

# The impact of the COVID-19 crisis on financial stability in Austria – a first assessment

*This article includes input from the following OeNB Divisions: Economic Analysis; Financial Stability and Macroprudential Supervision; Foreign Research; Off-Site Supervision – Less Significant Institutions; and Supervision Policy, Regulation and Strategy*

*The COVID-19 outbreak hit Europe at the end of the first quarter of 2020 – quickly and with full force. In order to slow the spread of the virus, extensive lockdowns were enforced, not only in Europe but worldwide. At the peak of the shutdown in April, these limitations to the freedom of movement and economic activity affected about 4.5 billion people or half the world's population. Consequently, the global economy experienced a massive slump, as companies reduced their activities or even went into lockdown, and consumption plummeted.*

*The Austrian economy saw its sharpest downturn in the post-war period, which has amplified vulnerabilities especially in the corporate sector, where industries suffering the severest drop in demand already had below-average liquidity and solvency ratios before the crisis. To strengthen companies' liquidity, public measures were quickly implemented and supported lending growth. However, several of these measures could increase corporate indebtedness. Also, the strong V-shaped recovery on financial markets highlights that there is a disconnect between the situation in the real economy and investors' expectations.*

*For the household sector, indebtedness is less worrying, given that loans are more likely to be taken out by households with higher incomes, but income losses due to unemployment and short-time work are a cause for concern. At the moment, these issues are being addressed by policy measures targeted at upholding income levels. However, if the crisis were to last longer, it could also affect mortgage borrowers to a greater extent.*

*The COVID-19 crisis will also have a noticeable impact on the domestic real estate market. Due to its strong link to the general economy, the commercial real estate market will be more affected than the residential property market. In the latter, a sharp decline in demand for rental residential property has been reported by real estate agencies, while the reduction in demand for owner-occupied homes has been somewhat less significant. Mortgage lending in Austria, which was dynamic over the past few years, lost some of its momentum as the crisis set in.*

*As regards the banking sector, policymakers also reacted in a swift and decisive manner in order to support banks' capacity of lending to the real economy. Central banks provided liquidity relief for the financial system, and the ECB/the Single Supervisory Mechanism (SSM) allowed banks to fully use capital and liquidity buffers and brought forward relief in the composition of capital for Pillar 2 requirements, a measure that had initially been scheduled to come into effect in January 2021. Further, the ECB/SSM and the European Banking Authority (EBA) offered operational relief and clarified the application of prudential and supervisory measures. The European Commission adopted a temporary framework for state aid measures and proposed a package of targeted amendments to capital requirements. In Austria, banks entered the crisis with strong micro- and macroprudential capital buffers, which means that they are now more resilient than they were during the great financial crisis. The Austrian Financial Market Authority (FMA) and the OeNB have emphasized buffers' usability as automatic stabilizers, but have also issued recommendations to banks urging them to refrain from voluntary payouts in order to strengthen their risk-bearing capacity. This allows banks to contribute to the economic recovery after the lockdown. Importantly, Austrian financial market infrastructures and payment systems have remained operationally stable during the entire crisis.*

*The biggest negative impact of the COVID-19 crisis on financial stability is likely to come from a deterioration in banks' loan quality, especially after payment moratoria and government guarantees expire. Austrian banks' loan exposure to the most vulnerable corporations is relatively small, but the uncertainty related to provisioning scenarios remains high, and the effectiveness of public support measures will be crucial. In order to assess the impact of the COVID-19 crisis on Austrian banks, the OeNB ran a scenario analysis whose granular modeling of nonfinancial corporations' equity and liquidity position makes it possible to take complex mitigating measures into account. The results indicate a marked increase of firms' insolvency rates, while fully effective mitigating measures reduce COVID-19-induced insolvencies by about one-half. Most corporate defaults are caused by liquidity problems, while overindebtedness only plays a minor role. In the baseline scenario, banks' operating income before risk declines significantly and credit risk costs for the years 2020 and 2021 are elevated. Consequently, the aggregate common equity tier 1 (CET1) ratio of the Austrian banking sector would decline by 2 percentage points until end-2022.*

*As the Austrian banking system is strongly exposed to Central, Eastern and Southeastern Europe (CESEE), it is also vulnerable to adverse developments in this region. Therefore, the OeNB closely monitors the impact of the COVID-19 crisis on these countries. In general, CESEE countries entered the COVID-19 crisis with lower vulnerabilities than they had at the time of the great financial crisis, and containment measures have been largely effective in slowing the spread of the virus. Also, decision-makers passed a range of policy packages to mitigate the economic repercussions, and international organizations stepped up their support for the region.*

*To sum up, the COVID-19 crisis represents a significant challenge for financial stability in Austria, but it is currently not under threat. Financial market participants and their supervisors have learned their lessons from the great financial crisis and entered the current crisis better prepared, as banks had increased their capital buffers and supervisors had enlarged their toolbox. In contrast to the previous crisis, banks are now an important part of the solution, as they can support the real economy by providing much-needed liquidity. Still, many uncertainties are clouding the systemic risk assessment, and it is unlikely that the full picture will emerge before public support measures expire. Overall – also if we look beyond financial stability considerations – much depends on the duration of the crisis, the possible emergence of a second wave of infections and the shape of the global recovery. Hence, financial stability risks are likely to remain heightened as long as there is no effective drug or vaccine available to combat COVID-19.*

## 1 Vulnerabilities of the real economy in Austria

### Higher leverage of nonfinancial corporations might lead to a debt overhang

**In the industries hit hardest by the shutdown, liquidity and solvency were below the corporate sector average already before the measures to contain COVID-19 started to kick in.** An OeNB analysis (Schneider and Waschiczek, 2020) estimates the demand losses for individual sectors (based on NACE 2-digit level<sup>1</sup> aggregation) during the containment period in Austria. The analysis is based on a macroeconomic scenario and additionally takes into account the possibilities of catching up after the containment period. According to this analysis, the industries facing the strongest fall in demand were in the service sector, either due to the lockdown measures or because consumers suffered losses of income and confidence. Demand losses amounted to more than 40% in six

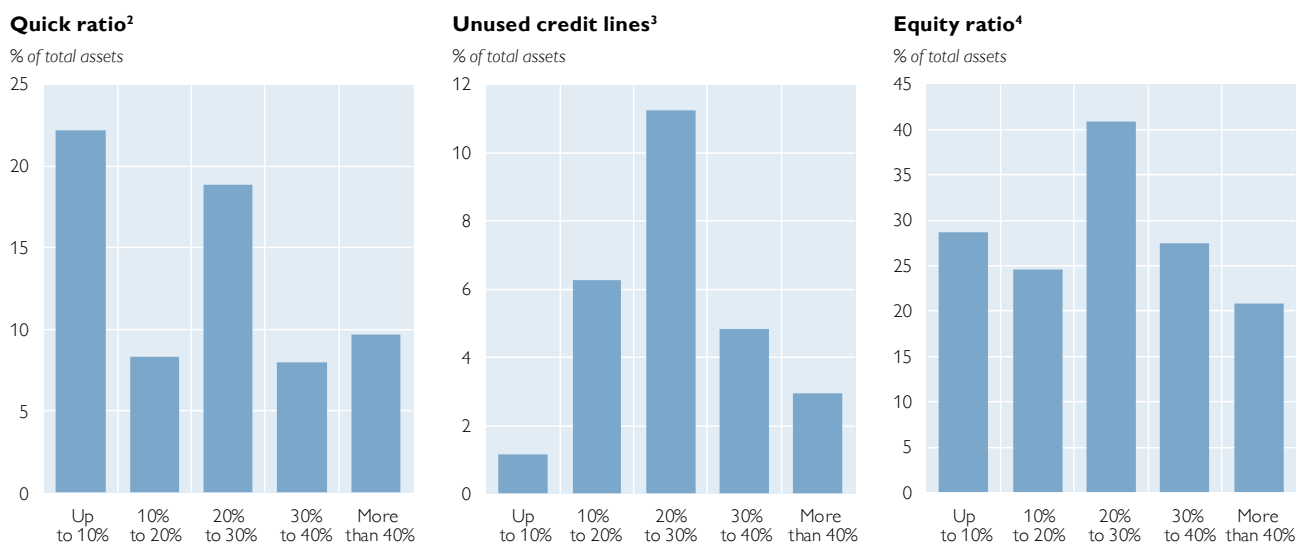
<sup>1</sup> The “nomenclature statistique des activités économiques dans la Communauté européenne” is a system for classifying economic activities by their nature, ranging from general (level 1) to granular (level 4). For more information see: <https://www.statistik.at/KDBWeb/kdb.do?FAM=WZWEIG&&NAV=EN>.

industries, namely: travel agencies; air transport; creative, arts and entertainment activities; sports and amusement activities; accommodation and food service activities; and personal service activities; in four of these sectors, the demand losses amounted to even more than 80%. In order to assess the ability of individual sectors to cushion these economic shocks, the analysis also looked at solvency and liquidity indicators. As chart 1 shows, the financial situation in the industries most affected by the shutdown was in some respects quite unfavorable compared to industries that experienced less severe demand losses.

**Industries that faced the severest demand losses had considerably lower liquidity levels already before the outbreak of COVID-19.** This can be seen from the quick ratio, which measures firms' ability to meet current liabilities with their most liquid assets without needing additional financing. Based on data for 2017 from the BACH database (the most recent year for which data are currently available), the quick ratio was considerably lower for industries facing demand losses of more than 40% than for less-affected industries (see left-hand panel of chart 1). What was somewhat reassuring was the fact that the most-affected industries, on average, had a higher share of cash and bank deposits in their current assets, which might be easier to cash in than other short-term assets such as inventories or trade credit. As the cash flow reduction due to the shutdown put pressure on firms' liquidity, many firms had to access additional sources of finance in order to maintain their productive capacity. One important way of obtaining additional funds outside short-term financing is drawing on unused credit lines. However, here a similar picture emerges: At about 3% of gross value added, the unused credit lines of the industries facing the highest drop in demand were on average only half as high as for all other industries at the end of 2019, when measured against their respective gross value added (see middle panel of chart 1). Within the less-affected industries, the relation of unused credit lines to value added was highest for those in the middle of the distribution (which is dominated by construction and wholesale trade).

**However, solvency was also weaker in the industries that were most affected by the shutdown.** Even if the shutdown-induced fall in output turns out to have been (at least partly) temporary, the ensuing liquidity squeeze might have consequences for solvency. While there are a number of caveats in interpreting the equity ratio as a solvency measure, in general, a higher equity ratio points to a lower risk of bankruptcy, as equity can be used to cushion losses. By the end of 2017, industries facing the steepest decline in demand had an average equity ratio of 21% compared to 29% for all other industries, again based on data from the BACH database.

## Liquidity and solvency of Austrian industries<sup>1</sup> by demand losses due to COVID-19



Source: OeNB, BACH database.

<sup>1</sup> Industries at the 2-digit NACE level. NACE A-S without K and O.

<sup>2</sup> Current assets minus current liabilities, 2017. Branches are weighted with total assets.

<sup>3</sup> End of 2019. Branches are weighted with gross value added.

<sup>4</sup> Equity in % of total assets, 2017. Branches are weighted with total assets.

**A forceful monetary, fiscal and prudential policy response has upheld the flow of bank lending to the real economy.** Fiscal policy measures aimed at securing bank loans included loan guarantees and loan moratoria, but tax relief measures as well as transfers (e.g. for short-time work) also served this purpose, in addition to contributing to maintaining employment, thereby mitigating potential output losses. Prudential authorities supported the banking system in maintaining the flow of credit to the economy through a number of capital and operational relief measures. In parallel, monetary policy measures by the Eurosystem aimed to keep financing conditions favorable and to support the flow of credit to the real economy. Recent evidence, such as survey results as well as the latest figures on loan growth, suggests that these measures supported the financing conditions of Austrian businesses.

**By and large, banks have remained accommodating in loan negotiations.** Each quarter, the Austrian Institute of Economic Research (WIFO) asks firms about their experiences with banks when negotiating a new bank loan. The May 2020 survey round provided first evidence on possible changes since the onset of COVID-19. Firms surveyed reported that, while their need for loans had risen sharply in the wake of the crisis, banks' behavior in loan negotiations was only slightly more restrictive compared to the previous survey round. Although significantly more companies applied for loans, the share of loan-seeking companies which received the entire applied-for loan amount decreased only a little. Likewise, the share of firms facing financing obstacles increased only slightly after the onset of the crisis. Firms in the service industries, which had been hit harder by the lockdown measures, were affected to a larger extent by credit restrictions than companies in the manufacturing and construction industries, and smaller companies more than

larger ones. As to credit standards, banks' responses in this year's first two bank lending survey rounds pointed into the same direction. In the first half of 2020, banks tightened their standards for loans to enterprises only slightly, while at the same time firms' demand for loans rose significantly.

**The annual growth rate of loans by monetary financial institutions (MFIs) to nonfinancial corporations rose to 7.2% in April 2020.**<sup>2</sup> Net transactions (i.e. changes in stocks adjusted for securitization as well as for reclassifications, valuation changes and exchange rate effects) amounted to EUR 3.9 billion in March and April 2020, the highest value in more than a decade and more than twice the average recorded in the period 2017 to 2019, when the growth of loans to nonfinancial corporations was buoyant. In contrast to net transactions, new (gross) loans were broadly in line with values seen in the past years. The different growth rates of gross and net new loans imply that the acceleration was less the result of brisk new lending than due to a marked reduction of repayments, reflecting loan moratoria. Moreover, new loans of up to EUR 1 million and a maturity between one and five years tripled in April compared to the averages of the past three years. Their share in total new loans to nonfinancial corporations is rather low and was a little over 2% in the years 2017–2019, but increased to more than 12% in April 2019. In terms of maturity, these loans correspond to the maturity band that is covered by loan guarantees and the loan size that is most likely to be within the range that is needed by firms affected by the crisis. For instance, in the April to September 2019 round of the survey on the access to finance of enterprises (SAFE), about 80% of the Austrian SMEs surveyed (without those that did not answer the question) stated that if they needed external financing to realize their growth ambitions the required amount would be less than EUR 1 million.

**Servicing bank loans will become more difficult.** While in the current situation, additional loans are indispensable to make up for lost revenues and to keep the economy afloat over the short term, they are bound to weaken corporate debt sustainability over the medium and long term. The drop in corporate profits that will result from the fall in economic activity will not only diminish the funds available for servicing outstanding debt but also impede the buildup of reserves through internal finance. Given that in the current situation, raising external equity is seriously hampered by the bleak economic outlook, debt will play a substantial role in the financing of the corporate sector – as it did in the past decade. In every single year since 2008, the share of equity in (net new) financing has been lower than its share in total liabilities at the onset of the great financial crisis (in 2009, it had even been negative). While low interest rates have improved firms' ability to cover current interest obligations from rising debt, they may have also been an incentive to use debt instead of equity financing. In any case, the vulnerabilities of nonfinancial firms are higher now than they were before the onset of the great financial crisis. Leverage is still higher compared to pre-2008 crisis levels, although nonfinancial corporations succeeded in reducing the debt-to-income ratio by 28 percentage points from its peak in 2013 until 2018; in 2019, the debt-to-income ratio increased again due to very slow income growth (see section

<sup>2</sup> In comparison, during the great financial crisis the annual growth rate of loans to nonfinancial corporations fell from a peak of 8.9% in December 2008 to –1.5% in December 2009 and remained in negative territory for several months (until September 2010). The same pattern could be observed in the euro area, where loans to nonfinancial corporations also contracted in 2009–2010, bottoming out at –2.6% year on year in April 2010.

“Corporate and household sectors in Austria: mounting vulnerabilities in the wake of the crisis” in this publication). Even if debt remained constant in 2020, a fall in corporate profits in line with the expected contraction of the Austrian economy (–6% in nominal terms) would bring the debt-to-income ratio back to its level seen at the height of the great financial crisis (about 420%).

**Higher leverage might subsequently lead to a debt overhang.** The pressure of debt service could cause highly leveraged firms to cut back investment. Moreover, highly indebted firms might find themselves in a situation where they cannot take on additional debt to finance future projects, even if these projects could generate a positive net present value, because the expected profit would be used to service existing liabilities. The ensuing investment cuts might further dampen economic growth.

### **Income losses are currently the major financial stability concern in the household sector**

**After the onset of the COVID-19 crisis, the growth of bank loans to households remained moderate.** In contrast to corporate loan growth, bank lending to households slowed down somewhat after the lockdown in April 2020, reflecting the different kinds of policy actions taken. While policy support for firms had been mainly channeled via the banking sector (e.g. by government-guaranteed loans and central bank measures to support lending), policy measures aimed at supporting the household sector consisted predominantly in direct fiscal support such as unemployment benefits or short-time work schemes.

**Among households, self-employed persons have been hit particularly hard by the COVID-19 crisis.** According to data from the 2017 Household Finance and Consumption Survey (HFCS), two-thirds of Austrian households have no debt at all, and those who have a loan tend to have higher incomes and wealth. In 2017, about 21% of the lowest income quintile had a loan compared to 46% of the highest income quintile. The average loan volume of the highest income quintile was more than five times as high as that of the lowest income quintile. Thus, a significant share of household debt is held by households that are more likely to have sufficient funds to service their loans. However, among the self-employed, who are affected particularly hard by the current crisis, the share of households with a loan is large (48.5%), and the average loan size is large as well. At the same time, these households have significantly above-average financial assets that could be used to cushion income shortfalls.

**For the moment, government transfers have absorbed part of the income shock resulting from the lockdown measures.** Microsimulations based on HFCS data (an extension of the models by Albacete and Fessler, 2010, and Albacete et al., 2014) give some indication of the degree to which households have been affected by the lockdown and the ensuing vulnerability of different household types. In about 44% of households with at least one employed person (or 29% of all households), at least one person became unemployed or was on short-time work, in addition to those that had already been unemployed before the crisis. Of those in paid work, people with lower incomes were more likely to be affected. Broken down by industry, the highest increase in unemployment was registered in accommodation and food service activities and in arts and entertainment, and the highest share of short-time workers was registered in construction and, again, in

arts and entertainment. Government transfers, which are available to a relatively similar extent across the whole income distribution, form an important part of total household income in the lower end of the income distribution. Thus, affected households currently lose only about 10% to 15% of their total income. Measures such as deferrals and possible extensions of loan repayments mitigate possible defaults in the debt of households at least in the short term.

**According to simulations, 17.1% of indebted households (5.7% of all households) are vulnerable.** The fixed costs of these households, such as rent and debt service as well as their basic consumption are higher than their disposable income (that is, they have a negative financial margin) and their liquid wealth (e.g. deposits or bonds) is not high enough to close this gap over a reasonable time period (ECB vulnerability definition: at least 25 months). Households living in rented accommodation and consumer loan debtors, who had lower income before the crisis, are more affected by the income shock than households with outstanding mortgage loans. Mortgage borrowers tend to have higher income and wealth and thus have higher income or capital buffers even in the event of a loss of income. However, there are self-employed people that also have unsecured loans taken out for their businesses. About 2.1% of total household debt is debt held by vulnerable households that cannot be covered by these households' assets (or 3.0%, if only liquid and collateralized assets are taken into account). This rate is considerably higher for nonmortgage debt than for mortgage debt. However, if the crisis lasts longer and short-time work is followed by unemployment, the situation could worsen and mortgage borrowers may be affected to a greater extent. The degree of vulnerability is not linear to the amount of income losses. While a loss of income up to a certain threshold is likely to be problematic for only a few, a loss of income that is only slightly higher than this threshold can suddenly become a problem for many.

### **Potential impact on the property market**

**The COVID-19 crisis and the measures taken by the federal government to contain the virus have had a noticeable impact on the domestic real estate market.** However, how extensive the effects of the COVID-19 crisis on residential and commercial rent and property prices will be depends particularly on how long the crisis will last and how severe it will turn out to be.

**Demand for rental residential property has plummeted (minus 60% to 70% compared to prepandemic levels), and demand for owner-occupied homes has also dropped, but somewhat less sharply,** real estate agencies (EHL, 2020) report. Real estate agents also stated that no or fewer sales negotiations took place due to the containment measures in March/April 2020. In most cases, the general uncertainty and impossibility of face-to-face meetings were the reasons why contracts were not signed as originally planned; moreover, financial aspects also seem to have played a role, that is, the fear that buyers might not be able to afford future loan installments or that financing with external funds could become impossible.

**Government measures made it possible to defer rent<sup>3</sup> and put a moratorium on evictions, and utility providers announced that they would maintain the supply of electricity and heating.** These were important measures given that already prior to the crisis, low-income renting households were confronted with housing costs that amounted to 51% of net household income in the lowest income quartile (according to HFCS data). Moreover, members of these households often work in industries that were affected by the containment measures (temporary closings, etc.). As regards the fixed costs of companies, the government provided grants for up to three consecutive months,<sup>4</sup> with the individual amount depending on the amount of the decline in sales.

**The proportion of subsidized housing in Austria is internationally unparalleled,** amounting to more than half (54% in 2019) of residential rental contracts. Vienna's municipal housing provider Wiener Wohnen and the Association of Non-Profit Housing Providers decided already at the beginning of the COVID-19 crisis (prior to corresponding government regulations) to support households that had problems with paying their housing costs, which meant considerable relief to households in view of the dramatic rise in unemployment.

**The residential property sector has proved to be more resilient to the COVID-19 crisis than the commercial property sector.** In the long term, capital could be shifted to more robust asset classes such as residential property (CBRE/TPA, 2020). Households affected by unemployment or short-time work may contribute to an increase in the supply of properties on the one hand and an increase in the demand for rental properties on the other. Furthermore, real estate experts expect rents to decline or, at best, to remain unchanged due to the completion of many new rental apartments this year, especially in Austria's larger cities. In contrast to the trend in demand for owner-occupied homes, it is expected that the demand for apartments purchased as investments, which are often rented out, will remain stable.

**The commercial real estate market will be more affected by the crisis than the residential property market due to its strong link to the general economy.** It should be kept in mind that international investors play a bigger role in commercial real estate than in residential real estate. Companies directly affected by containment measures faced a drop in sales of up to 100%. Here, too, the government offered support measures and financial compensation (Hardship Fund, bridge loans, credit moratoria, etc.). Property owners were given the possibility to suspend loan repayments for three months if they were unable to service their debt due to the lack of income. In the case of commercial rental space, it can be expected that if the crisis lasts for longer, demand will decline and rental prices will drop, with all the consequences for property owners.

**Banks and insurance companies are heavily exposed to the real estate sector, especially commercial real estate.** Around half of banks' loans to the nonfinancial corporate sector in Austria are to companies active in the real estate sector (construction, real estate and housing). Insurance companies invest into property for income-generating purposes, mainly in commercial and private rental property. A fall in rents would have an impact on the rentability of

<sup>3</sup> For the months March to June 2020. The rent must be paid by end-2020 plus 4% interest.

<sup>4</sup> From March 16 to September 15, 2020.



commercial real estate – valuation haircuts may be necessary. This could, in turn, jeopardize property owners.

**While moderate effects are expected in the market for office space, the market for retail property has been hit particularly hard by the COVID-19 crisis.** What is more, the latter had been affected by the increasing importance of online trading even before the COVID-19 crisis. Now companies may reconsider their expansion plans and postpone new leases or transactions that had been planned before the crisis broke out.<sup>5</sup> The number of retail stores may decrease in the future due to the advance of online shopping. As a result, vacancies in commercial real estate can be expected to increase. Demand from businesses in sectors that cannot easily move online, like services, restaurants or tourism, will hardly compensate for this decline in demand for property, not least because in these sectors, business owners often also own their property. Sectors that could benefit from more intensive online trading during the crisis are warehousing and logistics. Real estate agents see a possible incentive for sales and leasebacks for investors and owners with liquidity problems (CBRE/TPA, 2020).

## 2 Systemic risks in the banking sector and macroprudential measures

### Exposure of Austrian banks to vulnerable corporate sectors

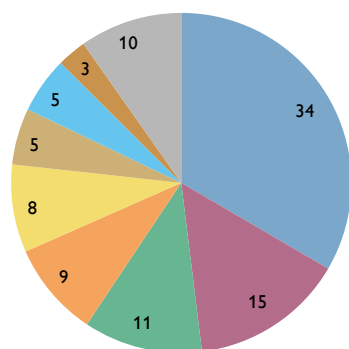
The OeNB analyzed the potential impact of the lockdown on Austrian banks' corporate loan portfolio and estimated loan loss provisioning scenarios. In order to estimate the impact on banks, we use Schneider and Waschiczek's (2020) categorization of nonfinancial corporate (NFC) sectors in

Chart 2

### Breakdown of Austrian banks' loans and advances to nonfinancial corporations in ...

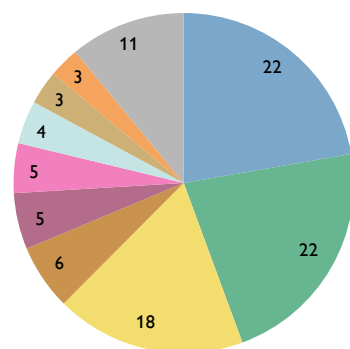
... Austria (as of Q1 20)

% of total loans (EUR 166 billion)



... CESEE (as of Q4 19)

% of total loans (EUR 76 billion<sup>1</sup>)



Real estate activities Wholesale and retail trade Manufacturing Transporting and storage  
Construction Agriculture and forestry Energy Accommodation and food services  
Professional activities Financial and insurance activities Other

Source: OeNB, NFC sector classification according to NACE.

<sup>1</sup> The sample for CESEE covers only 85% of all loans.

<sup>5</sup> Whether, under certain circumstances, lessees are entitled to a total or partial waiver of the rent under the Austrian General Civil Code must be assessed on a case-by-case basis.

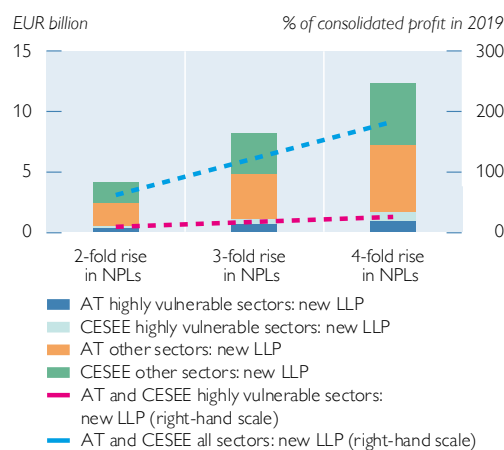
terms of the lockdown's impact as well as NFCs' financial vulnerability.<sup>6</sup> We then assess the credit risk of banks' NFC loan portfolio and calculate back-of-the-envelope scenarios to estimate provisioning needs.<sup>7</sup>

**Austrian banks' exposure to NFCs in Austria and CESEE is concentrated in a few sectors, but only 9% and 10%, respectively, of the total exposure are considered highly vulnerable.** A sectoral breakdown of banks' NFC loans shows that almost half of all lending to Austrian NFCs went to real estate activities and construction, while close to two-thirds of all direct cross-border and subsidiaries' lending to NFCs in CESEE is concentrated on real estate activities, manufacturing and trade. Despite this concentration, only 9% and 10%, respectively, of all loans to Austrian and CESEE NFCs went to the most vulnerable sectors (see chart 2).

**If credit risk only rises in highly vulnerable sectors, loan loss provisioning (LLP) appears manageable. But if all NFCs were to be stressed, the impact could be significant.** The lockdown is likely to worsen banks' loan quality and thus to increase LLP, especially after government support measures expire. We perform a first-round scenario analysis on the basis that nonperforming loans (NPLs) rise and that these additional NPLs need to be provisioned for. *Ceteris paribus*, we assume further that Austrian banks maintain their coverage ratio for corporate loans in their domestic and CESEE subsidiaries' business (Q4 2019: 57% and 65%, respectively). Obviously, these are very conservative assumptions, as we do not take into account support measures (e.g. loan guarantees or moratoria) or accounting flexibility, nor do we allow for coverage ratios to dip. On the other hand, the chosen method is simple, transparent and allows an overview of the magnitude of potential credit risks for the banking sector.

A quadrupling of NPLs in the highly vulnerable sectors in Austria and CESEE would result in LLP of less than EUR 1.7 billion. This corresponds to about a quarter of the Austrian banking sector's consolidated

Chart 3  
**Various NPL scenarios and a tentative assessment of loan loss provisioning (LLP) needs<sup>1</sup>**



Source: OeNB.

Note: Data as of end-2019 (CESEE) and Q1 20 (Austria).

<sup>1</sup> The *ceteris paribus* scenarios assume i.a. that banks maintain their coverage ratios.

<sup>6</sup> We translate Schneider and Waschiczek's score for Austrian corporates into three categories: high impact on credit quality (with a score from 0.5 to 1), medium impact (0.25 to 0.5) and lower impact (0 to 0.25). The highly vulnerable sectors are accommodation and food services, transportation as well as arts and entertainment. Given the lack of alternatives and the general match with our expert judgment, we also use this sectoral assessment for corporations in CESEE.

<sup>7</sup> These simple scenarios are not meant to substitute fully-fledged and more complex scenario analyses (see section 4).

total profit in 2019 (EUR 6.7 billion).<sup>8</sup> On the other hand, a mere doubling of all NPLs of NFCs in Austria and CESEE could cause LLP to rise to nearly two-thirds of 2019 profit (see chart 3 for several scenarios<sup>9</sup>). What our scenarios highlight is the wide spread in possible outcomes (before mitigating measures). If credit risks were only to rise in highly vulnerable NFC sectors, LLP appears manageable for the Austrian banking sector. Should, however, all NFCs become stressed, the impact on banks' LLP and thus profits could be significant, even if we do not take into account the resulting stress on these NFCs' employees. This shows how relevant it is for banks to retain profits in order to be able to meet future provisioning needs.

**At the moment, a deterioration in banks' loan quality appears to be the biggest risk to financial stability.** This risk will rise when payment moratoria and government guarantees expire. Therefore, it remains paramount that banks closely monitor the credit quality of their portfolios and proactively detect potential signs of borrowers becoming unlikely to pay. This close monitoring should ensure that banks start provisioning early on.

### **Systemic liquidity risk**

**While central bank measures quickly provided liquidity relief for the financial system, systemic liquidity challenges remain.** This is especially true for unsecured borrowing in the near term and possible dependence on central bank funding in the medium to long term. The OeNB has introduced a high-frequency monitoring framework – including weekly reporting requirements for major Austrian banks – in order to be able to act promptly should the need arise. After an initial spike in funding costs observed until mid-March 2020, swift Eurosystem action led to a decline in spreads. By end-May, spreads in all categories of market funding in bank balance sheets had come down; nevertheless, they remained well above pre-COVID-19 levels. Thus, banks would have had to issue unsecured benchmark bonds at significantly higher rates than before the crisis, further wearing down already strained operational profitability. While delays in issuances may make it possible to avoid this immediate impact, they will increase systemic liquidity risk in the future. Austrian banks will have to roll over EUR 55 billion of unsecured bonds maturing between March 2020 and March 2021 and another EUR 8 billion maturing the following year. Banks with higher-quality balance sheets – i.e. higher capital ratios, higher operational profitability, higher asset quality and therefore better ratings – will be better placed to weather these challenges. They will enjoy lower funding costs than other banks and will be able to support the post-crisis recovery more effectively. Thus, maintaining a high degree of market confidence in the quality of Austrian banks' balance sheets is a priority. So far, the Austrian banking sector has maintained a strong liquidity

<sup>8</sup> If we consider all loans to NFCs in Austria, a fourfold increase in their NPLs would be enough to cause new loan loss provisioning that would nearly wipe out the entire consolidated net profit of 2019. It should be noted, however, that realizing all provisioning in a single year is a highly conservative assumption, as the impact is likely to be spread over time. On the other hand, banks' profits are likely to face downward pressures compared to 2019.

<sup>9</sup> According to a recent IMF Working Paper that analyzed the dynamics of NPLs during banking crises, peak NPL levels are more than double pre-crisis levels in almost half of analyzed crises, while they more than quadruple in 30% of cases (crisis cases include advanced, emerging and developing economies); see <https://www.imf.org/~/media/Files/Publications/WP/2019/wp19272-print-pdf.ashx>.

position – thanks to deposit inflows and macroprudential policy measures that have contributed to high-quality ratings for Austrian banks.

#### **What are the risks for Austrian nonbank financial intermediaries?**

**The bulk of Austrian nonbank finance is provided by investment funds, followed by insurance corporations and pension funds.** While the relative importance of nonbank finance has increased somewhat over the past decade, banks still account for three-quarters of the financial system's assets.

**Although neither the structure nor the size of Austrian nonbank financial intermediation currently pose a risk to financial stability, the COVID-19 crisis severely aggravates several existing challenges.** The persistently low level of interest rates, uncertain economic growth prospects and falling asset prices make it increasingly difficult to generate investment returns that make it possible to meet long-term financial obligations, especially for life insurers and pension funds. Similarly, the COVID-19 crisis affects the assets of investment funds, where concerns of underpricing risk in the context of the search for yield are in the forefront. Mitigating factors from a financial stability perspective include heightened resilience due to greater capital and liquidity buffers, compared to the banking sector, as well as the surplus coverage of classical life insurance products and the rather small quota of defined pension obligations by Austrian pension funds.

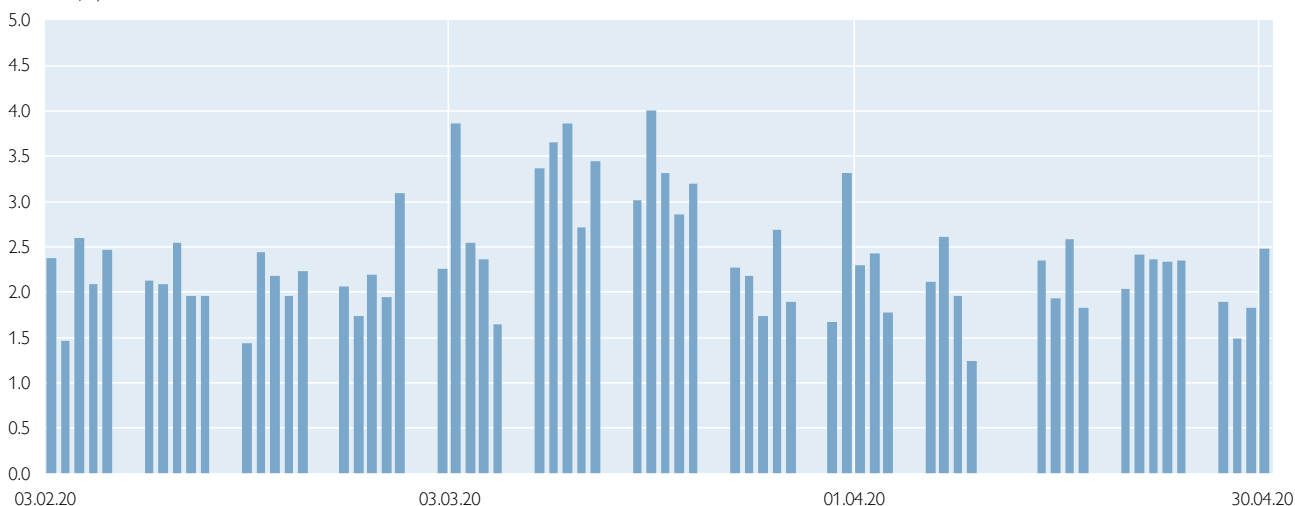
#### **What are the implications for Austrian financial market infrastructures?**

**Despite challenges raised by COVID-19, Austrian financial market infrastructures and payment systems remained operationally stable.** There were no reports of operational restrictions or outages. The impact in terms of transactions and volumes was substantial, with a marked decrease in card

Chart 4

### **TARGET2 payments by Austrian banks to German banks**

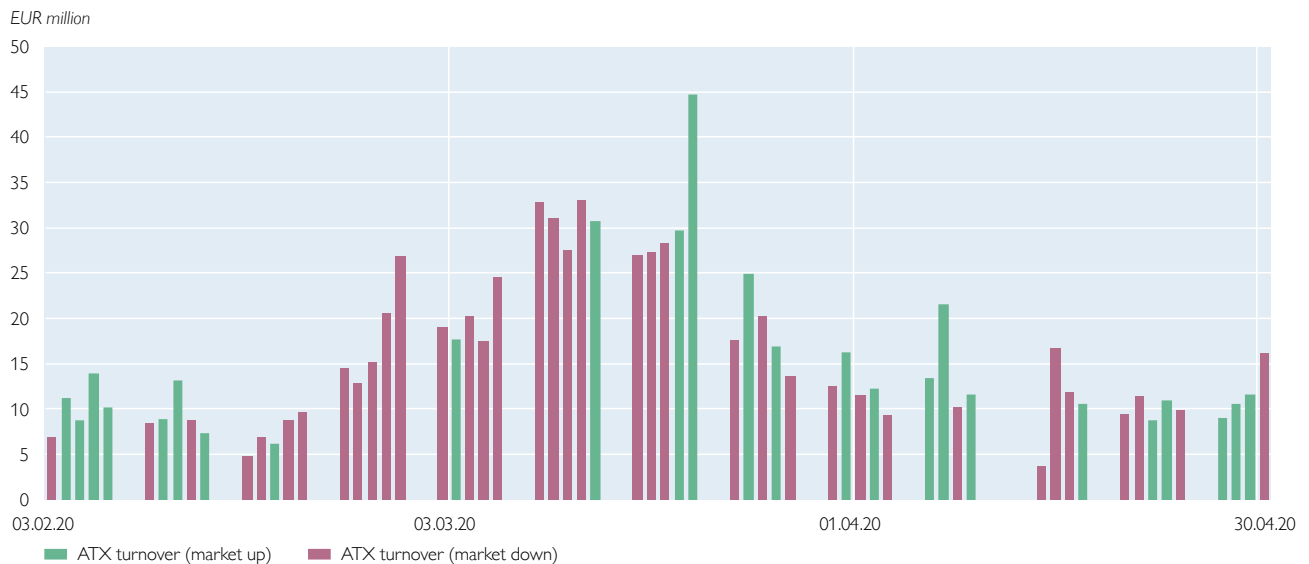
Interbank payments in EUR billion



Source: OeNB.

Chart 5

### Turnover at the Vienna stock exchange (ATX)



Source: Wiener Börse AG.

payments in the first quarter of 2020. The number of payment transactions involving Austrian card holders dropped to 180 million, after 196 million in the fourth quarter of 2019. However, contactless payments saw an increase, the transaction limit having been raised to EUR 50. At the height of the COVID-19 crisis, a significant correlation between market stress<sup>10</sup> and rising aggregate daily interbank payments by Austrian banks to banks in core countries (particularly to German banks) became evident in the euro area's TARGET2 system. This correlation is owed to margin calls or payments to broker banks related to client clearing activities by Austrian banks.

### Macprudential measures in Austria and Europe – an overview

The Austrian banking system entered the COVID-19 crisis with a solid level of capital buffers of around EUR 24 billion.<sup>11</sup> Of these, EUR 19 billion<sup>12</sup> (roughly 4% of risk-weighted assets) are accounted for by macroprudential buffers. At the onset of the crisis, the FMA and the OeNB emphasized that banks could use macroprudential capital buffers to maintain the credit supply to the real economy. They both proactively communicated buffer usability to avoid potential stigma effects if buffers were to be used as automatic stabilizers.

<sup>10</sup> Market stress is illustrated by an increase in turnover on the Austrian stock exchange. Given its strong weight on financials, the ATX (the leading index of the Vienna Stock Exchange) tends to reflect global financial stress levels well.

<sup>11</sup> OeNB estimate of March 23, 2020. Capital relief for significant and less significant institutions in Austria.

<sup>12</sup> The other systemically important institutions buffer (1% to 2%) applies to seven Austrian banks on a consolidated and unconsolidated basis. The systemic risk buffer (1% to 2%) applies to 13 Austrian banks on a consolidated and seven banks on an unconsolidated basis. For more information, please visit <https://www.fmsg.at/en>.

**Even during the pandemic, the Austrian banking system is showing a strong rating performance.**<sup>13</sup> Maintaining buffer rates increases investor confidence in the future stability of the Austrian banking system. This is not only important to ensure that the system is able to support the real economy during the crisis, it is also a precondition for a swift recovery. Strong market confidence will enable banks to meet issuance targets at lower costs, which will become increasingly relevant in the second half of 2020 and in 2021.

**To further increase risk-bearing capacity and strengthen market confidence, the FMA and OeNB issued recommendations calling on banks to refrain from voluntary payouts for 2019.** In light of the high level of uncertainty with regard to further developments and expected challenges, the FMA and the OeNB recommend that banks refrain from share buybacks and consider the distribution of dividends, profits and bonuses for the past business year with particular care, at least until autumn 2020.<sup>14</sup> The ECB, the EBA, and the European Systemic Risk Board (ESRB) issued corresponding recommendations at the EU level.

**Macroprudential authorities in the EU have taken several measures in response to the crisis.** The majority of macroprudential authorities that had previously activated systemic risk buffers to address structural (country-specific) risks followed the Austrian approach of buffer usability rather than suggesting a release. However, several authorities released or lowered countercyclical capital buffers to address cyclical risks resulting from COVID-19 (as recommended by the ECB on March 12<sup>15</sup>). Additionally, a few Member States postponed the entry into force of previously announced macroprudential policies until after the crisis. Finally, the ESRB took a set of policy actions in five key areas to address the impact of the COVID-19 pandemic on financial stability in the EU.<sup>16</sup>

### 3 Microprudential measures in reaction to COVID-19

#### European banking regulators and supervisors showed timely reaction

**The ECB has adopted several measures to ensure credit access for firms and households, increase banks' lending capacity and ease the administrative burden for banks.** One of the key components of the ECB's capital relief measures was to encourage banks to use their capital and liquidity buffers. In addition, the ECB brought forward a change in regulation that had initially been scheduled for January 2021 under the Capital Requirements Directive V (CRD V): Following the change, banks are allowed to partially use capital instruments that do not qualify as common equity tier 1 (CET1) capital, i.e. additional tier 1 or tier 2 instruments, to meet their Pillar 2 requirement. Further, supervisors will exercise flexibility regarding the classification of debtors as "unlikely to pay" when banks call on public guarantees granted in the context of the COVID-19 crisis. In order to reduce the operational burden for banks, the ECB has adjusted timetables, e.g.

<sup>13</sup> See Moody's "Banking System Outlook Update – Austria" (April 16, 2020) and Standard & Poor's "Outlook Revisions On Several Austrian Banks On Deepening COVID-19 Downside Risks" (April 29, 2020).

<sup>14</sup> <https://www.fma.gv.at/en/covid-19/>.

<sup>15</sup> <https://www.ecb.europa.eu/press/pr/date/2020/html/ecb.pr200312~45417d8643.en.html>.

<sup>16</sup> <https://www.esrb.europa.eu/home/coronavirus/html/index.en.html>.

for on-site inspections, and extended deadlines for certain noncritical supervisory measures and data requests. It has also announced that it will provide operational flexibility in the implementation of bank-specific supervisory measures. To ensure any funds freed up from the measures above are used to absorb losses or to grant loans to the real economy, the ECB has recommended that banks should not pay dividends until at least October 2020.

**The EBA has provided further operational relief and clarified the application of prudential and supervisory measures in the current COVID-19 environment to support lending to the real economy.** In particular, the EBA has postponed the EU-wide stress test to 2021, canceled the quantitative impact study (QIS) exercise based on June 2020 data, rescheduled public hearings and extended deadlines for consultations, supervisory reporting and Pillar 3 disclosures. The EBA has further clarified the classification of loans in default, the identification of forbore exposures and their accounting treatment in the light of legislative and nonlegislative moratoria. According to the related EBA guidelines, nonlegislative moratoria are treated equally to public moratoria under certain circumstances: e.g. they must not be borrower specific but rather address a broad range of product classes or customers in response to the COVID-19 pandemic. Moratoria in compliance with the EBA guidelines will interrupt day counting for the 90-days-past-due criterion of the definition of default. However, institutions are still obliged to assess the obligor's unlikelihood to pay on a case-by-case basis. Further, the EBA has clarified that loans under such moratoria do not have to be classified as "forborne" automatically. With respect to IFRS 9, existing flexibility is to be used and credit quality is to be assessed over the entire lifetime of the loan. In order to ensure the use of capital for continuous financing of the economy, the EBA urges banks to refrain from dividend distributions or share buybacks and to set variable remuneration portions at a conservative level. Further, the EBA has made statements relating to temporary relief for certain supervisory aspects of market risk, to a flexible and pragmatic supervisory approach regarding the supervisory review and evaluation process (SREP), to recovery planning and digital operational resilience and to the application of the Guidelines on payment moratoria to securitizations.

**The Single Resolution Board (SRB) aims at ensuring that short-term MREL constraints do not prevent banks from lending.** Hence, new MREL targets (i.e. minimum requirements for own funds and eligible liabilities) will be set in line with the Single Resolution Mechanism Regulation II transition period, reflecting changing capital requirements. The SRB has also been applying a pragmatic and flexible approach with regard to resolution planning and has postponed less urgent data requests accordingly.

**The European Commission has adopted a framework temporarily allowing state aid to be granted to the real economy in order to mitigate economic impacts of the COVID-19 pandemic.** These measures comprise direct grants, repayable advances or subsidized interest rates for loans, tax advances, guarantees on loans, subsidized interest rates for loans, guarantees and loans channeled through credit institutions or other financial institutions and short-term export credit insurance. The European Commission has also clarified that such state aid channeled to the real economy through banks as financial intermediaries would not be considered as public support to banks themselves, and hence such aid

would not trigger an assessment as failing or likely to fail according to the Bank Recovery and Resolution Directive (BRRD). Any precautionary recapitalization measures according to the rules set out in the BRRD in order to address problems directly linked to the COVID-19 pandemic would fall under a related exemption in the 2013 Banking Communication and hence would not require a burden sharing by shareholders and subordinated creditors.

**The European Commission also proposed a package of targeted amendments to the Capital Requirements Regulation II to help facilitate bank lending to households and businesses throughout the EU.** The banking package contains exceptional temporary measures to alleviate the immediate impact of COVID-19-related developments by adapting the timeline of the application of international accounting standards on banks' capital, by treating public guarantees granted during the COVID-19 crisis more favorably, by postponing the date of application of the leverage ratio buffer to global systemically important institutions (G-SIIs) and by modifying the way of excluding certain exposures from the calculation of the leverage ratio. The European Commission has also proposed to advance the date of application of several agreed measures that intend to incentivize banks to finance SMEs and infrastructure projects. In an interpretative communication, the European Commission has also confirmed the recent statements made by, among others, the Basel Committee on Banking Supervision (BCBS), the EBA and the ECB, on using flexibility within accounting and prudential rules. Following the BCBS's announcement that the implementation of the finalized Basel standards (finalization of Basel III) will be postponed, the European Commission will accordingly delay its legal proposal for the corresponding implementation until next year.

#### **Austria has implemented measures to cope with the COVID-19 crisis in line with European requirements**

**The Austrian guarantee and liquidity measures to support the economy in the COVID-19 crisis were approved by the European Commission in April 2020 under its temporary framework for state aid.** Public guarantees (up to a total amount of EUR 15 billion) securing 100% of credit amounts of up to EUR 500,000 (90% up to EUR 25 million) ensure a risk reduction for banks providing loans to SMEs. In June 2020, the approval was extended to large enterprises and the economic activities of not-for-profit associations. Furthermore, a EUR 8 billion package approved by the European Commission in May 2020 makes it possible to compensate businesses of all sectors for losses in connection with the COVID-19 crisis in the form of direct grants. Such grants can cover a maximum of 75% of fixed costs incurred during a limited period of three months, with a maximum amount of EUR 90 million per enterprise.

**The FMA and the OeNB have closely collaborated with the EBA and the SSM in reaction to COVID-19, swiftly adjusting supervisory practices in line with the measures set out by the EBA and the SSM.** The Austrian government adopted a legislative moratorium for credit and interest payments due between April 1 and October 31, 2020, deferring such payments by debtors suffering from losses in connection with the COVID-19 crisis for a period of seven months and extending loan tenors by the time of the moratorium. No interest may be charged in connection with the deferral of payments under the moratorium and



credit contracts may not be terminated during such payment deferral because of a deterioration of the debtor's financial situation resulting from losses in connection with the COVID-19 crisis. Until the end of the moratorium, creditors are not obliged to file for insolvency because of overindebtedness. The treatment of loan exposures under the Austrian moratorium in relation to the definition of default, forbearance and IFRS 9 is compliant with the relevant EBA guidelines (see above). Furthermore, and in accordance with the ECB's and the EBA's recommendations, the FMA has advised banks to refrain from share buybacks and consider dividend distribution and variable remuneration carefully. Banks are further advised to use the transitory provisions for IFRS 9 and assess payment delays from a through-the-cycle perspective, considering the public measures passed to mitigate the economic impacts of the COVID-19 pandemic.

**Austrian banks are granting significantly more voluntary than legislative credit moratoria.** They voluntarily report data on loan moratoria and government guarantees to the OeNB on a weekly basis. By the end of calendar week 26, Austrian banks had granted loan moratoria in the amount of around EUR 30 billion. Thereof, more than 70% were based on voluntary moratoria, which are more flexible; for example, they can be designed with longer maturities. At the same time, more than 14,600 state guarantees have been granted with an overall volume of EUR 3.8 billion.

**In close interaction with the banking industry on the ongoing impact of COVID-19 on the banking system, the FMA and the OeNB have granted operational relief measures in areas not deemed critical in the response to COVID-19.** These involved, among others, extending deadlines for supervisory reporting, reducing the SREP questionnaire and limiting recovery plans to key elements. Moreover, on-site inspections have been suspended.

#### **4 A scenario analysis to assess the impact of COVID-19 on the Austrian banking system**

**To assess the impact of the COVID-19 crisis on the Austrian banking system, the OeNB has conducted a comprehensive scenario analysis.** The unique nature of the current crisis also requires novel approaches for assessing the impact and effectiveness of countermeasures. The OeNB has developed a novel corporate insolvency model which makes it possible to simulate balance sheet, profit and loss, and cash flow data at the firm level to determine sectoral insolvency rates for Austrian firms. These insolvency rates, together with information on mitigating measures in Austria and other countries (cutoff date: May 31, 2020), are then used as input for the OeNB's stress testing framework ARNIE to assess the impact on the Austrian banking sector. The scenario analysis presented should be read neither as a stress test, because it is based on current economic projections, nor as a forecast, because the model employed still relies on generic assumptions across sectors and banks. Nevertheless, the results provide a plausible assessment of the structural strengths and weaknesses of both the real economy and the banking system in light of the COVID-19 crisis and the mitigating measures taken.

**The impact assessment is based on the OeNB's current economic outlook.**<sup>17</sup> For Austria, the scenario assumes negative GDP growth at a rate of -7.2% in 2020 and a rebound in 2021 and 2022, leading to growth of +4.9% and +2.7%, respectively. An input-output model maps the projections for 13 demand components to 74 NACE-2 sectors and captures intersectoral production linkages. For this analysis, results are aggregated to the NACE-1 level. Countries in the CESEE region are covered by the OeNB's most recent Outlook for selected CESEE countries; projections for other countries are based on the IMF's April 2020 World Economic Outlook<sup>18</sup>.

**Not surprisingly, arts, entertainment and sports (NACE R) and accommodation and food services (NACE I) are the sectors most impacted.** Projected output losses are 46% and 43%, respectively, relative to the pre-crisis trend in 2020. NACE sectors covering manufacturing, trade, and other service activities are also significantly affected by output losses of about 12%. In 2021 and 2022, the Austrian economy is assumed to recover. However, in terms of GDP levels, a permanent output loss will remain. In 2022, GDP is forecast to remain below the pre-crisis trend, falling short by 3.9%.

#### **The insolvency model – data and mechanics<sup>19</sup>**

**The OeNB has introduced a novel modeling approach to capture the impact from the COVID-19 crisis.** The model builds on Austrian firm data from the BACH<sup>20</sup> and SABINA<sup>21</sup> databases, which are used to simulate firm-level balance sheet and profit and loss positions for firms across 17 NACE-1 sectors in a Monte Carlo simulation<sup>22</sup>. A joint multivariate distribution is constructed, which replicates the marginal distributions for each variable and the correlation structure between them. From this distribution 100,000 firms are generated for each sector, with individual balance sheets (8 items) and profit and loss statements (14 items). Also, each firm's operating, financing and investment cash flows are determined.

**Sectoral shocks and individual characteristics determine how firms perform under a given scenario.** Solvency and liquidity constraints trigger insolvency. The sectoral output losses, as defined by the scenario, determine the shock to a given firm's turnover. Empirically calibrated elasticities govern how each firm can adjust its expenses – the individual cost structure is an important determinant of a firm's future health. After-tax profits (or losses) increase (or reduce) a firm's equity in the next period. Likewise, the remaining cash flow (after debt service, investment and divestment decisions) increases (or reduces) each firm's net liquid assets. A firm is considered insolvent once either equity or net liquid assets drop below a certain threshold.

<sup>17</sup> [https://www.oenb.at/dam/jcr:039951a5-dfea-4dec-b3b6-6360f1acf1bf/prognose\\_Juni\\_2020.pdf](https://www.oenb.at/dam/jcr:039951a5-dfea-4dec-b3b6-6360f1acf1bf/prognose_Juni_2020.pdf) (English translation forthcoming).

<sup>18</sup> <https://www.imf.org/en/Publications/WEO/Issues/2020/04/14/weo-april-2020>.

<sup>19</sup> A more detailed description of the model will be published in the OeNB's Financial Stability Report 40.

<sup>20</sup> The BACH database is compiled by the European Committee of Central Balance-Sheet Data Offices (ECCBSO) and contains aggregate balance sheet data based on more than 75,000 Austrian firms.

<sup>21</sup> The SABINA database is compiled by Bureau van Dijk and contains firm-level balance sheet data for more than 113,000 Austrian firms.

<sup>22</sup> As for some data only the moments of the distribution (average, first quartile, median and third quartile) were available, a simulation approach was chosen.

**The granular modeling of each firm’s equity and liquidity position makes it possible to take complex mitigating measures into account.** Measures, especially government measures, to mitigate the COVID-19 impact, some of them sector specific, come with eligibility criteria and affect individual income, expense and cash flow positions at different points in time. For example, fixed-cost grants depend on the magnitude of turnover reductions and are paid out at specific points in time. Public sector credit guarantees, on the other hand, depend on individual firms’ health prior to the COVID-19 crisis and are subject to the approval of banks eventually extending credit. Other measures covered include short-time work, deferment of tax payments, including social security contributions, public and private debt moratoria, sector-specific subsidies (in particular for accommodation and food services) and the temporary relaxation of Austrian insolvency law. Where applicable, individual measures are subject to the volume constraints introduced in the COVID-19 legislation. An important assumption is the full effectiveness of the measures.

## Results

**The model indicates a marked increase of insolvency rates, while mitigating measures reduce COVID-19-induced insolvencies by about one-half.** Without mitigating measures, the insolvency rate would rise to 6.1% at end-2020, significantly above its 2019 level (1.0%).<sup>23</sup> With mitigating measures in place, the insolvency rate is significantly lower, reaching 3.8% by end-2020. Measures introduced until May 31, 2020, can thus reduce additional insolvencies from the impact of the COVID-19 crisis by one-half, if implemented efficiently. Not surprisingly, in both scenarios, liquidity constraints drive more than 90% of the modeled insolvency rates across sectors, as a company’s ability to refinance critically depends on its equity position.

**Mitigation measures can only ease the COVID-19-induced shock partially.** Among the government measures, short-time work and debt moratoria appear to be most effective across all sectors, while fixed-cost grants play an important role in the hardest-hit sectors (arts, entertainment and sports, and accommodation and food services). Loans with state guarantees – while not covering many of the most-affected firms due to eligibility constraints – appear to be effective if fully and efficiently implemented, providing liquidity support for firms in the months where shocks are most pronounced. Survival rates of these firms turn out to be very high even in the most-affected sectors. Despite all support measures, many firms, though able to avoid bankruptcy in the model, will not be able to rebuild their capital reserves and survive with a weaker balance sheet. This will almost certainly prove a challenge once loans extended with state guarantees become due.

**Results for the banking system are calculated at the consolidated level, including all 440 Austrian banks with the OeNB’s stress testing model ARNIE<sup>24</sup>, which uses the output of the insolvency model as input.** For Austrian exposures, the monthly changes in sectoral insolvency rates

<sup>23</sup> Based on data from the creditor protection agency KSV 1870.

<sup>24</sup> For more information see: ARNIE – Still in Action. In: Financial Stability Report 38. OeNB. December 2019. Box 1. 18–19.

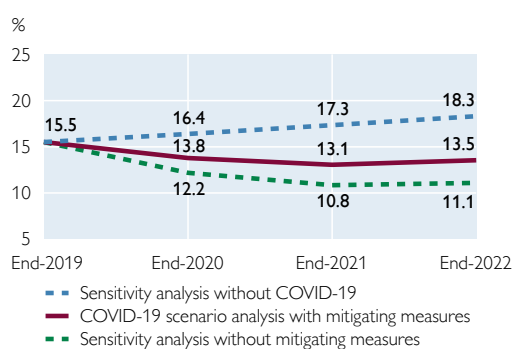
are translated into quarterly sectoral shifts in probability of default (PD). To arrive at PD shifts for other countries, Austrian shifts are scaled based on two factors, one to account for the different impact the COVID-19 crisis has on those countries (proxied by the relative difference in GDP level deviations), the other to account for mitigating fiscal measures. Other risk factors are also based on current forecasts or calibrated based on expert judgment.

**In the central scenario with mitigating measures, the aggregate CET1 ratio for the Austrian banking sector declines from 15.5% to 13.5% by 2022, a reduction by 2 percentage points.** This result – in line with the EBA’s static balance sheet assumption – does not account for bank reactions and is mostly driven by an annual decline in operating income before risk by about 20% and elevated credit risk costs for the years 2020 and 2021. The annual cost of risk grows to about 120 basis points in the first two years on average, before coming back down to about 30 basis points in 2022. It should be noted that this analysis covers a horizon of three years and therefore does not take into account the potential impact of the expiration of support measures after 2022. In a sensitivity analysis excluding mitigating measures, the CET1 ratio would decline by 4 percentage points to 11.1% by 2022. To serve as a reference point, pre-COVID-19 profitability and risk costs were projected into the future; in this “sensitivity analysis without COVID-19” the Austrian banking sector would have reached a CET1 ratio above 18% by 2020.

**While the aggregate impact appears significant, no Austrian bank falls below a CET1 ratio of 5% in the baseline scenario with fully effective mitigating measures in place, and all but one small bank remain above a CET1 ratio of 7.5%.** For more than 95% of the banking system (in terms of total assets, but also when looking at the number of banks), the CET1 ratio remains above 10%. This supports the conclusion that, having increased its capital position significantly over the last years, the Austrian banking system is well placed to weather the storm, if the COVID-19 crisis does not escalate further. The results also show that government measures taken to support the real economy play an important role in mitigating the impact of COVID-19 on banks’ balance sheets.

Chart 6

**Scenario analysis: aggregate CET1 ratio for the Austrian banking system**



Source: OeNB.

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## 5 The impact of the COVID-19 crisis on CESEE

**The CESEE region<sup>25</sup> entered the current slump from a state of moderating, though still broadly robust economic growth amid often slowly rising price pressures.** Compared to 2008, general macrofinancial risks remained broadly contained at the onset of the downturn (for details see OeNB, 2020). CESEE governments largely responded fast to the spread of COVID-19 and imposed containment measures that succeeded in slowing the spread of the virus. In the second half of April, several CESEE countries already started the gradual easing of containment measures. At the time of writing, only Russia was still reporting substantial numbers of new COVID-19 infections each day and containment measures in Russia had therefore been lifted very selectively.

**To mitigate the large economic costs of containment measures, governments and central banks have passed a diverse set of policy measures.** Central banks have used their full toolkit, including policy rate cuts and/or foreign exchange interventions, short- and long-term liquidity provision to commercial banks, and some central banks have started buying local government bonds (e.g. in Croatia, Hungary, Poland, Romania and Turkey). Regulatory measures have also been eased, including revisions to (planned) capital buffer rates (e.g. in Bulgaria and the Czech Republic). Governments in CESEE have implemented fiscal support measures, such as deferring taxes and social security contributions for affected enterprises, taking over part of the salary payments to employees and extending paid sick leave. In most countries, governments have taken measures to avoid liquidity shortages in the real sector, often jointly with commercial banks and development banks and in many cases including state guarantees, moratoria on loan repayments and freezes on loan enforcement practices. It is likely that further policy stimulus will be required to support the recovery from the expected severe economic downturn in the region.

**International institutions such as the IMF, the European Commission and the ECB have provided additional support to the CESEE region.** The Zagreb Declaration of May 2020<sup>26</sup> reaffirms the EU's unequivocal support for the Western Balkans' EU perspective amid the COVID-19 crisis, calling for unity and solidarity. The EU has mobilized a package of over EUR 3.3 billion<sup>27</sup> to the benefit of the Western Balkans.<sup>28</sup> Cooperation will continue, including throughout the exit and recovery phase.

<sup>25</sup> We strive for a very broad coverage of the CESEE region in this note, including eight EU countries (Bulgaria, Croatia, the Czech Republic, Hungary, Poland, Romania, Slovakia and Slovenia), six Western Balkan countries (Albania, Bosnia and Herzegovina, Kosovo, Montenegro, North Macedonia and Serbia) as well as Russia, Turkey and Ukraine. However, in some sections the analyses cover only subsets of the broad region for reasons of data availability and scope.

<sup>26</sup> European Council, press release, May 6, 2020, see: [https://www.consilium.europa.eu//media/43776/zagreb-declaration-en-06052020.pdf?utm\\_source=dsm-auto&utm\\_medium=email&utm\\_campaign=Zagreb+Declaration%2c+6+May+2020](https://www.consilium.europa.eu//media/43776/zagreb-declaration-en-06052020.pdf?utm_source=dsm-auto&utm_medium=email&utm_campaign=Zagreb+Declaration%2c+6+May+2020).

<sup>27</sup> Including immediate support for the health sector as well as a EUR 750 million package of macro-financial assistance and a EUR 1.7 billion package of assistance from the European Investment Bank.

<sup>28</sup> European Commission, press release, April 29, 2020, see: [https://ec.europa.eu/commission/presscorner/detail/en/IP\\_20\\_777](https://ec.europa.eu/commission/presscorner/detail/en/IP_20_777).

**EU macro-financial assistance is now possible in tandem with IMF programs to fight the crisis.**<sup>29</sup> The EU's macro-financial assistance (MFA), with an overall maximum capacity limited by the EU budget, has only been granted together with a full IMF program so far. Due to the urgent need for financial assistance, the European Commission recently suggested<sup>30</sup> for the first time that MFA should be available to partners that also benefit from emergency funding from the IMF, without prior actions and/or conditionality, such as the Rapid Financing Instrument (RFI). The IMF has allocated USD 40 billion to the RFI for 65 emerging market countries, which include some CESEE countries, and raised access limits from 50% to 100% of the respective IMF quotas. The RFI is already set for four Western Balkan countries (Albania: EUR 174.29 million; Bosnia and Herzegovina: EUR 331.50 million; Kosovo: EUR 51.63 million; North Macedonia: EUR 175.54 million<sup>31</sup>). Serbia has so far not applied for EU or IMF support.<sup>32</sup> The crisis MFA is designed differently; it is shorter in duration than usual and demands only limited reforms to be recorded in a memorandum of understanding. The loans with a maximum average duration of 15 years will be available for twelve months and disbursed in only two installments. It was decided to apply the urgent procedure for this dossier at the end of April and, after informal contacts between the European Parliament and the Council, an agreement in the form of the original Commission proposal was found. The crisis MFA package comprises the following CESEE countries: Albania (EUR 180 million), Bosnia and Herzegovina (EUR 250 million), Kosovo (EUR 100 million), Montenegro (EUR 60 million), North Macedonia (EUR 160 million) in the enlargement region, as well as Georgia (EUR 150 million), the Republic of Moldova (EUR 100 million) and Ukraine (EUR 1,200 million). The amount of granted MFA funds is based on a preliminary estimate of each partner's residual external financing needs. Given financial needs well above the resources provided by the IMF and other institutions, MFA is considered an appropriate response to partners' requests to support financial stabilization. For Western Balkan countries, MFA funds cover about one-half of the remaining financial gap.

**The ECB has decided to provide euro liquidity to EU Member States outside the euro area.** In April 2020, the ECB set up bilateral swap lines with two EU central banks, i.e. the Croatian National Bank<sup>33</sup> and the Bulgarian National Bank<sup>34</sup>, for up to EUR 2 billion each to provide euro liquidity to financial institutions, addressing possible market dysfunction. The maximum maturity for each drawing of euro against kuna or lev will be three months, and both swap lines

<sup>29</sup> European Council, press release, May 20, 2020, see: <https://www.consilium.europa.eu/en/press/press-releases/2020/05/20/COVID-19-council-adopts-3-billion-assistance-package-to-support-neighbouring-partners/>.

<sup>30</sup> European Commission, Proposal COM(2020) 163 final, April 22, 2020, see: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020PC0163&from=EN>.

<sup>31</sup> Source: IMF. EUR/SDR exchange rate of April 7, 2020.

<sup>32</sup> <https://emerging-europe.com/news/serbias-president-proud-of-countrys-absence-from-eu-financial-assistance-package/>.

<sup>33</sup> ECB press release, April 15, 2020, see: [https://www.ecb.europa.eu/press/pr/date/2020/html/ecb.pr200415\\_1~92fe0267b1.en.html](https://www.ecb.europa.eu/press/pr/date/2020/html/ecb.pr200415_1~92fe0267b1.en.html).

<sup>34</sup> ECB press release, April 22, 2020, see: <https://www.ecb.europa.eu/press/pr/date/2020/html/ecb.pr200422~962a743486.en.html>.

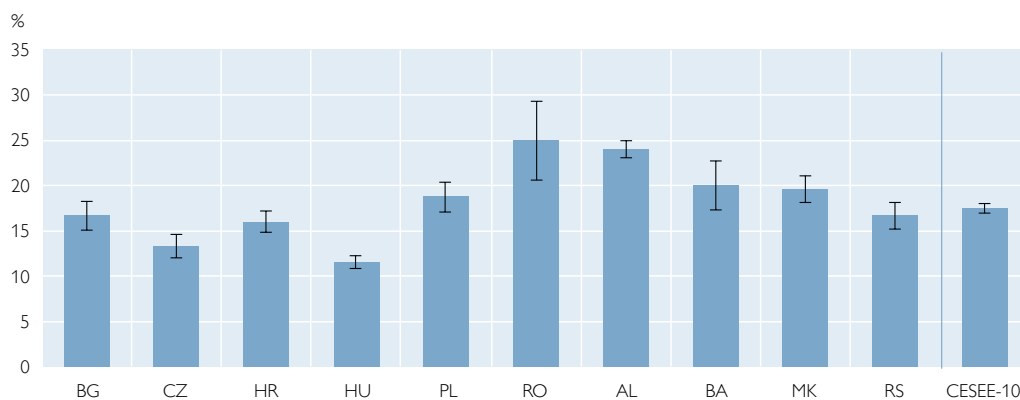
will remain in place until the end of 2020 but can be prolonged for as long as needed.

### Financial vulnerabilities of indebted households in CESEE

**Households will be affected by the economic downturn to different extents, depending, among other things, on their pre-crisis financial vulnerabilities.**<sup>35</sup> Based on aggregate data, household debt as a percentage of GDP is quite heterogenous across the CESEE-10<sup>36</sup> region, ranging from 11% in Albania to 34% in Poland in 2019. In general, this is very much in line with the countries' levels of economic development – household debt is higher in countries with higher GDP per capita. Yet, as aggregate data have their limitations, we draw on unique and recent information stemming from the OeNB Euro Survey to shed some light on the distribution of debt across households in the region (see also Riedl, 2019).

Chart 7

#### Debt service to net income (2017–2019, median)



Source: OeNB Euro Survey 2017–2019.

Note: 95% confidence intervals.

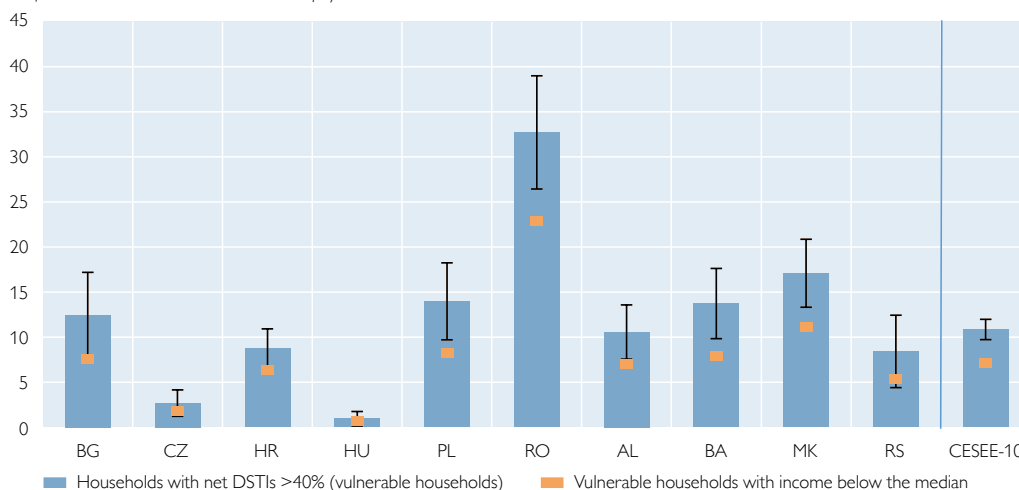
<sup>35</sup> See also the box in this Financial Stability Report entitled “FX loans of households in CESEE: do they still pose a risk?”.

<sup>36</sup> The CESEE-10 region refers to the countries included in the OeNB Euro Survey. According to data from national central banks, household debt-to-GDP levels in 2019 amounted to 20% in Bulgaria (BG), 31% in the Czech Republic (CZ), 33% in Croatia (HR), 15% in Hungary (HU), 34% in Poland (PL), 14% in Romania (RO), 11% in Albania (AL), 28% in Bosnia and Herzegovina (BA), 25% in Macedonia (MK) and 21% in Serbia (RS).

Chart 8

### Share of vulnerable households (2017–2019)

% of indebted households with debt service payments



Source: OeNB Euro Survey 2017–2019.  
Note: 95% confidence intervals.

A relevant vulnerability indicator is the **debt service-to-income ratio (DSTI)**, which relates a household's monthly loan installment payments to its monthly net income. According to this measure, in the period from 2017 to 2019, the median DSTI is highest in Romania and Albania (chart 7) – notably those two countries with the lowest debt levels according to aggregate figures. One-half of Romanian and Albanian households spend at least one-quarter of their net income to service their debt. Hence, in these countries, the median household is more likely to be exposed to income shocks as it has much less room for maneuver. As the distribution of DSTI values above the median can look very different across countries, we spot potentially vulnerable households by calculating the share of households spending more than 40% of their net income on debt service payments (chart 8). Again, Romania stands out: every third household has loan installment payments of at least 40% of net income. Macedonia is the country with the second-largest share of vulnerable households (17%), while Hungary (1%) and the Czech Republic (3%) again range at the bottom of the scale. Among vulnerable households, a significant fraction earns less than the median income in their countries. For example, in Romania, 23% of households are vulnerable (net DSTI > 40%) and earn below median income. These households are even more constrained as they have less capacity to save.

#### Corporate debt in CESEE EU Member States

**For nonfinancial corporations (NFCs) the levels of unconsolidated sectoral debt (including trade credit) vary across countries.** Among the CESEE EU countries, Bulgaria and Croatia record the by far highest levels as a percentage of GDP (chart 9).<sup>37</sup> Broken down by components, loans make up the

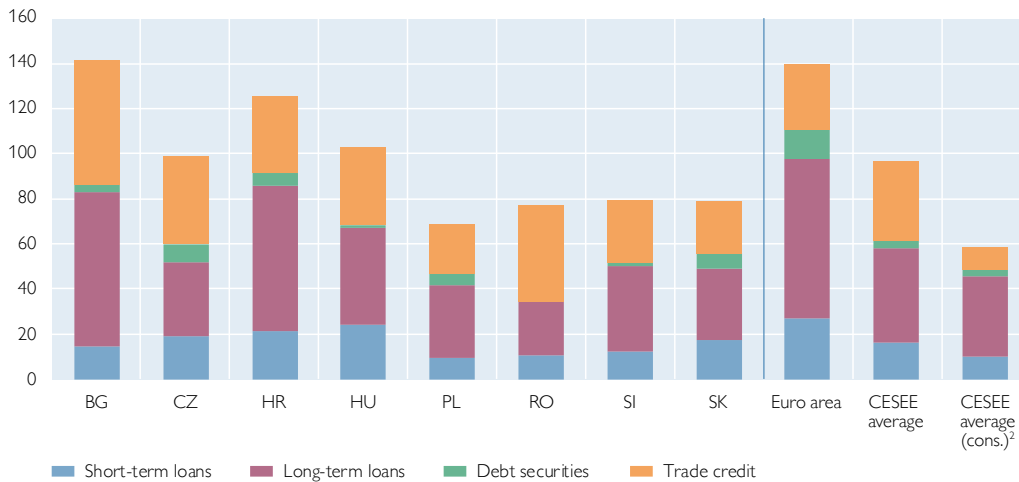
<sup>37</sup> The analysis is based on macrodata and allows no assessment of the distribution of NFCs' debt or debt-servicing capacity.



Chart 9

### Unconsolidated debt by components

% of GDP at end-2018<sup>1</sup>



Source: Eurostat, authors' calculations.

<sup>1</sup> As data on consolidated debt are available only on an annual basis.

<sup>2</sup> Consolidated debt for comparison.

highest share of NFC debt in all CESEE EU countries except Romania (on average 60%). Half of the loan volume is composed of loans from domestic banks, the rest from other sources. Moratoria imposed in many countries in response to the COVID-19 crisis often apply only to domestic bank loans and thus a moderate share of NFC debt.

**Trade credit volumes make up 35% of NFC debt in CESEE EU on average.** Potential support measures in case of frictions in the trade credit market are thus vital for NFCs. In terms of creditors, domestic intra-NFC-sector debt makes up the highest share on average (37%); other important sources of credit are domestic MFIs (25%) and external debt (20%). A large part of the residual is likely external intracompany lending.

**Besides financials, there are other important factors that need to be considered when assessing the vulnerabilities of NFCs to the COVID-19 shock.** These, for example, include sectoral and regional differences, which, however, are beyond the scope of this note.

#### How could the crisis affect the CESEE banking sector?

**At the current stage it is difficult to assess how the banking sectors in CESEE will be affected by the COVID-19 crisis<sup>38</sup> in the medium term.** This depends on the damage to the real economy, which in turn will depend on the ability of governments and central banks to mitigate negative effects and support economic recovery. Loan growth will likely fall as the crisis progresses due to lower domestic and foreign demand, deleveraging needs in the private sector and lower creditworthiness of borrowers. However, initially, short-term liquidity

<sup>38</sup> For details on banking sector developments in CESEE in 2019, please see the section on the international macro-economic environment in this issue of the Financial Stability Report and OeNB (2020).

needs arising from the need to finance current expenditures boosted loan demand. Compared to the first two months of 2020, corporate loan growth accelerated noticeably (exchange rate-adjusted) in March 2020 in most CESEE countries, while growth of lending to households was already decelerating in most countries. The impact of the crisis on deposits is ambiguous as some NFCs and households will draw down accumulated savings to finance expenditures, while others may increase savings, postponing consumption and investment in an uncertain environment.

**The profitability of the CESEE banking sector could deteriorate markedly in 2020.** Loan loss provisions will probably increase strongly in response to the COVID-19 crisis and will likely be the main driver of lower profitability. Some of this impact will be mitigated or at least postponed by eased regulatory requirements and moratoria on loan repayments and/or loan enforcements. The details of moratoria have important consequences for CESEE banks and borrowers; e.g. in Hungary, Serbia and Kosovo, moratoria are applied by default and borrowers can opt out, which has led to a much higher use as of end-April than in the “opt-in” countries.<sup>39</sup> Moratoria will affect the timing of banks’ interest income and the net present value of loans in countries where no interest can be charged on deferred payments. Lower loan growth will weigh on operating income, and central bank rate cuts could put additional pressure on net interest margins.

**Deteriorating profitability coupled with rising NPLs will likely weigh on banks’ capital ratios.** Most CESEE banking sectors reported substantial buffers at end-2019. Compared to the CESEE EU countries, tier 1 capital ratios were low in Russia (9.2% at end-2019), Turkey (13.8%) and Ukraine (13.5%), which are also the countries that face comparatively high risks in the banking sector for differing reasons.

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<sup>39</sup> Based on very limited information on banking markets and presentations of Q1 results by some large CESEE banking groups.