If the recommendation on the broad restriction of banks' dividend payments remains in place, it could make the domestic banking sector considerably less attractive than sectors in other countries. As regards the ECB's and ESRB's recommendations, it is also necessary to note that the European banking sector may become less attractive compared with other economic sectors as well as with banking sectors in advanced countries outside Europe.

As regards the banking sector's resilience, the situation appears to be slightly more favourable now than it did at the outset of the pandemic crisis. By retaining earnings from last year, banks in Slovakia have improved their capital position, and by taking a proactive approach to provisioning, they have built up sizeable reserves against credit risk losses. There remains the key issue of how loan book quality will be affected by the eventual expiry of the loan moratorium scheme as well as by the repercussions of the pandemic's second wave. Here, too, however, after analysing the share of firms which could be at risk of insolvency or illiquidity by

the end of 2020[35] as a result of the pandemic's first wave, and after analysing survey data on the crisis's impact on the financial situation of indebted households,[36] it appears that the first wave's impact on the debt servicing ability of households and firms has been somewhat more moderate than originally feared at the outset of the crisis.

The banking sector's overall liquidity situation has remained steady in 2020

Chart 41
Retail banks' aggregate loan-to-deposit (LTD) ratio
(percentage points; percentages)



Source: NBS.
Notes: The chart does not include foreign bank branches and home savings banks. MB – mortgage bond; CB – covered bond.

The COVID-19 pandemic has not had any immediate impact on liquidity risk in the Slovak banking sector. The degree of systemic liquidity risk has remained largely stable in 2020, reflecting mainly the gradual moderation of household loan growth. Since deposits, the main funding source for domestic banks, have continued to increase, the aggregate LTD ratio has stayed quite flat during 2020. The maturity mismatch between assets and liabilities has shown similar stability and not become more pronounced. As regards long-term funding, the main change concerns covered bonds; in 2018 and 2019 their contribution to banks' long-term liquidity increased, while in 2020 it has remained mostly stable. In certain banks, however,

[35] NBS's Financial Market Situation and Trend Report – H1 2020, Box 2.
[36] NBS survey conducted by the agency FOCUS.

long-term liquidity has been bolstered by long-term borrowings under the Eurosystem's TLTRO operations.

All banks in Slovakia are comfortably meeting liquidity ratio requirements. The sector's average liquidity coverage ratio (LCR) has not shown a clear trend during 2020, though it can be said to have improved slightly owing mainly to the partial strengthening of liquid assets with domestic government bond purchases. The LCR may also have been positively affected by the issuance of covered bonds and by TLTRO operations with the central bank. It is also important to analyse banks' net stable funding ratio (NSFR), given that the EU's amended Capital Requirements Regulation and Directive (CRR II/CRD V), which requires banks to meet the NSFR requirement, will soon be implemented. Estimations of individual banks' NFSRs demonstrate that the domestic banking sector is ready for the implementation of the new rules next year. The median estimation of the banking sector's NFSR increased slightly over the first half of 2020, from 1.21 to 1.25, and all banks had an estimated ratio above the minimum level of 1. The fact remains, however, that in the area of stable funding, the banking sector lies closer to the (future) regulatory threshold than it does in the area of short-term liquidity coverage.

3.2 Solvency and financial position of the insurance sector

Despite a relatively favourable financial result, the aggregate solvency of the Slovak insurance sector has deteriorated. The sector's profit for the first half of 2020 was €93 million, on a par with its average for 2017and 2018[37]. As has already been noted in Section 2.4, however, this result reflects a combination of several opposing factors.

At the same time, an increase in the capital requirement and decrease in disposable capital resulted in the Solvency Capital Requirement (SCR) coverage ratio falling by 18 percentage points, to 177%. NBS has advised insurers not to pay out dividends between 1 August 2020 and the end of 2020, as a way of strengthening the sector's resilience during the pandemic crisis.

The capital decrease was accompanied by an increase in *expected profits included in future premiums (EPIFP)* as a share of the sector's eligible capital; the share of this volatile component rose to 59%, close to its highest ever level. EPIFP is a type of capital that can be used to cover only certain risks, in particular underwriting risk in life insurance and part of the underwriting risk in health insurance. However, the share of EPIFP in the sector's own

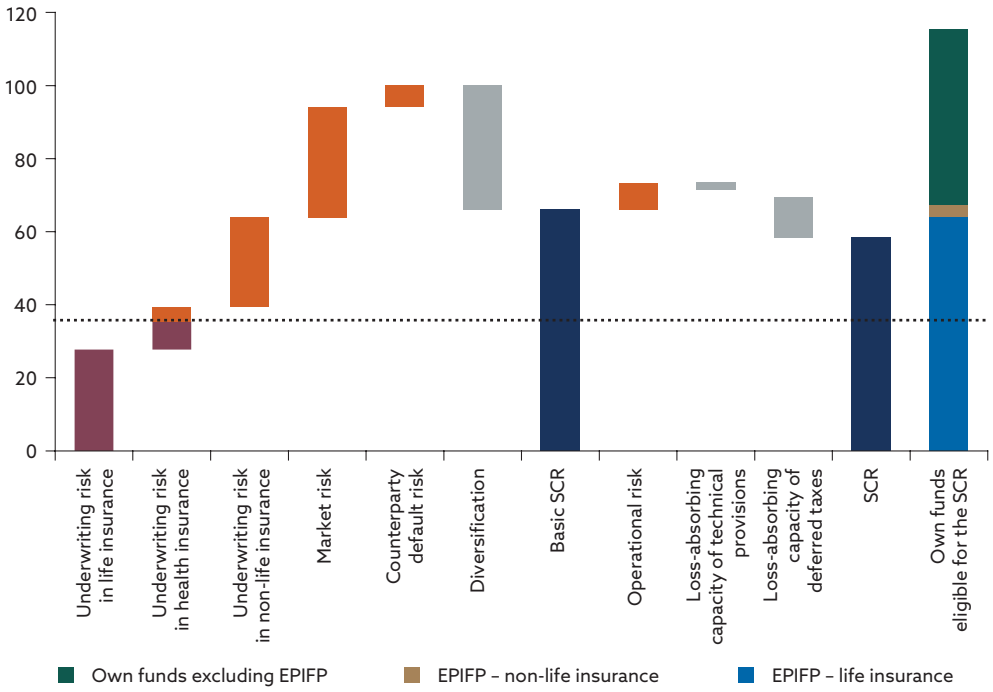
[37] A comparison cannot be made with the data for the first half of 2019, owing to accounting changes that were being undertaken at certain insurers during that period.

funds and these capital requirements are unbalanced. As Chart 42 shows, EPIFP constitutes the large majority of capital in the life insurance segment, yet it can be used only to cover around one-third of the capital requirement.

Chart 42

EPIFP constitutes most of the capital in the life insurance segment but can cover only a minority of the segment's risks

Breakdown of the Solvency Capital Requirement (SCR) and own funds (percentage of the sum of the Basic SCR and diversification)



Source: NBS.
Notes: EPIFP – expected profits included in future premiums. The chart does not identify the part of market risk that may also be covered via EPIFP. The underwriting risk charge for health insurance is broken down proportionally, according to premiums written, into health insurance similar to life insurance (in red) and health insurance similar to non-life insurance (in orange).

The insurance sector is experiencing trends that are increasing pressure on its efficiency and leading to its consolidation. In the relatively small domestic insurance sector, 12 insurers (plus branches of foreign insurers) were operating as at 30 September 2020. Since 2018 four insurers have been taken over and dissolved by another insurer or branch of a foreign insurer, and another acquisition has been announced.

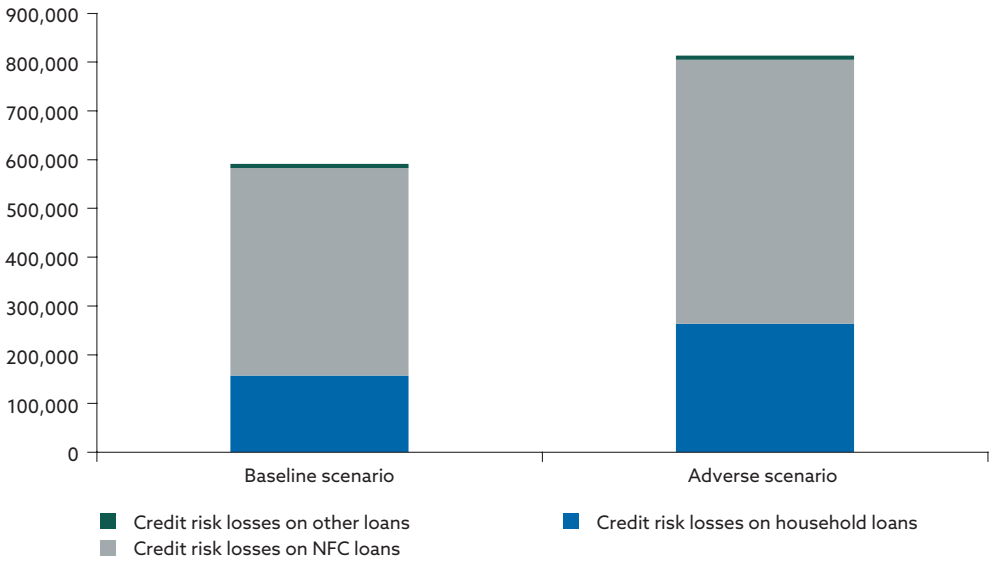
3.3 Financial sector vulnerability during the coronavirus crisis

While the COVID-19 crisis has dealt a shock to real economy in particular, it is also having an adverse impact on the banking sector. Even before the onset of the crisis, the Slovak banking sector was under pressure from interest margin compression caused by a prolonged downtrend in interest rates. Now, during the crisis, the banking sector's situation has become

even more complicated, as borrowers' financial situation may deteriorate in the adverse economic climate and so results in rising credit costs. The domestic banking sector has in recent years built up a relatively strong capital position. In the context of the ongoing crisis, a key question is whether these buffers in conjunction with the profits generated will suffice to cover the losses that the crisis brings in its wake.

Given the uncertainty about future developments, above all about the extent to which, and how quickly, the pandemic will recede, the impacts of the pandemic on the banking sector have, for the purposes of analysis, been simulated using two scenarios of potential developments.[38] The impact analysis covered the period until the end of 2021. Since the aim of the analysis was not to make projections about the future situation, but to quantify the crisis's potential impacts on the banking sector, simplifying assumptions about future developments were adopted for balance sheet items not directly affected by the crisis.[39]

Chart 43
Credit risk losses in 2021
(EUR millions)



Source: NBS.

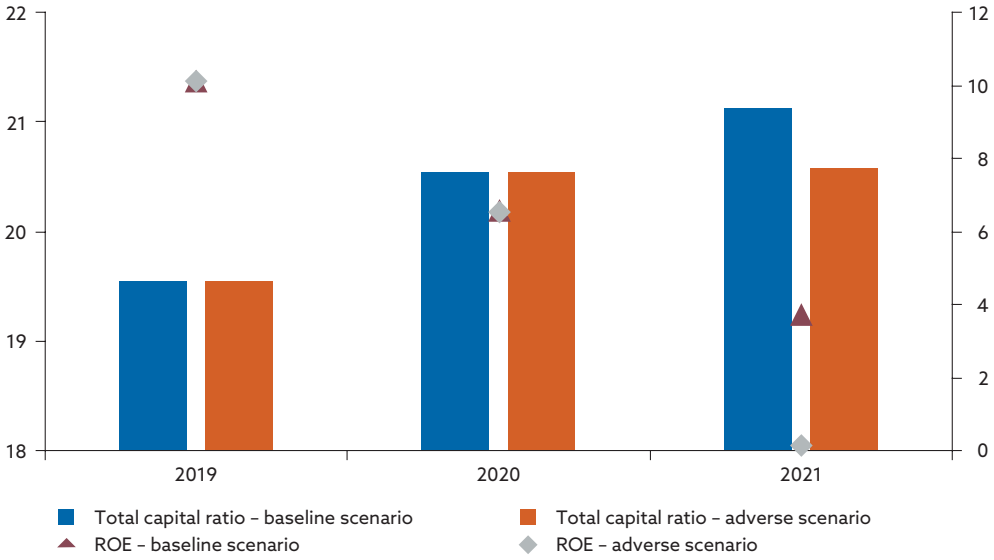
The main source of losses in both the baseline and adverse scenarios is credit risk losses on loans to households and NFCs. The size of the losses depends on the scenario. In the baseline, the combined credit risk losses on household and NFC loans in 2021 amounts to almost €600 million (equating to 1.6% of risk-weighted assets), while in the adverse scenario they are one-third higher than that (2.2% of risk-weighted assets). Of these

[38] Further details about the scenarios are provided in Box 1 in Section 1.2.
[39] Further details about the assumptions are provided in Box 3.

amounts, more than two-thirds in each case is accounted for by losses on the NFC loan book. At the same time, under the baseline scenario, the total amount of non-performing loans in 2021 is two times higher compared with the previous year, while under the adverse scenario it is almost three times higher. The banking sector therefore has to increase its loan loss provisioning substantially in 2021, by 30% year on year in the baseline scenario and by as much as 90% in the adverse scenario.

In both scenarios, the banking sector is in particular adversely affected by a decline in interest income from lending activity. Besides a continuation of the moderating trend in loan growth, both scenarios also show a drop in demand for loans. In the adverse scenario, this decline becomes even more pronounced across different types of loans.[40] Underlying the decrease in interest income is an increase in the amount of non-performing loans and, in 2020, also the reversal of interest income on loans that have become non-performing following the expiry of the loan moratorium scheme. The amount of interest income in 2021 therefore decreases, year on year, by 0.8% in the baseline scenario and 3.3% in the adverse scenario.

Chart 44
Total capital ratio and ROE in 2021
(percentages of risk-weighted assets; percentages of own funds)



Source: NBS.
Notes: The total capital ratio figure assumes the retention of all earnings for 2020 and 2021. ROE is estimated as the ratio of gross pre-tax profit to shareholders' equity.

Although the simulated changes have a significant impact on the banking sector's profitability, they do not pose a threat to banks' stability. In the baseline scenario, the sector's gross profit falls, year on year, by 40% in 2021, and less significant banks record a larger decline than do significant banks (-80% vs -32%). In the adverse scenario, the sector's profit is close to zero in 2021, with half of its banks making a loss. This is reflected in the

sector's estimated total capital ratio,[40] it being significantly affected by the sector's profit-generating capacity. In both scenarios, the profit is heavily eroded by the provisioning required to cover credit risk losses.

The banking sector as a whole is resilient to the larger losses under the adverse scenario. In the baseline scenario, assuming that banks retain their earnings for 2020 and 2021, the banking sector's total capital ratio increases in 2021 by 0.6 percentage point year on year, while in the adverse scenario, assuming the same, it remains largely unchanged because the increase in credit costs prevents the sector from generating a profit. Even so, banks are sufficiently capitalised to be able to cover losses under the adverse scenario and have no difficulty meeting regulatory capital requirements. At the same time, the current setting of countercyclical capital buffer gives the banking sector sufficient leeway to cope even with the materialisation of losses estimated under the adverse scenario.

Table 10 The impact of the pandemic crisis on the banking sector in 2021

	Measurement unit	Baseline scenario	Adverse scenario
Amount of credit risk losses	EUR billions	0.59	0.81
– on loans to NFCs	EUR billions	0.43	0.54
– on loans to households	EUR billions	0.16	0.26
Non-performing loans			
– loans to NFCs	annual percentage point change	6.4	7.7
– loans to households	annual percentage point change	1.7	3.2
Net loan loss provisioning	annual percentage change	29.8%	90.2%
Interest income from loans	annual percentage change	-0.8%	-3.3%
– loans to NFCs	annual percentage change	-3.0%	-5.3%
– loans to households	annual percentage change	0.1%	-3.3%
Gross profit	annual percentage change	-40.4%	-97.7%
Net profit in 2020	EUR billions	0.37	0.37
Net profit in 2021	EUR billions	0.22	0.01
Total capital ratio	annual percentage point change	0.6	0.0

Source: NBS.

[40] Abstracting from the effect of the phasing-in of IFRS 9 changes, given that some, mainly less significant, banks have opted to gradually phase in the changes and so, between 31 December 2020 and 1 January 2021, will have to deduct from their capital 20% of the impact of the initial IFRS 9 implementation amount.

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Box 5
Assumptions used in estimating the potential impacts of the COVID-19 pandemic on the banking sector

The impact of the coronavirus crisis on the banking sector was estimated using two macroeconomic development scenarios: a baseline scenario and an adverse scenario.[39] Each scenario included assumptions about developments in lending to households and NFCs. The baseline scenario assumed the continuation of the recent gradually moderating trend in loan growth, while the adverse scenario assumed a more pronounced slowdown or, in the case of certain types of loans, even a decline. In the adverse scenario, NFC loan growth was assumed to remain flat, with the impact of lower demand for investment loans being cancelled out by increased demand for short-term loans to cover firms' rising liquidity needs.

For the estimation of interest income, interest rates were assumed to be fixed at their most recent level (as at September 2020). At the same time, based on a previous survey of banks' customers who have applied for a loan moratorium, an estimate was made of the share of loans under moratoria that will become non-performing when the moratorium scheme ends. Interest income from these loans was then deducted from the interest income for 2020.

As for non-interest income, it was assumed in regard to net fee income that fees increased in line with the loan growth, while other non-fee income was assumed to remain stable at its 2020 level; both net fee income and other non-fee income were adjusted to take account of extraordinary dividend income and revaluations recorded in 2020.

The estimation of credit risk costs for NFC loans, as well as the amount of non-performing loans, is based largely on the assumptions stated in Section 2.2 for estimating the share of firms at risk. The baseline scenario assumes that firms' revenue losses will be around two-thirds lower in 2021 than in 2020, while the adverse scenario assumes the same level of revenue losses in both years. This estimation also takes into account the impact of crisis relief measures on the NFC sector.

For estimating the amount of non-performing retail loans and losses on these loans, the simulation used granular retail loan data. An estimation was also made of the potential decline in income of individual borrowers (other than through loss of employment) on the basis of several characteristics (age, education, nature of employment: employed or entrepreneur/self-employed person). It was also assumed that residential property prices decline by 5% in the baseline and 20% in the adverse scenario. Losses on non-performing secured loans were estimated to be any positive difference between the outstanding amount of the loan and the value of the collateral. Further details about the assumptions and the method of estimating credit risk costs for household loans are provided in Section 2.1 for the estimation of the share of households at risk.

Loan loss provisioning in the simulated scenario is affected by two significant factors. The first is the need to cover the increase in credit risk losses resulting from increases in the amount of non-performing loans and in losses given default. A second factor is the extent to which individual banks were provisioning in the previous period. Some banks were taking a precautionary approach to provisioning that increased provisioning for Stage 2 loans during 2020. In these cases, the need for additional provisioning in the period ahead is expected to be lower. On the other hand, banks whose preferred strategy involved not significantly increasing their provisioning, but rather waiting to see the actual materialisation of credit risk losses, will face a higher loan loss provisioning rate. Hence there is considerable heterogeneity across banks in terms of the impact of provisioning growth on profit in 2021. In the simulation, provisioning for Stage 2 loans in 2021 is assumed to return to its level in March 2020, before the onset of the pandemic crisis.

As regards other costs, the estimation took into account the cancellation of Slovak banks' bank levy payments from the second half of 2020. For interest costs, it was assumed that interest rates were fixed at their most recent level (as at September 2020) and that total deposits increased in line with loan growth.

Table 11 Assumptions for analysing the pandemic crisis's impact on the banking sector

	Measurement unit	Baseline scenario	Adverse scenario
Loans to households	annual percentage change	2.8%	0.8%
– of which: housing loans	annual percentage change	5.0%	3.0%
– of which: consumer credit	annual percentage change	-6.0%	-8.0%
Loans to NFCs	annual percentage change	3.0%	0.0%
Share of NPLs that were under moratoria			
– loans to households	annual percentage point change	12%	12%
– loans to NFCs	annual percentage change	16%	17%
Residential property prices	annual percentage change	-5.0%	-20.0%

Source: NBS.

3.4 NBS's macroprudential policy

No need so far to ease regulatory limits on credit standards

Since 2014 NBS has gradually been tightening regulatory rules on new lending. Among the most important restrictions are its limits on the loan-to-value (LTV) ratio, the debt service-to-income (DSTI) ratio, the debt-to-income (DTI) ratio and loan maturity, and several related qualitative and technical requirements. The main purpose of NBS's measures has been to mitigate risks associated with burgeoning household indebtedness. This is accompanied by other risks, such as property market imbalances and

households' increasing sensitivity to any crisis. Although these rules were set during the expansion phase of the financial and business cycles, they do not just disappear when the cycle turns. On the other hand, the coronavirus crisis naturally leads to the question of whether, in addition to other forms of state aid, an easing of the regulatory constraints on the household credit market may not also be in order.

Despite the coronavirus crisis, the flow of housing loans in Slovakia has remained relatively strong. This indicates that the current settings of NBS's regulatory limits are not a constraint on the financial sector. In terms of strictness, some banks are setting credit standards that go beyond what NBS requires. This is evident, for example, from the fact that their provision of loans with an LTV ratio above the 80% limit does not make full use of the permitted exemption.

In the area of consumer credit, too, market data suggest that the decline in new lending stems mainly from borrowers' cautiousness and falling demand. At the same time, consumer credit interest rates have been rising quite noticeably. Banks' internal tightening of credit standards beyond NBS requirements has been a less significant factor.

As regards the easing of regulatory lending limits, there are important questions as to which limits to ease and when to ease them, so as not to cause a significant increase in the riskiness of loans. Experience from other countries, as well as recommendations by international institutions (the IMF in particular), point in favour of easing limits only when the economy is recovering in order to support the recovery with sound growth in lending. At present, however, Slovakia is experiencing the pandemic's second wave and a continuing climate of economic uncertainty. To ease the limits now would therefore be premature. In fact, it could unduly increase the riskiness of already indebted households precisely at a time of acute crisis.

In general, NBS judges the current limit settings to be appropriate to the current situation. This is also evident from the analysis in Section 2.1 concerning the impact of credit standards on the riskiness of loans to households. The limit having the largest upward impact is that on the DSTI ratio, for which a value of more than 60% implies an increased probability of debt servicing difficulties at a time of crisis. By contrast, there is increasing scope to ease the DTI limit exemption. Such a move could increase the availability of financing without compromising credit quality to any significant extent.

The regulatory regime will undergo changes from the end of December under the implementation of the EU's revised Capital Requirements Regulation and Directive (CRR II/CRD V)

In May 2019 European authorities approved banking regulation changes to be implemented via the revised Capital Requirements Regulation (CRR II)[41] and Directive (CRD V).[42] Member States are required to implement the changes, with the provisions in the area of capital buffers becoming applicable from 29 December 2020 and, in the case of CRR II, from June 2021. The transposition of CRD V into Slovak law will be effected by an amendment to the Banking Act (No 483/2001) which is now in the process of approval.

One result of these changes is that, from the end of 2020, NBS will no longer be required to issue a quarterly decision on the countercyclical capital buffer (CCyB) rate. Under the new rules, the NBS Bank Board will assess the intensity of systemic risk in the banking sector and will adjust the CCyB rate when necessary. If the cyclical systemic risk is not present to an extent that requires a CCyB rate adjustment, the buffer will remain at the rate set in the most recent rate-adjusting decision. Other obligations regarding the determining of the CCyB remain unchanged.

CCyB rate decisions

In response to the adverse effects of the COVID-19 crisis on the economy and banking sector, NBS has in 2020 taken two steps to reduce the CCyB rate. First, in April 2020, NBS decided to repeal an earlier decision that would have increased the CCyB rate by 50 basis points, to 2%, from August of this year. Subsequently, in July 2020, it decided to cut the rate to 1% with effect from 1 August 2020. With these steps, the central bank sought to ensure that banks have sufficient leeway to cope with any credit risk losses and that the banking sector's basic functions, including lending to the real economy, are maintained.

In its previous decisions to increase the CCyB rate, NBS focused on financial cycle developments as represented by the Cyclogram indicator; in re-

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[41] Directive (EU) 2019/878 of the European Parliament and of the Council of 20 May 2019 amending Directive 2013/36/EU as regards exempted entities, financial holding companies, mixed financial holding companies, remuneration, supervisory measures and powers and capital conservation measures.

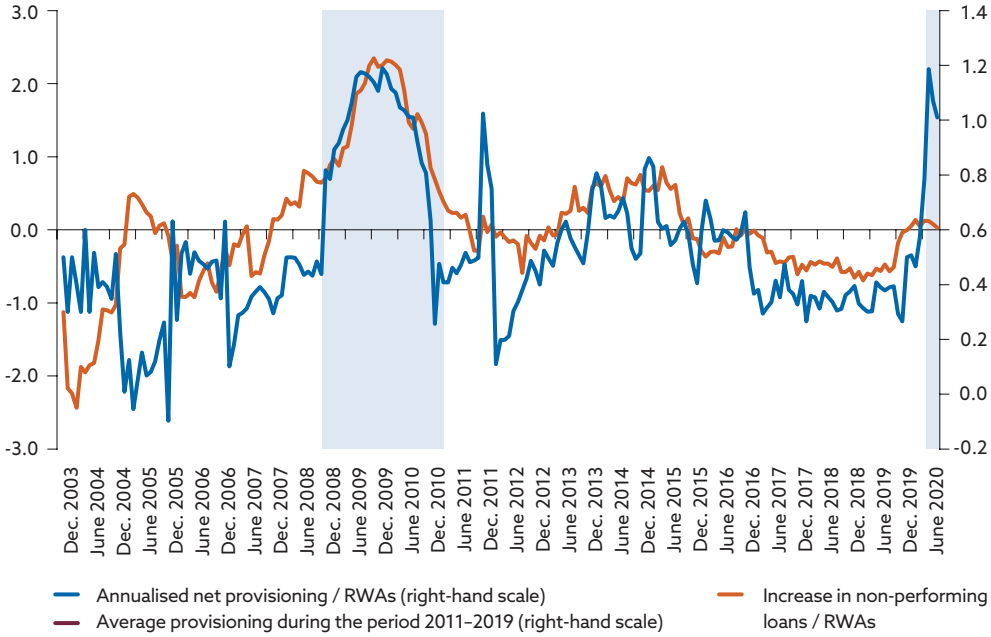
[42] Regulation (EU) 2019/876 of the European Parliament and of the Council of 20 May 2019 amending Regulation (EU) No 575/2013 as regards the leverage ratio, the net stable funding ratio, requirements for own funds and eligible liabilities, counterparty credit risk, market risk, exposures to central counterparties, exposures to collective investment undertakings, large exposures, reporting and disclosure requirements, and Regulation (EU) No 648/2012.

leasing the buffer, however, the central bank looked mainly at indicators reflecting the extent of the materialisation of credit-type risks. These are indicated mainly by the levels of non-performing loans and provisioning. The NPL rate has remained stable since the onset of the coronavirus crisis, probably as a consequence of government relief measures, in particular the temporary loan moratorium scheme. Even so, the banking sector has increased its loan loss provisioning amid the coronavirus crisis. Net provisioning for the first nine months of 2020 was 1.5 times higher in year-on-year terms. During the 2008–10 crisis provisioning was in step with loan delinquency levels, whereas now it appears to have a more precautionary nature (Chart 45).

Chart 45

Non-performing loans and annualised provisioning in the banking sector

(percentage of risk-weighted assets; percentage of risk-weighted assets)



Source: NBS.
Notes: The grey areas denote periods of stress in the Slovak financial market (the global financial crisis and the COVID-19 pandemic crisis.
RWAs – risk-weighted assets.

Future decisions to change the CCyB rate will have regard mainly to credit risk loss and loan delinquency trends, to whether banks' available capital is sufficient for their lending to the real economy, and to banks' dividend policies. NBS will be monitoring these areas closely and stands ready to further reduce the CCyB rate if necessary.

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Box 6
The ECB's relief measures and the Slovak banking sector

The European Central Bank (ECB) has been highly active in response to the coronavirus crisis. Besides temporarily easing rules concerning capital and liquidity management and issuing a Recommendation on dividend distributions, the ECB has responded mainly in the area of monetary policy. Here, the ECB has adopted several standard and less standard measures aimed at mitigating the crisis's impact by calming financial markets and ensuring the liquidity needed for lending to the real economy. Among the most important measures have been asset purchase programmes,[43] and programmes for providing long-term liquidity[44] or ensuring liquidity in foreign currencies (mainly in USD dollars and currencies of other non-euro area countries). The programmes have been made more attractive by offering participation at favourable financial conditions or by temporarily easing collateral requirements.

Since around 93% of the liquidity absorbed by the domestic banking sector from the central bank comes from targeted longer-term refinancing operations (TLTROs), this box looks more closely at the take-up of this funding. Through TLTROs, banks can obtain long-term funding at an extremely favourable interest rate that incentivises them to lend to firms and provide consumer credit. The main purpose of TLTROs is therefore to offer long-term funding at favourable conditions in order to support lending to the real economy. The first series of TLTROs was launched by the ECB in 2014, and the programme is now into its third series (TLTRO III). Of particular importance in the current pandemic crisis are the two most recent operations in this series, TLTRO III.4, conducted in June, and TLTRO III.5, in September.

For banks meeting specified criteria related to lending activity, the interest rate on TLTRO III operations can be as low as -1%. While it is not yet certain that all domestic banks meet the conditions for the -1% rate, they have always previously qualified for similar operations. Put simply, it is sufficient for banks to maintain positive growth in their aggregate loan book (not including loans to households for house purchase). Looking at the available data, it is so far not clear to what extent TLTROs have affected banks' lending activity. Banks participating in TLTROs and those not participating are reporting similar growth in loans to customers (firms and households), which is not indicative of TLTROs having a direct impact on banks' lending activity.

Part of banks' motivation for participating in TLTROs may also be to improve their profit, since -1% is an exceptionally favourable borrowing rate for them. The overall picture about TLTRO op-

[43] A new Pandemic Emergency Purchase Programme (PEPP) with an envelope of €1.35 trillion (for the euro area), and the existing asset purchase programme (APP) expanded with the addition of a €120 billion temporary envelope (for the euro area).

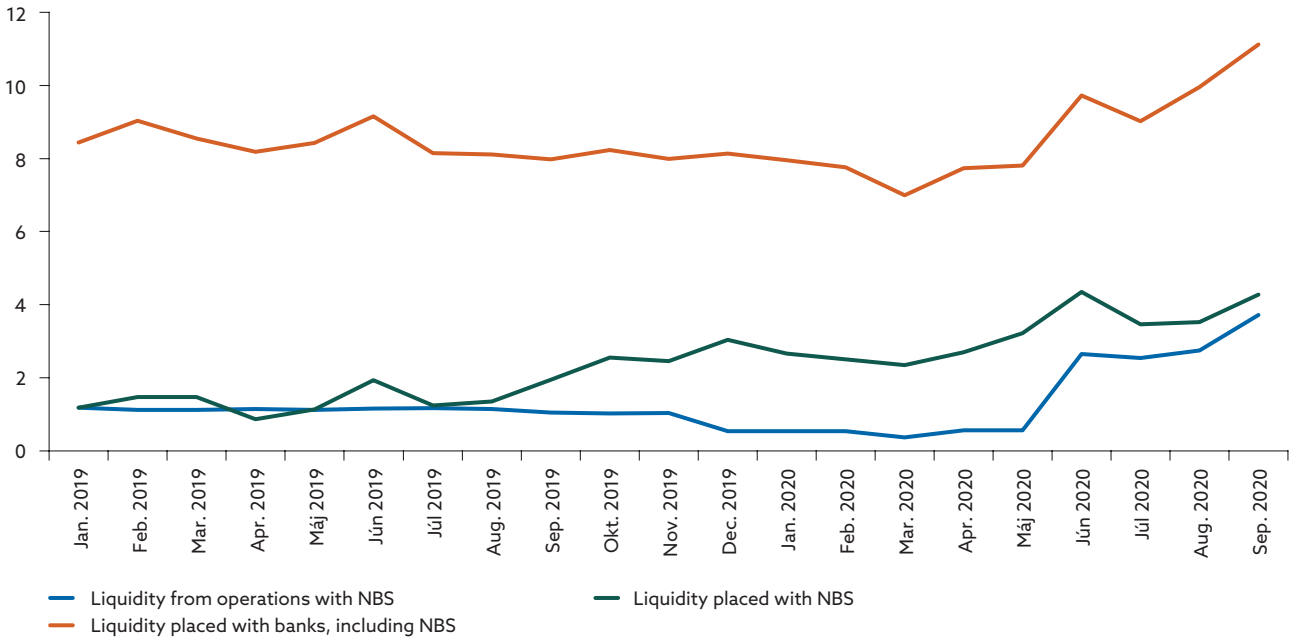
[44] The recalibrated third series of targeted longer-term refinancing operations (TLTRO III), and a new series of pandemic emergency longer-term refinancing operations (PELTROs); the cumulative net liquidity that these operations provided to the euro area banking sector in June and September 2020 amounted to €706 billion.

erations is also related to liquidity deposited back with the NBS and to the optimising of banks' positions with their parent undertakings.

Chart 46

Use of liquidity provided by TLTRO operations

(EUR billions)



Source: NBS.
Note: TLTROs – targeted longer-term refinancing operations.

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Abbreviations

CET1	Common Equity Tier 1 (capital)
CMN	Property Price Map / Cenová mapa nehnuteľností
DSTI	debt service-to-income (ratio)
DTI	debt-to-income (ratio)
EBA	European Banking Authority
ECB	European Central Bank
EIOPA	European Insurance and Occupational Pensions Authority
EPIFP	expected profits included in future premiums
EU	European Union
GDP	gross domestic product
IFRS	International Financial Reporting Standard
IMF	International Monetary Fund
LCR	liquidity coverage ratio
LTRO	longer-term refinancing operation
LTV	loan-to-value (ratio)
MSCI	Morgan Stanley Capital International
NAV	net asset value
NBS	Národná banka Slovenska
NPL	non-performing loan
NSFR	net stable funding ratio
O-SII	other systemically important institution
PD	probability of default
PELTRO	pandemic emergency longer-term refinancing operation
PEPP	pandemic emergency purchase programme
ROA	return on assets
ROE	return on equity
S&P	Standard & Poor's
SCR	Solvency Capital Requirement
SO SR	Statistical Office of the Slovak Republic
TLTRO	targeted longer-term refinancing operation
ÚPSVaR SR	Office of Labour, Social Affairs and Family of the Slovak Republic / Ústredie práce, sociálnych vecí a rodiny Slovenskej republiky

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