Financial Stability Report

May 2020

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Foreword

This latest edition of the NBS Financial Stability Report has been shaped to a great extent by the exceptional situation resulting from the global pandemic and its consequences. Both the world economy and domestic Slovak economy are experiencing record contractions. Financial markets are facing unprecedented volatility and uncertainty about future developments. The pandemic's repercussions are society-wide; they affect households and firms and are gradually spilling over to the Slovak financial sector.

Although the arrival of such a crisis caught the whole of Europe by surprise, Slovakia and its financial sector were well prepared for it on the financial stability front.

Národná banka Slovenska in cooperation with financial institutions has for several years been preparing for the onset of "worse times". Together we have reduced risks in the financial sector and built-up protective capital buffers. NBS has adopted a number of measures concerning lending activity in order to strengthen the resilience of households and banks. The European economy is financed almost entirely by the banking sector, and in the case of Slovakia we can confirm that this rope is strong and stable. Our several years of preparation for "worse times" are now bearing fruit.

In recent weeks we have been witness to significant measures taken by central banks, supervisory authorities and governments throughout Europe. Their common goal has been to mitigate the impact of the crisis on households, firms and financial institutions. Measures taken by the European Central Bank in the area of monetary policy and regulatory requirements have had a highly positive impact. Národná banka Slovenska, too, continues to actively employ a number of instruments in the area of financial stability, financial market supervision, and interbank market operations, all with the aim of ensuring the stability of Slovakia's financial sector.

As new information comes in, we are getting a better idea about how the situation will develop. Nevertheless, the Slovak economy is still seeking its way in a forest of uncertainty.

It is therefore important, nay quite essential, to keep up our common effort and to trust in what economic and biblical experience tells us: after the bad times come the good times.

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Overview

The coronavirus (COVID-19) pandemic represents one of the greatest ever shocks to the global economy

The pandemic has had a seismic impact on the global economy. The strict lockdown measures that many countries adopted in order to contain the spread of the virus resulted in an immediate and very sharp contraction of economic activity. Many firms, employees and sole traders have lost a substantial part of their income. This, in turn, is diminishing their financial situation, savings and debt servicing capacity. Hence the initial shock to the real economy has repercussions for the financial system and its stability.

These problems also weighed on financial markets, which faced a sharp rise in nervousness and waves of massive turbulence. Although the extent of such effects did not match that seen during the 2008-2010 global financial crisis, the slump in prices was one of the fastest on record and all segments of the financial market were affected.

The emerging situation met with a resolute response from central banks, governments and supervisory authorities. Central banks promptly adopted packages of stabilisation measures which, in terms of their scope and in particular their intensity, were greater than any previous such measures. As a result, prices stopped falling in late March and markets partially corrected. National governments' support measures played a key role in mitigating the damage to the real economy; they focused mainly on maintaining employment and improving the situation in the business environment. In several countries, state aid commitments made in the first two months following the pandemic outbreak have already exceeded the amount of state aid disbursed during the global financial crisis.

But not even the prompt implementation of fiscal and monetary stimuli alters the fact that the world is on the verge of a deep recession. One of the main problems is the uncertainty surrounding its depth, duration, and possible lasting consequences. A separate headwind to economic recovery will be any second wave of the coronavirus pandemic.

The Slovak economy will not avoid recession

At this juncture, any projections about the situation are subject to considerable uncertainty; nevertheless, according to the latest NBS Medium-Term Forecast, Slovakia's economy is projected to contract by 9.3% (the

projection range being 5.8% to 13.5%), owing not only to domestic virus containment measures, but also to the collapse in foreign demand.

As regards the labour market, unemployment did not rise significantly in the early stage of the crisis. However, a sharp drop in job vacancies indicates that we may expect a deterioration with a certain lag. Wage growth will decelerate and some of the workforce will see their wages decline.

The economic downturn will have a secondary impact on the Slovak financial sector

Loan impairment losses represent the most significant risk. The profitability of financial institutions will decline markedly, especially in the case of banks. But although financial institutions will face significant risks in the period ahead, the resilience of the banking and insurance sectors as a whole is strong. Banks currently have sufficient capital and liquidity to continue lending. On the other hand, many households and firms were already in a tight financial situation with low savings when the crisis erupted, and NBS had previously made repeated warnings about this issue. Given the great uncertainty about the impact of future economic developments on the financial situation of borrowers, banks will be taking a far more cautious approach to lending. This may be particularly problematic for firms that need to bridge temporary shortfalls in income via short-term bank loans.

Table 1 Key risks to financial stability during the COVID-19 pandemic

Risk	Details
Increase in non-performing loans	Most pronounced among loans to SMEs, sole traders and firms in the hardest hit sectors.
Reduced availability of financing	Banks have sufficient capital and liquidity, but they have tightened credit standards significantly because of concerns about future economic developments.
Risks in the insurance sector	An uptrend in claims paid in some sectors, downtrend in new business, and the adverse impact of risk premia increases.
Devaluation of assets in pension and investment funds and of financial market investments	Losses recorded across all types of funds and investments; the situation could be further exacerbated by any upsurge in withdrawals from certain investment funds.

Source: NBS.

This crisis has radically changed the state of financial stability risks. In previous Financial Stability Reports, NBS pointed mainly to the three most significant risks to financial stability: risks associated with fast growth of household indebtedness; the negative impact of low interest margins on banks' business model; and risks related to corporate sector financing, especially in the event of an economic downturn. What impact the coronavirus pandemic will have on financial stability in Slovakia will depend on

the extent to which these risks materialise. At the same time, however, the pressure behind the build-up of these risks is expected to moderate in the near term. The risks are now being joined by others related to the crisis, in particular a deterioration in the availability of financing and several risks associated with the insurance sector and with the pension and investment fund sectors.

The banking sector came into the crisis period with solid capital and liquidity positions

The capital adequacy of the Slovak banking sector is now almost twice as high as it was at the outset of the 2008–2010 global financial crisis. Regulatory changes at the EU level and NBS's implementation of several capital buffers have significantly strengthened the capital position of domestic banks. Furthermore, in order to prepare as well as possible for the evolving crisis, banks have so far retained almost the entirety of their earnings for 2019. Stress test results suggest that banks will be able to cope with the current crisis. It cannot be ruled out, however, that some banks will experience a quite substantial drop in profitability, or even a loss. Under the adverse scenario, the average total capital ratio of banks falls from 19.7% to 16.6%. That reduction would be far higher if it were not for the measures taken by the government to contain the crisis. The extent to which risks actually materialise will depend mainly on the duration of the crisis and the speed of the subsequent recovery.

The current situation and stress testing have shown how very sensitive banks' profitability is to an economic deterioration. In March, when the crisis was still in just an early stage, the banking sector's profit fell by 61% year on year. Part of that decline was caused by an increase in the bank levy; another cause, however, was credit risk costs, which increased significantly even though delinquency indicators were still not rising markedly. NBS was previously warning that the credit risk cost ratio was low, that such a level was unsustainable over the long term, and that even its normalisation could erode a considerable part of banks' profits. In the second half of 2019, moreover, interest margins on housing loans were still notably declining, which further exacerbated the risk.

The major risk facing the banking sector in the crisis will be credit risk

The severe constraints on economic activities will impair the financial situation of firms and households. In a survey conducted in late March 2020, as many as one-fifth of the respondents faced or expected to face serious financial difficulties. Despite government support measures, including the deferral of loan repayments, the number of households who, as a result of

the pandemic, could struggle to meet even their basic living costs could increase by between 35 thousand and 48 thousand (i.e. by between 1.9% and 2.6%). The main source of the risk is the fact that many households went into the crisis with low savings and high debt service-to-income ratio. Without the government measures, in particular allowing borrowers to defer loan repayments, the share of households in this situation would be far higher. In other words, if the financial situation of households does not improve before loan repayments start falling due again, the credit quality of the household loan book could worsen significantly. We therefore consider it important that, in preparation for the resumption of their loan repayments, households who have deferred loan repayments build-up their financial buffers as much as they can. Under the scenario of adverse economic developments continuing beyond the expiry of the moratorium on loan repayments, many households may face difficulties when their loan repayments resume. It is therefore crucial that discussion begins now on what measures could mitigate the adverse effects of that scenario playing out.

Corporate sector sales started falling sharply soon after the pandemic broke out. The shock was most severe for small and medium-sized enterprises (SMEs) and the sectors hardest hit were services, trade, recreation, and real estate activities. The increasing uncertainty has had an upward impact on short-term borrowing.

One of the main risks is a reduction in the availability of financing, especially for SMEs

From a financial stability perspective, a key issue is the extent to which the financial sector will be able to continue providing financial services, including lending to the real economy, during the economic shock. On this depends whether the financial sector will support an early economic recovery or, conversely, whether it will further exacerbate the problems associated with the spread of the virus. This will be particularly important for non-financial corporations (NFCs) that need additional financing to bridge a temporary shortfall in income. The main factor in this regard will be banks' fears of an increase in non-performing loans. In the case of loans to NFCs, banks have been tightening credit standards to the greatest extent since the 2008 financial crisis and expect to tighten them significantly further in the period ahead. At the same time, however, credit terms and conditions for retail loans have also been tightened, in particular for loans to sole traders and employees in the sectors hardest hit by the crisis. On the other hand, banks are not constrained to any significant extent by their capital and liquidity positions; in fact, they have sufficient capital to ensure 2019-level loan growth over the coming years.

In the financial sector, several measures were promptly adopted to mitigate the effects of the coronavirus crisis

The mainstay of the ECB's support for lending to the real economy has been to offer banks cheaper funding and to expand its asset purchase programme. Households and NFCs have been given the option to have their loan repayments deferred. This option has been widely taken up and so far appears to have been relatively effective. It is helping to improve the financial situation of households and firms and, in doing so, is reducing the current level of credit risk in bank loan books.

A number of regulatory measures have also been adopted to mitigate the risk of a potential volatile increase in short-term provisioning. These measures are easing the upward pressure on credit costs and thus improving banks' current financial position.

The ECB has also provided capital relief to banks, by temporarily waiving the requirement to comply with the capital conservation buffer and by allowing banks to operate temporarily below the level of capital defined by the Pillar 2 Guidance (P2G). In addition, it has provided relief in the composition of capital for Pillar 2 requirements. These measures provide the banking sector with capital relief amounting to between 2.5% and 3.5% of risk-weighted assets. For the Slovak banking sector, this capital relief has freed up capital amounting to almost €1.25 billion.

In April 2020 NBS decided to leave the countercyclical capital buffer (CCyB) rate at 1.50% and to repeal a previous decision to increase the rate. This move has freed up further capital for lending to the real economy. In the event of any significant increase in banks' credit losses or in capital constraints on lending, NBS stands ready to reduce the buffer with immediate effect.

Further measures need to be taken to mitigate risk and support the future recovery

The measures taken to date have been crucial in softening the blow of the coronavirus crisis on the financial sector. Going forward, priority must be given to measures to ensure that banks do not rein in their lending activity because of fears about loan delinquency. The flow of financing is particularly important for seeing firms through their current difficulties resulting from lost cash flows and for supporting the fastest possible post-crisis economic recovery. The banking sector, too, has seen its situation deteriorate sharply during the crisis. The sector's key role in economic stabilisation and recovery must therefore be supported with additional measures. Among the most significant of them will be the implementation of state

guarantees for businesses and the provision of financial support for these guarantees so that they can be used to the maximum possible extent. Without this instrument, it will be very difficult to ensure an adequate flow of bank lending to the real economy, which is vital for the survival of many firms and for the restarting of the economy.

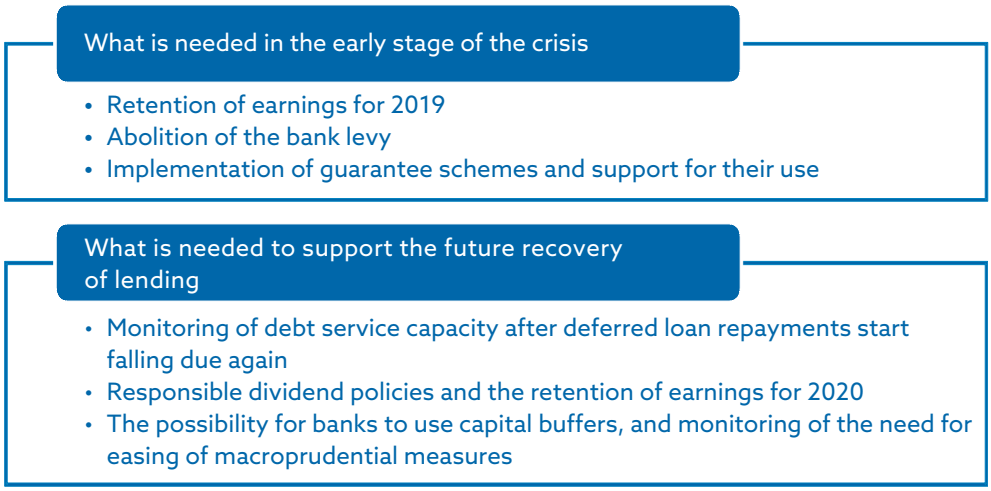
We also view the abolition of the bank levy as another key measure. The levy is now weighing heavily on bank stability and is seriously weakening banks' profitability, thus making the banking sector less attractive for investors. A sector with low profitability and poor prospects will find it difficult to contribute significantly to real economy financing and to the economic recovery.

NBS welcomes the fact that banks and insurers, together with their shareholders, have been prudent in the setting of dividend policy. In the banking sector, the non-payment of dividends and easing of regulatory capital requirements has increased the amount of available capital to almost €2.7 billion. Nevertheless, bank loan books remain subject to the risk of significant loan delinquency. We therefore consider it vital that banks and insurers also take a very conservative approach to dividend payments for 2020.

Furthermore, it will be important to monitor the financial situation of borrowers who have had their loan repayments deferred. In the longer term, there is a risk that if the situation does not sufficiently improve, some borrowers may simply be postponing longer-term difficulties. The result is considerable uncertainty related to the level of credit risk costs. Risks must also be taken into account in future decisions on profit distribution, and this situation requires a continuing responsible approach to dividend payments.

Irrespective of the coronavirus crisis, further steps will need to be taken to increase the crisis resilience of households. Our analysis has shown that the elevated household credit risk going into the current crisis was partly caused by the behaviour of brokers, who to an increasing extent have been motivating clients to borrow to the maximum extent of their authorised limits. These risks could have been partially mitigated by amendments to the remuneration scheme for financial brokers.

Figure 1
Measures needed to mitigate risks and support lending during the economy's recovery phase



Source: NBS.

Insurers will face declines in income and solvency, though the sector as a whole is resilient to the crisis

The impact of pandemic-related risks on the insurance sector is seen in the increase in claims paid. There may be increases in insurance coverage costs, in particular related to loss of income insurance, loan repayment insurance, travel insurance, and travel agents' insolvency insurance, which altogether account for some 13% of overall non-life insurance business.

Because of households' worsening financial situation, new business in both life and non-life insurance is expected to decline. It is likely that some households whose financial buffers are wiped out by the crisis will surrender their life insurance policies. Given, however, the low level of surrender values, this prospect does not represent a significant risk to insurers. There may be some deterioration in the solvency of insurers, which to an increasing extent are relying on future profits from existing insurance contracts.

Insurers may also be adversely affected by current financial market developments. The problem is that credit risk premia are increasing at the same time as risk-free interest rates are declining (the so-called double hit). Lower risk-free interest rates will push up the current value of liabilities, while higher credit risk premia will bring down the prices of the assets (in particular bonds) covering these liabilities.

The insurance sector was strongly resilient going into the crisis, as has been shown by stress testing. In recent years, insurers reported relatively solid profitability. So, despite the headwinds, the insurance sector is ex-

pected to remain in profit and therefore strengthen its already adequate solvency ratio.

Because of the financial market turbulence when the pandemic broke out, the value of assets in pension funds and investment funds decreased sharply

The funds that made the largest losses in March 2020 were those focused on equity or equity-type investments. Some degree of asset devaluation was recorded by the vast majority of funds across sectors and investment strategies. On a positive note, this situation did not lead to any spate of withdrawals, as happened, for example, in 2008 during the global financial crisis. As a result, some of the losses were recouped during the financial market correction in April. Furthermore, funds were not exposed to rising pressure on their financial situation, such that could be exerted by an increase in redemptions.

The size of losses has not yet represented a risk to the companies managing guaranteed pension funds, which could be required to replenish fund assets if the declines in asset value were more substantial. Our analysis shows, however, if there were a further decline that was two-to-three times greater in size, these fund guarantees would be activated in several companies.

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1 Global economy and financial markets

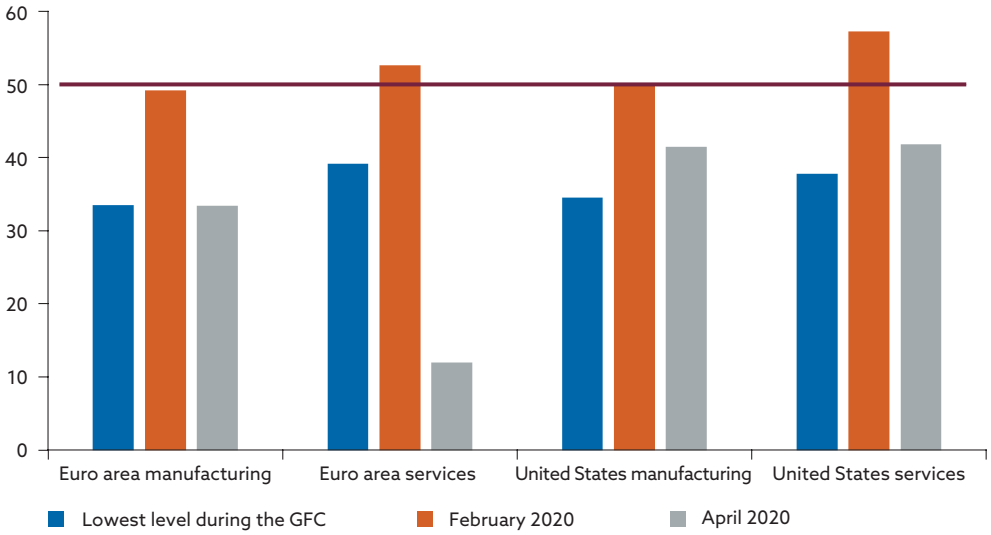
The outbreak of the coronavirus (COVID-19) pandemic represents one of the greatest ever shocks to the contemporary world economy

In the brief period since the publication of the previous Financial Stability Report, the global economic situation has changed dramatically. The prevailing climate at the beginning of 2020 was still one of moderate optimism, grounded on the prospect of economic recovery and the abatement of certain geopolitical risks in the form of trade conflicts or a disorderly Brexit. It took less than a quarter for the situation to turn completely in an adverse direction. It is now almost certain that the world faces the greatest economic challenge since the end of the Second World War. The cause of this critical development is the outbreak of the coronavirus (COVID-19) pandemic. Governments around the world responded to this threat by introducing strict lockdown measures to contain the spread of the virus, the aim being to flatten the curve of the number of infected people and thus enable healthcare systems to cope with the strain on their resources. These measures, while necessary for the protection of people's health, came with the price of an immediate and very sharp slowdown in economic activity. A large number of firms, sole traders and employees were literally made incomeless overnight and faced the resulting impact on their overall financial condition and debt servicing capacity. The initial shock to the real economy may therefore spill over to the financial system and put pressure on its stability.

The virus outbreak was at first confined to China and neighbouring countries. From around mid-February, however, it became clear that the virus was spreading around the world. During the course of March, a majority of countries began introducing measures to restrict social contact. Given the short period of time since these measures were rolled out, the reflection of the economic disruption in the economic data was largely confined to monthly survey-based indicators, many of which recorded a negative absolute level or rate of change, and in some cases both at the same time. The global composite Purchasing Managers' Index – the most widely followed of these indicators – plummeted in March and then again in April. The services component of the PMI was hit particularly hard, collapsing to an all-time low of 24 – far below 50 and therefore well in the territory indicating contraction. An even more severe downturn in economic activity was indicated by the PMI for Europe, which together with the United

States became the new hotspot of the pandemic. The composite PMI for the euro area stood at just 14 in April, after being above 50 as recently as February.

Chart 1
PMI indicators show a decline in services activity greater than that recorded during the global financial crisis



Source: Bloomberg.
Note: A value below 50 represents contraction in the sector. GFC – global financial crisis at the end of the 2000s.

The first so-called hard indicators are now available for March and they are already reflecting the impact of the launch of government containment measures. These indicators do not yet capture the full impact of the measures, which will not be seen until the April figures come out. Even so, US industrial production fell by more than 6% month on month and US retail sales fell by almost 9% – figures that far surpass those recorded during the worst stage of the financial crisis a decade earlier. In the euro area, retail sales declined even more sharply, by 11%. In the United States, the weekly initial jobless claims indicator shows that the crisis has had an unprecedented impact on the labour market. In the last week in March, a total of 6.9 million people filed initial jobless claims. For comparison, the weekly figure averages around 200 thousand over the long term and never before, not even during times of recession, has it exceeded 700 thousand. The cumulative number of new claims recorded since the outbreak of the crisis is more than 33 million, or 22% of the working population.

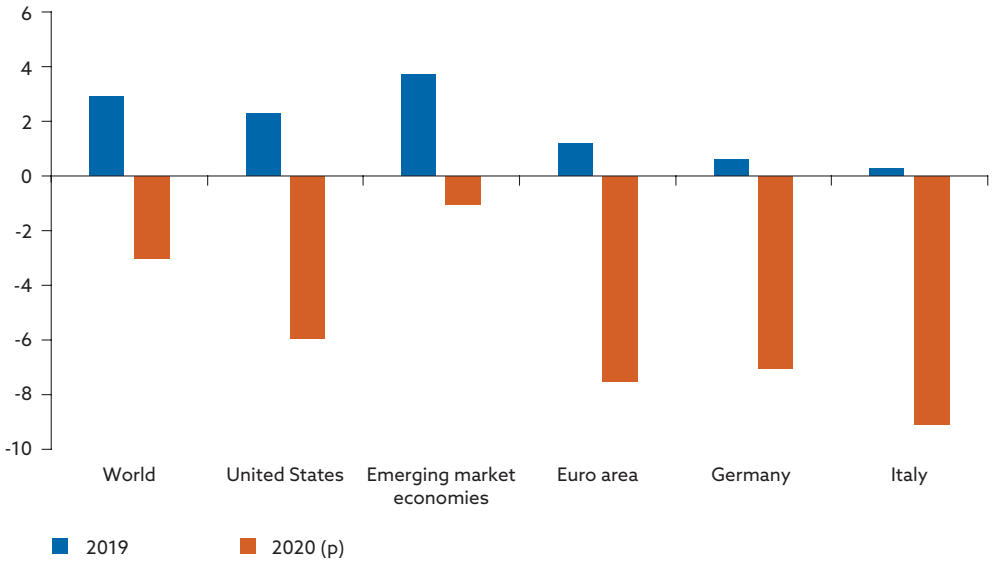
Given the uncertainty about the progress of the pandemic and the related timeframe for the unwinding of lockdown measures, it remains more difficult than usual to make projections about overall economic activity developments. The general assumption, preliminarily supported by the

pandemic's trajectory to date, is that the economic contraction should be concentrated in the second quarter of 2020. The second half of the year is expected to see an easing of administrative restrictions and the resulting restart of the economy. These are basically the assumptions underpinning the baseline scenario of the International Monetary Fund's April projections. According to the IMF, the global economy will fall into recession in 2020, with GDP declining by 3% year on year. Such a drop in production would be far greater than anything caused by the global financial crisis in 2009. Advanced economies are expected to be worst affected. In contrast to the previous crisis, however, emerging market economies will also experience a severe contraction. In regional terms, the recession is expected to be deepest in the euro area, whose GDP is projected to slump by as much as 7.5% in 2020. In 2021, economies are expected to be recovering appreciably; the IMF projects global GDP and euro area GDP to grow by, respectively, 5.8% and 4.7%. Even, however, in such a relatively favourable (in the circumstances) scenario, the world economy is unlikely to regain all the ground lost and to return to its previous trend line anytime soon.

Chart 2

The IMF projects a severe global recession in 2020, which will be deepest in advanced economies

(percentages)



Source: IMF World Economic Outlook, April 2020.
Note: (p) – projection.

The projected downturn in economic activity caused financial market panic and a widespread decline in asset prices

The pandemic-related problems facing the real economy resulted in massive turbulence in global financial markets. All market segments were engulfed by a sharp rise in nervousness coupled with increasing risk premia

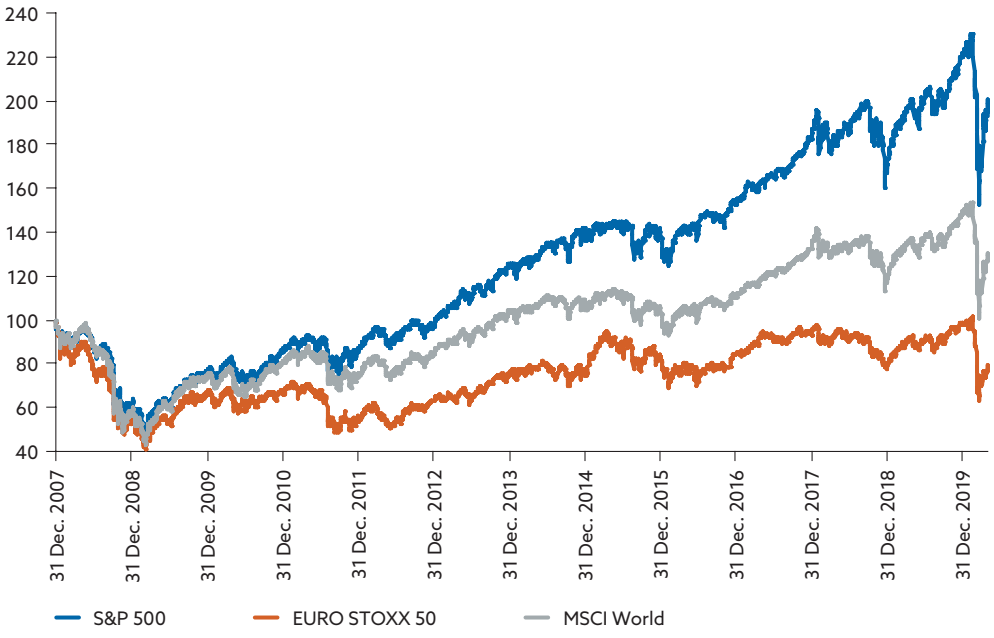
and falling financial asset prices. In general, the financial index and indicator declines related to the coronavirus were not as large as those during the global financial crisis, but in terms of intensity and speed of changes – in the negative sense – they exceeded what happened ten years earlier and at any other time on record. For example, the most closely tracked equity index – the S&P 500 – took just 16 trading days to fall by 20% from its historical high on 19 February 2020. This was the fastest such correction in the entire history of the index. It continued to decline for another several days until bottoming out at the end of March, 34% down on its February level. Over the same period, the EURO STOXX 50, an index of euro area stocks, fell by as much as 38%. The implied volatility of US stocks as measured by the VIX index briefly increased to an all-time high, and the analogous index for the European equities was also attacking its historical high.

Signs of stress have been also seen for a short time in asset markets, which are considered to be the safest and most liquid markets. In mid-March, yields to maturity on US government bonds recorded a brief, but unusually sharp rise. The sudden worldwide rush of demand for dollar liquidity resulted in tensions even in the money market. As a result, the three-month US dollar LIBOR-OIS spread increased to almost 1.5 percentage point.

Chart 3

The slump in equity prices was on a par with that seen during the global financial crisis and took place within a shorter timeframe

(index)



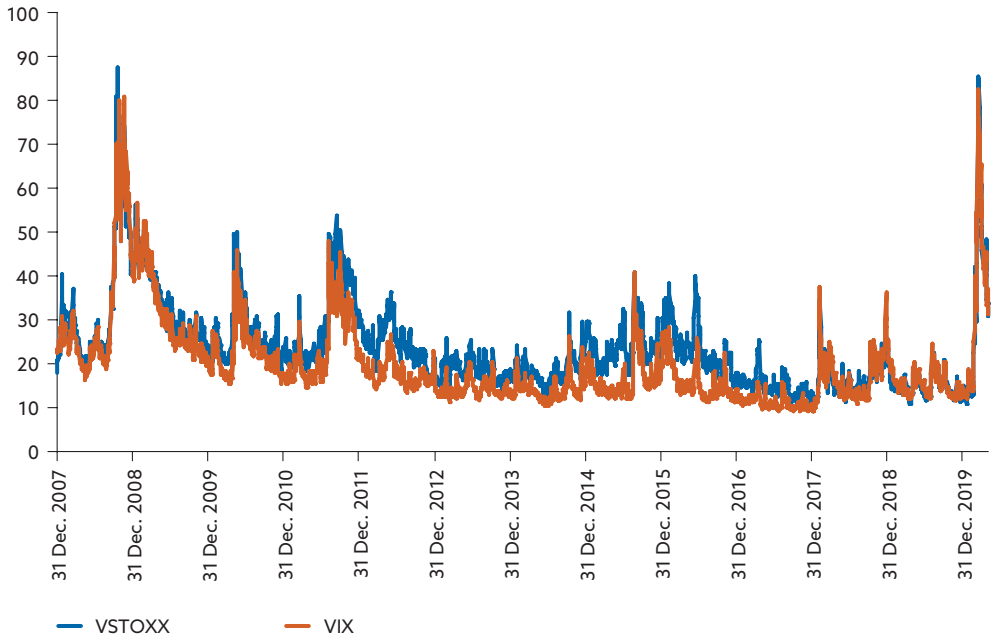
Source: Bloomberg.
Note: Rebased, 31 December 2007 = 100.

The wave of negative repricing affected credit markets for securities of all credit grades. Risk premia on speculative-grade European corporate bonds increased on average by more than five percentage points, and those on the same quality US issues by even more than that. Fears of an increase in borrower insolvencies are reflected in widening CDS spreads on debt securities issued by non-financial corporations and by financial corporations. At the same time, the issuance of speculative-grade bonds came to almost a complete halt in March. Commodities also suffered significantly because of the troubled economic outlook. The oil price recorded a particularly spectacular collapse, falling by more than half from its original level.

Chart 4

Equity index volatility climbed to historical highs

(index)



Source: Bloomberg.

Investor risk aversion towards emerging markets has surged. The cumulative outflow of cross-border portfolio investment in these countries has been larger – in both monetary terms and as ratio to the countries' GDP – than that in any previous stress episode, including the global financial crisis. This time around, assets are being sold off not just by traditionally skittish retail investors, but also by institutional market players. Another consequence of this development is that emerging market exchange rates have weakened against the US dollar.

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Box 1
Covered bond market developments

The covered bond market has not escaped the nervousness spreading across global financial markets, though it has not been affected to the same extent as other market segments. The elevated financial market stress has been reflected to a greater extent in government bonds, through a dramatic increase in their risk premia. In the case of covered bonds, the impact of contagion risk has not been so pronounced. By moving far less compared with the majority of the financial market, covered bonds simply confirmed how, as assets, they tend to behave during more volatile periods. They are among those financial market assets that have a leading ability to reopen the primary market after the most severe stage of financial stress has faded.

The pandemic-generated nervousness has been apparent in the primary market through a considerable decline in issues and a larger than usual widening of risk premia on existing covered bonds. Risk premia in the secondary market increased on the back of rising volatility and a deteriorating liquidity situation. Additional purchases under the ECB's asset purchase programme (APP) and pandemic emergency purchase programme (PEPP) were sufficiently robust to help stabilise the covered bond market against a further increase in risk premia. In addition, they enabled issuers suffering the repercussions of the pandemic to maintain access to the financial market for the coverage of their increasing liquidity needs. It is therefore expected that, as a result of the Eurosystem's purchasing activity, trading levels on the primary market will be close to those typical for the secondary market. The impact on the covered bond market of the easing of conditions for real economy financing via TLTRO III operations appears to have been less pronounced, because the issuing activity of European banks is focused on maturities offered with TLTRO III operations.

Besides the increase in risk premia and reduced access to the primary market, another global-level consequence of the pandemic may be a deterioration in the quality of cover pools for covered bonds. Before the crisis, these bonds were noted for their extremely high quality, as non-performing loans were low and average LTV ratios were kept low by rising property prices. Covered bond ratings may come under pressure, even though they are well shielded against spillover from government and issuer rating downgrades through existing ceilings on the number of downgrades. Those covered bonds most at risk in this regard may be those with government issuer ratings closest to these ceilings.

Covered bonds issued by domestic banks have not been adversely affected by the financial market nervousness. Their risk premia have increased on average by 10 basis points, or in the case of the longest maturity nine-year bonds, by 25 basis points. Compared with premia on bonds issued by other euro area issuers, this increase is very modest indeed. The sharpest-rising risk premia were those on issues originating in countries hardest hit by the coronavirus crisis – their risk premia have been close to 40 basis points on average.

Central banks and governments around the world are seeking to contain the crisis via massive stimuli

Financial markets would probably have plummeted far further than they did if central banks had not stepped resolutely into the fray. In terms of their scope and in particular their intensity, the measures taken to ensure that markets function properly and have sufficient liquidity are unparalleled in history. The response of the US Federal Reserve has been particularly huge. In addition to reducing the target range for the federal funds rate to 0.00% to 0.25%, the Federal Reserve has in the course of a few weeks increased its balance sheet from USD 4 trillion to more than USD 6 trillion. This increase includes more than one trillion dollars' worth of Treasuries and agency mortgage-backed securities, with the central bank having committed itself to purchase such securities (under its quantitative easing programme) in whatever amounts the situation requires. The central bank has provided additional hundreds of billions of dollars through short-term liquidity operations, and another part of its balance sheet expansion consists of swaps with other central banks aimed at ensuring that dollar liquidity remains readily available in other countries, too. In order to support lending to the real economy, the Federal Reserve has rolled out a series of programmes, including programmes for purchasing corporate bonds on the primary and secondary market, purchasing municipal bonds, and backstopping lending to SMEs by other financial institutions. The overall size of these programmes has the potential to exceed two trillion dollars, and the US Government is providing capital to cover any losses arising from them. Some components of the package constitute complete novelties for the Federal Reserve's portfolio, for example its foray into the corporate bond market, in particular its purchasing of bonds whose credit rating has dropped to speculative-grade as a result of the coronavirus crisis.

The European Central Bank has also adopted a package of stabilisation measures. The most sizeable of them is the new temporary pandemic emergency purchase programme (PEPP). It will run until the end of 2020 and will have an envelope of €750 billion for the purchase of private and public sector bonds. Another part of the package is the expansion of the ECB's existing asset purchase programme with a temporary envelope of €120 billion for 2020. In the case of PEPP, there will be greater flexibility in the conduct of purchases, which will continue to be allocated across jurisdictions according to the capital key of the national central banks. For these purchases, there is a waiver of the eligibility requirements for securities issued by the Greek government. The ECB has also modified the terms and conditions of its targeted longer-term refinancing operations (TLTRO III) in order to support the provision of credit to the private sector. This includes increasing the limit on the amount of funds individual financial

institutions may apply for and, for institutions meeting specified lending criteria, reducing the interest rate on these funds to 50 basis points below the average interest rate on the deposit facility. The ECB has provided further support through a new series of longer-term refinancing operations called pandemic longer-term refinancing operation (PELTROs). These provide longer-term funding with tenors ranging from 8 to 16 months and with an interest rate at 25 basis points below the average rate applied in the Eurosystem's main refinancing operations over the life of the respective PELTRO. PELTROs are also subject to the ECB's temporary collateral easing measures for monetary operations.

Governments around the world have also been responding actively to the evolving crisis. Fiscal measures have had the initial effect of mitigating the impact on households and businesses of their income loss resulting from the forced shutdown of swathes of the economy. The next object of these measures is to help the economy return to normal as quickly as possible once lockdown measures have been lifted. The measures may be divided into different categories. The first consists of direct budget expenditure aimed at supporting the health system and other harder hit sectors of the economy and at supporting schemes to maintain employment. The second form of fiscal assistance is the waiver or deferral of tax and social security contribution payments. The third category includes the provision of loans and capital injections and the sponsoring of various guarantee schemes to shore up private sector solvency and liquidity. There is particular emphasis on supporting small and medium-sized enterprises since they are currently in the most vulnerable position.

In several countries, the volume of state aid provided in response to the coronavirus crisis is already greater than that provided during the global financial crisis. The European Union has unveiled a package worth €540 billion, which represents around 4% of the block's aggregate GDP. In many EU countries, the funds earmarked to combat the crisis represent an even greater share of the national GDP. The United States has approved fiscal assistance amounting to as much as USD 2.3 trillion, or 11% of GDP. Through fiscal measures of just the first two categories (with a direct impact on the budget), the amount of funding that G20 countries have committed to the support of their economies represents around 3.5% of their aggregate GDP, according to IMF estimates.

The robust response from central banks and governments has so far helped to stabilise financial markets. From around the end of March, there was a broad rebound in asset prices, though their rates of recovery varied. Equity indices recouped around half of the losses incurred following the onset of the crisis. Investor risk aversion abated, and investment fund out-

flows came to a halt. There was also a pick-up in primary market activity. So, on the whole, financial conditions were easing to some extent. Looking, however, at their overall change since the start of the year, these conditions have tightened.

The risk of a further deterioration in the situation is high given the unpredictability of the pandemic's future course

Not even the prompt implementation of fiscal and monetary stimuli alters the fact that the world is on the verge of a deep recession. There are still no answers to some critical questions: How deep will it be? How long will it last? What long-term adverse consequence will it leave in its wake? The answer to the first two questions will largely depend on the progress of the pandemic. The estimation of that parameter is currently subject to a great deal of uncertainty. Most projections of the baseline scenario are based on the relatively optimistic assumption that the pandemic will have receded in all parts of the world by the end of the first half of 2020 and therefore the shut-down parts of the economy will be able to restart quickly in the second half of the year. It cannot be ruled out, however, that lifting of lockdown measures will create conditions for a resurgence of the coronavirus in a second or more waves. In order to prevent that eventuality, the opening up may have to be more prolonged and gradual, and possibly conducted in a cyclical manner. The risks of the crisis becoming worse are therefore significant. On the positive side, the situation may be eased by an earlier than expected discovery of an effective coronavirus treatment or vaccine.

Even when the pandemic itself is under control and the related hygiene measures are no longer in force, many economic agents may not be able to return immediately to normal after such a shock. On the supply side, it may happen that an appreciable number of businesses cannot financially survive the lockdown period and close. The demand side may be depressed by efforts to repair the balance sheets of households and firms amid persisting weak sentiment, weak consumer confidence and heightened uncertainty. Nor is it clear whether consumer behaviour will change in such a way that people become less willing to gather in public spaces. Such a change would curb demand for certain services in particular.

Financial stability will come under increasing pressure in the period ahead

The emerging economic crisis will subject global financial stability to its greatest test in the past decade. The negative effects on financial institutions have so far been in the form of losses on assets held in portfolios repriced at fair value. Further headwinds emanating from the economic

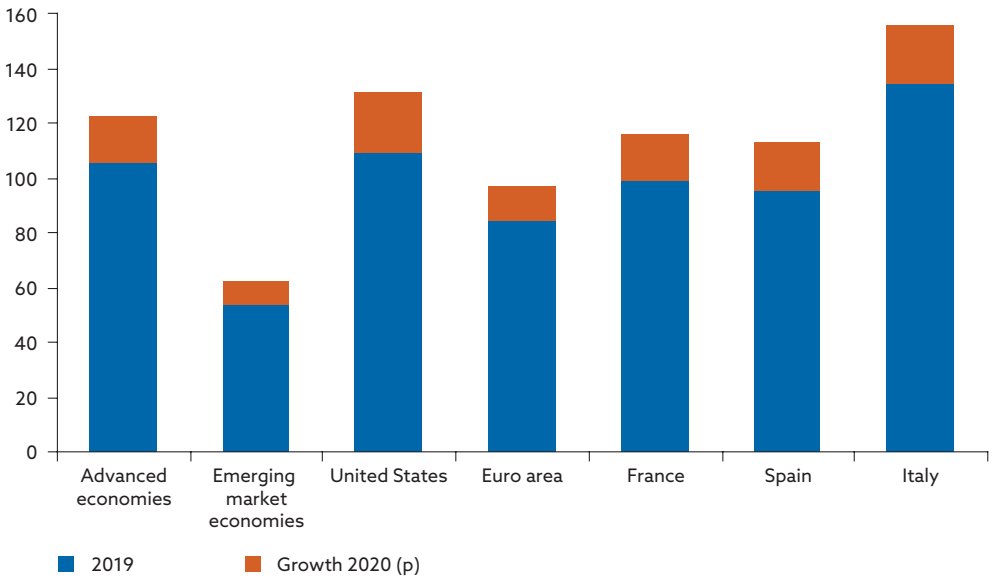
weakening will in time spill over to the financial sector. There are already, however, two clear long-term trends with major implications for financial sector functioning and stability: the persistence of low interest rates and the growth in public sector indebtedness.

The low interest rate environment will probably remain a feature of the economic situation over the long term. The worldwide phenomenon of low interest rates has been present for almost the whole of the past decade. Recent years have seen some indication of monetary policy normalisation, but the trade conflict-related global economic slowdown in 2019, though relatively moderate, resulted in central banks returning to an accommodative mode, with the Federal Reserve leading the way. Yield curves reflected expectations of low, often negative, interest rates for several years ahead. This constellation now includes a crisis of historic proportions. All central banks have returned their base rates to zero or lower. At the same, through non-standard monetary policy instruments, they are providing liquidity in the order of trillions of euro. In such circumstances, any return of interest rates to a higher level appears to be far off. Monetary policy easing is expected to be beneficial for bringing economies out of the forthcoming recession. It will, however, be necessary to monitor the impact of cheap money on the financial sector. As the past decade showed, a surplus of liquidity in the system may support the build-up and accentuation of financial imbalances and associated risks. In order to ensure financial stability in this context, a proactive macroprudential policy approach is crucial.

Chart 5

Upward jumps in public debt are occurring around the world owing to exceptional fiscal measures

Public debt-to-GDP ratio (percentages)



Source: IMF Fiscal Monitor, April 2020.
Note: (p) – projection.

Government debt burdens are increasing across the world, which for many countries means that public financing sustainability is becoming still more difficult. According to the IMF's calculations, the average public debt-to-GDP ratio for advanced economies will increase to 122% in 2020, from 105% in 2019. Across the emerging world, whose debt burden is approximately half that of the advanced world, the public debt ratio will also surge, in this case by nine percentage points. An aggravating factor for some emerging countries will be the fact they are financing their liabilities on the international dollar market. This means the depreciation of their domestic currencies will increase their financing costs. Commodity exporters will face serious problems as their falling prices erode their budget revenues.

The average euro area public debt-to-GDP ratio will approach 100%, with its increase of 13 percentage points cancelling out its moderate decline over the previous five years. The debt burden will increase by around 20 percentage points in France, Spain and Italy, which are examples of larger euro area countries that were already in a less favourable fiscal position before the crisis and were epicentres of the pandemic in Europe. In each of these countries, the public debt will be more than 110% of GDP, and in Italy it will be as high as 155% of GDP. When Greece's problems started to become serious, its public debt was at around 110%. Now its debt will climb to 200% of GDP. The likelihood is that these public debt figures will continue rising in the years ahead, and it seems that the crisis-weakened economies will be generating budget deficits for some time to come. Public debt may be further increased by the potential payment of liabilities for non-performing private sector debtors who have borrowed funds through state-guaranteed credit schemes. Countries' capacity to finance such debt will depend on the interest rates available to them on the bond market. Investor concerns about the impact of the coronavirus crisis on the fiscal position of certain euro area countries have been apparent since the pandemic broke out in Europe. As a result of credit risk premia increases, yields to maturity increased sharply on, for example, Spanish government bonds and, even more so, Italian government bonds. The emerging negative trend has been reversed by increased purchases of sovereign debt under the new PEPP programme.

The banking sector could face difficulties despite its relatively sound footing, especially if lockdown measures are prolonged

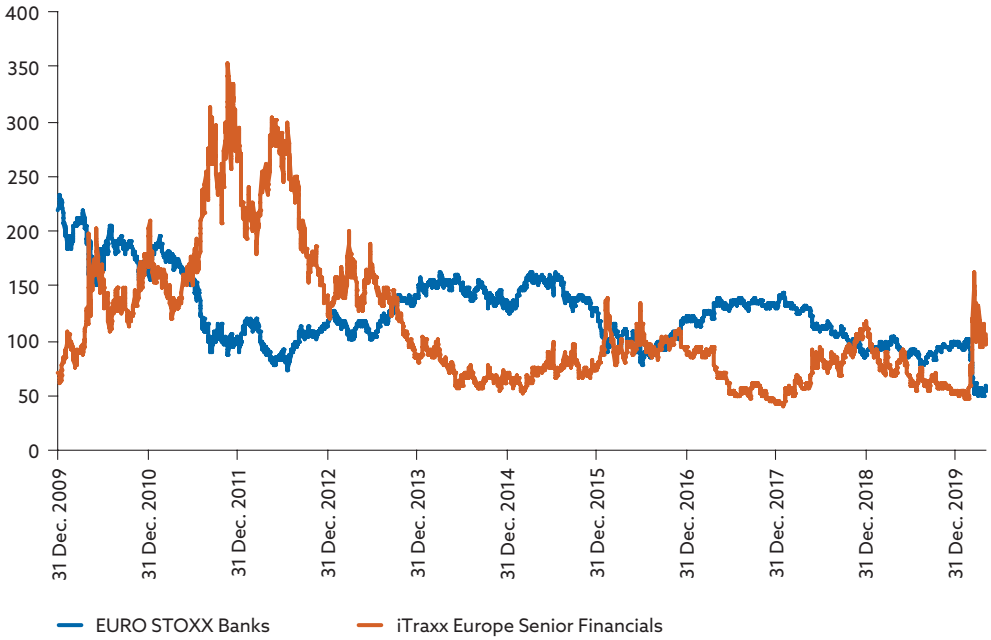
A factor that will be important in determining the longer-term economic impact of the pandemic is how the banking sector deals with the crisis. This crisis, unlike the previous one, does not have the banking sector at its epicentre. The recent eruption of financial market volatility has so far had

a greater impact on entities outside the banking sector, such as those managing customer assets. Going forward, however, the banking sector will clearly not avoid the headwinds from the collapse of economic activity. There is highly likely to be some increase in credit risk costs resulting from income losses among households and firms and from increases in unemployment and firm bankruptcies. It remains to be seen how high credit risk costs will rise. Governments, regulators and supervisory authorities have introduced a series of exceptional measures in order to prevent defaults of otherwise solvent firms and households that find themselves in a temporary illiquid position solely because of sales or wages being lost or reduced during the lockdown period. Most notable among them are the various forms of credit moratoria and schemes enabling customers of banks and other financial institutions to have their repayments deferred without incurring any penalties, usually for a period of several months. By the same token, claims that are unpaid during such a moratorium may not be reclassified as impaired, providing that the borrowers can demonstrate that their financial difficulties stem solely from the coronavirus containment measures.

Chart 6

Credit spreads so far indicate that fears about bank insolvencies in Europe are lower than they were during the debt crisis peak in 2011

(index)



Source: Bloomberg.
Note: EURO STOXX Banks – an index of European bank stocks; iTraxx Europe senior Financials – an index of credit spreads of European banks.

If sizeable credit losses were arising after the end of the repayment holidays, banks would be able to cover them with funds allocated to a wide array of capital buffers. In the euro area, the easing of requirements for

instruments included in the macroprudential policy toolkit has freed up almost €22 billion of CET1 capital. More than half of that amount is the result of seven countries either releasing the countercyclical capital buffers (CCyBs) already in force or cancelling non-zero CCyBs that have been approved but are not yet in force. Much of the rest is the result of three countries either resetting their systemic risk buffer rates (SyRBs) to zero or reducing them. A smaller amount of the freed-up CET1 capital is attributable to the reduction of O-SII buffers in three countries and the deferral of an announced measure to determine the lower limit for risk weights on domestic exposures secured by real estate. Other loss-absorbing capital is available under the second pillar through measures taken by microsupervisory authorities.

The resilience of banking sectors in the euro area, as well as other parts of the world, is based not just on the possibility of tapping regulatory buffers, but also on their generally quite strong solvency position. The capital adequacy of banks was far better going into this crisis than it was going into the previous one. Generally speaking, banking sector liquidity positions are also more robust than they were ten years ago. Banks are also, if necessary, able to obtain liquidity under favourable conditions through exceptional central bank operations. On the other hand, under the parameters assumed for the recession, there may be some erosion of banks' solvency over time. This need not be widespread, but may be focused on individual institutions or the more vulnerable national banking sectors. This applies mainly under those scenarios that assume the pandemic takes longer to suppress or breaks out again. If banks have a less comfortable capital position, they may respond in a more procyclical way by restricting lending to the real economy. A slowdown in lending activity would reduce the effectiveness of programmes providing support during this period of stress, when many of these programmes rely on the banking sector fulfilling its intermediary role. In that case, the crisis would take on another dimension, and the economic recovery process would be held back.

The insurance sector, like the banking sector, has not yet suffered any significant downturn during the crisis. Looking ahead, however, current developments represent a serious risk to the health of insurers. The insurance sector could be weakened by a double hit from declines in the market value of risky securities on the asset side of the balance sheet and from increases in the amount of insurers' liabilities discounted by falling risk-free interest rates. The double hit could become a triple hit given the risk of increases in the payment of pandemic-related claims.

The financial market segments worst affected by the events of recent months are those focused on asset management. The performance of in-

vestment funds and similar entities has suffered in the short term at least. Portfolio losses have often been in the several tens of per cent. Fearing further deterioration in the financial market situation, investors have been pulling money out of these products to an increasing extent. Some investment funds have come under pressure from a spate of redemptions. This concerns mainly funds that have a greater exposure to riskier segments of the credit market. Except for a few exceptions where redemptions were suspended, funds have had sufficient liquidity to cope with this situation. At the same time, however, their sell-offs of riskier assets – not only in response to redemptions, but also in order to bolster liquidity in case turbulence recurs – have contributed to the accelerating downtrend in asset prices. Investment funds whose investment strategy incorporates derivatives and leverage effects have faced margin call increases. A risk going forward is that bond sales will be necessitated by any significant wave of corporates being downgraded from the lower range of investment grade to speculative grade.

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2 Domestic environment

2.1 Developments in the domestic economy

The coronavirus pandemic has adversely affected the Slovak economy; the pace of recovery will depend on the duration of the pandemic containment measures both at home and around the world

Slovakia's economic growth was already decelerating in 2019, even before this year's outbreak of the coronavirus pandemic. Annual GDP growth slowed from more than 3% at the start of 2019 to around 2% at the end of the year. This downtrend stemmed from weakening global demand. The gradual slowdown in foreign demand growth reflected increasing uncertainty about future developments and the faltering economic performance of Slovakia's trading partners. Economic growth was therefore reliant on domestic demand. Household consumption in particular was a stable driver of growth, and investment was making a notable contribution in the second half of the year. The latter part of the year even saw a slight pick-up in economic growth and an improvement in sentiment. This indicated a certain optimism and expectations that the economy would get through the period of cooling without suffering a significant contraction.

The situation changed, however, in early March, when Slovakia reported its first case of the coronavirus. It was then clear that Slovakia would not avoid the pandemic and consequently a partial shutdown of its economy. The adverse impact on the Slovak economy was almost immediate, owing to the introduction of domestic containment measures and to the marked weakening of foreign demand resulting from containment measures in countries that are significant destinations for Slovak exports. As a result, the Slovak economy fell into recession.

Table 2 Outlook for 2020 (annual percentage changes)

	Scenario 1	Scenario 2	Scenario 3
GDP	-5.8	-9.3	-13.5
Employment	-1.2	-1.6	-2.5
Wages	-2.5	-3.4	-5.3
Foreign demand	-7.3	-10.4	-16.6

Source: NBS.

The latest economic outlook for Slovakia describes an incipient recession. The question is already not whether the Slovak economy will contract, but how severe the contraction will be. In its latest Medium-Term

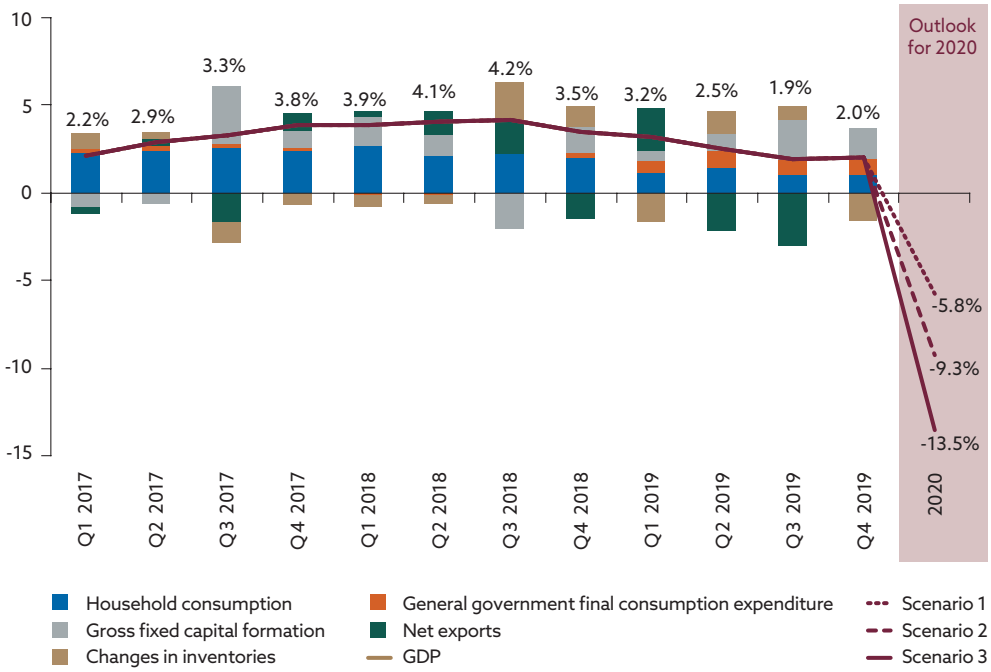
Forecast, NBS[1] envisages three potential scenarios for the recession in 2020.

The scenarios differ mainly in their assumptions about the strength of the headwinds from the external environment and the duration of the economic restrictions imposed under states of emergency in Slovakia and other countries. The most optimistic scenario assumes that the economy returns almost back to its original level, while the other two envisage more substantial permanent loses in the global economy and in global trade.

Chart 7

The economy has fallen into recession

(percentages)



Sources: SO SR and NBS.
Notes: Slovakia's annual GDP growth at constant prices, and component contributions to GDP growth. The outlook for 2020 is taken from the April update of NBS's March 2020 Medium-Term Forecast.

Recent developments related to the containment of the coronavirus pandemic imply that the Slovak economy may follow the path outlined in Scenario 2. After two months of the crisis, an easing of containment measures is being phased in and the economy is gradually reopening.

The corporate sector has experienced a severe drop in sales. The economic slowdown and closure of many trade and manufacturing businesses have resulted in a sharp decline in corporate sector sales. By this metric, the hardest hit sector has been services, in particular the hospitality, recrea-

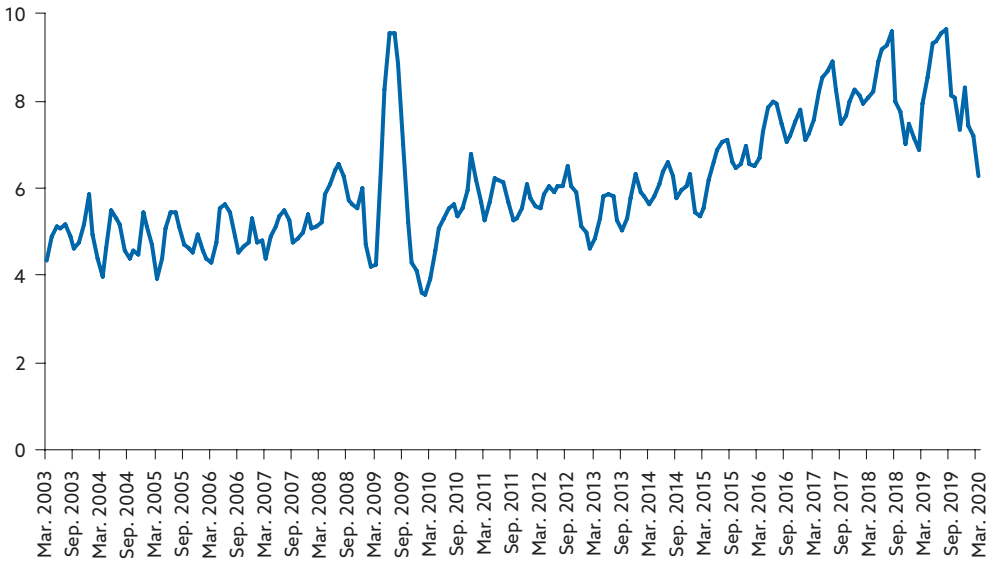
[1] The April update (MTF-2020Q1U) of NBS's March 2020 Medium-Term Forecast (MTF-2020Q1).

tion and transport industries. The impact on manufacturing industry, and in particular the automotive industry, has also been significant. The result has been a marked decrease in corporate sector sales, which were already in decline in the second half of 2019, when they fell by around 2% year on year. Precise data on the sales decline are not yet available; nevertheless, evidence of a considerable downturn in corporate sector activity is also provided by data from the Financial Administration of the Slovak Republic. These data indicate that sales in most of the major sectors were lower in April 2020 than in February 2020 and that the largest declines, ranging between 50% and 90%, occurred in accommodation activities, sports and recreation services, energy supply, the health sector, and the education sector. The contraction of economic activity is further illustrated by the number of new car registrations in Slovakia, which in March fell by more than one-fifth on a year-on-year basis.

Chart 8

The number of new car registrations plummeted in March

Three-month moving average of the number of car registrations in Slovakia (thousands of registrations)



Sources: Ministry of Interior of the Slovak Republic and NBS.

The Slovak economy has been impacted not only by domestic coronavirus containment measures, but also by a sharp decline in foreign demand. The increasing uncertainty about future developments and the partial shutdown of the economies of Slovakia's trading partners have hurt Slovak exports and resulted in all carmakers in Slovakia temporarily suspending production. At the same time, domestic manufacturers dependent on imports of production inputs have been finding it far more complicated to obtain these inputs.

Another sign of the downturn in business activity is the number of trade licence suspensions, which between 1 March and 17 April 2020 fell by more than 50% year on year. Many sole traders have been unable to re-

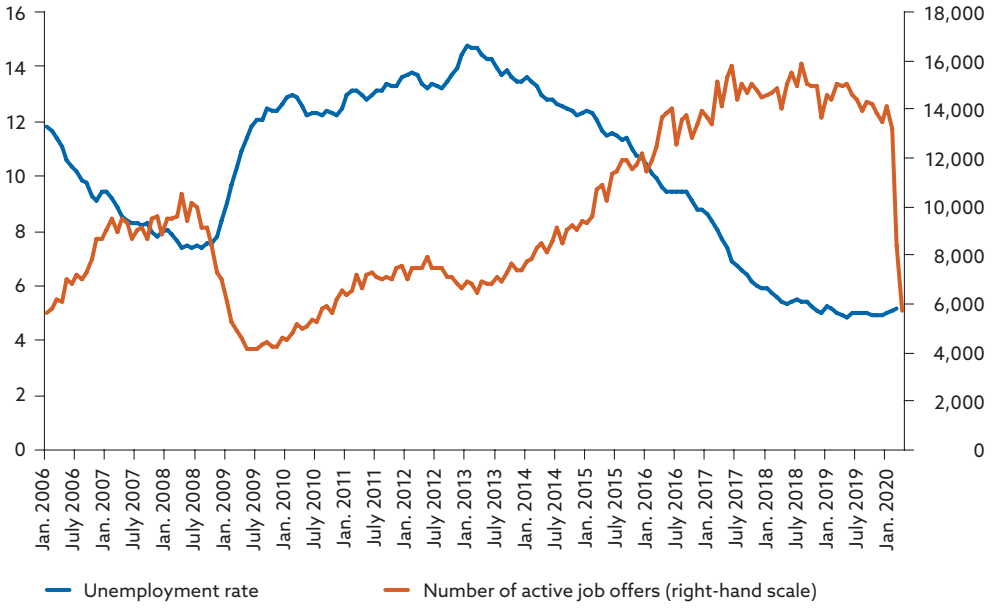
spond flexibly to heavy loss of income resulting from the adverse situation, as they lack the financial capital needed to see them through it or they wish to save on costs of social security payments. The sectors currently reporting the highest number of trade licence cancellations are retail trade, construction, education and services.

The Slovak economy's deceleration in the second half of 2019 did not have a significant impact on the labour market, which at the turn of the year continued to show signs of overheating. At the end of 2019 the registered unemployment rate was at a historical low of 4.9% and average annual wage growth stood at 4.3%. Labour market overheating came to a halt with the onset of the coronavirus pandemic and resulting economic contraction. Even in the first quarter, however, the impact on the employment market was still not significant. It was not until March that the pandemic started to weigh heavily on the economy. In the early phase of the crisis, redundancies were still not extensive, and employees and employers were working to find more flexible forms of compensation for work. The first three months of the year saw the number of registered unemployed increase by around 7.5 thousand and the unemployment rate rise by a marginal 0.3 percentage point, to 5.2%. In March, however, there was a sharp drop in the number of job vacancies. Since the supply of jobs has a close relationship with developments in employment and the unemployment rate, it may be expected that employment will fall markedly over the course of this year.

Chart 9

Although the registered unemployment rate has not yet risen significantly, the number of job vacancies has fallen sharply, to a greater extent than it did in 2009

Registered unemployment rate and the seasonally adjusted number of active job offers on the Profesia online job portal (percentages; number)



Sources: Profesia online job portal (www.profesia.sk), ÚPSVaR SR and NBS.

The crisis has been most keenly felt in the sectors of services, trade, recreation, and real estate activities. It is in these sectors that jobs are under greatest threat. At the end of 2019 the total number of people working in these sectors was almost 740 thousand. According to the latest NBS forecast, between 46 thousand and 100 thousand jobs could be lost in Slovakia.[2] Meanwhile, wage growth is expected to have come to the end of its strong growth trends of recent years. In the context of an increasing supply of labour, average wage growth will be subdued and several sectors are expected to see wages drop. This situation will therefore have a negative impact on the financial condition of households and, by extension, on the financial market. Domestic demand will weaken significantly through the dampening of domestic consumption and a sharp decline in investment. In estimating the impact of the employment headwinds, account has already been taken of the Government's measures aimed at mitigating their effects. The measures may potentially preserve around 50 thousand jobs.

The main risk to the economic outlook lies in the duration of the state of emergency and the accompanying contraction of the domestic economy and the economies of Slovakia's trading partners. If the pandemic containment measures last for more than two months, the Slovak economy is projected to record a double-digit contraction in 2020. If, however, the interruption of activity is more prolonged, existing supply chains could be at risk; any disruption of these chains will retard the economy's gradual recovery in subsequent years. A further downside risk to the projected economic recovery is the possibility of a resurgence of the pandemic that would again necessitate the shutting down of economies.

2.2 Lending to households and the financial situation of households

Housing loan growth is so far unaffected by the coronavirus crisis

The annual growth rate of total loans to households maintained a pace of just under 8% from mid-2019 to March 2020. On this metric, Slovakia ranked fourth among EU countries from August 2019. Housing loans and consumer loans showed somewhat different trends.

Amid declining interest rates, the downtrend in housing loan growth came to a halt at 10%. The second half of 2019 saw a significant decline in the average interest rate on housing loans (from 1.5% to 1.1%). This was accompanied by a surge in new housing loan business, which in the last

[2] The difference between the number of jobs in the fourth quarter of 2020 and fourth quarter of 2019.

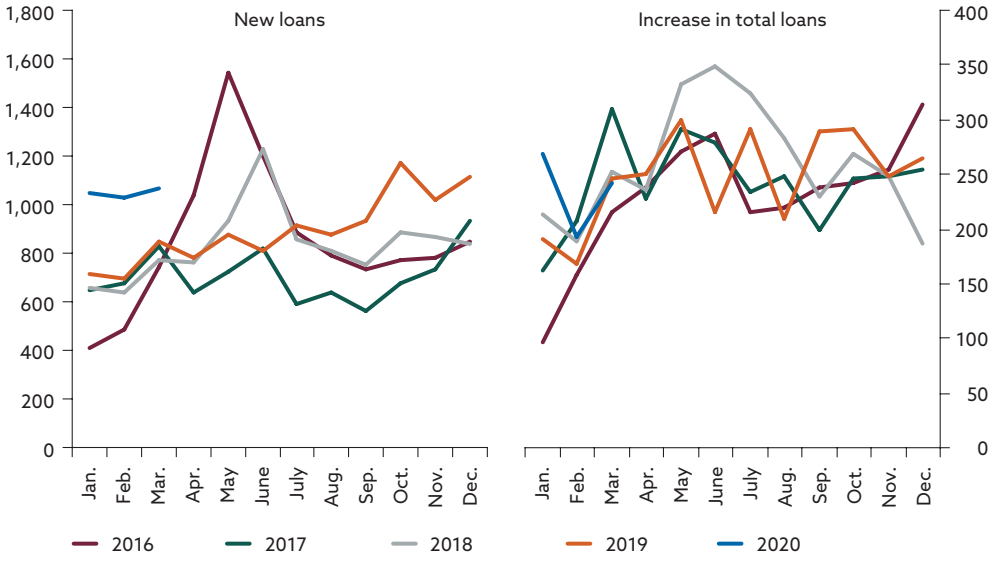
quarter of the year even reached a historical high. However, more than half[3] of this activity consisted of loan refinancings.

Tighter debt service-to-income ratio limits introduced from January 2020 may have a dampening effect on loan growth. Under the respective legislation, however, loans would continue to be assessed according to the old conditions if their origination began in 2019. This situation supported new loan business, which consequently reached a peak in the first months of 2020. One result of this heightened lending activity was a surge in housing loan growth. The monthly flow of these loans was posting record highs from the second half of 2019, and for that reason the downtrend in annual loan growth came to a halt at close to 10%.

Chart 10

New lending accelerated sharply from the second half of 2019, which resulted in loan book expansion

Monthly new loan business and the month-on-month change in the outstanding amount of housing loans (EUR millions)



Source: NBS.
Note: Housing loans are adjusted for a methodological change in the reporting of renegotiated loans at one bank.

Housing loans provided by home savings banks recorded a negative trend. Although this segment is associated with high volatility, from September 2019 the total amount of these loans was falling virtually every month. In the first quarter of 2020, the portfolio of these loans posted its worst performance on record[4] with a decline of 1.3%.

[3] 54% of loan agreements, representing an increase of 7 percentage points compared with the first half of 2019.

[4] The data have been available since 2004.

Housing loan growth has not as yet been slowed by the coronavirus crisis. The crisis may have a lagged impact on housing loan growth owing to the catch-up of loan-granting processes of previous months. According to the bank lending survey, banks have already been indicating a tightening of credit standards, reflecting mainly the expected deterioration in borrowers' creditworthiness and a lowering of banks' risk tolerance. In the near term, banks expect a further tightening of credit standards as well as a decline in demand.

The pace of housing loan growth may be dampened in coming months by a decline in new loan business. On the other hand, the pandemic-related deferral of loan repayments may have a positive impact on the growth rate. It is estimated[5] that if new borrowing fell by between 30% and 50%, the annual growth rate of loans would decrease by between 3.5 and 7 percentage points.[6] At the same time, however, the deferral of loan repayments represents a mitigating factor since not only does it reduce disposals from housing loan books, it also, through cumulative unpaid interest, actually results in an increase in the aggregate outstanding amount. Repayment deferrals for between 20% and 40% of housing loans would have a positive impact on annual housing loan growth of between 1 and 2 percentage points.[7]

Table 3 Estimated annual growth in housing loans depending on flow changes

		Repayments deferred for the following percentage of housing loans			
		0%	30%	60%	100%
Decline in monthly new loan business	No decline	10.3%	11.7%	13.1%	14.9%
	Decline of 30%	6.9%	8.3%	9.6%	11.4%
	Decline of 60%	3.5%	4.8%	6.2%	8.0%
	Decline of 100%	-1.1%	0.2%	1.6%	3.4%

Source: NBS.
Notes: The sensitivity analysis estimates housing loan growth under different rates of decline in the amount of pure new loans (including outstanding amount increases) and an increase in the percentage of loans subject to repayment deferral. All repayment deferrals are assumed to be for the maximum allowed period of nine months. It is further assumed that an amount equivalent to 50% of the average amount of consumer loans repaid early in 2018 and 2019 will be refinanced with housing loans each month. In all months from April to December 2020, the monthly flow of loans is assumed to be the same. The final year-on-year change is the sum of the observed monthly increases in the loan book in the first three months of 2020 and the estimated flows in the remaining months of 2020.

[5] The sensitivity analysis estimates housing loan growth under different rates of decline in the amount of pure new loans (including outstanding amount increases) and an increase in the percentage of loans subject to repayment deferral. All repayment deferrals are assumed to be for the maximum allowed period of nine months. It is further assumed that 50% of the average amount of prepaid consumer loans from 2018 and 2019 will be refinanced with housing loans each month. In all months from April to December 2020, the monthly flow of loans is assumed to be the same. The final year-on-year change is the sum of the observed monthly increases in the loan book in the first three months of 2020 and the estimated flows in the remaining months of 2020.

[6] A decline in new business of 10 percentage points has a negative impact on housing loans growth of around 1.1 percentage points.

[7] An increase of 10 percentage points in the percentage of loans subject to repayment deferral has a positive impact on housing loan growth of around 0.5 percentage point.

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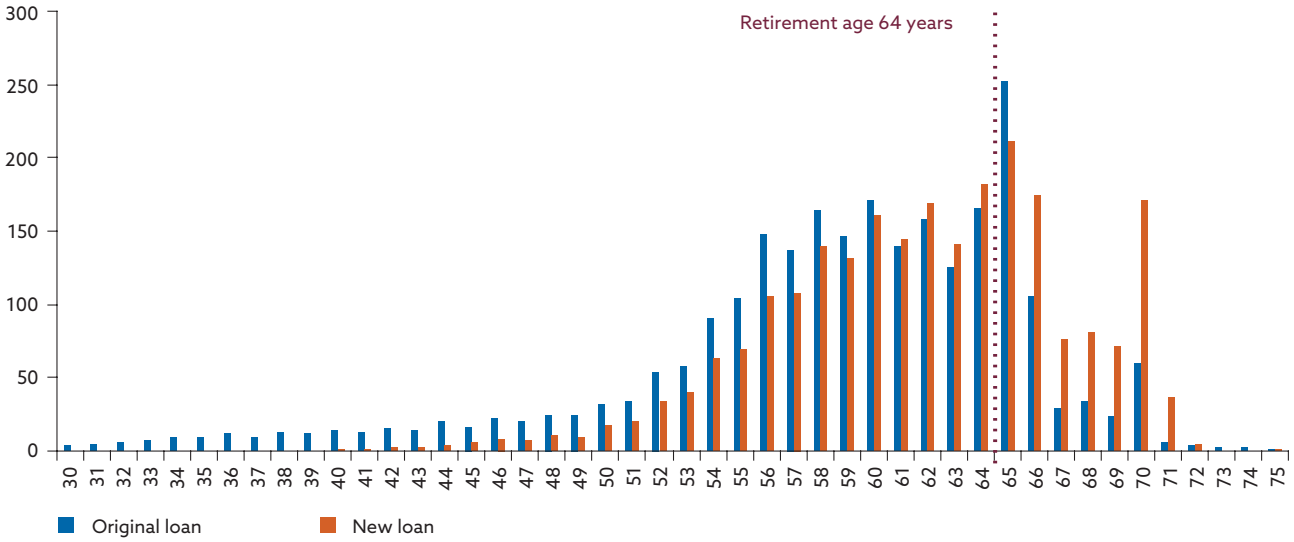
Box 2
Risks related to housing loan maturity extensions

The implementation of NBS macroprudential policy includes setting limits for different risk indicators related to household loans. As for the possibility of extending a loan's maturity, particularly with regard to extending it beyond retirement age, there has been relatively little restriction. Setting specific limits on credit standards has ensured that loans are proportionate to the financial capacities of borrowers, are adequately secured, are provided on the basis of reliable data and are repaid at an appropriate pace. One area, however, which has been regulated in only a general way is the repayment of loans after borrowers have reached retirement age. Under existing NBS Decrees,[8] banks are required to take retirement age into account only in regard to their expectations of a decline in the borrowers' income or to a shortening of the loan maturity. No detailed procedure has been specified.

The practice of providing loans that mature after the borrower's retirement age has been spreading, particularly in recent years. It is particularly evident among loan refinancings, since, along with falling interest rates, such maturities allow lower loan repayments. Chart 11 shows that loans maturing after the borrower has reached retirement age (i.e. 64 years) constituted 34% of the total amount of refinancing loans, while their share in the amount of the original loans that were refinanced is 21%. The total amount does not include the outstanding amount increase in cases were the refinancing loan involves an increase in that amount.

Chart 11
Refinancing results in loan maturity extension even beyond retirement age

Breakdown of the outstanding amount of refinancing loans by age of the borrower (or the younger of the co-borrowers) at the maturity date (EUR millions)



Source: NBS.
Note: The chart covers housing loans provided in the period from Q3 2018 to Q4 2019.

[8] Decree No 10/2016 of Národná banka Slovenska of 13 December 2016 laying down detailed provisions on the assessment of borrowers' ability to repay housing loans, as amended, and Decree No 10/2017 of Národná banka Slovenska of 14 November 2017 laying down detailed provisions on the assessment of borrowers' ability to repay consumer loans, as amended.

The share of loans maturing after the borrower reaches retirement age (64 years) is slightly higher among refinancing loans not involving an outstanding amount increase; the share is also higher among the original loans before they are refinanced in this way (see Table 4). Loans may, however, be refinanced repeatedly, and therefore, in banks' aggregate loan book, the overall share of loans maturing after retirement age may gradually increase.

Table 4 Loans maturing after the borrower's retirement age as a share of total loans

	According to the age of the younger borrower		According to the age of the older borrower	
	Original loan	New loan	Original loan	New loan
Refinancing with no outstanding amount increase (with another bank)	21%	47%	33%	61%
Refinancing with an outstanding amount increase (with another bank)	15%	43%	27%	60%
Refinancing with an outstanding amount increase (with the same bank)	15%	42%	26%	58%

Source: NBS.
Note: The table covers housing loans refinanced in the period from Q3 2018 to Q2 2019.

The disproportionate extending of loan maturities increases risks both for individual households and for the financial sector as a whole. Where maturities are extended beyond retirement age, there is the risk of the borrower's income decreasing. The longer that loan repayments eat into a borrower's pension income, the greater will be the impact of lower pension income on the borrower's debt servicing capacity. At the same time, the borrower will be at increasing risk of health complications that may further reduce his or her disposable income. Although the law requires banks to have regard to the risk of decline in borrowers' income, individual banks have discretion to apply their own methodologies, which may vary in terms of their prudentiality.

A second important risk is that there will be less scope to modify the repayment schedule in bad times. If a loan maturity has already been extended to the limit in good times, the borrower will lack one of the natural buffers against bad times. In other words, longer maturities reduce the flexibility with which households can respond to crisis periods. The necessity of continually building up financial buffers, including the keeping open of loan maturity options, has now been demonstrated during the coronavirus crisis. Pressure on family finances is therefore rising, not only because income is falling, but also because outstanding debts are increasing. This risk has been temporarily mitigated by government measures allowing the deferral of loan repayments, but it will come once again to the fore after the measures have expired.

Closely related to this is a further, macroeconomic risk. Slower amortisation of loans will accelerate the increase in household indebtedness even without any change in new lending growth. Higher household indebtedness will have implications for the whole economy, as it will significantly reduce aggregate consumption and therefore slow up the post-crisis economic recovery.[9] This will reverberate on households via a deterioration in the labour market situation.

[9] IMF Global Financial Stability Report, October 2017.

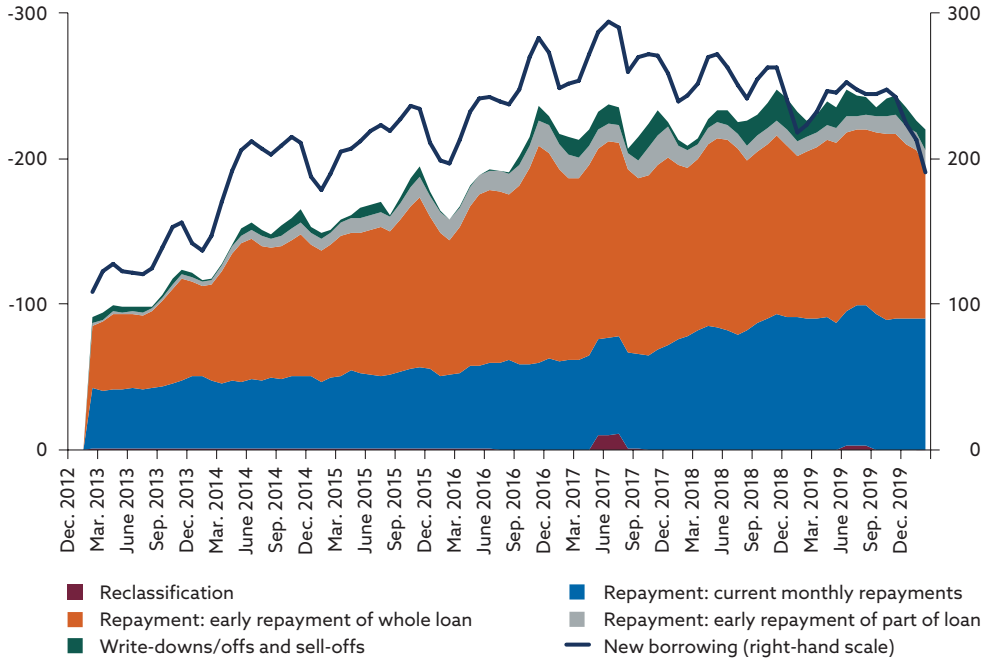
Stagnation and decline in total consumer loans

The annual growth rate of total consumer loans slowed to almost zero in 2019 and declined by 1% in March 2020. During 2019 and until February 2020 consumer loan growth was between 0.2% and 0.3%, reflecting a slowdown in new consumer loan business (7% lower than in 2018 and 9% lower than in 2017). Since consumer loans have a relatively short maturity, their outstanding amount is quickly amortised. The high turnaround of these loans means that even a relatively slight decline in new business has an appreciable impact on growth in the aggregate portfolio. Furthermore, consumer loans are to some extent being substituted with cheaper housing loans – whether directly when the housing loan is granted, or at a later date when the borrower's debt is consolidated through a refinancing of the housing loan (with an increase in the outstanding amount). The slowdown in consumer growth in 2020 may also reflect the impact of regulatory tightening of DSTI ratio limits.

Chart 12

The slowdown in consumer loan growth stemmed mainly from lower growth in loan production

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



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

A record decline in total consumer loans occurred in the first month following the outbreak of the coronavirus crisis. Compared with housing loans, consumer loans are subject to a faster approval process, and trend changes in their flows show up earlier on the balance sheet. Hence in

March 2020 alone, the outstanding amount of consumer loans fell by 1.3% year on year, and all significant banks in the consumer loan market contributed to that negative result. The volume of new business in March was 42% lower than the average for 2019. Furthermore, the volume of consumer loans repaid early (refinanced) in March was 15% below the 2019 average.

According to the bank lending survey, there has been a tightening of credit standards. As with housing loans, it is expected that credit standards for consumer loans will tighten further and that demand for these loans will decline.

Repayment deferrals are affecting credit quality indicators for households; indirect indicators imply a deterioration

Before the outbreak of the coronavirus crisis, household credit risk indicators were at historically low levels. The non-performing loan (NPL) ratio for the aggregate household loan book fell below 3.0% in 2019, and for housing loans it was even below 1.6% (its slight increase in March 2020, to 1.7%, was caused by a one-off event at a single bank). Net default rates for housing loans have been at almost zero, and exceptionally even negative, since 2016. Occasional deviations from this trend have almost always been due to one-off reclassifications at individual banks. The indicators for consumer loans have been higher but, since at least 2016, relatively stable, with the NPL ratio ranging between 8.0% and 9.6% and the net default rate between 2.3% and 2.9%. In March 2020 the NPL ratio for consumer loans stood at 8.3%.

In response to the impact of the coronavirus crisis on their financial situation, households began to use the newly available option to defer their loan repayments. Even before the optional moratorium on loan repayments took effect, more than 18 thousand applications for loan repayment deferrals had been made, and by 8 May that number had increased to almost 145 thousand. By the end of May, banks had dealt with almost 73 thousand applications, concerning almost 4% of their currently active credit relationships. Given the shifting economic situation, the number of applications may be expected to increase further in the following period.

Repayment deferrals are clouding information about the current state of household credit risk, which at present can be tracked only through indirect indicators. Delinquency indicators for the household loan book will be skewed during the loan repayment moratorium, since it will not be possible to monitor loan delinquency during this period. In this regard, the duration of the recession will have an important role – it will affect whether households are able to service their debts once the moratorium has ended. Meanwhile, it is possible to follow indirect indicators closely linked with household credit risk. The unemployment rate increased moderately in

March 2020, to 5.2%, virtually wiping out the improvement recorded in 2019. This was largely because the number of jobseekers finding work in March 2020 was fully one-third lower compared with the same month in 2019. In line with this decline, a sharp drop was observed in the number of job offers.[18] In the light of current developments, estimates of the further rise in unemployment are being revised by whole percentage-point margins.

The share of households put at financial risk by the coronavirus pandemic will increase

The economic repercussions of the coronavirus pandemic may have a serious impact on the household sector. A key risk that could exacerbate that impact is the relatively low saving ratio across much of the household sector, especially the most vulnerable households. According to data from the 2017 wave of the Household Finance and Consumption Survey (HFCS),[10] as many as 10% of Slovak households did not, prior to the pandemic outbreak, have any financial buffers for difficult times. Assuming a complete loss of income during the crisis and not taking into account government relief measures, 20% of households have financial buffers sufficient for one month, and one-half of households have financial buffers sufficient for six months at most.[11]

These findings are further supported by the results of a survey conducted in late March 2020,[12] according to which one-fifth of households were facing or expected to face serious financial difficulties. A further swathe of households, more than 44%, were concerned that although their income was sufficient, they did not have any financial buffer. The unemployed were particularly exposed to the adverse situation. Fears of significant income loss were most prevalent among entrepreneurs, sole traders, and employees working on the basis of an agreement for the performance of work.

Besides having low financial buffers for difficult times, many households went into the current crisis with a high debt-service-to-income (DSTI) ratio. As much as one-third of the retail loan stock had a DSTI ratio[13] of more

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[10] This was a nationwide representative survey conducted in spring 2017 by NBS in cooperation with the Statistical Office of the Slovak Republic. Conducted among approximately two thousand households, the survey was designed mainly to collect data on households' real and financial assets, liabilities, and consumption. For further details, see the following paper in Slovak: Jurašeková Kucserová J. and Strachotová, A. (2019), "Výsledky tretej vlny zisťovania o financiách a spotrebe domácností (HFCS)", Occasional Paper, No 1/2019, Národná banka Slovenska, Bratislava.

[11] Further details are available in Slovak in Cupák et al. (2020), "Majú slovenské domácnosti rezervy pred krízou?", *Analytical Commentary*, No 78, Národná banka Slovenska, Bratislava.

[12] The survey was conducted by the agency Focus for the newspaper Denník N on a sample of 1,015 respondents on 25 and 26 March 2020. At that time there was still no published information on the Government's measures to compensate people for part of their lost income and to allow borrowers to defer their loan repayments.

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

than 60%. Under an NBS Decree in force from the start of 2020, loans with a DSTI ratio of more than 60% should (after a phasing-in period) be provided only on an exceptional basis and should not exceed 5% of new loans. This Decree, however, had not managed to have sufficient impact before the crisis came. Although previous NBS Decrees had substantially reduced the riskiness of new loans (mainly in regard to their LTV ratios), a relatively large share of households went into the current crisis inadequately prepared from a probability of default perspective.

In the following analysis, we estimated the share of at-risk households, meaning households which, despite government relief measures, may face great difficulty in meeting their basic living expenses.[14] The government relief measures included in the analysis include allowing borrowers to defer loan repayments (provided the loan was not non-performing before the outbreak of the pandemic), compensating sole traders for lost income where their sales have fallen substantially, easing the qualifying conditions for unemployment benefit, and allowing rent deferrals of up to three months.[15]

We estimate that, despite the government relief measures, the pandemic will cause the number of at-risk households to increase by between 35 thousand and 48 thousand, representing between 1.9% and 2.6% of households. This estimate is predicated on the assumption that 10% of employed and self-employed persons lose their employment or main income as a result of the income (with the employment losses being highest in those sectors hardest hit by the crisis). Another assumption is that the income of other employed and self-employed persons falls by between 5% and 10%. To the estimated increase may be added some 110 thousand households (6% of the total) which – even with the loan repayment deferral option – were already significantly at risk before the outbreak of the pandemic. These are mainly low-income households. A further group of households, between around 11 thousand and 22 thousand (0.6% and 1.2 %), will find themselves in a situation where they have very little buffer after covering their basic living expenses[16] (before the crisis, 6.6% of households fell into this category). The estimations are based on HFCS data. More detailed data are shown in Table 5 and the estimation methodology is described in Box 3.

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[14] At-risk households were defined as households whose income and savings would not be enough to cover their basic living expenses over a nine-month period. Such expenses were quantified as 1.5 times the minimum subsistence amount plus any rent or debt payments.

[15] The analysis looks only at those government measures that have a direct impact on the financial situation of households. However, other indirect measures focused mainly on preserving jobs are also important to the overall impact, as are decisions on the duration of restrictions concerning individual segments of the economy; these are taken into account only indirectly via the assumed extent of employment losses or main income losses.

[16] These are households for whom basic living expenses constitute 80% of their income and savings over a period of nine months.

Looking just at households repaying a housing loan, the increase in the share of at-risk households is similar to that across the overall population. This is evidenced not only by the HFCS data, but also by all granular credit data from loan books. In the case of consumer loans, the increase in at-risk loans will probably be higher, at between around 2.8% to 3.7%.

Table 5 Estimated increase in share of at-risk households and loans

Risk indicator		All households	Indebted households only					
			Households with a housing loan	Households with debt	Housing loans		Consumer loans	
Data source		HFCS			Granular credit data			
Category		Number	Number	Amount	Number	Amount	Number	Amount
Taking measures into account (percentage share)	10% of people lose their job; the income of the rest falls by **5%**	1.9	2.0	2.2	1.9	1.5	2.6	1.9
	10% of people lose their job; the income of the rest falls by **10%**	2.6	2.2	2.4	2.2	1.7	3.2	2.3
Impact of individual measures[1] (percentage-point change in share)	Increase in share of at-risk households in absence of measures	6.2	8.2	10.7	5.7	5.8	12.5	12.7
	Decrease owing to repayment deferrals[2]	-2.8	-5.2	-7.2	-4.4	-4.7	-11.1	-11.5
	Decrease owing to rent deferrals	-0.2	0.0	0.0	NA	NA	NA	NA
	Decrease owing to income compensation for self-employed persons	-0.7	-0.6	-1.1	-0.6	-0.6	-0.3	-0.4
	Decrease owing to easing of qualifying conditions for unemployment benefit	-0.6	-0.6	-0.9	-1.1	-1.0	-1.6	-1.5

Sources: HFCS and NBS.
Notes: The table shows the share of household that are or, as a result of the coronavirus crisis, may get into a situation where they cannot meet their basic living expenses, even after recourse to their savings or to any state benefits or income compensation. A description of the methodology used to estimate the share of at-risk households is given in Box 3. In a simulation based on granular credit data, we assume that households in serious financial difficulty will stop repaying any consumer loans they may have before they stop repaying a housing loan.
1) The impact of the individual measures is estimated on the assumption that 10% of employed and self-employed persons lose their employment and that the income of the rest falls by 5%.
2) Another significant component of this impact is the impact of loan repayment deferrals, including a decrease in the share of households that were unable to meet their basic living expenses even before the crisis. This share is 8%, and with loan repayment deferrals it falls to 6%. This impact is even more pronounced in the case of indebted households, with loan repayment deferrals bringing the share of these households down from 8.5% to 2.5%.

The analysis also shows that the government measures are significantly mitigating the consequences of the pandemic. Absent these measures, the share of at-risk households would increase by 6.2 percentage points (representing more than 115 thousand households, and in the case of indebted households it would increase by as much as 10.7 percentage points. Part of this impact consists of an increase in the share of households which

were already at risk before the outbreak of the pandemic. The most significant impact comes from the loan repayment deferral option. This means if the financial situation of households has not improved by the time repayments start falling due again, the credit quality of the household loan portfolio could deteriorate significantly. Our estimates indicate in particular the possibility of an increase in non-performing consumers loans, as households in financial difficulties will probably stop repaying these loans before they stop repaying housing loans.

As regards a potential increase in serious financial difficulties, middle-income households face the greatest risk. In this group of households, with net income ranging between €1,000 and €1,400, the share of at-risk households will increase by between 3.6 and 4.4 percentage points. Among the group of lower-income households, almost one-fifth were already at risk before the crisis. The increase in that share as a result of the crisis will be less than the increase in at-risk middle-income households. By contrast, the share of at-risk higher-income households, with a net income of more than €1,400, will increase by only around 0.5 percentage point.

Sole traders and entrepreneurs are also facing higher risk. This group constitutes a relatively significant segment of banks' aggregate retail loan book, including 17% of the housing loan book. Further details are provided in Table 6.

Table 6 Loans to sole traders and entrepreneurs as a share of retail loans

Loan characteristics	Housing loans	Consumer loans
Each co-borrower is either self-employed or an entrepreneur	7.3%	1.6%
The borrower or only one of the co-borrowers is either self-employed or an entrepreneur	9.5%	6.7%

Source: NBS.
Notes: Loans to self-employed persons or entrepreneurs as a share of the outstanding amount of the given type of retail loan as at 31 December 2019. Source of income data for a borrower or co-borrower is lacking in the case of loans constituting 21% of total housing loans and loans constituting 29% of total consumer loans. These loans were excluded from the calculation.

Box 3
Model for assessing households' capacity to cope with a deteriorating financial situation caused by the coronavirus crisis

In testing the household sector's resilience, it was assumed that 10% of the total number of employees and sole traders lose their employment or main income[17] and therefore that the unemployment rate increases to its highest levels since the global financial crisis. For employ-

[17] A potential sharp rise in unemployment is also implied by the number of job vacancies, which as at 31 March 2020 was 41% below its end-February level. This was the largest decline since the time series began in 2005. Further details in Slovak may be found in an NBS Blog post by Alexander Karšay entitled "Koronavírus eliminoval veľkú časť voľných pracovných miest" (published on 14 April 2020).

ees, the probability of income loss depends mainly on the economic sector in which they work. In our analysis, we assume that in the sectors worst affected by lost sales, as many as 22% of employees lose their job, and that in medium-sensitive sectors, 11% of employees do so.[18] At the same time, we assume that employees in the least sensitive sectors are not at risk of losing their employment because of the coronavirus crisis.[19] In the case of sole traders, we assume that 22% of them experience a significant income loss (that share being the same as the percentage of employees who lose their employment in the worst affected economic sectors). Even within individual sectors, however, the probability of income loss is not homogeneous but depends on several factors.

Besides sole traders and entrepreneurs, the people most at risk of income loss are those with lower education and those with low income. The probability of substantial deterioration in the income situation of individual household members was estimated using a logistic regression. The model is based on individual data from a questionnaire survey conducted by the agency Focus for the newspaper Denník N.

Table 7 Estimation of the probability of significant income loss using a logistic regression

Modelled variable	Coefficient
Intercept	0.41
Education	-0.58
Self-employed person or entrepreneur	0.74
Net income of up to €500	0.89
Net income of more than €1,400	-0.81
Intercept for age	-2.61
Age	0.132
Age^2	-0.00157

Sources: Focus and NBS.
Notes: The probability estimation is based on a logistic regression. The value of the AUROC, expressing the quality of the model, is 72.8%. The model also takes account of weightings of individual respondents according to their representativeness in the overall population. The model included only economically active respondents (employees, sole traders and entrepreneurs), who in total numbered 676. The unemployed, pensioners, people on parental leave, and students were not included since, given the nature of their situation, the impact on their income would not be expected to be significant. All the variables are significant at a confidence level of 5%.

Households were tested for whether, in the event of income loss, they would be able at least to meet their basic living expenses with the income of other family members, savings, or any state support they are entitled to. At-risk households were deemed to be households that would not be

[18] The increase in unemployment in the categories of most sensitive sectors, medium-sensitive sectors and least sensitive sectors is calibrated so that an increase in the overall unemployment rate of 10 percentage points includes an impact on the first category that is twice as large as the impact on the second category. An increase in the unemployment rate includes those employees who, although they have not lost their employment, have had their income reduced by, for example, having to take time off work to care for a child, or by "obstacles on the part of the employer".

[19] The categorisation of sectors is based on data on sales declines in March and the first half of April 2020, taking into account resilience indicators for firms in individual sectors (particularly in regard to their profitability, liquidity and indebtedness). Further information is provided in Box 6.

able to meet their basic living expenses for a period of at least nine months (i.e. from the onset of the crisis until the end of 2020). The key assumptions about developments in the income–expenditure situation of households were as follows:

- Income includes the income of each household member (calculated at its end-2019 level on the basis of average wage growth). If any one member of the households loses their income, there is assumed to be mutual financial assistance within the households.
- Thirty per cent[20] of employees who lose their job are assumed to be entitled to unemployment benefit in an amount equivalent to 75% of their previous net income, up to a maximum amount of €999.20 per month. Under the government relief measures in response to the coronavirus crisis, this share is assumed to increase to 60%.[21] Before qualifying for the benefit, they are assumed to receive a material need benefit of €66.30. As for employed persons and self-employed persons who neither lose their employment nor experience a substantial income loss, their income is assumed to decline by 5% and 10% respectively, owing to, for example, a reduction in the variable component of compensation, a reduction in working hours, or the taking of time off to care for a family member.
- Basic living expenses are the sum of 1.5 times the minimum subsistence amount[22] for all household members, debt servicing expenses, rent payments in the case of families living in rented accommodation (calculated at the end-2019 price level and taking into account whether the accommodation is in Bratislava or in another region of Slovakia).
- Households whose income is not sufficient to meet their basic living expenses are assumed to use any savings at their disposal. In the simulation, based on granular loan data, we furthermore assume that households without sufficient savings to meet their basic living expenses will stop repaying first any consumer loan they may have and then their housing loan.

The model includes three important government measures: allowing the deferral of debt repayments and rent payments; compensating sole traders for lost income where their sales have fallen substantially; and proposing an easing of requirements for unemployment benefit. Since lease payments may be deferred by six months and the repayments of all other loans by nine months, loan repayments are not included in living expenses when taking the measures into account. The loan repayment deferral option does not, however, apply to loans that had defaulted or were significantly past due even before the outbreak of the coronavirus crisis. Nor did we include rent expenses payable in the second quarter of 2020 if they were deferable to the end of 2020. The income compensation for self-employed

[20] This assumption is approximately in line with the figure derived from data provided by the Social Insurane Agency and the Central Office for Labour, Social Affairs and Family (ÚPSVaR) for the period 2009–2017. The figure for 2018–2019 was rising. Since another source, the EU-SILC, indicates a lower share of benefit recipients, a conservative estimation was included in the model.

[21] Under an enabling provision included in a Labour Code amendment, the Slovak Government may, where necessary, issue a government regulation under which it may, for the period of the crisis situation related to the coronavirus pandemic and for a further two months thereafter, temporarily modify the conditions for claiming unemployment benefit, the conditions for the payment of unemployment benefit, the duration of the temporary support measures for unemployment benefit, and the amount of unemployment benefit.

persons, which has a ceiling of €540 on 80% of lost sales, is included in an estimated net amount of €300. The proposal to ease unemployment benefit conditions[22] is reflected in a doubling of the share of the newly registered unemployed persons who receive this benefit (from 30% to 60%).

Box 4
Risks related to the brokering of housing loans

A feature of the housing loan market is the high share of loans arranged through financial brokers. For borrowers, this brings considerable advantages but also certain risks. The main advantage is greater accessibility to financial products. On the downside, a more detailed analysis shows risks related to the fact that it is the financial institutions, not the borrowers, who pay brokers' commissions. Such a brokering model is more prone to placing the broker – who should always act in the client's best interest[23] – in a conflict of interest.

Table 8 Brokered loans have risky characteristics compared with other loans

Risky characteristic	Brokered loans	Directly provided loans	Note
Share of loans with an **LTV ratio above the limit** (80%) and within the permitted exemption	19%	14%	Up to 20% of new loans may be exempted from the limit
Share of loans with an **LTV ratio close to or above the limit** (i.e. above 78%)	48%	33%	
Share of loans with a **maturity of more than 29 years**	52%	29%	
Share of housing loan refinancings which include an **extension of the maturity**	69%	57%	
Share of loans with a **DTI ratio above the limit** (8) and within the permitted exemption	6%	4%	Up to 10% of new loans may be exempted from the limit
Share of loans with a **DTI ratio close to the limit** (between 7 and 8)	16%	10%	
Estimation of probability of default (**PD**) under a deterioration in economic conditions	2.9%	2.6%	
Estimation of loss given default (**LGD**) under a deterioration in economic conditions	12.2%	11.5%	

Source: NBS.
Notes: The data are for housing loans provided in the second quarter of 2019. The debt service-to-income (DSTI) ratios for brokered loans and other loans do not differ significantly. The figures in the fourth, seventh and eighth rows are percentages of the amount of loans; the other figures are percentages of the number of loans.

[22] The multiple of the minimum subsistence amount is consistent with the analyses published in the November 2019 Financial Stability Report and with the Special Feature in the May 2019 Financial Stability Report. Its level takes into account the fact the minimum subsistence amount has not been indexed for several years.

[23] This is a fiduciary responsibility. Under Section 32(6) of Slovak Act No 186/2009 on financial intermediation and financial advisory services, financial agents are prohibited from being remunerated, and from remunerating or assessing the performance of their employees, in any way that conflicts with their obligation to act in accordance with the best interests of their clients.

The aggregate share of brokered loans in the total amount of new housing loans is approximately 60%. In some banks this share even exceeds 80%. The combination of this strong market position and the above-mentioned feature of the commission scheme has a significant impact on the degree to which brokers contribute to the uptrend in household indebtedness and associated risks. Brokers have been benefiting greatly from the rapid growth in housing loans, and are not exposed to losses in the event of credit risk materialisation, except for the loss of part of their commission. Hence they may be incentivised to arrange loans that are as large as possible, to increase existing loans, and to switch loans between banks with greater frequency. In a previous Country Report for Slovakia,[24] the IMF addressed these issues and warned of the risks that brokers may facilitate loosening credit standards of banks.

Loans arranged through brokers have riskier elements compared with other loans. The brokering business model is increasing the incentive to arrange loans that fall just within the stipulated limits or exemptions. As Table 8 shows, these concern mainly the LTV ratio, DTI ratio and loan maturity. The share of loans provided at the edge of the limits for these parameters (or exemptions to these limits) is greater among brokered loans than among other loans. As for why brokered loans are more often at the borderline of credit standard limits, the reason may be the broker's incentive to maximise the loan amount and therefore the commission. This also raises the question as to whether the service provided is in the best interests of the borrower.

It may be expected that brokered loans will be exposed to higher credit risk in a period of crisis. A sensitivity analysis[25] shows that, in times of stress, these loans have a higher estimated probability of default (PD) and a higher loss given default (LGD).[26]

Interest rates on brokered loans are typically higher than those on other loans. The linear regression analysis (Table 9) shows that the average interest rate on brokered loans is around 20 basis points higher than the rate on other loans with the same characteristics (i.e. the interest rate fixation period and the basic risk characteristics of the loan and the borrower). This difference is lower for banks that report a higher share of brokered loans in new loans, which implies that these banks are under greater pressure from brokers. Furthermore, banks as a matter of course penalise loans that have worse risk characteristics; for example, loans with an LTV ratio of more than 80% attract a higher interest rate than do loans with a lower LTV ratio. Hence brokered loans are penalised to a greater extent.

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[24] International Monetary Fund, Slovak Republic 2019 Article IV Consultation – Staff Report, IMF Country Report No 19/220, July 2019.

[25] The analysis methodology is described in the November 2019 Financial Stability Report (Box 1). The main assumption is an increase of five percentage points in the unemployment rate.

[26] This higher riskiness has not yet translated into a higher non-performing loan ratio. The NPL ratio is lower for brokered loans (1.1%) than other loans (1.8%). This is largely because a large share of brokered loans comprise loans switched to another bank, i.e. loans that could not have been switched unless they were performing.

Table 9 Linear regression coefficients for a model of the relationship between the interest rate and various factors

Variable	Coefficient	Interpretation
Intercept	1.62%	
Increase in interest rate on brokered loans	+ 0.20 p.p.	Rate increase where share of brokered loans is 40%
Impact of share of brokered loans	-0.06 p.p.	Change where share increases by 10 p.p.
Impact of DSTI ratio	+0.004 p.p.	Change where share increases by 10 p.p.
Impact of LTV ratio above 80% (directly provided loans)	+0.23 p.p.	Penalisation of high LTV ratio
Impact of LTV ratio above 80% (brokered loans)	+0.36 p.p.	Penalisation of high LTV ratio
Impact of education	-0.08 p.p.	Change upon a one-level increase in a single borrower's education
Impact of Bratislava Region	-0.05 p.p.	Reduction for borrowers in Bratislava Region
Impact of interest rate fixation period	+0.002 p.p.	Increase where fixation period is extended by one year

Source: NBS.
Notes: The explanatory variable is the interest rate on new housing loans, expressed as a percentage. The sectoral data do not include data for banks that are less relevant for the purpose of comparing brokered loans with other loans. The table shows linear regression coefficients, all of which are statistically significant at a confidence level of 0.1%. The R-squared value is 20%.

Brokers have in recent years been contributing to the significant uptrend in household indebtedness. It also appears that the elevated credit risk with which households have entered the current crisis is partly related to brokers' behaviour. Brokers incentivised to arrange loans that are as large as possible have increasingly been pushing clients to the boundaries of their authorised limits. We therefore believe it is important to open a discussion on how current legislation is shaping behaviour in regard to broker remuneration. The above-mentioned risk could be mitigated to some extent by modifying brokers' remuneration schemes. One option may be to set a maximum commission rate, which would reduce the risk of brokers preferentially promoting products carrying higher commissions. Another possibility is to stagger the payment of the commission payment with the payment of the later part being conditional on the fulfilment of certain conditions (for example, that the loan has not defaulted or that it has not been prepaid). Consideration may also be given to introducing a statutory provision that strengthens the brokers fiduciary responsibility to the client.

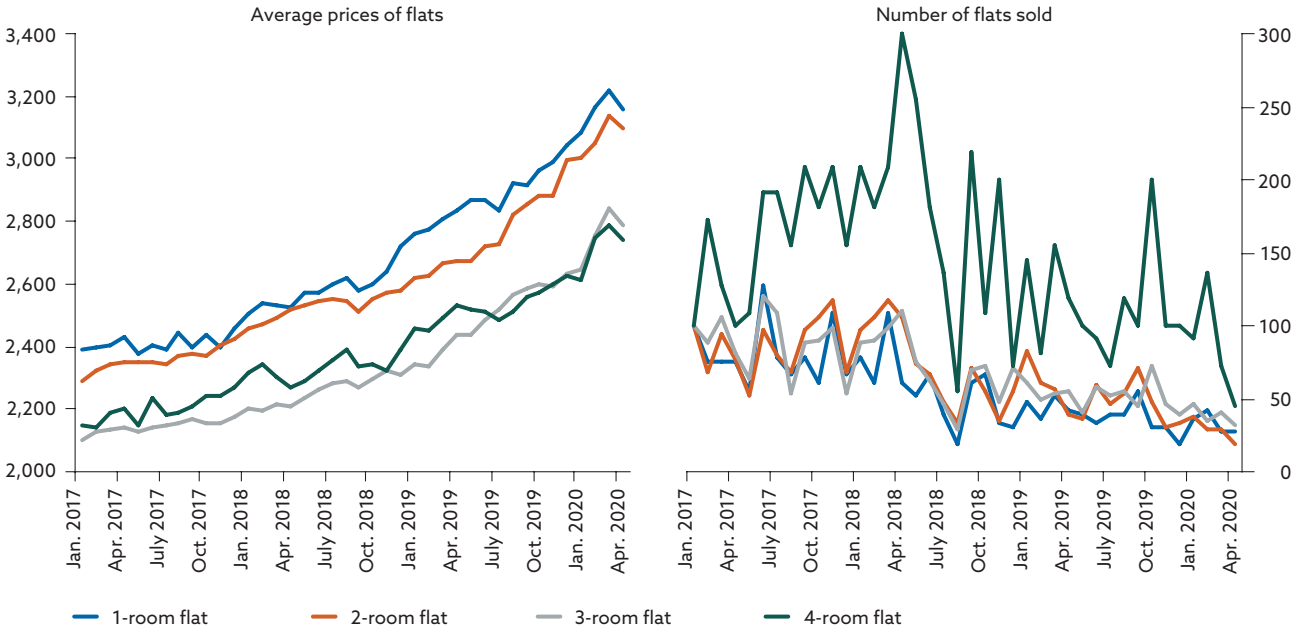
Box 5
The property market has felt the first effects of the coronavirus crisis

The coronavirus crisis hit the residential property market just when prices of flats were rising at their fastest pace since the global financial crisis. In the previous three years, prices of existing flats were increasing at steady rate of around 10% year on year, in other words more rapidly than at any time since their 2008 peak. Prices of new flats in Bratislava were also rising, and their year-on-year increase in 2019 was a historical high (also around 10%). This property market price boom was accompanied by a gradual but persisting decline in flat sales. Property demand indicators were not, however, implying market saturation, so the decline in sales of flats was rather attributable to a shortage and diminishing supply of flats, despite strong construction activity in the capital city.

Chart 13

Prices of flats in Bratislava fell in April 2020 across all flat sizes

Average prices of flats in Bratislava and the number of existing flats sold in Bratislava (EUR/m²; index)



Source: CMN.

The extent to which the property market may be affected by the evolving coronavirus crisis is not yet clear. The market is being directly affected by safety and hygiene measures, which slow down the housing supply process, including preparatory property development activities, the construction of flats, the inspection and valuation of flats, and the administration of housing loans. Economic uncertainty is also having an undeniable impact, by causing people to postpone decisions on purchasing a flat, whether as a primary residence or as an investment. Furthermore, the market is expected to be, to some extent, directly affected by the decline in household's disposable income observed since the first days of the lockdown measures. A related development is the reduction in banks' risk tolerance (looked at in more detail in Section 3.3.2), which could significantly reduce the overall amount of money flowing into the property market.

According to market data for April 2020, existing flats recorded a moderate but homogenous decline in both prices and sales. The capital city's property market shows the greatest sensitivity to changes and was the first to record a decline in April 2020. The fact that the same trends are being seen across all sizes of flats indicates that this is not a case of standard volatility. This view is further supported by data on the number of sales in April, which compared with the average for the first quarter of 2020 was lower by one-third (see Chart 14). Certain changes can also be observed in Slovakia's other main regional towns and cities: in April, the number of flat sales declined in Košice, Prešov, Žilina and Trenčín, and flat prices (whether square-metre prices or whole flat prices) fell in Prešov, Žilina and Banská Bystrica.

2.3 Corporate sector financing and the sector's financial position

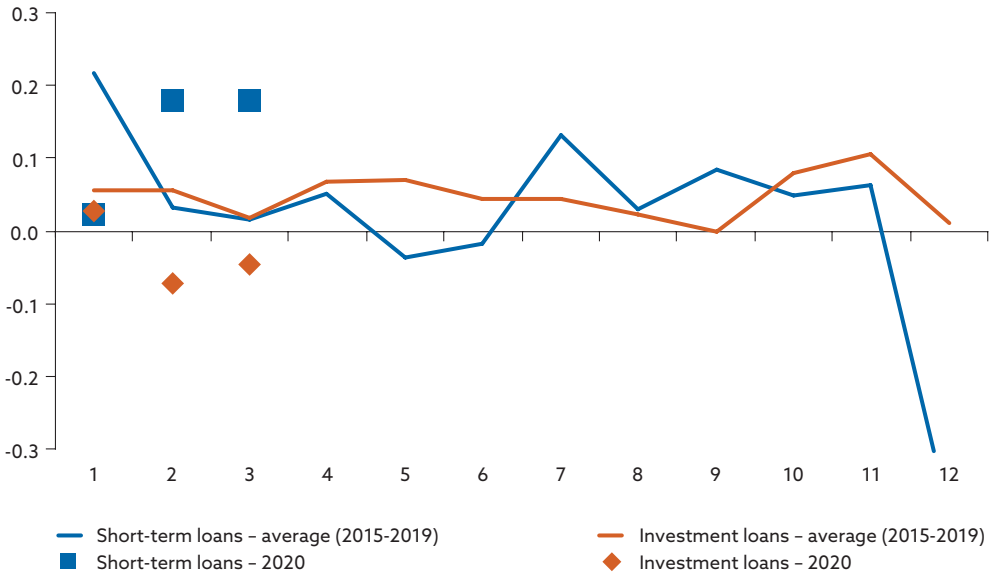
Growth in lending to non-financial corporations (NFCs) remained subdued in early 2020, before rising uncertainty surrounding the coronavirus pandemic was reflected in the higher growth in firms' short-term borrowing

The gradual downtrend in corporate lending growth continued into January of this year, before the growth rate picked up again in the next two months. The annual growth of loans to NFCs stood at 3.7% in March 2020. Total NFC loans recorded average year-on-year growth of 3% in the first quarter of 2020, which was lower than the average for the fourth quarter of 2019 (3.5%).

The trends in lending to the corporate sector reflected the mounting uncertainty surrounding the coronavirus pandemic and the measures adopted in response to it. The recent situation has supported the continuing deceleration in investment loans and in loans to small and medium-sized enterprises (SMEs). In the case of SMEs, however, lending growth rose slightly in March 2020. The main driver of credit growth was a relatively sizeable increase in short-term loans with a maturity of up to one year. The absolute monthly increases in short-term loans in February and March far exceeded any month-on-month increase in these loans over the previous four years, a period when NFC loans were recording strong growth. An explanation may lie in firms' increased demand for operating loans amid expectations of sales losses, as well as in a correction after weaker lending activity in January. A similar trend was seen in the absolute monthly increases in total NFC loans. The growth in total NFC loans was also supported by lending to public firms, particularly in February.

The recent increase in short-term financing has been highly concentrated, which may be seen as an initial consequence of the coronavirus crisis. Looking at the breakdown of lending activity by economic sector, lending to most sectors has been more subdued this year than it was at the end of 2019. The only sectors to have recorded any significant increase in borrowing are manufacturing and sale of motor vehicles (wholesale and retail trade), and accommodation services. The increase in borrowing occurred via credit lines and revolving accounts, mainly among large enterprises. Looking at overall lending to NFCs, after taking into account the impact of higher short-term borrowing, it appears that the downtrend in activity observed before the coronavirus crisis has continued during the crisis. The pandemic will, however, bring significant changes to the credit market.

Chart 14
The absolute monthly increases in short-term loans in February and March 2020 far exceeded the average monthly increase for the period 2015-2019, while the opposite trend obtained among investment loans
(EUR millions)



Source: NBS.
Note: The numbers on the horizontal axis correspond to the months from January to December.

The coronavirus crisis has severely affected the supply side of the corporate loan market. Banks have been tightening credit standards to the greatest extent since the 2008 financial crisis and expect to tighten them significantly further in the period ahead. At the same time, loan demand is expected to increase.[27] The tightening of credit standards has not yet led to a broad increase in interest rates. Rates on new loans to NFCs increased in March 2020, but that rise was largely accounted for by a small number of large loans. The average lending rate (calculated according to the number of loans) and the median rate did not change significantly even in March. The only exception to this trend were interest rates on trade receivables, which increased quite appreciably.

Credit quality indicators have not yet been noticeably affected by the coronavirus crisis; nevertheless, some leading indicators are already showing the pandemic's serious impact on the corporate sector

The end of April saw a significant increase in the number of applications for loan repayment deferrals. By mid-May, half of the applications submitted had been approved. After the Government introduced a pandemic relief measure allowing borrowers to defer their loan repayments, the number of deferral applications increased slowly in the second half of March.

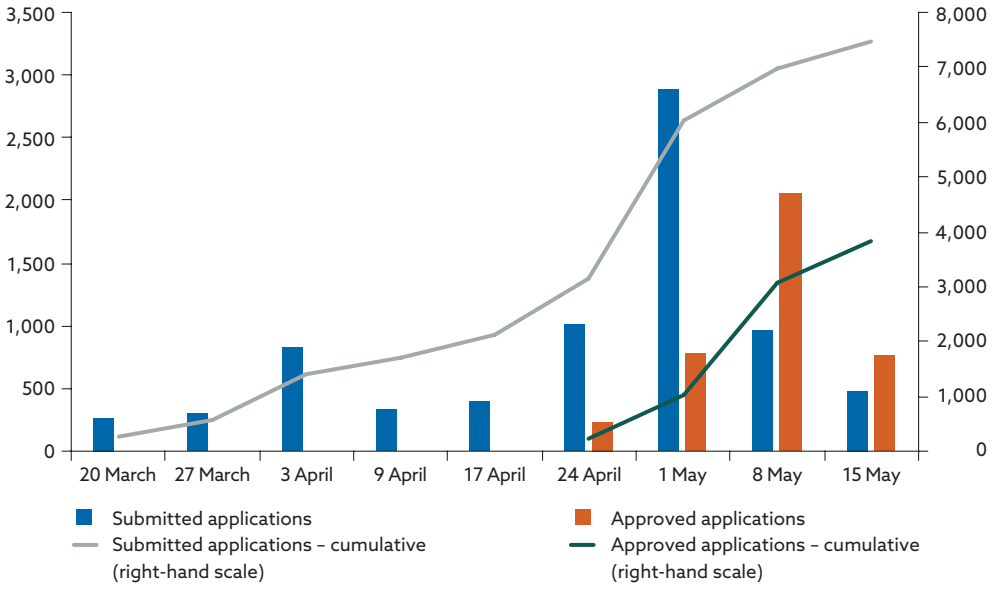
[27] Further details on trends in the corporate credit market and on expectations for the availability of financing are provided in Section 3.3.2 – Availability of financing.

By late April and early May, the number of applications was rising sharply and in mid-May stood at almost 7.5 thousand. At the time of writing, almost 14% of the firms borrowing from domestic bank had applied for a loan repayment deferral. Banks began the approval process for these applications in the second half of May and had approved half of them by mid-May.

Chart 15

The number of loan repayment deferral applications is rising

Loan repayment deferral applications (number)



Source: NBS.

Credit risk indicators have not yet been noticeably affected by the coronavirus crisis. In this area, several of the trends seen towards the end of 2019 have continued in 2020. Non-performing loan ratios have remained at low levels. As regards the situation in the banking sector, however, the amount of NPLs has already started to rise slightly, as has the share of NPLs in the corporate loan books of certain banks.

At the same time, according to leading indicators, the strict restrictions on economic activity were already having a serious impact on several economic sectors after a month of application. One of these indicators is the change in the amount of NFC loans past due by between 1 and 29 days. In the loan books for several economic sectors, there was a relatively large year-on-year increase in such loans in March. The largest increase was in the loan book for the accommodation and food service activities sector, where the absolute value of the increase as a ratio of the amount of non-performing loans to the industry represented 105%. Significant increases were also recorded in energy supply and in information and communication services. Less notable were the NPL ratio changes for loans to the professional, scientific and technical activities sector and to the arts, entertainment and recreation sector. According to a second indicator – the quarter-on-quarter change in the

amount of forborne loans (problem loans whose terms and conditions have been renegotiated) – arts, entertainment and recreation has been the most seriously affected sector, since between March 2019 and the end of the year fully one-quarter of the loans to this sector were subject to a renegotiation of terms and conditions. Similarly affected has been the human health and social work activities sector, since almost one-fifth of the loans to this sector were renegotiated over the same period. There are also other loan books in which this indicator has risen quite appreciably, in particular those for certain industries in the services and construction sectors. In these cases, however, the increases did not have a significant impact on the indicator for the given sector's aggregate loan portfolio. Between December 2019 and March 2020 less than one per cent of all NFC loans were renegotiated.

Table 10 The impact of the coronavirus crisis on leading indicators for several economic sectors was already evident within a month of the introduction of the pandemic-related measures

Economic sector	NPL ratio	Loans past due by up to 30 days	Forborne loans
Agriculture, forestry and fishing	11.9%	3%	1%
Mining and quarrying	1.5%	0%	0%
Manufacturing	3.2%	0%	0%
Energy supply	1.0%	53%	0%
Water supply	4.1%	0%	0%
Construction	7.3%	0%	2%
Wholesale and retail trade	5.0%	1%	1%
Transportation and storage	1.5%	0%	0%
Accommodation and food service activities	3.5%	106%	2%
Information and communication	1.3%	65%	1%
Financial and insurance activities	0.1%	0%	2%
Real estate activities	2.8%	0%	1%
Professional, scientific and technical activities	2.9%	26%	1%
Administrative and support service activities	3.4%	0%	0%
Education	1.8%	0%	0%
Human health and social work activities	8.4%	0%	17%
Arts, entertainment and recreation	3.1%	20%	25%
Other activities	3.2%	7%	2%

Source: NBS.
Notes: The column "Loans past due by up to 30 days" shows the year-on-year change in the amount of NPLs past due by between 1 and 29 days as a ratio of the amount of NPLs. The column "Forborne loans" shows the quarter-on-quarter change in the amount of forborne loans as a ratio of total loans to the given economic sector. Any negative value is shown in the table as 0%.

The insolvency risk of firms will be closely related to the duration of the lockdown measures and to the uptake of support measures.[28] Using firm-level

[28] Buchta Š., Lalinský T. and Peter R. (2020), "Majú firmy finančné rezervy na prekonanie koronakrízy?", *Analytical Commentary* (in Slovak only), No 80, Národná banka Slovenska, Bratislava.

data on operating margins and on the availability of short-term financial assets, it is possible to estimate how long firms can survive without income. The estimation of the potential impact envisages different rates of sales decline depending on the sensitivity of the economic sector concerned; it also takes into account reductions in certain cost items as a result of support measures. In the simulation, the sectors most at risk are the following: accommodation and food service activities; trade; and arts, entertainment and recreation. It is also clear that longer-lasting lockdown measures result in a relatively substantial increase in the number of firms at risk, including a sizeable increase in the number of manufacturing firms at risk.

Another way of assessing the sensitivity of economic sectors is by looking at their dependence on foreign trade (see Table 11). The current crisis has been coupled with a significant decline in international trade. At the same time, national interests are coming increasingly to the fore in international trade, which may heighten the risk exposure of sectors that are more reliant on the external environment.

Domestic NFCs are highly exposed to foreign demand. Almost one-quarter of active firms[29] export goods or services. Among the most export-reliant sectors are manufacturing industry, agriculture, mining, and, to a lesser extent, trade. As for imports, more than half of firms use import inputs in their operations. In this regard, the cross-sector situation is more homogeneous.

A higher share of foreign trade can be observed in the activities of companies financed by the domestic banking sector. In addition to the share of firms engaged in foreign trade, the importance of foreign trade in the overall activities of a company – as a share on sales – is also important. This information allows us to assess the impact of a decline in exports on a firm's sales and consequently on its profitability. The most sensitive sector in this regard is manufacturing industry. If exports declined by 30%,[30] more than half of the total loans to the manufacturing sector would be granted to firms making a loss. The next most affected loan books would be those for the sectors of trade, agriculture, and administrative and support service activities. As for other sectors, the share of total loans provided to loss-making firms would be around 10% under the given scenario, which implies that these sectors are not directly dependent on exports. On the other hand, we evaluated only the direct impact of a decline in exports; it is likely that these sectors would be indirectly affected by headwinds from the trade or industry sectors.

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[29] Here "active firms" means firms that reported non-zero operating revenues for 2018.
[30] As they did in the first half of 2009.

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Table 11 Domestic firms significantly exposed to foreign trade; the sectors most sensitive to a decline in exports are industry and trade

Economic sector	Share of imports	Share of exports	Share of imports – banks	Share of exports – banks	Impact of decline in exports
Agriculture, forestry and fishing	38.8%	58.3%	51.0%	71.3%	21%
Mining and quarrying	45.5%	66.9%	56.5%	80.4%	4%
Manufacturing	40.8%	67.1%	59.1%	85.9%	58%
Energy supply	3.5%	40.6%	4.1%	48.2%	1%
Water supply	28.0%	57.9%	38.4%	76.5%	4%
Construction	12.2%	53.0%	15.2%	68.1%	2%
Wholesale and retail trade	30.4%	63.5%	41.9%	78.4%	27%
Transportation and storage	25.2%	56.2%	30.5%	67.1%	2%
Accommodation and food service activities	5.3%	43.2%	6.8%	60.3%	1%
Information and communication	15.0%	47.2%	23.5%	66.7%	5%
Financial and insurance activities	3.3%	35.6%	4.8%	38.7%	0%
Real estate activities	6.2%	29.7%	8.1%	39.7%	1%
Professional, scientific and technical activities	13.1%	41.2%	19.7%	58.7%	3%
Administrative and support service activities	14.7%	42.4%	22.1%	61.0%	15%
Education	8.6%	31.3%	12.8%	49.3%	0%
Human health and social work activities	1.6%	10.5%	2.7%	16.3%	0%
Arts, entertainment and recreation	8.2%	41.8%	14.5%	63.6%	2%
Other activities	11.6%	43.9%	15.6%	58.3%	5%

Source: NBS.
Notes: "Share of imports" and "share of exports" denote the number of firms engaged in, respectively, imports and exports as a share of all domestic firms (firms that produced financial statements for 2018). The same definition applies to "share of imports – banks" and "share of exports – banks" except that the importing and exporting firms include only those financed by domestic banks. "Impact of decline exports" denotes the share of total domestic bank loans to the given sector accounted for by firms that would make a loss in the event of 30% decline in exports. The calculation was made on an annual basis using financial accounts and export data for 2018; the data were for active firms which reported non-zero operating revenues and no loss for 2018.

Box 6
Assessment of economic sectors' sensitivity to the impact of the coronavirus (COVID-19) pandemic

The coronavirus pandemic has caused a severe deterioration in the economic situation. In assessing the repercussions of the economic downturn for the financial stability of the domestic banking sector, it is important to analyse the sensitivity of economic sectors and, on that basis, to determine the extent to which individual sectors are responding to the worsened situation, particularly in the context of the expected increase in credit risk.

A key window on the response of different economic sectors to the current situation is provided by current sales data, available from the eKasa online portal of the Financial Administration of the Slovak Republic. These data indicate the major impact of recent developments, which have seen sales in half of the economic sectors falling by more than 30% month-on-month. The hard-

est hit sectors have been the arts, entertainment and recreation sector and the accommodation and food service activities sector. In these cases, sales slumped by between 50% and 90%, and the declines in April were larger than those in March. The next most seriously affected industries have been in the sectors of services, education, and healthcare. A number of the sectors suffering reduced sales have also reported the largest declines in leading indicators of credit risk (Table 10). On the other hand, there are sectors whose sales fell in March, but then increased in April (including the construction sector and certain services industries).

Table 12 Certain economic sectors are reporting elevated values for several financial indicators

Economic sector	Sector sensitivity	Change in sales – March	Change in sales – April	Profit margin	ROE	External financing- to-assets ratio	Cash liquidity
Arts, entertainment and recreation	Highly sensitive	-73%	-88%	10.1%	17.8%	55%	67%
Accommodation and food service activities	Highly sensitive	-57%	-63%	4.5%	16.8%	63%	53%
Energy supply	Moderately sensitive	-53%	-83%	8.4%	18.8%	66%	77%
Real estate activities	Moderately sensitive	-47%	-29%	12.9%	12.8%	62%	48%
Administrative and support service activities	Moderately sensitive	-47%	9%	7.3%	20.9%	60%	59%
Other activities	Moderately sensitive	-45%	-52%	7.5%	21.1%	61%	60%
Information and communication	Moderately sensitive	-43%	-31%	11.9%	23.2%	47%	94%
Transportation and storage	Moderately sensitive	-35%	-13%	3.5%	15.6%	67%	32%
Financial and insurance activities	Moderately sensitive	-35%	-45%	17.4%	17.6%	63%	34%
Construction	Moderately sensitive	-29%	41%	5.8%	21.8%	64%	46%
Professional, scientific and technical activities	Moderately sensitive	-27%	16%	10.8%	20.9%	52%	71%
Manufacturing	Moderately sensitive	-16%	-7%	4.7%	16.4%	57%	38%
Wholesale and retail trade	Moderately sensitive	-3%	-51%	3.3%	17.3%	63%	36%
Education	Less sensitive	-57%	-48%	11.9%	24.4%	54%	74%
Human health and social work activities	Less sensitive	-40%	-51%	14.7%	26.2%	34%	194%
Water supply	Less sensitive	14%	-6%	4.6%	17.6%	55%	56%
Mining and quarrying	Less sensitive	30%	98%	8,2%	12,9%	42%	39%
Agriculture, forestry and fishing	Less sensitive	72%	54%	5,2%	8,1%	53%	32%

Sources: NBS, Bisnode and eKasa.
Notes: "Change in sales" denotes the month-on-month decline in sales for the given month in 2020. The sales data are available from the eKasa online portal of the Financial Administration of the Slovak Republic. The table shows the median values of selected financial indicators (profit margin, ROE, liquidity, indebtedness). The calculation was made on the basis of firms' financial statements for 2018. Only firms which, for 2018, reported non-zero operating revenues and filed complete financial statements were included in the calculation. "Profit margin" is defined as after-tax profit divided by operating revenues. "ROE" is defined as after-tax profit divided by equity capital. "Indebtedness" is defined as external financing (all liability items except equity capital) divided by total assets. "Cash liquidity" is defined as financial accounts divided by short-term liabilities.

Some of the most affected sectors operate with relatively low profit margins[31] even in normal circumstances. In 2018 sectoral profit margins ranged between 3.8% and 14.4%. For accommodation and food service activities, one of the most affected sectors, the aggregate margin was a relatively low 5.4%. Of the key sectors affected in terms of sales, industry and trade reported low margins (5.3% and 3.8% respectively). Among other sectors affected to a greater extent, profit margins are typically above 10%. In the context, however, of the recent slump in sales, such a level may not provide sufficient buffer against a crisis lasting several weeks.

In assessing the situation of economic sectors, information from firms' financial statements provide a useful supplement to the sales sensitivity perspective. This information provides a static view of firms' financial condition, which can be assessed at several levels. The main indicators assessed were profitability, indebtedness and liquidity. A comparison of these indicators (see Table 12) provides a window on the state of different sectors' balance sheets at the outset of the current crisis. A sector's balance sheet situation may ultimately have a major effect on its vulnerability to economic headwinds.

The economic sectors were divided into three categories of sensitivity. The division was based primarily on sales data, supplemented by a comparison of financial indicators and by expert judgement of the sector.

2.4 Public finance developments

The coronavirus pandemic will weigh heavily on public finances and increase the public debt

The recession caused by the coronavirus pandemic will have a twofold adverse impact on Slovakia's public finances. Fiscal revenue losses are expected to increase, and so too is fiscal expenditure. Revenues are expected to be reduced by the economic headwinds, as the tax and social security contribution bases decrease. Revenues will be further depleted, however, by the pandemic relief measures aimed at reducing the tax and social security contribution burden on the private sector. Meanwhile, fiscal expenditure will rise sharply owing to extra-budgetary funding requirements for measures aimed at mitigating the economic impact of the coronavirus crisis. These developments will result in an increase in the fiscal deficit and consequently in the public debt.

[31] The profit margin denotes what percentage of sales a firm turned into profit, which may indicate the firm's capacity to build up buffers for difficult times. Data are provided in Table 12.

The public sector's own funds will not suffice to finance the fiscal deficit, so the deficit will have to be financed with debt instruments. In the current circumstances, the risk of public debt growth has risen significantly. After falling from 53.5% of GDP in 2014 to 48% of GDP in 2019, the public debt is expected to climb this year as a result of the pandemic-related headwinds. The current situation with regard to public debt can be seen in auctions of government bonds and State Treasury bills. Under the original general government budget proposal for 2020, the fiscal deficit and public debt financing needs for the year amounted to €4.8 billion. However, the amount of State Treasury bills and government bonds issued in the first four months of this year was already 12% higher (amounting to €5.4 billion) than the planned amount. Given how much of the year remains, the overall issuance of these instruments in 2020 is expected to far exceed the projected amount. Under the latest update of the NBS Medium-Term Forecast,[32] the fiscal deficit is projected to increase in 2020 to between 6.9% and 10.3% of GDP and the public debt to between 56.6% and 64% of GDP.

The pressure on public debt financing has increased significantly. The interest rates and required risk premia on instruments used to finance Slovakia's public debt have risen sharply. In late February and early March ten-year government bonds were being sold at negative interest rates; after the onset of the coronavirus crisis, however, their rates surged to levels not seen for more than a year. Within the same timeframe, the required risk premia on Slovak government debt tripled, reaching close to their level in 2012, a time of elevated market uncertainty about the sustainability of certain euro area countries' sovereign debt. The current uptick in risk premia stemmed from high uncertainty and increasing market turbulence in recent weeks and from the mounting funding requirements of several countries for their pandemic-related measures; the result has been an increase in the required yield to maturity on government bonds issued by euro area countries, including Slovakia.

[32] The April update of NBS's March 2020 Medium-Term Forecast.

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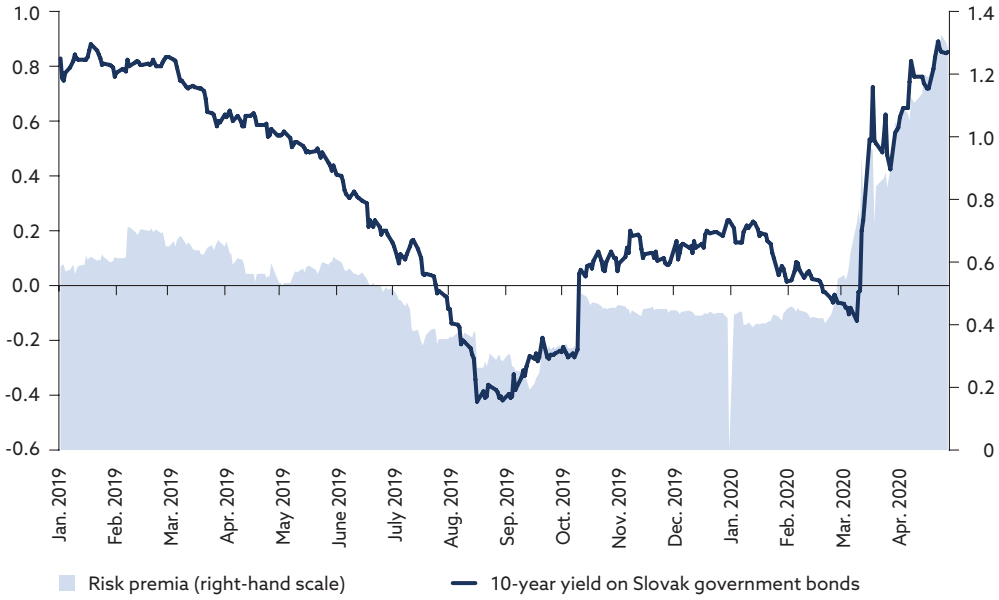
Chart 16

The interest rate and risk premia on government bonds rose sharply from early March

(percentages; percentage points)



Sources: Bloomberg and NBS.

In March there was also increasing uncertainty as to whether Slovakia would be able to place the required amount of bonds on the market. This was because the demand for Slovak government bonds at an auction in March[33] was only a quarter of the demand in previous months; the Debt and Liquidity Management Agency accepted bids amounting to just 9% of the volume of bonds it had managed to issue in the previous two months. This turnaround was probably a consequence of uncertainty about future developments. Because it was evident that the economic situation resulting from the coronavirus crisis would require robust fiscal measures and therefore an increase in government bond issuance by euro area countries, investors were deciding to wait and demand fell sharply. The auctions in April allayed the previous fears, as the market situation stabilised with support from the ECB's measures.[34] There remains, however, the risk that similar circumstances will recur in the future.

Difficulties in selling Slovak bonds and any accompanying increase in risk premia could be brought on by financial market fears about the sustainability of the sovereign debt issued by certain EU countries that are already highly indebted. An escalation of fiscal and debt-servicing difficulties in these countries could heighten market uncertainty and doubts about

[33] The auction conducted on 16 March 2020.

[34] The most significant of the new measures is the pandemic emergency purchase programme (PEPP), which has an overall envelope of €750 billion.

whether these countries will be fully able to meet their obligations. This in turn may set off a wave of uncertainty and unease about other countries which in normal circumstances would not have difficulty in servicing their debts. A similar situation previously arose in Europe in November 2011, during the sovereign debt crisis, when Slovakia, because of the fiscal difficulties of certain other EU countries, was temporarily unable to place its five-year government bonds on the market. In this context, the government debt management strategy remains of key importance.

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3 Main financial stability risks related to the coronavirus crisis

3.1 Introduction to financial sector resilience and the main risks

The coronavirus (COVID-19) pandemic has significant repercussions for both economic developments and financial sector stability. This crisis, however, differs significantly from the 2008-2010 global financial crisis, since its primary source is not in the financial sector but in the real economy. The severe economic deterioration has resulted from numerous stringent restrictive measures aimed at containing the spread of the coronavirus. Unlike in the previous crisis, the impact on the financial sector is secondary.

The current uncertainty centres mainly on the duration of the crisis. If it passes quickly, the economy could recover rapidly after a short but severe contraction. If, however, the crisis lasts for a longer time, giving rise to high uncertainty about future developments, it may result in changes of a permanent nature that continue weighing on post-crisis economic growth; this possibility cannot be ruled out.

The impact of the coronavirus crisis on the financial sector will depend on the extent to which accumulated risks materialise. In recent years the banking sector has seen strong growth in household loans in particular. NBS has been warning that the higher the indebtedness of households, the greater their vulnerability to a crisis situation. In that context, households may be defaulting on their credit obligations to a greater extent while at the same time making significant reductions in their consumption, thereby adversely affecting economic growth.

Recent years have also seen an appreciable decrease in interest rates and margins in the banking sector. The sector's interest income growth, the main component of its profitability, has been largely predicated on growing loan books on minimal margins. This is another risk NBS has been warning about. Several studies have shown that a combination of low margins, subdued loan growth, and rising credit costs during a period of crisis has a major negative impact on the banking sector's profit.

On the positive side, the banking sector came into the crisis period with solid capital and liquidity positions. Before the 2009 crisis the sector's aggregate total capital ratio was around 10%, whereas now it is almost twice

that level. In recent years NBS has introduced several capital buffers that have significantly strengthened banks' capital position. In terms of liquidity, too, the sector has an adequate buffer. A combination of regulatory changes, the tightening of capital requirements in recent years, and the behaviour of banks themselves has contributed to the stabilisation of banks' capital and liquidity positions.

The major risk facing the banking sector in the crisis will be credit default risk. The severe constraints on economic activities will impair the financial situation of firms and households. It was not possible to estimate in advance the extent and, especially, the speed of the economic shock, nor, therefore, to adequately prepare for the shock. Government measures allowing borrowers to defer their loan repayments are playing an important role. They are protecting households and firms from defaulting on their credit obligations, while at the same time substantially reducing banks' credit risk losses. The size of the risk will, however, depend largely on how long the economic shock lasts. If the financial situation of firms and households does not improve significantly before deferred loan repayments start falling due again, banks' losses may increase markedly.

From a financial stability perspective, a key issue is the extent to which the financial sector will be able to continue providing financial services, including lending to the real economy, during such an external shock. On this depends whether the financial sector will support an early economic recovery or, conversely, whether it will further exacerbate the problems associated with the spread of the virus. Given the substantial increase in its available capital since the beginning of 2020, the banking sector should not experience any capital constraints on lending. Banks' willingness to lend will be largely determined by their current risk perceptions. What may be a constraining factor in the long term is that banks have to build up funds to meet requirements laid down by resolution authorities. As regards the marked deterioration in the real economy, it is important that government guarantee schemes are in place to support lending to firms.

The insurance sector is also expected to be adversely affected by the crisis. The decline in economic activities will have a downward impact on the volume of insurance premiums. In some segments of non-life insurance, claims paid may increase significantly. The most sensitive sectors in this regard are assistance services insurance and income loss insurance. Insurers' capital may also be dented by the "double hit" of, on the one hand, an increase in liabilities, and, on the other hand, the impairment of insurers' assets owing to the decline in financial markets.

The rising financial market volatility and impairment of several assets will weigh on asset management sectors. Several funds have seen a dete-

rioration in performance since the beginning of the crisis. On a positive note, these trends have not so far resulted in any surge in fund redemptions. If these trends became more pronounced, some funds could face a liquidity problem.

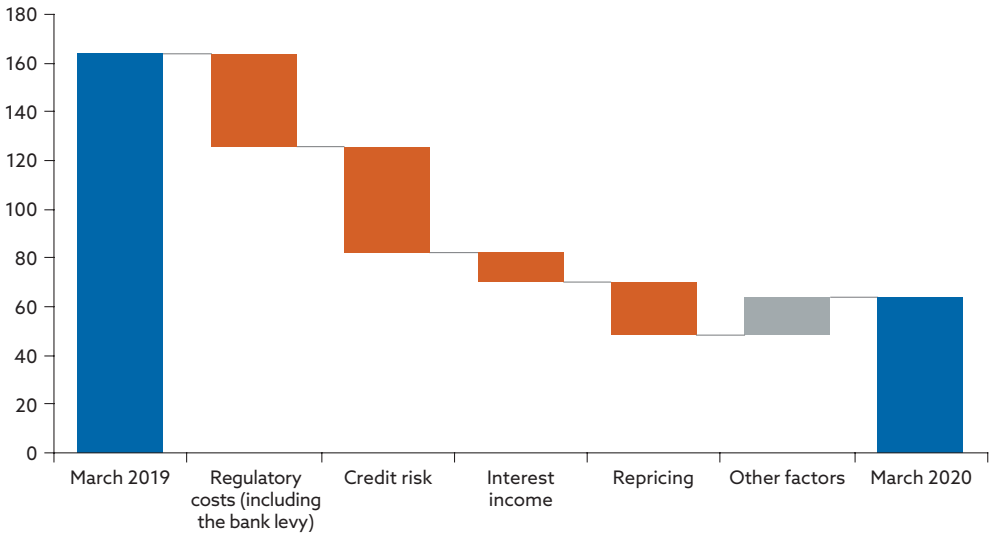
3.2 Financial sector resilience

Banks' profitability is under great pressure in 2020 and its progress thereafter is highly uncertain

Chart 17

Banks' profit has fallen sharply in year-on-year terms, owing mainly to increases in the bank levy and credit risk costs

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



Source: NBS.
Note: Regulatory costs include mainly the impact of an increase in the bank levy and increases in resolution fund contributions and in other compulsory contributions.

Banks' net profit for the first three months of 2020 slumped by 61% year on year. All significant banks reported a sharp drop in profit or in some cases even a loss. The banking sector's profit for 2019 was still relatively stable (even recording a slight year-on-year increase of 0.4%). The main reasons for the turnaround were as follows:

- The doubling of the bank levy contributed significantly to the decline in profit, which otherwise would have been almost one-third less. There was also an increase in resolution fund contributions.
- A second significant factor was an increase in credit risk costs. They increased mainly in the NFC loan book, but also in respect of household borrowers. The increase resulted from a rising amount of loans on which credit risk has significantly increased but which have not yet defaulted (falling under Stage 2 of the IFRS 9 classification).

- Interest income on banks' retail[35] loan and bond portfolios continued its long-term downtrend. In the case of the retail portfolio, it fell by 5% year on year. After gradually increasing during 2019, interest income from NFC loans fell back to the level it was at in the first quarter of 2019
- In connection with negative developments in financial markets, several banks recorded losses on the repricing of assets measured at fair value.

As a result of the coronavirus crisis, the downtrend in banks' profitability will become even more pronounced in the period ahead. Banks will face an increase in credit risk costs and probably also a significant decline in loan growth. The recent trend of falling interest rates on new housing loans, which has been the main drag on banks' profitability, may moderate. It will take some time until this ends the decline in the overall return on that portfolio.[36] In 2021 an easing of the decline in the net interest margin could have a favourable impact on net interest income. Questions remain, however, about what will be the extent and impact of a decline in loan growth. There may also be some decrease in income from transaction fees and from non-bank products (investment funds, insurance, etc.). These factors have not yet been reflected in profit trends to any significant extent.

The actual extent of the impacts on banks' profitability is a matter of great uncertainty. This applies in particular to loan impairment costs, which may have a more pronounced impact in 2021, especially if a large number of borrowers are struggling to service their loans once the loan repayment deferral period has ended. In such case, banks would have to write-down/off even part of the interest which was recorded for 2020 but was not paid owing to the deferral scheme. Operating costs are not expected to be significantly affected, since the direct additional costs related to the coronavirus crisis will be partially offset by the reduced extent of operating activities.

In view of the above, cancelling the bank levy appears to be essential to mitigating the impact of the coronavirus crisis on financial stability. In the context of banks' profitability falling by 55% or more, the continuance of the bank levy would represent a charge that most probably exceeds banks' remaining net profit. The bank levy would, moreover, increase funding costs and make banks less attractive in the eyes of their parent groups. If parent groups start taking a dimmer view of domestic banks, the result

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

[36] For example, the average interest on new housing loans in March 2020 was the same as its level in December (1.10%), but the average interest rate on the aggregate housing loan book fell from 1.73% in December to 1.65% in March. This difference results mainly from previous high refinancing activity, which in the second half of 2019 in particular was related to a significant decline in interest rates on refinanced loans.

could be a reduction in support for lending to the Slovak economy and, consequently, a steeper slide into recession. Therefore, the attractiveness of Slovakia and in particular its banking sector is important for maintaining financial stability. Retaining the bank levy, which is one of the highest in both the euro area and EU as a whole, could have an adverse impact on financial stability in the future.

Insurers' profitability

Insurers expect their profit for 2020 to be around one-quarter lower, year on year, as a result of the coronavirus crisis. In 2018 the sector's profit fell slightly (by 0.6%), while in 2019, according to preliminary data, it increased by (3.5%[37]). These figures, however, included one-off factors that skewed the overall trend. Initially, life insurance provisions were topped up, apparently as a result of market interest rates declining by around €70 million. Later, some of these additional provisions, amounting to around €100 million, were released owing to a change in the methodology for determining the discount interest rate. Without these effects, the aggregate profit for 2019 may, instead of increasing, have declined by more than a single-digit percentage.

Based on the sector's expectations surveyed in the second half April 2020, insurers' aggregate profit is projected to decline by 23% this year, largely owing to a decline in new business, an increase in life insurance surrender costs, and investment depreciation. It is also envisaged, however, that a decrease in the amount of claims paid in non-life insurance will have a positive impact on the profit. This estimation implies that vast majority of the sector's first line of financial defence could be preserved even during crisis months.

Solvency and financial leverage

The banking sector's solvency remained largely unchanged in 2019, ending the year at 18.2%. From a capital quality perspective, it is positive to note that during 2019 88% of banks' capital consisted of Tier 1 capital. This solvency stability in 2019 was reflected in a slight reduction in the banking sector's voluntary capital buffer, since the countercyclical capital buffer requirement was increased as of 1 August 2019 from 1.25% to 1.50%.

The banking sector's resilience was strengthened significantly in the first quarter of 2020, when banks increased their capital by retaining almost the entirety of their earnings for 2019. The estimated aggregate total cap-

[37] The original data on profit growth, published in the Analysis of the Slovak Financial Sector for 2019, have been revised for several insurers.

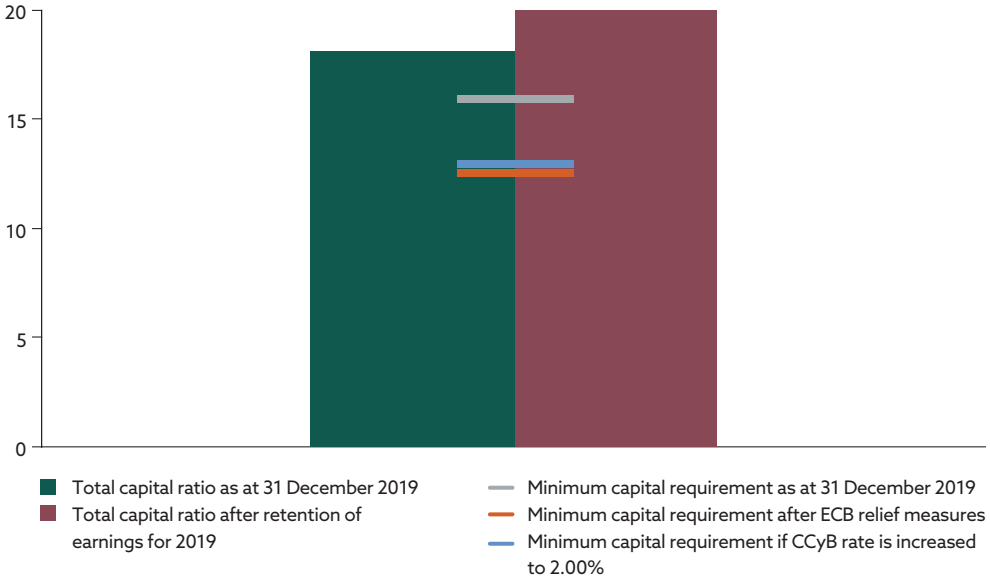
ital ratio increased to 19.7%. This increase also reflects the substantial impact of banks' dividend policies on the sector's resilience. Národná banka Slovenska therefore expects that both domestic and foreign shareholders of banks operating in Slovakia will approach this issue with due caution and take a conservative approach.

NBS has pointed out several times in the past that a shift in the business and financial cycles could, owing to increasing default rates, result in risk weight increases in banks' internal models. At present, however, this mechanism is largely tempered by economic relief measures, including an option to defer loan repayments. In this regard, the key point will come at the start of 2021 when the deferred loan repayments start falling due again.

In March and April 2020 there was some easing of capital requirements, but it did not affect the banking sector's resilience. This issue is covered in more detail in Section 3.2.

As a result of the banking sector's capital position being bolstered by its earnings for 2019, the sector's leverage ratio has also improved. In the first quarter of 2020 the leverage ratio increased from 7.6% to 8.3%, and all banks comfortably met the minimum leverage ratio requirement.

Chart 18
Banks' solvency increased in the first quarter of 2020, while their capital requirements eased
(percentages)



Source: NBS.
Note: CCyB – countercyclical capital buffer.

Insurance sector solvency

At the end of 2019 insurers in Slovakia reported an average solvency capital requirement (SCR) coverage ratio of 192%, with individual ratios ranging from 143% to 291%. The average ratio is estimated to fall to 180% in 2020. The capital position that the sector built up in the years before the coronavirus crisis is an important prerequisite for coping with unexpected losses. Although the sector is expected to remain in profit in 2020, its average SCR coverage ratio is expected to fall slightly. This will largely be due to small losses reported by certain insurers and to investment repricing that has a direct impact on the amount of own funds. In some insurers, the SCR coverage ratio may actually increase owing to the retention of dividends originally slated for distribution to shareholders.

3.3 Main sources of risk

3.3.1 Credit risk in banks

Stress-testing the impact of the coronavirus pandemic

This stress test models a relatively sharp contraction of activity in the domestic economy. The scenario assumptions include the following: GDP declines by more than 9% in 2020 and then gradually increases in 2021; and the unemployment rate increases to between 7% and 10% (therefore by five percentage points at worst) and peaks in 2021. The assumptions and other parameters of the stress test are summarised in Box 7.

The stress test is based on two scenarios designed to estimate the impact of relief measures on the banking sector. In the *Scenario with measures*, the measure allowing borrowers to defer their bank loan repayments has a particularly marked impact in terms of reducing losses on these loans and carrying credit losses forward to next year. For comparison, the *Scenario without measures* models the impact of the economic crisis on the banking sector in the absence of any government support for borrowers.

Corporate and household credit risk constitute the main source of losses under the stress test. The dominance of credit risk is shown in both scenarios. For the period 2020-21, market risk losses are estimated at €363 million (in both scenarios), whereas overall credit risk losses are estimated at €1.1 billion in the *Scenario with measures* and at €1.8 billion in the *Scenario without measures*. So, compared with the *Scenario without measures*, government measures to mitigate the economic impact of the crisis are seen to have appreciably reduced credit losses. Because of the measures, loan impairment losses across the household and NFC loan books are lower by around €700 million.

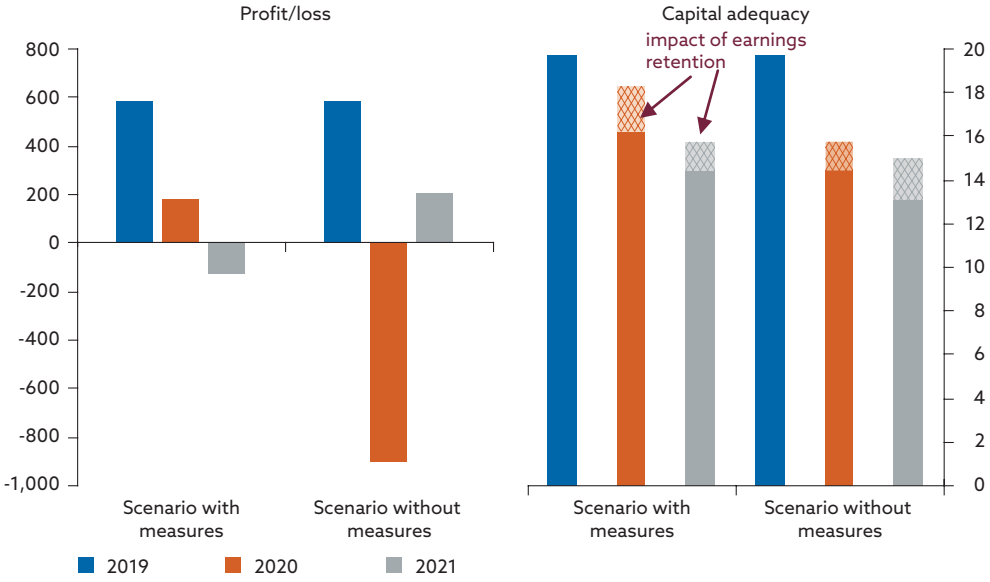
Table 13 Estimations of cumulative losses for the period 2020-2021

EUR millions	Credit risk losses on household loans	Credit risk losses on NFC loans	Market risk losses
Scenario with measures	347	434	363
Scenario without measures	883	604	

Source: NBS.
Note: All figures are for the two-year period 2020–2021.

During the stress test period, banks not only experience risk losses, but also income loss and an increase in risk weights. The stress test further demonstrated banks' dependence on interest income. Because of decelerating growth in NFC loans and household loans, banks' net interest income is estimated to decline by between 2% and 10%. For retail banks, the average decline in net interest income is estimated to be 7%. Meanwhile, as a result of worsening risk parameters, banks' risk weights increase, thereby putting pressure on their capital adequacy. Several banks see their total capital ratio drop despite having increased their capital through earnings retention.

Chart 19
Both scenarios have a notable adverse impact on the banking sector
(EUR millions; percentages)



Source: NBS.
Note: The 2019 profit is already included in the total capital ratio; the impact of the retention of earnings for 2020 and 2021 is simulated.

The results from both stress test scenario results show the potential large impact of the pandemic repercussions on the banking sector's profitability. The impact is envisaged to be far more severe in the absence of measures to stabilise the economy. In the *Scenario with measures*, the banking sector is estimated to make a profit of almost €190 million for 2020, with only three banks reporting a loss. At the same time, however, as a result of

loan repayment deferrals, credit risk losses increase in 2021. The banking sector therefore makes a loss of around €130 million in 2021, and a majority of banks report a loss for the period. This scenario indicates the importance of banks retaining their earnings for 2020 (and therefore increasing their capital), since 2021 could be a worse year than 2020 from the perspective of credit losses. In the *Scenario without measures*, credit risk losses are higher by €700 million, but fully 80% of that amount is due to losses in 2020, and the sector returns to profit in 2021.

In both scenarios, the banking sector's estimated total capital ratio declines and the retention of earnings for 2020 and 2021 has a large upward impact on capital. Under the *Scenario with measures*, including the assumption that banks increase their capital by retaining all earnings, the banking sector's total capital ratio is estimated to fall to 16.6% by the end of 2021, from its current level of 19.7%. Two banks fail to meet the minimum Pillar 1 and Pillar 2 requirements (their total capital ratio drops below 8%). If banks distribute their profits for 2020 and 2021 by paying dividends, the sector's total capital ratio falls to 14.5%, and the same two banks fall short of the minimum capital requirement. The importance of increasing capital by retaining earnings is also apparent in the *Scenario without measures*, in which the aggregate total capital ratio falls to 15% if earnings are retained and to 13.2% if dividends are paid. In this scenario, four banks fail to meet the minimum requirement.

As regards risk materialisation, key factors will be the effectiveness of the adopted measures, the duration of the pandemic, and the pace of the subsequent economic recovery. The relief measures are expected to be very important in helping firms and households cope financially with the lockdown and economic shutdown. In the *Scenario with measures*, the banking sector is estimated to make a modest profit of €56 million for the two-year period, while in the *Scenario without measures* it makes a loss of almost €700 million. On the other hand, an important factor in regard to the materialisation of potential credit risk losses will be how firms, especially smaller ones, optimise their costs and how many firms find it more efficient to default on their loans and so save on additional costs (for example, rent). Likewise, in regard to the retail loan book, it will be important how quickly the pandemic ends and the economy recovers. These factors may to a large extent determine the effectiveness of certain measures, for example, the option to defer loan repayments.

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Box 7
Stress test assumptions and methodology

The stress test methodology was heavily influenced by the extent of the impact of the coronavirus pandemic on the domestic economy and financial markets and in particular by the speed with which the crisis spread. Previous stress testing exercises were based on different macroeconomic adverse scenarios that were subsequently used in econometric models to estimate stress test parameters for credit risk. Given, however, that the economic contraction now taking place is, in terms of its size and speed, unlike anything previously seen in our data, the credit risk estimation models are unusable. In this stress test exercise, the defining of credit parameters has therefore relied heavily on expert judgements and a comparison with past crises.

Separate assumptions are used for the outstanding amount of retail and NFC loans and for the credit risk parameters for these loans. In the case of retail loans, there is assumed to be a credit crunch, in other words no growth in total loans. As for NFC loans, it is assumed that the decline in loans estimated from the first quarter of 2021 under Scenario 2 will occur sooner, from the second quarter of 2020. The annual rate of decrease in total NFC loans is assumed to bottom out in the first quarter of 2021, at -4%.

In this exercise, household credit risk is largely based on assumptions used for at-risk households in Section 2.2 of this report. We therefore assume an unemployment rate increase of ten percentage points and the impact of this increase on different sectors of the economy and, to varying degrees, on different segments of the economically active population. The impact of government measures is assumed to be similar to that assumed in Section 2.2.

NFC sectors were divided into high-risk, medium-risk and low-risk sectors. The level of riskiness was determined on the bases of economic theory and the March 2019 declines in sales and selected financial indicators in individual sectors (see Box 6).

In the *Scenario without measures*, the default rate is assumed to be the same as that assumed in Scenario 2 of the macro stress test. Given how the crisis has progressed so far, we assume that the probability of default (PD) for small enterprises and self-employed persons is twice as high as that for medium-sized enterprises and large enterprises. In the *Scenario with measures*, the PD for small enterprises is assumed to be lower, at a level that is 1.5 times higher than the PD for large enterprises. In the *Scenario with measures*, we assume that 20% of the credit risk losses will occur in 2020 and the remaining 80% in 2021.

Table 14 Credit risk parameters for the stress test				
	Without measures		With measures	
NFC loan book – PD	Small enterprises	Large enterprises	Small enterprises	Large enterprises
Highly sensitive sectors	5.6%	2.8%	4.21%	2.8%
Moderately sensitive sectors	8.7%	4.3%	6.52%	4.3%
Less sensitive sectors	12.8%	6.4%	9.59%	6.4%
Retail loan book – NPL increase				
Mortgage loans	5.3 p.p.		1.5 p.p.	
Consumer loans	7.7 p.p.		1.9 p.p.	

Source: NBS.

In regard to market risks and interest rate movements, the stress test is based on Scenario 2 of the macro stress test conducted at the end of 2019 and published in the Analysis of the Slovak Financial Sector for 2019. The scenario assumes a significant decline in equity markets and, consequently, that the repricing of portfolio equity components and securities has a downward impact on the banking sector's profitability. The adverse impact of market losses is, however, far more moderate compared with credit losses (approximately 45% of the credit loss value in the *Scenario with measures*). This is partly because Slovak banks follow a business model that is heavily oriented on the credit market, and also because a large share of domestic banks' bond holdings sit in the portfolio of securities held to maturity (loans and receivables); in other words, these securities are not being revalued at fair value, so they are not sensitive to increases in interest rates or risk premia.

3.3.2 Availability of financing

The banking sector has sufficient capital and liquidity to support lending activity

In every economic crisis there is a risk that banks will not have sufficient capital to fund lending. It is therefore necessary to analyse capital shortages in regard not only to the banking sector's loss-absorbing capacity, but to its lending capacity. A capital shortage would result in the banking sector having a procyclical impact on the economy and could, via a credit market slowdown, contribute to a deepening of the crisis.

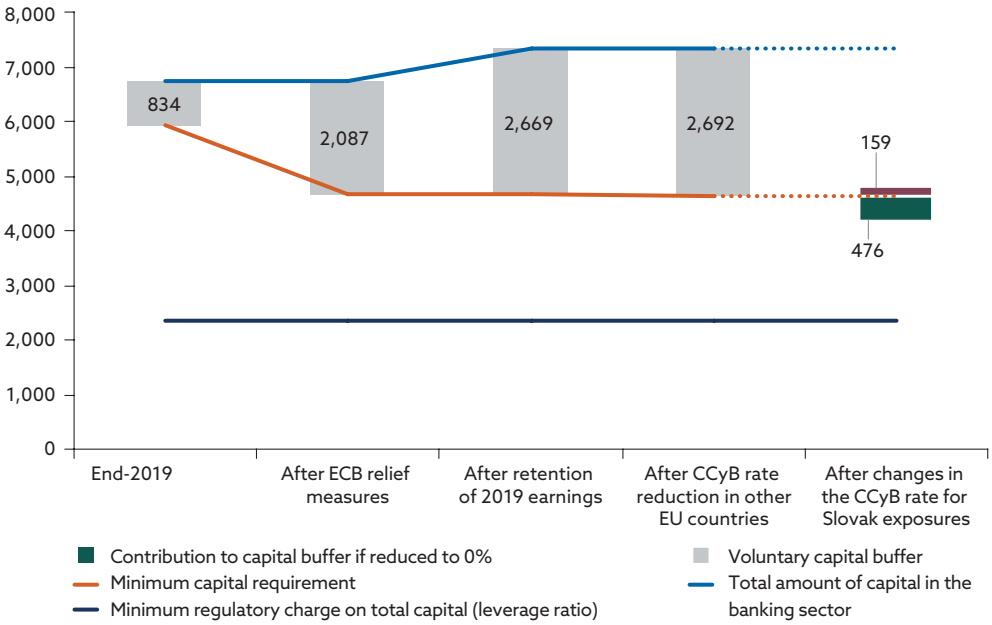
Since the start of 2020, the banking sector's voluntary capital buffer has increased by almost €2 billion (see Chart 23)**.** This available capital represents the difference between the current value of the sector's capital and the minimum regulatory charge on that amount. In March and April 2020 the voluntary capital buffer increased because of changes in both parameters. On the one hand, banks increased their capital by retaining almost the entirety of their earnings for 2019. On the other hand, the ECB introduced

certain capital relief measures and several national macroprudential authorities in the EU reduced their countercyclical capital buffer. As a result, the amount of available capital in the domestic banking sector increased to around €2.7 billion.

Chart 20

Increase in the banking sector's available capital following capital relief measures and capital increases

(EUR millions)



Source: NBS.
Notes: The calculation is static, based on risk exposures as at 31 December 2019. The amount of available capital changes dynamically with the amount of risk exposures. The calculation does not take into account the activity of foreign bank branches.

At the same time, NBS has decided to repeal a decision to increase the CCyB rate to 2.00% as from 1 August 2020, which, if implemented, would have reduced the banking sector's available capital by around €159 million. The CCyB rate currently stands at 1.50%, which still ties up capital amounting to around €476 million. The buffer will be released immediately if necessary.

The leverage ratio requirement is also not constraining banks' lending capacity. Even in the event of a complete release of the CCyB, no bank would be in a situation where the leverage ratio requirement ties up more capital than does the minimum capital requirement.

Banks have sufficient capital to ensure 2019-level loan growth over the coming years. Even under the extreme scenario that banks do not make any profit in the next years, current capital buffers would suffice to provide long-term support to loan growth. The actual amount of banks' capital buffers will, however, depend not only on the bank's future profitability and related dividend distribution policy, but also on the pace of loan

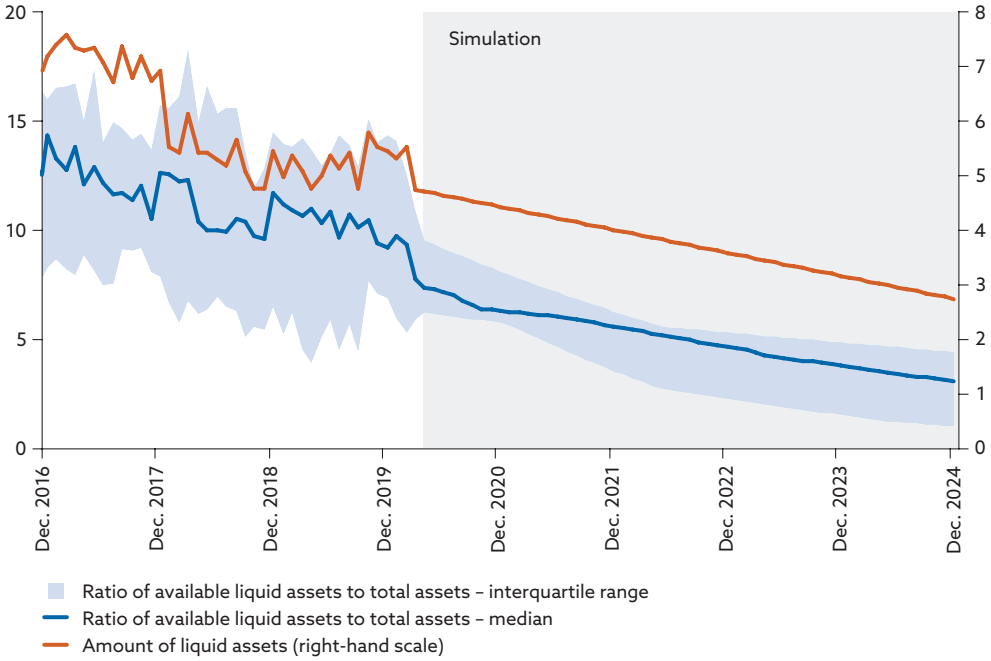
growth and on any changes in risk weights resulting from a business cycle downswing.

The issue of capital sufficiency, and by extension the availability of financing, could also, theoretically, be affected by the minimum requirement for own funds and eligible liabilities (MREL). This would only apply, however, if in the given year banks were on the borderline of meeting the MREL and at the same time wanted to meet it entirely with capital.

Chart 21

Although the banking sector's available liquid assets have declined slightly in recent years, they remain sufficient

(percentages; EUR billions)



Source: NBS.
Note: The calculation does not take into account the activity of foreign bank branches.

Banks' lending activity is also not being constrained by the regulatory requirement for the liquidity coverage ratio (LCR). From a regulatory perspective, loans provided are seen as illiquid assets whose growth reduces the LCR. The LCR requirement could be therefore met by limiting the provision of loans. In fact, what is more important in regard to LCR compliance are the funding sources for loan growth and the proportion in which the bank purchases liquid securities. If a bank funds new lending by issuing covered bonds, the LCR remains virtually unchanged. If new lending is funded with deposits from households and NFC, then keeping the LCR unchanged will require adding liquid assets to the balance sheet in a ratio of around 1:7 to the amount of new loans. If banks maintained loan growth at the rate observed as at 31 March 2020 and funded it with deposits from this period (without issuing further covered bonds or adding liquid assets), the

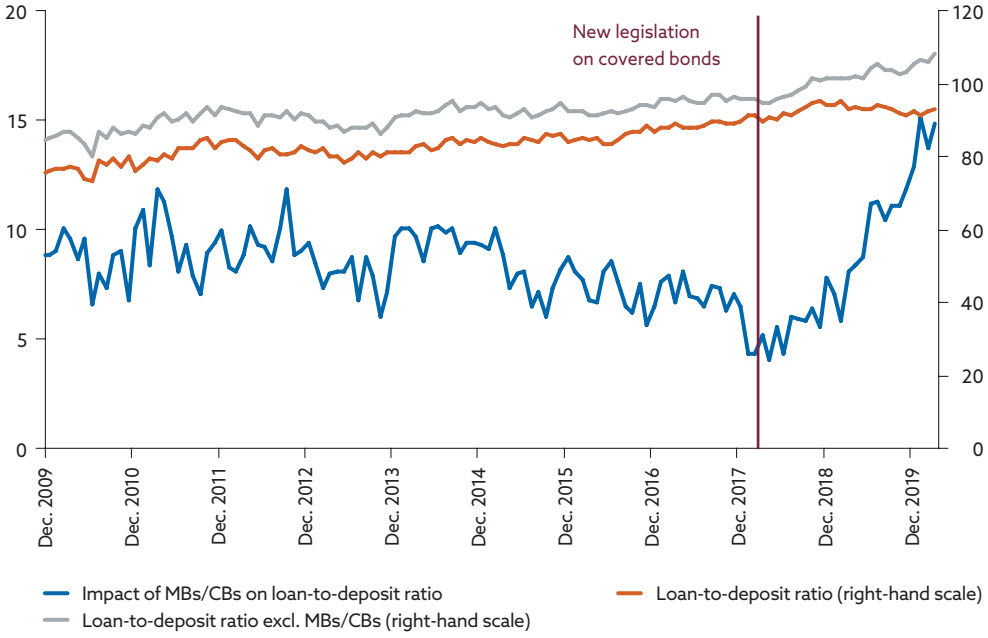
LCR and related amount of available liquid assets would slowly decline. Under this conservative scenario, all banks would still be LCR-compliant in December 2024 and would therefore have the available liquid assets necessary for loan growth.

As regards the availability of financing, other important factors are the sufficiency, stability and cost of funds. It is therefore positive that the Slovak banking sector has remained self-sufficient in terms of funding sources. For the funding of their lending activity, domestic banks depend neither on parent institutions, nor on liquidity provided by the European Central Bank. Their funding sources comprise mainly customer deposits, which from a stability and cost perspective are the best type of liability. At the same time, several banks have begun issuing covered bonds, which represent a long-term and still relatively cheap source of funding (see Box 1). Because of the issuance of covered bonds, the banking sector's ratio of loans to deposits and covered bonds is lower than 100%. This funding structure is not yet putting upward pressure on the cost of borrowing for firms and households.

Chart 22

Covered bond issuance has had a positive impact on the sufficiency and stability of funding sources

(percentage points; percentages)



Source: NBS.
Notes: The chart covers domestic retail banks. MB – mortgage bond; CB – covered bond.

The availability of financing will depend to a large extent on banks' perceptions of risk in the real economy

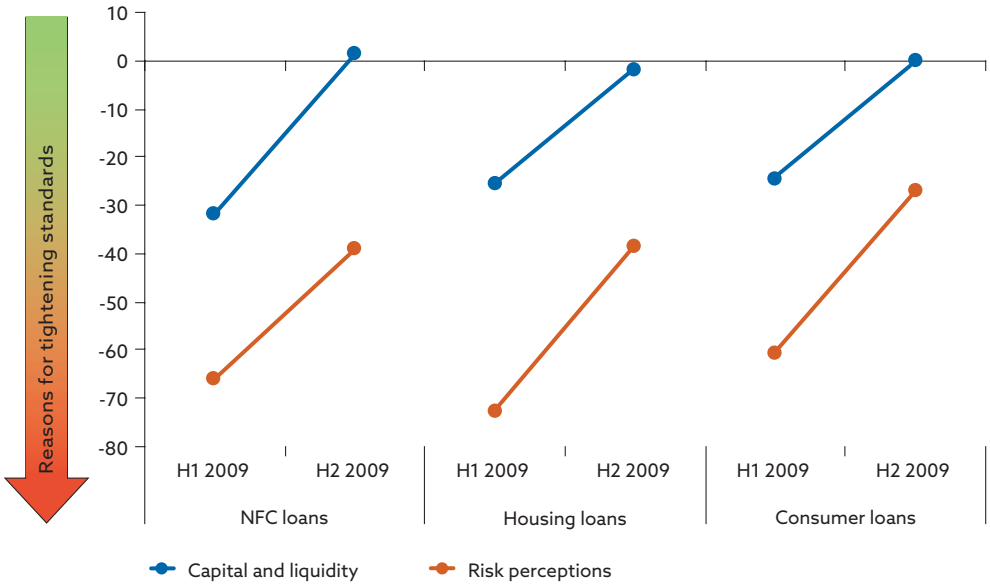
As was seen in the crisis year of 2009, risk perceptions can outweigh capital and liquidity constraints as a reason for reducing lending activity.

When the global economic and financial crisis hit Slovakia at the end of 2008, the domestic banking sector's capital buffer was far smaller than it is today, nor was there the same scope for capital relief. At that same time, moreover, a new strict liquid asset ratio started to be applied. Nevertheless, banks reported that the main reason for their tightening of credit policy was risk perceptions and that liquidity and capital constraints were far less important factors. In the second half of 2009, capital and liquidity requirements were no longer having any impact on the supply of loans, while risk perceptions were still contributing to the further tightening of credit standards (see Chart 26). Banks' very sensitivity to business cycle changes is a reason why the current sufficiency of capital and liquidity does not guarantee a smooth flow of bank loans.

Chart 23

Capital and liquidity requirements had a far lower impact on credit standard tightening in 2009 than did risk perception

Credit standard tightening attributable to the given factor in the given quarter (net percentages)



Source: NBS.
Note: The vertical axis shows the net percentages of banks calculated according to loan volume.

An increase in banks' risk perceptions may affect borrowing costs for firms and households. The impact of an adverse macroeconomic outlook is not usually confined to a tightening of credit standards, but may also be reflected in an increase in retail interest rates.[38] Such a situation could come about despite an accommodative monetary policy stance, should lending rates for firms and households start aligning more closely with credit risk costs. Such development would impair the availability of financing to the

[38] The interest rates applied by banks to households and non-financial corporations.

real economy. As of March 2020 there was still no evidence of such trend in interest margins or interest rates.

Banks have already tightened terms and conditions on loans to households

Banks' capacity to distinguish between impaired and viable borrowers is important for the proper evaluation of the actual degree of credit risk, including the risk attached to new lending. Market information indicates that banks' reduced risk tolerance has restricted the availability of financing for whole segments of the household loan book, owing mainly to fears about their creditworthiness. This concerns certain groups of borrowers that have income from abroad or borrowers working in the economic sectors hardest hit by the crisis. Moreover, several banks have temporarily halted lending to such borrowers who are self-employed persons or small entrepreneurs.

Borrowers not shut out from credit must be prepared to face stricter scrutiny of their debt servicing capacity (debt service-to-income ratio), stricter loan-to-value requirements, and lower loan sizes. Banks have also scaled back their direct marketing of products to consumers, resulting already in a significant decline in the production of consumer loans in March 2020.

Furthermore, as approved by NBS in late 2019, regulatory tightening of DSTI ratio limits is being phased in during the first half of 2020. Its impact has been diminished, however, as banks themselves have begun substantial tightening of their credit standard limits.

Besides changes to credit terms and conditions, there has also been an increase in the cost of borrowing due to higher credit risk premia. Although the increase has so far been moderate, banks are responding to the current situation by lending only to more creditworthy borrowers. Consumers from higher-risk groups, who in normal circumstances would be offered a loan at a higher interest rate, may not be able to borrow at all.

Banks' tightening of conditions, i.e. restricting the supply of loans, is coinciding with a softening of market demand for new loans. Many households have recently experienced a decline in their disposable income or loss of employment, while many others expect the same or similar to happen to them in the near future. Hence they are losing the opportunity to apply for long-term financing, the cost of which has, moreover, been increasing.

The property market situation is also changing. A decline in property prices may, on the one hand, result in a drop in the size of loans applied for, but

it may also, on the other hand, lead to the postponing of property purchase decisions. As a result, demand for housing loans could fall even further in the months ahead.

The coronavirus crisis will also affect the corporate credit market; rising demand for loans to NFCs, especially loans of a short-term nature, will probably be accompanied by a reduction in the supply of loans

Liquidity losses in the corporate sector will probably have an upward impact on demand for new short-term loans. Banks are anticipating an increase in NFC loan demand, particularly in the coming period. According to banks, the level of demand did not change significantly in the first quarter of 2020. However, demand is expected to have risen in the second quarter, with sales losses stoking firms' demand for additional bank financing to see them through the crisis period.

Likewise, according to NBS estimations,[39] there is expected to be a significant impact on the corporate sector, resulting in increased demand for additional financing to bridge the period of subdued economic activity. Data from corporate financial statements for 2018 show that even before the crisis arrived, some 7% of firms were unable to cover their operating expenses with sales or short-term financial assets. Hence an increase in firms' demand for additional financing may be expected.

Data for March provided some evidence of an increase in demand for short-term borrowing.[40] At the same time, the aggregate amount of undrawn funds in domestic firms' credit accounts is relatively large. These funds are mainly available through revolving credit accounts and lines of credit. It is questionable, however, whether banks will permit the drawing of these funds during the crisis period. Also evident in this regard is the greater degree of vulnerability and riskiness attached to micro enterprises and small enterprises,[41] whose ratio of undrawn funds to outstanding borrowing is just two-thirds that of medium-sized and large enterprises. Furthermore, the extent of authorised borrowing may be lower for micro and small enterprises owing to their greater riskiness.

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[39] Buchta Š., Lalinský T. and Peter R. (2020), "Majú firmy finančné rezervy na prekonanie koronakrízy?", *Analytical Commentary* (in Slovak only), No 80, Národná banka Slovenska, Bratislava, NBS.

[40] For further details, see Section 2.3.

[41] The category of micro and small enterprises comprises firms which employ fewer than 250 people and which also have an annual turnover not exceeding €50 million or an annual balance sheet total not exceeding €43 million.

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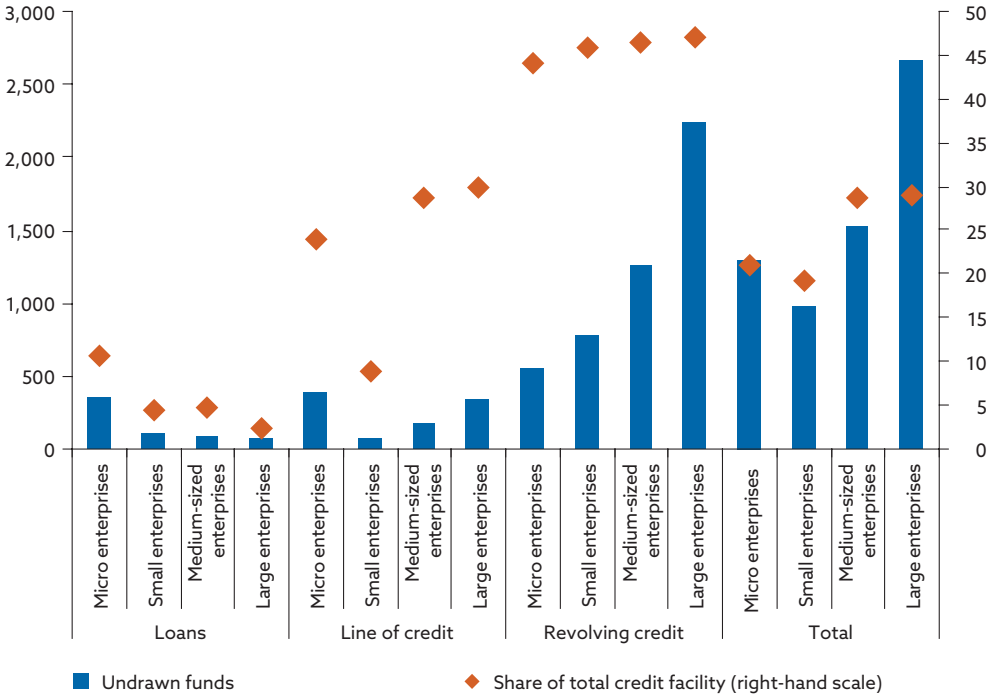
Chart 24

Micro and small enterprises have less scope for drawing down their credit facilities

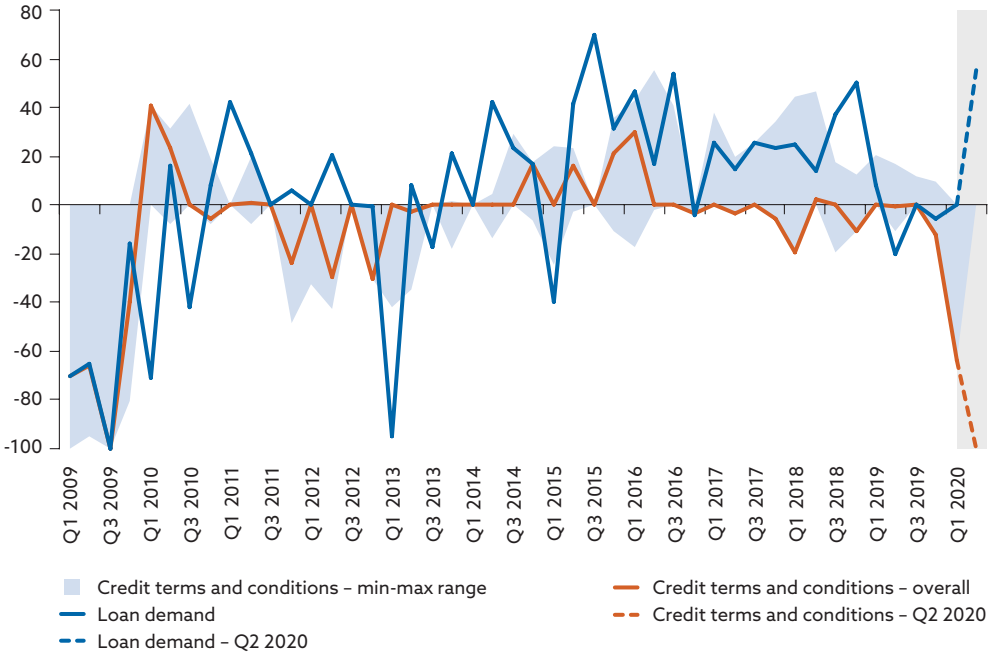
(EUR millions; percentages)



Source: NBS.
Notes: The left-hand scale shows the amount of undrawn funds in firms' credit accounts. The right-hand scale shows the ratio of undrawn funds to the total credit facility.

The coronavirus pandemic had a significant impact on the supply of loans to NFCs during the first quarter of 2020, and it is expected to have an even more adverse effect in the next three months. The pandemic containment measures adopted by the Slovak Government, as well as those adopted by governments of other countries, resulted in an almost immediate sharp deteriorating in sentiment and in outlooks for different economic sectors. Banks have not been reporting themselves constrained by capital and liquidity requirements. The supply-side response from banks to the crisis situation has had several levels, with the tightening of credit standards being supplemented by increases in interest margins and a rising rejection rate for loan applications. As regards actual terms and conditions agreed in loan contracts, there has been tightening across all categories of terms and conditions: size of the loan or credit line; collateral requirements; loan covenants; and maturity. In terms of scale, the loan supply correction has been the largest since the financial crisis year of 2008. Given that the government measures were being launched around the turn of the second quarter, the bank lending survey may still not have fully captured the changes in the supply side of the credit market. Looking at banks' expectations reveals an even greater credit crunch.

Chart 25
The large supply correction will probably be accompanied by rising demand
(net percentages)



Sources: NBS and the bank lending survey.
Notes: A positive value denotes an increase in demand or easing of credit terms and conditions. A negative value denotes a decrease in demand or tightening of credit terms and conditions. The chart shows the min-max for banks' credit terms and conditions. The vertical axis shows the net percentages of banks calculated according to NFC loan volume.

The availability of financing from the domestic banking sector may be expected to decline. The borrowing situation will be worst in the sectors most affected by the crisis. Going forward, supply in the corporate loan market will be shaped by the following key factors: pervasive uncertainty about the future economic situation; a strong increase in banks' risk aversion; and fears about a sharp rise in credit losses. A bank's willingness to finance a firm will be conditional on the firm having a strong prospect of surviving the crisis period if it receives the additional liquidity. This is why the availability of government-guaranteed loans will be important for risky sectors and firm types, including small and medium-sized enterprises.

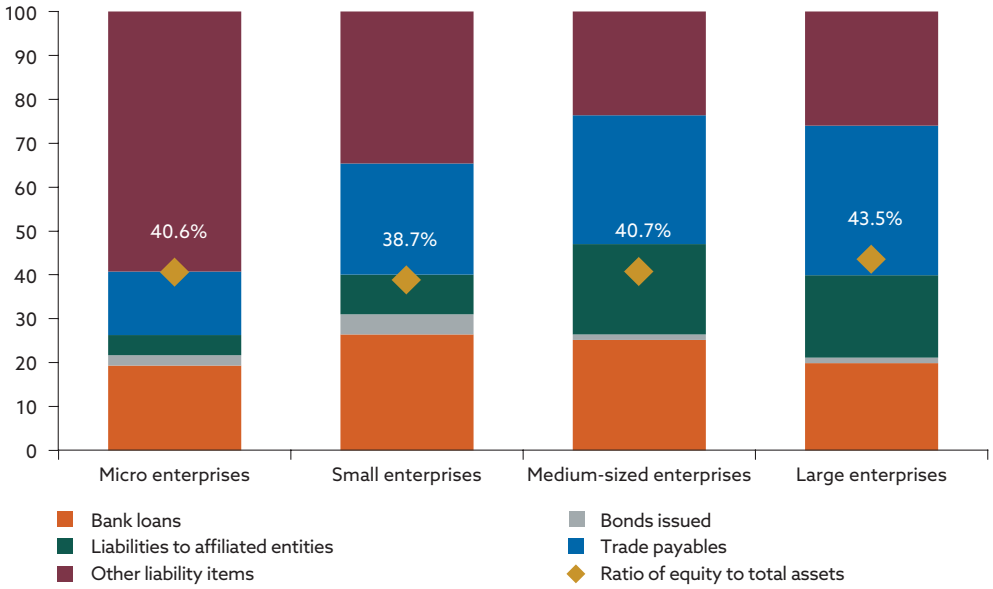
Larger firms may be less dependent on bank financing, but the deterioration in conditions will affect all sources of financing. Besides domestic bank loans, other sources of corporate financing include issuing bonds and receiving funds from a parent institution or another affiliated entity. A deterioration in financing conditions may be expected across all types of financing. Nevertheless, the best placed firms will be those that have access to more than one of the sources of financing mentioned above. As regards the composition of the liabilities side of the balance sheet, larger firms are at an advantage in terms of the greater diversification of their financing sources. Whereas financing for medium-sized and large enterprises is approximately

evenly split between bank loans and funds from affiliated entities, financing for small and micro enterprises mostly comprises bank loans. At the same time, large enterprises have a slightly higher ratio of equity to total assets (43.5% versus an average of around 40% for other firms). Securities financing is the least used financing option. Among micro enterprises, the three financing options mentioned here account for just over a quarter of the enterprises' aggregate liabilities, which implies they have the most limited access to the financing sources. A significant share of these enterprises' liabilities comprise liabilities to the consolidated entity, partners and consortia.

Chart 26

The possibilities for obtaining financing are greater for larger enterprises than for micro and small enterprises

(percentages)



Source: NBS and Bisnode (data from domestic firms' financial statements for 2018).

3.3.3 Insurance sector risks

The coronavirus pandemic could have quite significant repercussions for the insurance sector. The non-life and life segments are expected to be affected in different ways. Non-life insurance contracts are concluded for one year and any changes in costs can be quickly passed on to premiums, whereas life insurance contracts are usually concluded for a long period, which accentuates the maturity mismatch between assets and liabilities.

Expected increase in claims paid in non-life insurance

Given the serious economic impact of recent developments, there is expected to be an increase in claims paid in non-life insurance business, especially in insurance classes covering economic damage. At the level of natural persons, the main classes in this regard are income loss insurance

and credit insurance. Firms, for their part, are supplementing income loss insurance with specific policies, most notably travel agency insolvency insurance. The degree of risk in individual insurance classes can be estimated by the share of the given class in all gross premiums written in non-life insurance[42] coupled with the extent of reinsurance:

- **Income loss insurance** (10% of non-life premiums; 57%[43] of the non-life technical result): This class could have a significant impact on the sector's profit, owing mainly to its sizeable share in non-life business. Its impact may be substantially mitigated by the effect of government measures to preserve jobs.
- **Credit and suretyship insurance** (0.3% of non-life premiums; 1%[43] of the non-life technical result): This is a relatively marginal class with above-average reinsurance dependence. Furthermore, the loan repayment deferrals temporarily allowed under government relief measures are minimising the risk that credit insurance claims surge in coming months.
- **Assistance services insurance** (2.5% of non-life premiums, 4%[43] of the non-life technical result): This class includes travel agency insolvency insurance. The impact of this class may likewise by tempered by the Government's economic relief measures. At the same time, however, recreational activities are among the sectors facing a potentially longer period of financial difficulties.

In motor insurance, which has for a while been operating on the borderline of profitability, financial results may actually improve. In this insurance class, premiums earned have in recent years not been sufficient to cover claims paid and operating costs. It appears, however, that business in motor third party liability (MTPL) insurance and comprehensive motor insurance could benefit to some extent from the current crisis, as the decrease in economic and recreational activity across the country results in a lower number of road traffic accidents. In March 2020, for example, these accidents declined by almost 30%, according to data from the Slovak Interior Ministry. According to market expectations, the total amount of motor insurance claims paid could be as much as 19% lower in 2020 than in 2019.

The insurance sector may also be affected by a decline in the production of new contracts. Insurers are expected to be affected in two ways. On the one

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[42] Since the amount of gross premiums written is derived from insurers' expected costs, an increase in claims paid could lead to a change in the cost of premiums for new and renewed contracts. Because of the coronavirus crisis, shares of individual insurance classes in non-life gross premiums written may change even while the number of insurance contracts remains steady.

[43] The estimation represents the share of the class in the difference between, on the one hand, net premiums earned and, on the other hand, the sum of net claims paid, net costs incurred, and levy payments for 2019 payable to the Slovak Insurers' Bureau and the Slovak Interior Ministry (these levies are specific to MTPL insurance).

hand, customers in financial difficulty may reassess their premium payments, since these (with the exception of MTPL insurance premiums) are a discretionary expense and insurance contract cancellations are usually not penalised. On the other hand, some insurance classes, notably travel insurance, are temporarily losing their economic justification because of the lockdown measures. Insurers expect their gross premiums written to be around 7% lower in 2020 than in the previous year.

Besides the current changes related to the coronavirus crisis, other risks also remain present. In non-life insurance, the most significant long-term risk is deemed to be uncertainty about the amount of damages awarded for non-material damage (covering emotional damage, damage to social standing, and other non-physical damage). NBS has repeatedly highlighted the lack of legal provisions defining who may claim compensation for non-material damage and how much may be claimed for it. Court rulings in this area are too divergent to provide sufficient basis for underwriting the risk of non-material damage, and it is therefore not possible to set appropriate premiums, particularly in MTPL insurance.

The double hit in life insurance and surrender risk

A feature of life insurance business is maturity transformation, in other words a situation where liabilities to customers have a long maturity while insurers' assets have a far shorter maturity. In the event of a decline in interest rates, the impact of falling returns appears far sooner on the assets side of the balance sheet than on the liabilities side (under long-term return guarantees). This scenario has been observed in Slovakia and abroad in recent years, owing to the environment of falling interest rates. The insurance sector is therefore incurring an additional cost to be covered by technical provisions.

The risk arising from maturity transformation is amplified under the double hit scenario. Insurers' financial assets are measured at fair value, so their current value reflects movements in risk-free interest rates and risk premia. However, liabilities to customers, i.e. technical provisions, are discounted only at a risk-free interest rate. In the case of life insurance, an exceptionally adverse situation may arise where a decrease in risk-free interest rates (i.e. an increase in the value of liabilities) coincides with an even more pronounced increase in risk premia (i.e. a decrease in the value of assets). Such a situation has arisen amid the coronavirus crisis: financial markets have been recording losses because of the climate of uncertainty, while risk-free interest rates have continued decreasing in order to stall economic deceleration. Insurers expect the overall value of their investments to decline by 4% in 2020, which will be reflected in insurers' profitability and solvency.

Insurers have at their disposal tools to mitigate maturity transformation risk. In the case of some assets and liabilities, their maturities can be aligned at the portfolio level. In this case, financial assets are held to maturity and ongoing changes in their market value do not constitute an additional cost for the insurers. Given the nature of insurance activity, however, such alignment cannot be applied to the life insurance segment as a whole.

Further mitigation is possible through a greater orientation on unit-linked life insurance, in which the insured receives the investment returns and also bears any investment losses. Recent years have seen unit-linked business grow at the expense of traditional life insurance both in Slovakia and abroad. From 2016 to 2019, gross premiums written in unit-linked insurance increased by 27%, while in traditional life insurance they fell by 4%. Nevertheless, the amount of gross premiums written at the end of 2019 was almost three times higher in traditional life insurance than in unit-linked insurance. It should be noted that the increase in the share of unit-linked business implies an increase in the risk borne by the insured and that the decline in financial markets directly reduces households' already low financial assets. Insurers estimate that the aggregate value of assets invested under unit-linked polices may fall by 12% in 2020.

Alternatively, new business could focus more on risk-based life insurance, such as assurance on death, or health insurance. Profitability in these lines of business depends not on financial market developments, but rather on demographic and medical data.

Another aspect of the still elevated returns guaranteed under life insurance contracts is that insurers are under pressure to invest in higher-yielding, higher-risk assets. Therefore, as a share of Slovak insurers' assets covering technical provisions, government bonds have been gradually falling in recent years while corporate bonds and equity have been rising. Even so, government bonds still account for almost half of these assets. Recent years have also seen a certain increase in the portfolio's duration, caused partly by riskier investments and partly by efforts to align maturities of assets and liabilities.

A specific risk in life insurance is the possibility of early cancellation of the contract, i.e. surrender. In such case, the insurer is required to pay the insured a pre-agreed sum of money ("the surrender value") according to the status quo when the surrender occurs. In the event of a higher number of surrenders, insurers are exposed to an increased liquidity risk, since they will have to sell off the corresponding amount of financial assets within a short time. A factor mitigating this risk is the large share of government and corporate bonds in the insurance sector's investment portfolio (82% as at December 2019).

The surrender rate may be expected to increase in certain situations, particularly in the case of rising unemployment or falling wages. The coronavirus crisis may have a negative impact on new production. Life insurance premium payments are not one of the expenditures essential for the basic running of a household. If there is a prolonged decline in households' disposable income, surrender rates for life insurance contracts may increase. At the same time, the pandemic-related lockdown measures could reduce the volume of new life insurance business. Life insurance contracts, unlike non-life contracts, are typically sold on a face-to-face basis between the customer and the seller or financial agent, but such interaction has become more difficult under the pandemic containment measures. According to insurers, gross premiums written in the life insurance business are expected to fall in 2020 by 11% year on year.

A higher surrender rate could also have an adverse impact on the insurance sector's solvency. In terms of the share of *expected profits included in future premiums (EPIFP)* in insurers' aggregate eligible capital, the Slovak insurance sector ranks first in the EU with a share of 49%. This type of capital represents a structural risk to the insurance sector, since it cannot be used immediately to absorb unexpected losses. At the same time, it entails risk of a cyclical nature, as a surge of surrenders will lower the amount of expected profits on the contracts concerned. A situation could therefore arise where this capital component becomes loss-making just when other unexpected losses are also occurring. Based on information from insurers,[44] the SCR coverage ratio is for now expected to decline only moderately in 2020, from 192% to 180% (by 12 percentage points), meaning that both the sector as a whole and individual insurers will comfortably meet capital requirements.

Stress testing of the insurance sector

Current developments in the insurance sector are similar to the assumptions of a stress test scenario under which the sector's solvency is not at risk. At the same time, insurers can offset the bulk of their additional costs by releasing provisions and by saving on operating expenses. The sector's resilience to unexpected losses is regularly tested as part of the stress test exercise published in NBS's annual Analysis of the Slovak Financial Sector. According to the sector's current expectations, the coronavirus crisis will have a positive impact on non-life insurance business, as the savings made on claims paid are expected to outweigh the decline in premiums written. The stress test assumes additional losses of almost €100 million in 2020. According to insurers' current expectations, the decline in premiums

[44] The information is obtained from seven insurers accounting for 88% of domestic insurers' gross premiums written.

written coupled with an increase in surrender costs implies an expected loss that is almost twice as high as that estimated under the stress test scenario. Financial market losses are envisaged to be slightly higher than those under the stress test scenario. Overall, the sector's losses in 2020 are expected to be roughly similar to those under the more moderate of the stress test scenarios (see Table 15), which sees one insurer's SCR coverage ratio decline to just above the minimum requirement and the other insurers continuing to meet the requirement with ease. At the same time, the insurance sector is ready to offset additional costs by making savings elsewhere (mainly on operating expenses) or possibly by releasing technical provisions. Insurers expect the overall impact on the sector's profit/loss to be -€53 million, which means the sector's profit will be around 25% lower compared with 2019.

Table 15 Comparison of the expected change in the profit/loss for 2020 with stress test results

		Insurers' current expectations	Stress test	
			Scenario 1	Scenario 2
Change in premiums written and claims paid in 2020	Non-life insurance	€47 million	-€99 million	-€99 million
	Life insurance	-€209 million	-€107 million	-€107 million
Change in financial result for 2020		-€181 million	-€168 million	-€331 million
Change in net profit/loss after taking into account insurers' responses[1)]		**-€53 million**		

Source: NBS.
Notes: The values denote the difference between the profit/loss expected for 2020 and the profit/loss recorded in 2019. The stress test was conducted on the basis of data as at end-2019 and was published in the Analysis of the Slovak Financial Sector for 2019. "Insurers' current expectations" are based on information obtained at the end of April 2020 from seven insurers accounting for 88% of domestic insurers' gross premiums written; they are rebased for the sector as a whole. "Change in financial result" includes only unit-linked insurance investments.
1) Insurers indicated the possibility of releasing selected technical provisions and of making savings on operating expenses.

3.3.4 Risks in the investment fund and pension fund sectors

The coronavirus crisis has affected the investment fund and pension fund sectors mainly via its adverse impact on global financial markets and the consequent depreciation of funds' assets. In this part we analyse the extent of this depreciation, the impact on redemptions and funds' capacity to cover redemptions by selling off liquid assets, and, from the perspective of pension management companies, the impact on the risk of having to replenish assets in guaranteed bond funds.

Sectors managing customer assets recorded negative returns on assets in the early part of 2020

March of this year saw sharp declines in asset prices in global financial markets, which had a direct downward impact on the value of assets in investment fund and pension fund portfolios. In this context, funds focusing on equity investments typically suffered greater losses, since the slump in

equity prices was larger than that in, for example, bond markets. Nevertheless, the majority of funds across sectors and investment strategies posted a loss for the first quarter of 2020. Further information, broken down by fund type, is provided in Box 8.

The decline in the value of assets across third-pillar pension funds[45] broadly corresponded to the result of an EU-level stress test of institutions for occupational retirement provision (IORPs) conducted by EIOPA in 2019. According to the results of the exercise, under the adverse scenario, Slovakia's supplementary pension scheme suffers an immediate 17% decrease in the value of its aggregate investment portfolio. This modelled loss is only slightly higher than the actual loss reported for March 2020.[46]

NBS also regularly tests funds in both pension pillars and in the investment fund sector for their sensitivity to an adverse scenario in financial markets. According to the most recent such exercise, referring to portfolio balances as at 31 December 2019, third-pillar funds and investment funds experience a similar average loss under the adverse scenario, around 7%. For second-pillar funds, the loss is estimated at 4%, which reflects the dominant share of less sensitive bond pension funds in the sector's aggregate net asset value.

From the view of investment returns, the situation brightened at the start of the second quarter as financial markets partially rallied in April. As at the cut-off data for this analysis, fund performance data for this period were available only for the pension funds of both pillars. For the period from 1 January to 23 April 2020, the average loss for all pension fund types was around one-quarter lower than that for the first quarter of 2020.

Despite the decline in their asset value, investment funds did not experience significant redemptions

On a positive note, the negative returns on investment funds did not result in significant redemptions of fund shares/units. In the first two months of

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[45] The third pillar of Slovakia's pension system – the supplementary pension scheme – is a voluntary defined-contribution scheme operated by supplementary pension management companies (SPMCs). The second pillar – the old-age pension scheme – is a largely compulsory defined-contribution scheme operated by pension fund management companies (PFMCs).

[46] Recent developments' comparability with the stress test stems from the fact that the adverse scenario turned out to be a relatively close approximation of the size of the declines in different asset types. The size of the depreciation in Slovakia's third-pillar pension funds was the same as the average for all countries participating in the part of the stress test exercise covering defined-contribution schemes. This average sensitivity to the shock defined in the stress test reflects the similarity between the share of the equity component in Slovakia's aggregate third-pillar portfolio as at 31 December 2018 and the average weight of equity investments across the tested sample of institutions from participating countries. It was this loss on the revaluation of portfolio equity components that largely determined the final impact of the adverse scenario.

2020 domestic investment funds performed well in terms of net sales, but in March they recorded an aggregate outflow of €120 million. Relative, however, to the sector's overall net asset value prior to these withdrawals, that amount represented only 1.6%. Furthermore, the period of withdrawals was short, and in April a majority of funds were already reporting net inflows. As a result, the aggregate net sales of domestic investment funds were moderately positive for the first four months. Investors in these funds, predominantly households, therefore held to their original investment horizon and did not succumb to any panic spreading from financial markets.

The amount of investment fund shares/units issued and redeemed does not by itself indicate any realignment of the investor base – in the sense that one group of investors would to a large extent shift their savings out of investment funds and another group would strengthen their own position in the sector. While in March there was an increase in the amount of shares/units redeemed, the amount issued was not higher than the average for previous years.

Despite this fact, which is pleasing from the perspective of financial stability in Slovakia, the risk remains that redemptions will surge in the period ahead, and it does so for two reasons. One is that, given the current economic circumstances, further waves of turbulence in financial asset markets cannot be ruled out. If recurring volatility in asset prices resulted in a larger number of investors opting to redeem their investments, it could have an adverse impact on the investors themselves and to some extent also on the asset management companies. The other reason originates directly at the level of the domestic real economy and concerns the decline, or in some cases complete loss, of household income during the lockdown measures. After exhausting their primary cash reserves, households may, after several months, be forced to dip deeper into their savings. And since investment funds occupy a higher position in the notional ranking of asset liquidity, they may be adversely affected by these developments as more people seek to redeem their shares/units.

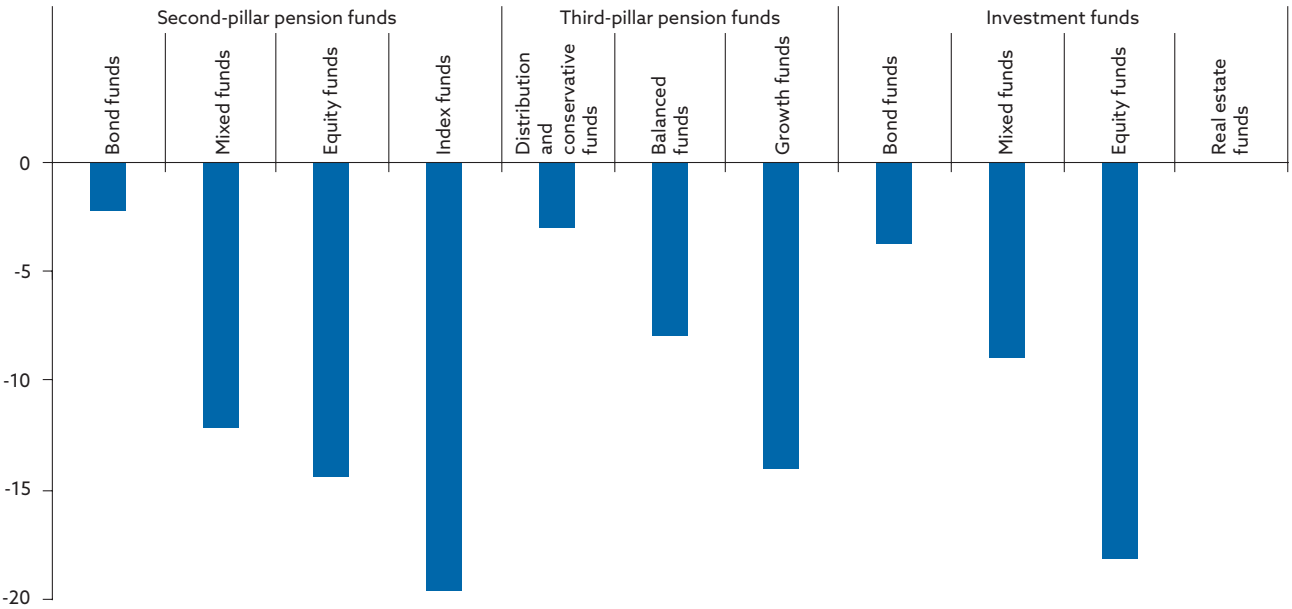
The relative stability in Slovakia's investment fund market during recent financial market fluctuations stands in contrast to developments during similar episodes in the past. The most notable comparison is with what happened after the outbreak of the financial crisis in late 2008, when domestic investment funds recorded a net outflow of more than €1 billion over a period of four months (this included an outflow of more than €600 million in October 2008, when the panic was at its height). Net redemptions during this period amounted to 23% of the funds' aggregate NAV. The difference between then and now may be partly explained by differences in investor risk appetite. Twelve years ago, the investment fund market in Slovakia was dominated by money market funds targeted at the most cautious investors

and perceived to be almost equivalent to bank deposits. The investors back then were highly sensitive to any decline in the value of their investments. Now, more than a decade later, the investor base is more diversified and more sophisticated; it includes a sizeable share of investors who see their participation in collective investment in more strategic terms and, taking a longer investment view, are ready to accept a greater degree of fluctuation in the value of their investments.

Box 8
Asset value decline and redemptions by fund type

Given that their asset portfolios are composed almost entirely of equity exposures, index funds of the second pension pillar performed worse than any other type of fund in the first quarter of 2020, with a negative return of almost 20%. Equity investment funds reported the next worst performance (-18%), followed by mixed and equity second-pillar funds and equity-focused third-pillar funds (the returns in these cases ranged between -12% and -14%). In the case of mixed investment funds and similarly profiled third-pillar pension funds, the sizeable, less volatile bond and cash component of their portfolios had a clear impact on their returns, which were around -8%. The conservative profiles of bond investment funds, second-pillar bond funds and third-pillar distribution funds did not prevent them from recording negative returns for the period under review, although at least the returns were more moderately negative, ranging between -4% and -2%. The best performing funds in the first quarter, with an average return of around zero, were real estate investment funds, whose portfolios largely comprise real estate investments. Their result reflected the fact that the current crisis has not so far been accompanied by any significant shocks in the property market.

Chart 27
Fund returns for the first quarter of 2020 were negative across sectors and fund types
(percentages)

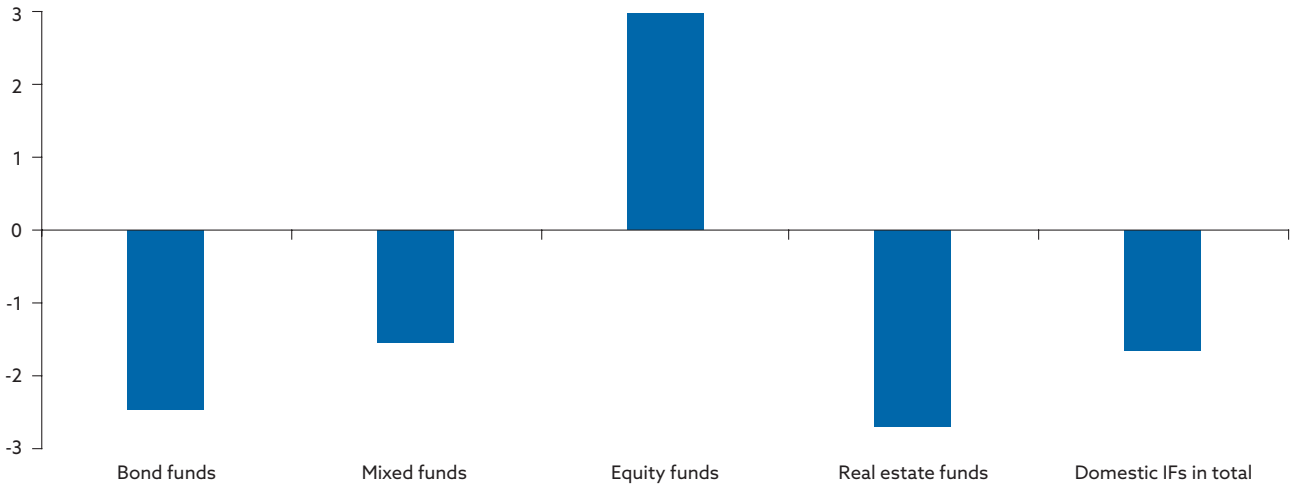


Source: NBS.

The funds recording the highest net redemptions in March 2020 were real estate investment funds. Even among these funds, however, there was no spate of investor withdrawals; the net redemptions did not amount to more than 3% of these funds' aggregate NAV. The only marginally lower redemption activity was observed among bond investment funds, demand for which has been waning for a long time. Mixed investment funds also experienced a net outflow in March, representing 1.5% of their NAV. Equity investment funds managed to report positive net sales even in March, despite their returns declining more than those of any other funds.

At the level of individual investment funds, there were a number of cases of higher redemptions. The highest net redemptions, amounting to 18% of NAV at the start of March 2020, were recorded by an investment fund that is of less significance in terms of NAV size. In March, 90% of investment funds recorded either net redemptions not exceeding 6.5% of NAV or a net inflow. The first quartile of the net sales distribution in the investment funds sector was -2.8% of NAV. Redemptions were not concentrated in the funds managed by any particular company. One asset management company did report slightly higher demand for redemptions, but their volume, -3.6% of NAV, did not have any destabilising effect. In other asset management companies, net sales results were similar to, or better than, the result for the sector as a whole.

Chart 28
Demand for redemptions was relatively limited
Net sales for March 2020 (percentage of NAV)



Source: NBS.
Note: IF – investment fund.

Given the limited extent of net outflows, there were no difficulties in redeeming shares/units and funds had sufficient assets to cover potential redemptions

Investment funds had sufficient liquid assets to cover redemptions in the period under review. Across all the portfolios of all investment funds apart from equity funds, which did not face a net outflow, the share of the most liquid assets, bank deposits, has been at least 15% for a long time. At the time of redemption applications, real estate and bond funds reported an average decline in their holdings of bank deposits, but it did not exceed even the normal monthly volatility observed during calm periods.

The obligation for PFMCs to replenish assets of their guaranteed funds would be activated only in the case of losses two or three times greater than those in March

Given the nature of the second pension pillar, pension fund management companies (PFMCs) do not need to fear the effect of a sudden, sharp decline in the asset value of funds under their management; however, a longer-term decline could pose them a problem. In principle, the defined-contribution character of the second pillar in Slovakia places the whole risk of price and asset fluctuation in the fund portfolios on the savers. There is, however, one exception in this regard, and it applies, in specified circumstances, to guaranteed bond funds. Under the Old-Age Pension Scheme Act (No 43/2004), PFMCs are required to replenish from their own assets the assets of any bond pension fund that records a negative return for the assessment period, defined as the ten-year first assessment period that began on 1 January 2013. Hence the first assessment of the performance condition will occur in 2023. Today, more than seven years into the current assessment period and in the context of the recent shock to pension-point values and the expected continuation of the period of low interest rates, it is worth taking at least a general look at the size of the risk to PFMCs of having to compensate the losses of a bond pension fund out of their own assets.

Before the onset of the coronavirus crisis, the obligation to replenish the assets of second-pillar guaranteed bond funds would have been activated at the end of the assessment period if the pension-point value had fallen by an average of 10% over the remainder of the period. During the subsequent financial market declines, this "buffer" was trimmed to 6.5% (before rising

slightly again, to 7.5%).[47] In other words, the asset replenishment obligation would now only be activated if the losses over the rest of the assessment period were two-to-three times greater than the losses recorded during the market turbulence in March.[48]

[47] As at 5 March 2020 the pension-point value for bond funds was, on average, 10% higher than its level as at 1 January 2013, when the first assessment period began. The pension-point value reached its peak on 5 March 2020 and at the same time began to decline as a result of financial market reaction to the coronavirus crisis. As at this date, individual bond funds had "buffers" ranging from 5% to 24% against potential losses in the remaining two and three-quarter years of the assessment period. In the brief period from 5 March to 18 March 2020, when pension-point values recorded historically large declines and reached their lowest levels for several years, this buffer fell by an average of around 3.5 percentage points. Pension-point values subsequently rebounded moderately and as at 23 April 2020 their average value was 7.5% higher than its level on 1 January 2013. There was, however, an increase in the spread of buffers across pension funds, which as at 23 April 2020 ranged from 2.5% to almost 20%.

[48] In the event of one more similar stress period, there is only one pension fund which, to avoid activating the asset replenishment obligation, would need to record a positive return for the period until the end 2022. Another three bond pension funds have a sufficient buffer to withstand two or three similar crises without activating the obligation, and the fund with the highest buffer could withstand four such crises.

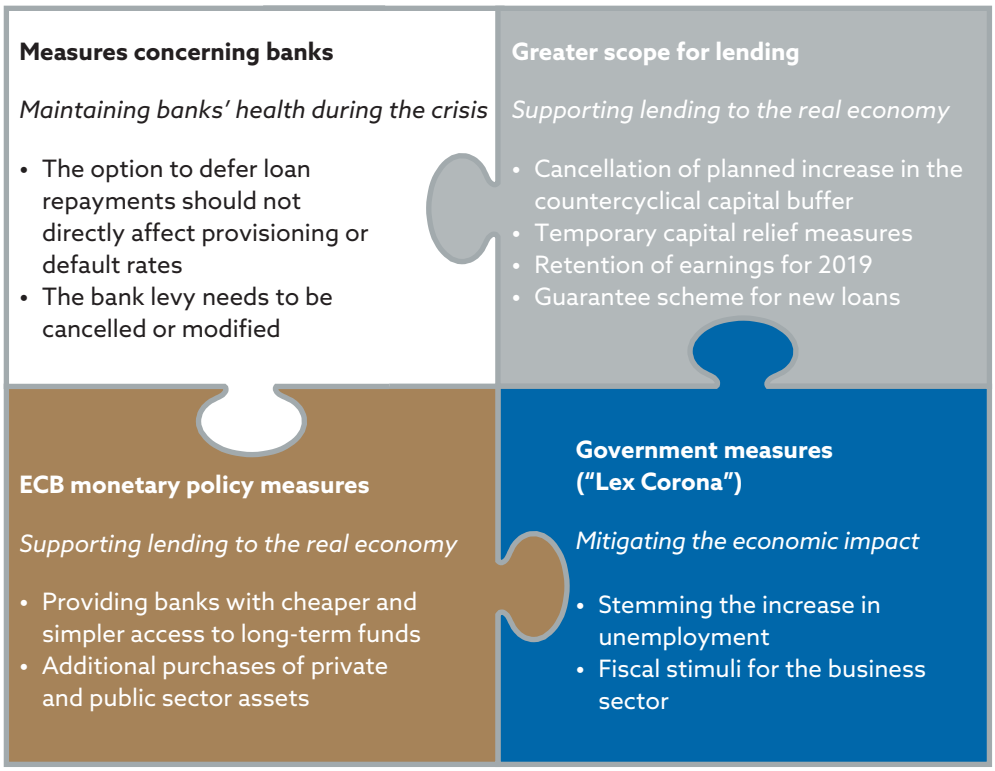
4 Crisis relief measures

4.1 Measures concerning the financial sector

A number of the coronavirus crisis relief measures concern the financial sector

From a financial stability perspective, it is crucial that the financial sector can function as well as possible during the coronavirus crisis and that, once the crisis is over, it does not hold back the economic recovery. Unlike the global financial crisis a decade earlier, this crisis has initially centred on the real economy rather than the financial sector. Even so, the financial sector will not avoid secondary repercussions of the crisis. Through a combination of the relief measures adopted in response to the crisis and the financial sector's resilience, it is necessary to ensure that the financial sector does not exacerbate the economic problems. A feature of this crisis has been the sudden and severe economic contraction. If the recovery is to be as smooth as possible, financial sector soundness must not be so jeopardised that it becomes an obstacle to that recovery. A key pillar of this stage of the recovery is the availability of bank financing to the real economy.

Figure 2
Summary of coronavirus crisis relief measures



Source: NBS.

Monetary policy measures include strengthening banks' ability to obtain funding sources

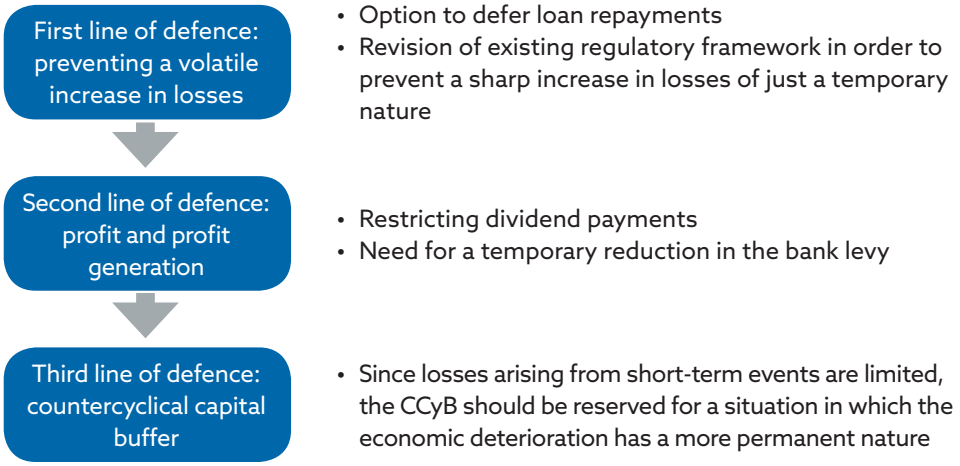
In the current environment of heightened uncertainty, the ECB has adopted a package of measures aimed at mitigating the effects of the coronavirus crisis. This package includes the following support measures:

- the temporary application of more favourable terms to the third series of three-year targeted longer-term financing operations (TLTRO III), aimed mainly at supporting lending to small and medium-sized enterprises affected most by the crisis;
- a new series of non-targeted pandemic emergency longer-term refinancing operations (PELTROs) to support liquidity conditions in all segments of the euro area financial system and to contribute to preserving the smooth functioning of money markets (they provide longer-term funding with tenors ranging from 8 to 16 months;
- additional purchases of private and public sector assets under terms and conditions favourable for lending to the real economy via the capital market;
- enhancing the provision of US dollar liquidity;
- easing collateral standards in Eurosystem monetary policy operations.

According to a survey of the largest domestic banks, several of them are considering participating in the modified TLTRO III operations. They say their main reason for doing so would be to mitigate any current or future funding difficulties, adding that the funds obtained would simplify compliance with regulatory measures and would support their profitability. The banks would use these funds in substitution for maturing bonds, interbank market funding, and TLTRO II funding. Several banks indicated that funds obtained under these TLTRO III operations could – owing to their availability and terms of provision (including the interest rate) – improve lending to firms and households as well as the liquidity position of banks.

As regards regulatory changes, measures are being taken which should prevent a more severe increase in losses, especially loan losses. As a result of these measures, loan repayment difficulties are expected to be only temporary. Before the crisis, banks had two main lines of defence against a significant increase in losses. The first was net interest margins (i.e. profit); the second was capital buffers. In order to mitigate the repercussions, a further line has been added ahead of the original two, namely temporary measures to mitigate an actual increase in credit risk losses. These new measures include mainly the following: allowing borrowers to defer their loan repayments during the pandemic period; and regulatory changes aimed at preventing the accounting of losses of a temporary or volatile nature.

Figure 3
The lines of financial stability defence in the banking sector



Source: NBS.

Allowing borrowers to defer loan repayments is significantly reducing credit risk in banks

Households, micro enterprises and SMEs have been given the possibility to ease their financial difficulties by deferring their existing loan repayments. The main aim of the measure is to ensure that a temporary deterioration in borrowers' liquidity does not result in a significant increase in non-performing loans, i.e. credit risk losses. Loans from banks may be deferred by up to nine months and loans from other lenders by up to three months. The repayment deferrals do not have any impact on borrowers' creditworthiness. The deferral does not remove the obligation to pay interest that falls due during the deferral period.

The uptake of the repayment deferral option among borrowers of bank loans has been relatively high. Banks reported the largest increase in deferral applications in the first weeks following the measure's entry into force, with most of the applications coming from households. By 8 May 2020 banks had received almost 145 thousand applications from households and 7.5 thousand applications from firms.

Regulatory measures are tempering upward pressure on provisioning

The repayment deferrals caused by the pandemic will not themselves result in the respective loans being treated as credit-impaired. Under regulatory rules in effect before the onset of the pandemic, loans whose repayments were deferred or reduced in order to see the borrowers through financial difficulties were treated as loans with higher credit risk. Such reclassification required an increase in loan-loss provisioning. Techni-

cally, the pandemic-related deferrals will not lead to an increase in either non-performing loans or credit risk costs, though the risk assessment of individual loans will continue to be required.

Excessive volatility in provisions will also be moderated under the ECB's scenario for future developments. For loans whose credit risk has increased, provisions must be established for the lifetime of the loan. Given the considerable uncertainty about what may happen after the immediate pandemic-related downturn has faded, there could be substantial heterogeneity across banks in terms of their approach to provisioning. ECB will therefore publish a scenario of expectations for the future situation, including a relatively rapid economic recovery.

A planned increase in the CCyB rate has been scrapped

At its meeting on 28 April 2020, the NBS Bank Board decided to keep the countercyclical capital buffer (CCyB) rate unchanged at 1.50%[49] and repealed an existing decision to increase the rate to 2.00% as from 1 August 2020. The cancellation of the rate hike was a response to developments in the real economy and financial sector from early March. The spread of the coronavirus was causing a significant worsening of the situation in several areas, as well as an increase in uncertainty about future developments. By not increasing the CCyB rate, NBS increased banks' scope for further lending to the real economy. The increase would have tied up capital amounting to around €159 million. Meanwhile, the current CCyB rate of 1.50% still ties up capital amounting to around €476 million, so there is further potential for reducing the CCyB rate to address future headwinds.

There are several reasons why NBS did not reduce the CCyB rate still further. This buffer is primarily intended to cover systemic credit losses, but at present there are no signs of an uptrend in non-performing loans. Given the introduction of loan repayment deferrals and regulatory changes, we do not expect a significant increase in credit losses during the repayment moratorium. Nevertheless, credit risk remains present in banks' loan books and its materialisation can only be postponed until a later period. At that time, capital adequacy will be a key factor. Recent ECB decisions to ease capital requirements are providing sufficient capital space to support lending. Hence a larger reduction in the CCyB rate is not required in current circumstances.

NBS stands ready to reduce the CCyB rate further. The main factor to consider before taking that step will be the state of credit losses and their po-

[49] Under Decision No 7/2020 of 28 April 2020.

tential to increase. Another important factor is the need to ensure that the capital requirement does not become a constraint on lending. NBS will be closely monitoring developments in these areas and will, if necessary, respond promptly by reducing the CCyB rate, which it may also do outside its regular quarterly decisions on the rate.

Capital requirement relief and the retention of 2019 earnings have provided sufficient support to sustain lending to real the economy

The ECB has announced relief measures in the area of capital requirements. Banks may use more than one of them. First, banks are allowed to operate temporarily below the capital conservation buffer (CCB) and the level of capital defined by the Pillar 2 Guidance (P2G). Second, banks are allowed to partially use capital instruments that do not qualify as CET1 capital to meet the Pillar 2 Requirements. These measures provide the banking sector with capital relief amounting to between 2.5% and 3.5% of risk-weighted assets.

Since the start of 2020 the amount of domestic banks' available capital has increased by almost €2 billion. At the end of 2019 the banking sector's available capital (representing the difference between the current value of the sector's capital and the regulatory charge on that amount) stood at €834 million. By deciding to retain their earnings for 2019, banks' increased their aggregate available capital to around €1.4 billion. The ECB's capital relief has freed up further capital amounting to almost around €1.25 billion. Taken together with NBS's decision to revoke the planned increase of the CCyB rate and similar decisions by other national macroprudential authorities, the domestic banking sector's available capital has increased to €2.85 billion.

The banking sector is not constrained by the leverage ratio

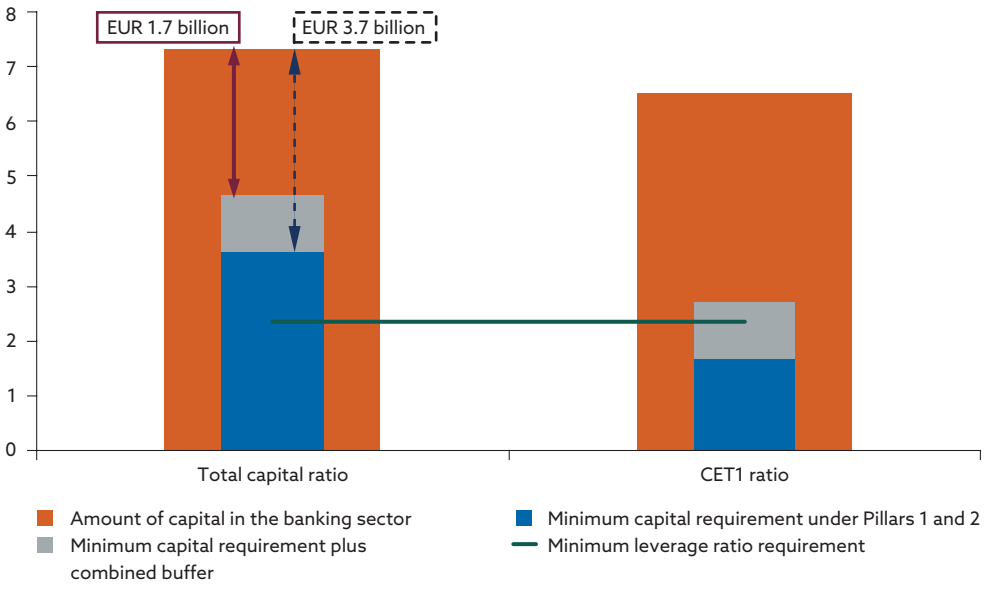
The banking sector's minimum capital requirement comprises a risk-weighted own funds requirement and a leverage ratio requirement. The risk-weighted own funds requirement (CET1 capital ratio and total capital ratio) has in recent months been the subject of relief measures, mainly from the ECB. The question therefore arises whether banks can take advantage of this relief without being constrained by the leverage ratio requirement. This is directly related to a second question: what is the relationship between the current own funds requirement plus combined buffer requirement and the leverage ratio? For the combined buffer to function as it should, its application should not result in banks facing a leverage ratio constraint.

No bank in the Slovak banking sector would be constrained by the leverage ratio as a result of dipping into the combined buffer requirement. The minimum amount of capital that each bank is required to hold is currently defined by the total capital requirement, since the amount defined by the CET1 capital ratio is lower. As regards the possibility of using capital to absorb losses or support loan growth, it is positive to note that banks are able to make full use of the current capital relief without impinging on the leverage ratio. Likewise, neither the possibility of dipping into the combined buffer, nor a decrease in the buffer owing to a CCyB rate reduction would be constrained by the leverage ratio.

Chart 29

Banks' solvency increased in the first quarter, while capital requirements were eased

(EUR billions)



Source: NBS.
Note: CET1 - Common Equity Tier 1.

The ECB has temporarily allowed banks to use liquidity buffers

Although banks are required to continually meet regulatory liquidity requirements, it is welcome that the ECB has allowed them to use liquidity buffers. In this case, however, the situation is somewhat different from that with capital buffers. As mentioned in Section 3.3.2, liquidity requirements are not constraining lending activity. While capital relief measures free up funds necessary for lending, any breach of compliance with the liquidity coverage ratio (LCR) would raise questions about banks' resilience instead of supporting loan growth. During this period of uncertainty, it is good that banks have the possibility to use their liquid assets to deal with any adverse scenario in the area of liquidity.

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The effects of the coronavirus crisis are being taking into account in resolution plans

Banks will, if necessary, be given some leeway in meeting the requirements of the EU's Single Resolution Board (SRB). An important requirement concerning the most significant banks that are also resolution entities is the phased-in increase in the amount of their bail-inable liabilities, mainly through the issuance of unsecured bonds. Bank are supposed to be issuing these bonds in stages during the years from 2020 to 2023. Given, however, the adverse consequences of the coronavirus crisis on the price of these funds and on banks themselves, the SRB has indicated the possibility of some leeway in the implementation of resolution planning requirements when taking into account the specific needs and situations of particular banks, as well as its commitment to have regard to the above-mentioned capital relief measures when determining the minimum requirement for own funds and eligible liabilities (MREL) in the 2020 resolution planning cycle.

Box 9
Fiscal measures to support the real economy

The exceptional measures being implemented by national governments are largely focused on supporting the labour market, so as to avert, as far as possible, a worst-case social and economic scenario in the form of a surge in unemployment. The worsened economic situation is impelling national governments to adopt robust, coordinated and unprecedented fiscal measures in order to give households and firms adequate protection against the economic and social fallout of the coronavirus crisis.

In Slovakia, the Government has adopted several relief packages under the umbrella name "Lex Corona" in order to maintain employment and support the business sector. Besides the general government budget, the sources of financing for these exceptional measures include unspent EU funds and other funds from EU bodies distributed between EU Member States.

In several EU countries, government relief is centred on stemming the increase in unemployment and preventing a more severe deterioration of the labour market situation. Among the most significant measures is the introduction of a short-time work scheme ("Kurzarbeit"). Another employment-maintaining measure is the payment of partial compensation for the salaries of self-employed persons or employees whose business or employer has suffered a drop in sales during the crisis, with the level of compensation calibrated according to the size of the sales decrease. As regards the property rental market, temporary protection is being provided to tenants who are late in their rent payments for any of the months from April to June 2020; this includes protection against unilateral cancellation of the tenancy by the landlord. In the area of business, the Government has adopted special fiscal stimuli aimed at preventing firm bankruptcies and at relieving the administrative burden. Firms are also being offered government guarantees for

bank loans, which should improve financial situations/positions undermined by pandemic-related income losses at a time when fixed costs remain steady. In order to support the continuation of lending to firms and a reduction in banks' risk aversion, firms are being given the option to use a guarantee scheme. The main purpose of such government-guaranteed loans is to see otherwise healthy firms through any temporary financial difficulties resulting from lost liquidity. Another area of government relief includes deferring payments of taxes and social security contributions and deferring compliance with other obligations concerning tax, execution and insolvency matters.

4.2 Other necessary measures for preserving financial sector stability

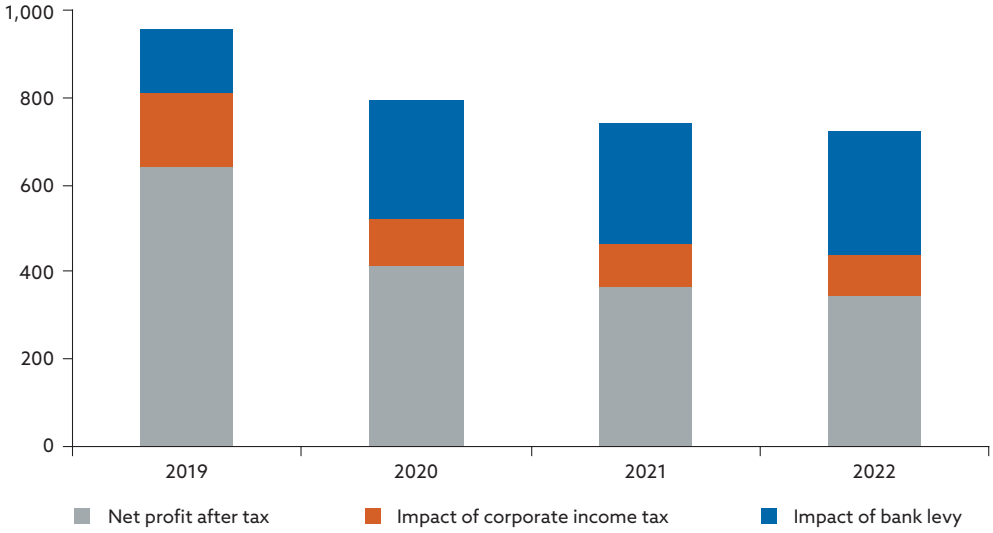
The need for cancellation of the bank levy is greater now than ever before

Ever since the bank levy was introduced, NBS has been pointing out its negative effects. The central bank also strongly opposed the 2019 decision to increase the levy and prolong it indefinitely. In its November 2019 Financial Stability Report, NBS warned that the levy's new parameters could have an adverse impact on banking sector stability and the flow of loans. The bank levy absorbed a major part of the sector's net profit for 2019.

The bank levy has weakened the banking sector's resilience. A core prerequisite of that resilience is profit, which can be used to increase capital. In bad times, when banks' profitability is eroded by the impact of an economic crisis, any additional reduction in banks' profit directly jeopardises their resilience. This risk is that much more acute now, given that the banking sector's profit for the first three months of 2020 was 60% below the average for the period.

Even under a no-crisis scenario, the bank levy gradually reduces the sector's profit by almost 40%, and the combined negative impact of the levy and corporate income tax is more than 50%. The impact this year will probably be considerably higher, since the sector's profit is expected to fall sharply as a result of the economic ramifications of the coronavirus crisis.

Chart 30
Profitability has a highly negative impact even under a no-crisis scenario
The banking sector's profit in the no-crisis scenario (EUR millions)



Source: NBS.

The bank levy is reducing banks' scope for lending to households and firms. Lending activity requires available capital, and since the bank levy is weakening banks' profit-generating capacity, it may also have a negative impact on their lending capacity. Like the issue of resilience, this problem becomes more prominent in times of crisis. The domestic economy today requires ample financing, and the Slovak banking sector is almost its only source of financing.

The financial situation of borrowers with deferred repayments needs to be monitored

NBS welcomes the new legislation allowing borrowers to defer their loan repayments. This measure is contributing substantially to reducing losses in the banking sector while also having a positive impact on the financial situation of households and firms. From a financial stability perspective, however, several areas need to be monitored.

On the one hand, loan repayment deferrals are reducing banks' current losses; on the other hand, actual credit risk in banks is not decreasing but, in theory, simply being carried forward. The risk lies in the fact that for a number of borrowers, the deterioration in their financial situation will not be just temporary, but longer lasting (beyond the expiry of the repayment moratorium). In the context of loan deferrals, banks will for some time have very limited information on the actual solvency of the borrowers whose repayments are deferred. Information about a borrower's income or financial situation submitted before the onset of the crisis will lose relevancy, and other information will be available only with a long lag

(with the exception of account transaction data). Hence there is considerable uncertainty about the level of credit risk costs and their impact on banks' profitability. Furthermore, amid a shortage of information, there is an increasing risk of panic in the event of any negative information about a particular firm. The European Banking Authority (EBA) is therefore, despite repayment deferrals, requiring banks to continually monitor and evaluate the credit risk of individual borrowers and to identify those who will not be able to resume repayments once the deferral period is over.

This period may also give rise to increasing uncertainty about the actual financial position of banks, which in turn may undermine investors' confidence in the banking sector.

Responsible dividend policy from financial institutions

During March 2020 NBS and EU institutions (ECB, EBA, EIOPA) were urging banks and insurers to refrain from paying dividends for 2019 (or replacing them with other forms of capital), with the aim of increasing the institutions' loss-absorption capacity and, in the case of banks, lending capacity. At a time when the economy is contracting sharply and risks to financial institutions are rising, an essential element of financial sector stability is the presence of sufficient capital.

NBS appreciates the responsible way in which banks and their shareholders handled their 2019 profits. The retention of earnings for 2019 did a great deal to strengthen the Slovak banking sector's resilience, which is covered in more detail in Section 3.2. The climate of uncertainty remains present, however, and it is therefore necessary to maintain a conservative approach to dividend policy.

The possibility of dipping into capital buffers

In a press release published back on 12 March 2020, NBS invited banks to fully use capital and liquidity buffers, including Pillar 2 Guidance. The communication was intended to stress that the purpose of capital buffers is to protect banks from exceptional losses. This means that banks are not expected to comply with the combined capital buffer in the event that the situation deteriorates. On the contrary, if the combined buffer is to fulfil its function, the banking sector must have the possibility to use it freely. Furthermore, NBS has pointed out in this regard that it is sufficiently flexible to take account of the circumstances of individual banks.

The combined buffer of the domestic banking sector currently amounts to almost €2 billion. The largest part of that buffer is the capital conservation buffer, which accounts for more than €900 million and is included in the

calculations in Section 3.3.2 – Availability of financing. The countercyclical capital buffer (CCyB) for Slovak exposures makes up almost €480 million of the combined buffer. The CCyB for foreign exposures amounts to just around €21 million, being applied only in those banks that have such exposures. More than €500 million of the combined buffer comprises additional buffers applicable to domestic banks designated as other systemically important institutions (O-SIIs), i.e. the O-SII buffer and the systemic risk buffer (SyRB).

Abbreviations

APP	asset purchase programme
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
EU	European Union
G20	Group of Twenty
GDP	gross domestic product
HFCS	Household Finance and Consumption Survey
IMF	International Monetary Fund
LCR	liquidity coverage ratio
LTRO	longer-term refinancing operation
LTV	loan-to-value (ratio)
MTPL	motor third party liability (insurance)
NAV	net asset value
NBS	Národná banka Slovenska
NPL	non-performing loan
OIS	overnight indexed swap
O-SII	other systemically important institution
PD	probability of default
PELTRO	pandemic emergency longer-term refinancing operation
PEPP	pandemic emergency purchase programme
PFMC	pension fund management company
ROE	return on equity
S&P	Standard & Poor's
SCR	solvency capital requirement
SO SR	Statistical Office of the Slovak Republic
SPMC	supplementary pension management company
SRB	Single Resolution Board
SyRB	systemic risk buffer
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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