

Financial Stability Report

Spring 2021

DeNederlandscheBank

EUROSYSTEEM



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Summary



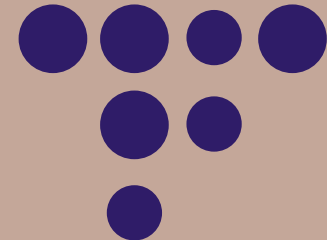
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Summary

After more than a year, the end of the coronavirus crisis appears to be in sight. The financial sector has proved well able to absorb the economic impact of the coronavirus pandemic. The fiscal, monetary and prudential crisis measures and the availability of buffers have played a key role in softening the economic damage. Once the virus comes under control and the economy begins to recover, it is important that the exceptional crisis measures are phased out. That is because they have side effects, such as increasing debt levels and upward pressure on asset prices. It is also important to restore normal economic dynamics to the corporate sector, where the number of bankruptcies is at an all-time low. The crisis measures must be phased out gradually to avoid cliff-edge effects. This should be accompanied by the introduction of targeted transition measures. The number of business closures and bankruptcies will nevertheless increase in heavy-hit sectors. Although it is difficult to assess this accurately and much uncertainty remains with regard to firms' creditworthiness, banks appear well able to absorb increasing losses. DNB will therefore unwind the temporary prudential reliefs once economic recovery persists.

Risk outline

With vaccination campaigns picking up speed, the coronavirus appears to be coming gradually under control in many countries. The end of the economic crisis is therefore also coming into view. Despite last year's historically large contraction, the outlook for the Dutch economy is positive and the global economy appears to be recovering faster than had been previously assumed. As long as the vaccine rollout continues around the world and virus mutations do not prove resistant to the vaccines, containment measures can be scaled back and the economic recovery in the

Netherlands is expected to gather pace in the second half of this year.

The global financial system has so far proved resilient to the consequences of the pandemic, partly due to its good starting position and the extensive crisis measures. National governments, central banks and supervisory authorities have implemented a large range of measures, softening the economic consequences of the pandemic and its impact on the financial sector. The availability of buffers held by banks and national governments has also played a part in absorbing the global shock.

Financial institutions have so far continued to fulfil their role, maintaining the provision of credit to firms and households.

Despite the positive outlook, the expectations for economic recovery remain uncertain. It will depend on the further course of the pandemic. In large parts of the world vaccination programmes are getting under way only slowly, and in some cases access to vaccines is limited. Virus mutations resistant to the current vaccines could cause a resurgence of the pandemic. The global economy will not stage a lasting recovery until the virus is under control worldwide. As long as the virus is circulating, health systems are under strain and measures have to remain in place to combat the virus, the financial impact on firms and households – and hence the pressure on financial institutions – may continue to persist.

Vulnerabilities in the financial system are increasing, partly as a result of unintended side effects of the large-scale crisis measures. It is important that financing conditions remain accommodative to stimulate the economic recovery, but at the same time they are fuelling a continued build-up of vulnerabilities. Debt has risen sharply in both the public and private sectors. Governments around the world have paid out USD 16 trillion in coronavirus support, causing public

debt levels to rise. The accommodative financial conditions also increase the risk appetite of households and investors, and asset prices in financial markets may get out of line with their fundamental value. The increased interconnectedness between banks, corporates and governments – also referred to as the bank-sovereign-corporate nexus – is also a concern. Recovery stimulus and the protection of stability in the short term must therefore be weighed against the accelerated build-up of systemic vulnerabilities over the longer term.

An uneven recovery from the coronavirus crisis may also fuel new risks. Various factors are giving rise to differences between countries in terms of the impact of the crisis and the economic recovery, such as the composition of the economy and the starting position prior to the crisis. The availability of vaccines is another important factor. The policy normalisation that may accompany a fairly rapid recovery in the United States and other developed countries, for example, may lead to a tightening of financial conditions for emerging countries where vaccines are not as widely available yet. Many of these emerging countries are likely to maintain a major financing requirement until the virus is brought under control. In the euro area an unbalanced recovery could lead to economic divergence as well. Member states with high public debt levels would start the recovery at a disadvantage and have less room for manoeuvre to stimulate the economy.

There are also financial stability risks in real estate markets. The results of a stress test in this FSR show that a shock adjustment in the commercial real estate market, particularly in the context of a broader macroeconomic shock, can have a significant impact on parts of the Dutch financial sector. Aside from commercial real estate, there are stability risks in the overheated Dutch housing market, with homebuyers (particularly in the younger age brackets) taking more risk to buy a home.

Policy

It is important to wind down the crisis measures as the virus comes under control. The measures are expensive and disrupt normal economic market dynamics. As the crisis measures are wound down, firms must know what to expect and when.

In the recovery phase the government has a role in helping viable firms with excessive debts. Measures to ease the debt burden or give firms more time to agree terms with their creditors could help firms with a healthy business model. The Tax Administration has become a major creditor of businesses through deferred tax liabilities. Applying a lenient collection policy to these tax debts can reduce the financial burden of firms, giving them more room to restart and make investments in the recovery phase. If this proves insufficient for viable firms, public-private solutions should be devised for the excessive debts.

Austerity measures and tax hikes are also undesirable in the short term, because they could harm the recovery. The government should now focus on tackling vulnerabilities in the housing and labour markets and on increasing the sustainability of the economy. The formation of the new government offers an ideal opportunity to reach agreements on these matters. It is very important to integrate the climate agenda and the energy transition in the measures aimed at economic recovery. This could prevent shocks to the financial system if delays now were to result in more fundamental measures being necessary at a later stage.

It is also important to cool the overheated housing market. Mortgage interest tax relief, generous borrowing rules and subsidies for first-time buyers ultimately all lead to higher house prices and should therefore be phased out. Coupled with an increase in the supply of homes, this could restore balance to the housing market, provide opportunities for first-time buyers and halt the rise in total mortgage debt. In their risk weighting for mortgage loans, banks are still taking insufficient account of the systemic risk of a housing market correction, while overheating and risky borrowing behaviour are on the rise among homebuyers. DNB has therefore decided to no longer delay the introduction of a floor for the risk weighting of mortgage loans. This measure was already announced in the autumn of 2019, but postponed due

to the coronavirus pandemic. Provided the economic recovery continues in line with current expectations, the measure will enter into effect on 1 January 2022.

At a later stage DNB will also begin a gradual build-up of the countercyclical capital buffer (CCyB).

DNB will determine the appropriate timing on the basis of the economic recovery, banks' health and the interaction with government measures, as well as measures taken by supervisory authorities in other countries.

Finally, the protracted period of accommodative monetary policy also entails risks. The crisis measures should therefore be wound down as soon as the economic situation normalises and inflation moves towards the target. In the longer term it is undesirable for governments and banks to remain overly dependent on the central bank to finance their debts. If the exceptionally accommodative monetary policy remains in place for too long, the risks to financial stability will increase, making it more difficult to normalise the policy in the future. A gradual but timely exit strategy for the crisis measures is therefore crucial once the acute phase of the crisis has passed.

1 Macrofinancial environment

1.1 International developments

Large-scale vaccination rollout heralds prospect of strong economic recovery. The outlook has improved substantially over the past six months as a range of vaccines have become available to combat the COVID-19 virus. Many countries are still in full or partial lockdown to curb infection rates, but vaccination around the world is bringing the end of the pandemic into view. As the vaccination coverage rises, containment measures are expected to be gradually lifted, with public life progressively returning to normal.

The global economy appears to be recovering faster than had been previously assumed. Global trade in goods, which was hit hard at the beginning of the coronavirus pandemic, has now overcome the shock. International trade is now recovering much faster than after the financial crisis and making a substantial contribution to the global recovery. A strong recovery is also expected in the service sector once the containment measures and travel restrictions can be lifted. The volume of savings amassed around the world may also boost private spending as economies gradually reopen.

The global financial system has so far proved resilient to the impacts of the pandemic, due to its good starting position and the extensive crisis measures. National governments, central banks and supervisory authorities have implemented a large range of measures, mitigating the economic consequences of the pandemic and its impact on the financial sector.¹ The [IMF](#) recently calculated that the fiscal measures in place around the world amounted to USD 16 trillion. The availability of buffers held by banks and national governments has also played a part in absorbing the global shock. Financial institutions have so far continued to fulfil their role, maintaining levels of lending to firms and households.

A more protracted pandemic may delay the recovery, however. Uncertainty remains, despite the positive signals. Negative scenarios for the further course of the pandemic are also conceivable. In large parts of the world vaccination programmes are getting under way only slowly, and in some cases access to vaccines is limited. Virus mutations resistant to the current vaccines could also cause a resurgence of the pandemic. The global economy will not stage a lasting

recovery until the virus is under control worldwide. As long as the virus is circulating, the health system is under strain and measures have to remain in place to combat the virus, the financial impact on firms and households – and hence the pressure on financial institutions – may continue to increase.

Vulnerabilities in the financial system are also increasing, partly as a result of unintended side effects of the extensive crisis measures. It is important to maintain accommodative financing conditions to limit economic damage and stimulate recovery, but at the same time these conditions are fuelling a continued build-up of vulnerabilities. Debt has risen sharply in both the public and private sectors. The accommodative financial conditions also increase the risk appetite of households and investors, and asset prices in financial markets may get out of line with their fundamental value (see [Financial markets](#)). Recovery stimulus and the protection of stability in the short term must therefore be weighed against the accelerated build-up of systemic vulnerabilities over the longer term.

¹ For an overview of all measures by country, see: [IMF](#) (2021).

Public and private debt levels were already high before the crisis, but they have now risen further around the world. Fiscal and budgetary support measures have caused government debt to rise sharply worldwide, from 84% of GDP in 2019 to an expected 99% this year (IMF, 2021). Public debt has also increased further in the euro area (Figure 1). In 2020 the debt ratio of euro area governments rose by 14 percentage points after several years of declines. The support measures have cushioned the shock in the corporate sector, but there too debt has increased substantially (Figure 1). The increase in debt levels could lead to debt sustainability problems, particularly if interest rates rise.

The increased interconnectedness between governments, businesses and banks in Europe is also a concern. In many countries governments have expanded their guarantee schemes to encourage bank lending to businesses. Under these schemes the government takes on all or part of the credit risk on the loans. In the Netherlands the use of guarantee schemes is limited, amounting to 6.5% of total bank financing granted since the start of the coronavirus crisis (NVB Corona-monitor). Spain, Italy and France in particular have made heavy use of such schemes, however, so these countries' governments have increasingly been exposed to credit risk in the corporate sector (Figure 2). European banks have also financed part of the rising public debt, so governments and banks in

Europe are also becoming more interconnected. Banks in the euro area, particularly in Italy, Slovenia, Slovakia, Portugal, Cyprus and Spain, have relatively high exposures to their own government. Whereas in the euro crisis the main problem was the interconnectedness of governments and banks, the policy response to the coronavirus crisis has also increased the interconnectedness between the corporate sector and governments. This creates a wider channel of contagion within the so-termed sovereign-bank-corporate nexus. The increased interconnectedness means that within a country, corporates, banks and government may spread problems among each other. It could also lead to fragmentation within the euro area and divergent monetary transmission.

An uneven recovery from the coronavirus crisis may fuel new risks. Various factors are giving rise to differences between countries in terms of the impact of the crisis and the economic recovery. An important factor is the starting position before the crisis, for example the capacity within public finances to maintain a supportive fiscal policy. There are also differences in access to vaccination and the speed of the rollout. The sector composition of economies is another important factor, because the lockdowns have particularly hit sectors such as hospitality, tourism, transport, culture and business services. A divergent

recovery may lead to new risks. The policy normalisation that may accompany a fairly rapid recovery in the United States and other developed countries, for example, could lead to a tightening of financial conditions for emerging countries. Many of these emerging countries are likely to maintain a major financing gap until the virus is brought under control. Rising interest rates may exacerbate the refinancing risks in these countries.

An uneven recovery is also likely in the euro area, leading to greater structural divergence. Member States with little headroom in their public finances have been hit relatively hard, leading to a substantial economic contraction in 2020. Countries such as Greece, Italy, Spain and Portugal already had high government debt before the crisis, so they have less fiscal scope to mitigate the economic impacts of the crisis. Measures necessary to contain the virus, combined with the economic importance of vulnerable sectors such as tourism, have caused a relatively large economic contraction. The degree of digitisation also plays a role. According to the IMF's April estimates, the differences in economic impact in the euro area in 2020 will persist until the end of 2022 (IMF, 2021). On the other hand, national and European support programmes are making a major contribution to a more balanced economic recovery in Europe. Timely and ambitious implementation of the Next Generation

EU (NGEU) package could play an effective role in preventing further divergence and thus promote a more balanced economic recovery.

The effect of the coronavirus crisis on real estate markets differs greatly depending on the segment.

Residential real estate has been barely affected in many countries. The average house price rise in the euro area in 2020 was even the highest since 2007. This was mainly due to the extensive government support measures and sustained low interest rates (see also [Housing market](#)). Commercial real estate markets were hit by the pandemic outbreak but have staged a partial recovery since the spring of 2020. Shops, offices and hotels have been hit hardest, while a lot of listed real estate has recovered strongly in recent months. Long-term trends such as homeworking and online shopping were already depressing valuations of commercial real estate before the coronavirus crisis. The pandemic has reinforced these trends and could have a structural impact on the value of commercial real estate (see also [Box 2: 'Commercial real estate: an updated pandemic stress test for the Dutch financial sector'](#)).

The economic outlook in the United States has improved greatly, leading to potential spillovers.

The US economy is expected to recover fairly strongly in 2021 and 2022. The vaccination programme in the

United States is being rolled out faster than in the euro area, for example. The Biden administration's budgetary stimulus is also playing a role, with the USD 1,900 billion coronavirus support package announced in March and subsequent plans for public investment in infrastructure and other spending. The package provides indirect income support for American households, whereas Europe, for example, is mainly providing financial support for firms. The historic scale of the intended budget stimulus is putting upward pressure on inflation and hence also on interest rates, with potentially negative spillovers to emerging countries in the form of less favourable financing conditions. The euro area may also have to contend with such effects. At the same time higher economic growth in the United States is also having positive impacts on the global economy and trade. Furthermore, policy uncertainty in the United States has decreased following the presidential elections and their legal aftermath (see [Figure 3](#)). This is partly due to faster decision-making in the United States as President Biden's Democratic Party now has a majority in Congress.

The Brexit trade agreement between the EU and the United Kingdom has eliminated a major source of uncertainty in Europe. The agreement, which came into force on 1 January this year, enabled the negotiating partners to avoid a chaotic no-deal situation. There was

no severe market volatility around the United Kingdom's actual departure from the EU. The agreement means that goods trade is free of tariffs and quotas under certain conditions, but new, non-tariff trade barriers have been erected as the United Kingdom is no longer part of the European single market and customs union. Brexit is therefore likely to have a lasting negative impact on mutual trade. It will also be a delaying factor in the post-coronavirus economic recovery. The trade agreement contains little on financial services, so reciprocal market access is limited and any further cross-border market access will have to be agreed through the so-called equivalence framework. The European Commission and ESMA, for example, have granted equivalence status to central securities depositories (CSDs) up to 1 July 2021 and systemically important central counterparties (CCPs) up to 1 July 2022. This guarantees that EU operators can provide essential services from the United Kingdom in the field of securities custody, clearing and settlement, at least on a temporary basis. Over the longer term, further market access will depend particularly on the extent to which the United Kingdom diverges from the EU's financial laws and regulations. As part of the trade agreement the EU and the United Kingdom have agreed to establish 'structured regulatory cooperation' for financial services.

1.2 Financial markets

Financial markets are optimistic about the economic recovery, as can be seen from the steady rises in prices of risky assets.

The vaccination rollout in developed countries has been a strong factor in boosting investor sentiment. The exceptional size of the fiscal support packages in the United States has also played an important role. Growth and inflation forecasts in the United States have consequently also risen. At the same time US stock markets are at record levels. European equity markets are also benefiting from the positive sentiment, with the Dutch AEX similarly reaching record highs. Finally, the debt issuance markets have flourished, with large volumes and risk remuneration comparable to those of riskier segments in pre-coronavirus times.

Equity markets have recently slowed down due to rising inflation expectations. Investors appear concerned about overheating, particularly of the US economy and the prospect of an earlier tightening of monetary conditions. The rising inflation data can be partly attributed to temporary factors linked to the reopening of the economy. Nevertheless, the longer-term inflation outlook has also risen, particularly in the United States, but also in the euro area.

Monetary policy plays a supporting role in countering the consequences of the coronavirus crisis by keeping financing conditions favourable.

Since economic activity has been severely restricted for some time due to containment measures, the potential to stimulate the economy through monetary policy is limited. Central banks are nevertheless playing an important supporting role in this crisis. The ECB measures have helped stabilise financial markets, maintaining favourable financing conditions and making it easier for banks to continue lending to firms and households. Banks can use targeted longer-term refinancing operations (TLTROs) to raise long-term finance on favourable terms, helping to sustain lending to the real economy. At the same time, the negative deposit facility rate does not apply to part of the reserves banks hold with central banks, reducing the impact of negative interest rates on banks' profitability. The collateral requirements for ECB loans to banks have also been temporarily eased. In addition, the Eurosystem is purchasing large volumes of mainly government and corporate bonds under the pandemic emergency purchase programme (PEPP). As at 14 May, the Eurosystem had purchased EUR 1,053 billion in debt securities under this programme. These combined measures have resulted in a substantial rise in monetary operations over the past year (Figure 4). Monetary policy is also playing an important supporting role in the United States, where the Federal Reserve's balance sheet has also grown substantially.

Risk-free interest rates have risen worldwide due to rising inflation expectations, but financial conditions remain accommodative.

Interest rates have risen particularly in the United States in 2021 (Figure 5), as a result of the higher growth and inflation outlook. Another factor is the Federal Reserve's implementation of an average inflation targeting framework, with the Fed committing to tolerate inflation (temporarily) above the 2% target. European interest rates also trended higher in the first few months of 2021, but this rise was stabilised in part by monetary interventions. In March, the ECB increased the monthly purchase volumes under the pandemic emergency purchase programme (PEPP) within the existing envelope. More recently the risk-free interest rate has risen again. The rise in nominal interest rates is being driven mainly by higher inflation expectations, so real financial conditions remain highly accommodative. Both monetary and fiscal policies are contributing to the maintenance of accommodative market conditions.

The maintenance of accommodative financing conditions fuels a continued search for yield. Low interest rates and accommodative monetary policy had led to a search for yield among investors long before the coronavirus crisis. The growing market for leveraged loans, the falling risk premiums on risky corporate bonds and high price-earnings ratios in equity markets illustrate the high risk appetite among investors. Investors' high risk appetite has returned following the recovery in financial conditions since the market correction in the spring of 2020 (see also [Box 1 'Search for yield during the coronavirus pandemic'](#)). Despite the great economic uncertainty, prices of risky assets have risen almost without interruption since the spring of 2020.

The recovery is still fragile and the risk of market corrections remains. Although the economic recovery is now clearly under way in some parts of the world, such as the United States and China, that is not yet the case in other countries, with the outlook for emerging economies remaining particularly uncertain. The further course of the pandemic also remains unclear. Investors still seem confident that central banks and governments will be willing and able to act as an insurer for downside scenarios. These could arise, for example, in the event of virus mutations resistant to current vaccines or if the economic recovery disappoints and turns out slower than financial markets have priced in. Sudden, sharp market corrections do not pose an immediate systemic risk, however. This is particularly the case where there is excessive leverage in the financial system.

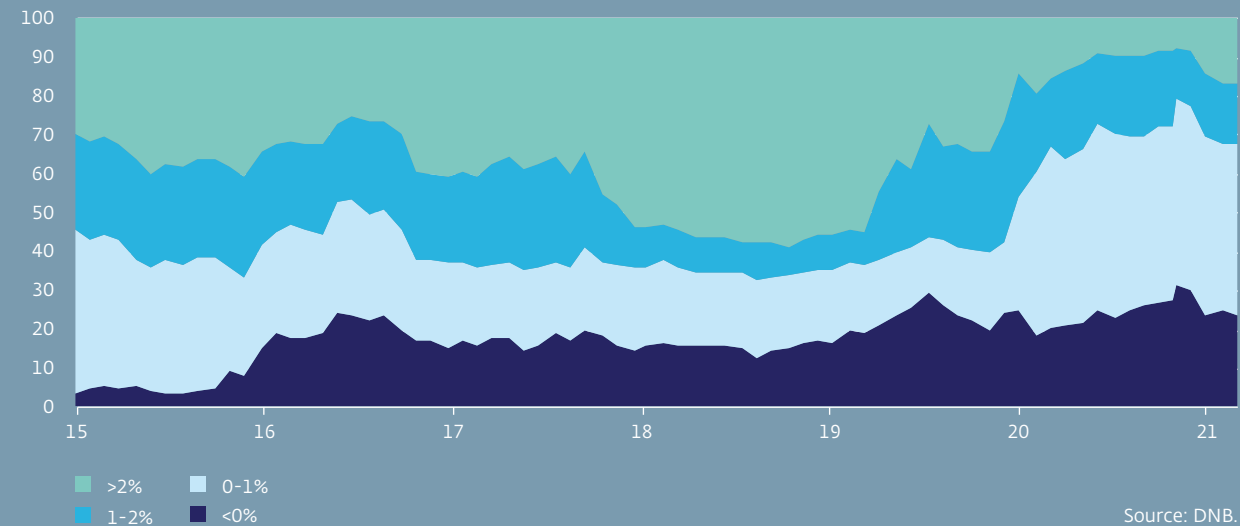
Box 1 Search for yield during the coronavirus pandemic

Meilina Hoogland and Gibran Watfe

Investors have intensified their search for yield since the coronavirus pandemic. In recent years there has been a downward trend in (risk-free) interest rates, making it more challenging for investors to achieve a return on safe assets. Only 15% of bonds worldwide are trading at a yield of more than 2% (Figure 6). In response, investors are shifting their portfolios to riskier assets such as equities and alternative investments. This shift has been amplified during the coronavirus pandemic due to the continued decline in interest rates. Interest rates have nevertheless picked up (slightly) in many parts of the world over the past few months due to the improved growth and inflation outlook. While this trend is consistent with the economic picture, the question remains to what extent the search-for-yield behaviour will abate and make risky assets susceptible to a correction. This risk would apply particularly in the case of a rapid, substantial hike in interest rates.

Rising prices in equity markets may point to a search for yield. Shares in the United States (+86% based on S&P 500) and Europe (+65% based on Eurostoxx 50) have risen almost without interruption from the low in March 2020, in many cases to record highs. These price

Figure 6 Only around 15% of bonds worldwide are trading at a yield of more than 2%
Percentage of total bonds



risers have caused valuation measures such as the cyclically adjusted price-earnings ratio (the price of a share compared to average earnings over the past 10 years) to reach an all-time high in the United States (Figure 7). In particular, valuations of equities with rapidly rising earnings expectations, for example in the

technology sector, are considerably higher than before the pandemic. Equity valuations have also risen in Europe, albeit to levels still in line with historical averages.

At the same time the signs of a possible search for yield are visible more widely in equity markets.

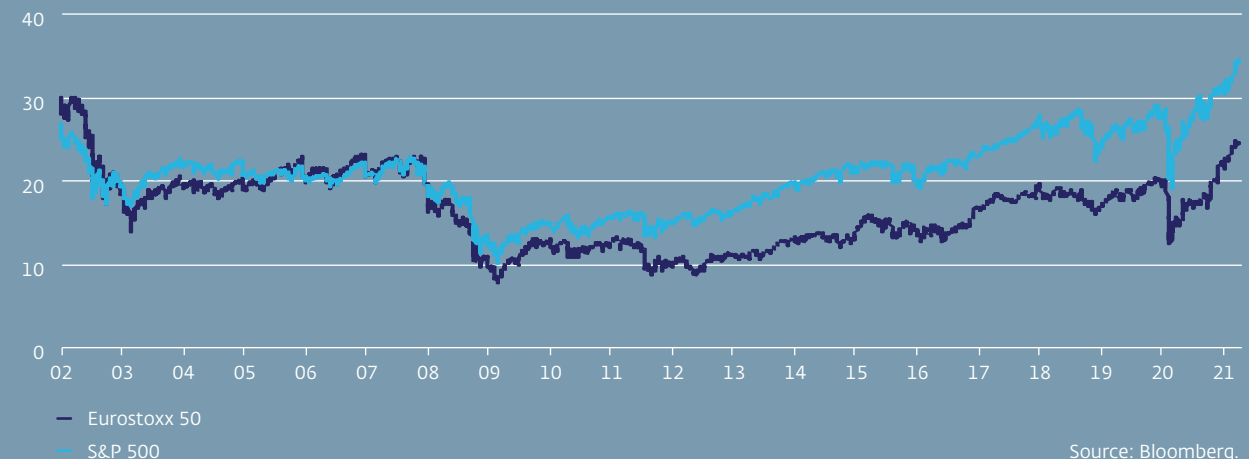
For example, positive market sentiment has driven the number of initial public offerings (IPOs) to the highest level in the last 10 years. Listings through Special Purpose Acquisition Vehicles (SPACs) have also become steadily more numerous in the equity markets. A SPAC raises capital through a stock market listing that enables the company to acquire businesses in the future. Attracted by the return, investors are prepared to incur risk without knowing in advance which business they will be investing in. The losses in the recent Archegos case also appear to show that banks too may be exposed to search-for-yield risks through opaque financial structures with relatively high leverage.

The increased activity of private investors in equity markets is also associated with a search for yield.

The number of private investors in the Netherlands rose by 11% to 1.6 million households in 2020 (AFM, 2021). This increase is linked to the lower returns on savings and a higher rate of household savings due to the coronavirus pandemic. But this also entails risks. It can lead to substantial price shocks in equity markets and losses among financial institutions, particularly if private investors move into speculative positions in shares of small listed companies, as in the case of the US company GameStop in early 2021. This also includes

Figure 7 US equity valuations at historic highs

Price-earnings ratios (cyclically adjusted)



speculative investments in cryptos, and large fluctuations in value may make private investors vulnerable.

Against this background the recent rise in interest rates raises the question of the extent of a future decrease in search for yield among investors.

Since the beginning of this year interest rates have risen in the United States and Europe due to improved growth and inflation outlooks as a result of massive fiscal stimulus and vaccine rollouts. The rise in interest rates has so far been most significant in the United

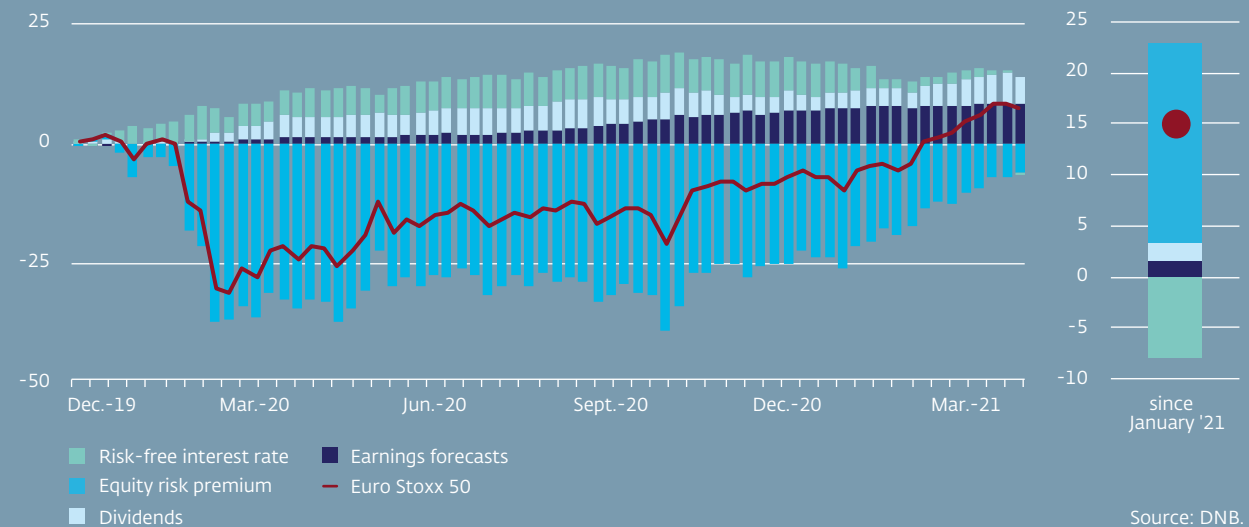
States, where the 10-year yield has risen by around 70 basis points this calendar year to 1.65% (compared to a 20-basis-point increase in the 10-year yield in the Netherlands). Higher interest rates are relevant to equity markets because they reduce the relative attractiveness of equities compared to risk-free assets. For the moment, however, rates are at historically low levels, so the yield on equities remains higher than on bonds.

Interest rate movements also affect share prices because the interest rate is used as the discount rate for future cash flows. The effect of interest rates on equities can be illustrated by means of a dividend discount model. This model assumes that the price of a share is equivalent to the present value of a firm's future cash flows. Share price movements are thus broken down into four drivers: dividends, earnings expectations, risk-free interest rate and equity risk premium (see Figure 8). The latter category reflects the additional remuneration that investors require to invest in shares compared to the risk-free alternative.²

The model shows that share price rises since mid-2020 have been driven in particular by higher earnings expectations and increased risk appetite among investors. Figure 8 shows the cumulative effect of the four factors on share prices since the end of 2019. It follows that the rise in European equities has been driven particularly by higher earnings expectations, indicating that investors are expecting a strong economic recovery. This makes equities vulnerable to economic setbacks. A further factor driving share prices is an increased risk appetite among investors, which is evident in a decline in the equity risk premium. At the same time the positive effect of interest rates on equity

Figure 8 Rise in European shares driven mainly by higher earnings outlook and lower interest rates

Percentages



Source: DNB.

valuations has diminished in recent months as a result of the recent interest rate rise. The future trend in equity prices will therefore depend crucially on the extent to which interest rate rises are gradual and accompanied by higher earnings expectations driven by a strong economic recovery.

² For the risk-free interest rate we use the 10-year swap rate. Since future cash flows cannot be observed, they are estimated on the basis of an expected dividend growth trajectory.

1.3 National developments

The Dutch economy has contracted sharply as a result of the coronavirus pandemic. In 2020 the Dutch economy contracted by 3.7%, a decline of historic proportions for the Netherlands, but less severely than had been feared and significantly less than, for example, the 6.6% contraction in the euro area as a whole. The fall in growth after the financial crisis was also somewhat larger. A further contraction was recorded in the first quarter of 2021, with households' consumption falling sharply by -13.5% in January 2021 compared to a year earlier (only the decline in April 2020 was greater, at 17.1%). At the end of 2020 the Dutch government brought in additional containment measures to curb the spread of new contagious variants, further constraining economic activity. The third wave started in earnest at the end of the first quarter, so the unwinding of containment measures was slower than previously anticipated, further delaying the economic recovery (see [DNB Interim Projection](#)).

The crisis measures have greatly helped to limit the economic damage. Dutch public finances were healthy before the coronavirus crisis, so the government was able to provide firms with relatively large volumes of direct support. This direct support has helped to keep the number of bankruptcies at an all-time low and

capital destruction has been avoided (see [Figure 9](#)). The impact on the labour market has also remained limited thanks to the support measures. Internal DNB research nevertheless shows that liquidity shortages among Dutch small and medium enterprises (SMEs) have increased since the outbreak of the coronavirus crisis. These are most acute in the sectors hardest hit by the containment measures, such as the hospitality, tourism and arts sectors. The proportion of insolvent firms in these sectors has also risen quite sharply, even though the rise has remained limited at macro level. More details on this will be included in the edition of Economic Developments and Outlook (EOV) due to be published by DNB on 14 June. It remains uncertain to what extent the economic damage of the coronavirus crisis will be permanent and how firms will react to the winding down of support measures. An increase in the number of business failures can be expected as an inevitable consequence of the return of healthy market dynamics to the economy (see also [Banks](#)).

The outlook for the Dutch economy is positive and the economic recovery is expected to gather pace in the second half of 2021. Due to the vaccination programme a growing proportion of the population is protected from the coronavirus, reducing the need for containment measures. The scaling back of these measures will allow the reopening of sections of the economy that were closed for a long time, leading to

a pick-up in private consumption. In the interim projection at the beginning of April, DNB predicted a strong economic recovery in the second half of this year, taking GDP back to the pre-coronavirus level by the beginning of next year. GDP growth in 2021 is expected to reach 2.2% (see [DNB Interim Projection](#)). The Dutch economy's recovery capacity is strong, as was evidenced between the first and second waves of infections, when the measures were temporarily relaxed and economic activity rebounded sharply. Low unemployment, households' accumulated savings and the limited structural damage due to the relatively low number of business failures are expected to bolster the recovery. Uncertainty remains as to the course of the pandemic in the near term and hence the precise trajectory of the economy recovery. DNB will be publishing its new projections for the Dutch economy on 14 June (EOV).

Dutch public debt has increased partly as a result of the extensive government support.. The debt ratio remains relatively low at just under 60% of GDP, which is below the European limit under the Stability and Growth Pact. The favourable financing conditions are also contributing to the sustainability of government debt. The Dutch government therefore still has considerable financial room for manoeuvre, so there is scope to allow the crisis support measures to be wound down carefully. During the recovery period,

once the virus is under control, the government must ensure that the economy does not remain dependent on government support. In the short term, however, it is important that the budget helps stabilise the economy by avoiding spending cuts and tax increases (see [Fiscal policy](#)).

1.4 Real estate markets

Housing market

The housing market remains overheated and homebuyers appear unfazed by the coronavirus crisis. The housing shortage is growing despite efforts to ramp up homebuilding. At the same time demand for homes has been fuelled by low interest rates, generous tax allowances (including zero-rate transfer tax for young homebuyers and increased gift allowances) and generous borrowing rules. This is inevitably leading to sharp rises in house prices. House prices rose by almost 8% in full-year 2020 and by as much as 10.3% in the first quarter of 2021, the biggest rise in nearly 20 years. Real house prices – adjusted for inflation – are currently running at over 5% higher than in the previous peak in 2008. The supply of new homes has suffered less from the containment measures than was feared a year ago. Nor has there been any sign of a dampening of demand for homes. Homes are still selling very quickly and confidence in the housing market is now higher than just before the pandemic

outbreak. The main exception is the Amsterdam housing market, which at 3.5% posted the lowest rise in prices of all the large municipalities in 2020 and where the coronavirus crisis led among other things to a sharp fall in home letting to tourists.

The strong rise in prices is squeezing the affordability of owner-occupied homes, particularly for first-time buyers. House price rises have significantly outpaced disposable income growth in recent years. Price-income ratios have consequently been exceptionally high, exceeding the previous peak in 2008. Finance costs have risen steadily despite the low interest rates. For first-time buyers and young homeowners, the finance costs for an average owner-occupied home are now close to the level just before the previous housing market crisis. Older homeowners who already owned a home before 2013 generally have much lower finance costs than younger homebuyers. That is because they can take advantage of more generous mortgage interest deductions, as they can still deduct interest on interest-only loans. The steep rise in prices and increased finance costs make it increasingly difficult for young people to buy a home.

Overheating means homeowners are incurring ever greater risk. Due to the tightness in the housing market, prospective buyers are increasingly outbidding each other and making offers without viewing or

without reservations. Over 60% of homes are now being sold above the asking price; in the four major cities the percentage is even considerably higher. Homeowners are having to borrow increasing sums to buy a home, not only in absolute terms but also relative to their income. First-time buyers in particular are often borrowing almost the maximum amount relative to their income (see [Figure 10](#)). They are also increasingly opting for a partly interest-only mortgage. Although the total proportion of interest-only loans has decreased steadily since 2013, an increase has recently been evident among younger households. Interest on an interest-only loan is not deductible, but these mortgages have lower monthly costs because no repayments have to be made. This may prompt households to borrow larger sums – closer to their maximum borrowing limit. For the same monthly charge a household may be able to borrow the sum necessary to make the winning bid. Here too, the coronavirus crisis seems to be having scarcely any impact. Despite the risks of job and income losses, homebuyers are prepared to go deep into debt to buy a home.

Although banks are applying stricter conditions, mortgage lending has remained almost constant. In 2020 the growth of total mortgage lending stood at 1.5%, a moderate level given the rapid rise in house prices and the very low mortgage interest rate. As in previous years, bank mortgage lending remained

almost constant, even though banks said they would apply stricter conditions due to the coronavirus crisis when granting mortgages (ECB, 2020). Banks are looking more critically at the possible impact of the coronavirus crisis on customers' income. The exposures of non-banking operators, mainly pension funds and insurers, to Dutch residential mortgages increased further.

Dutch households' high mortgage debt remains a key vulnerability. High indebtedness makes Dutch households and the economy vulnerable to a downward correction in the housing market. Consequently, Dutch banks too are sensitive to the (indirect) effects of a housing market correction. As a result of economic contraction, 2020 saw an end to the declining trend in the debt ratio that had begun in 2012. Mortgage debt currently stands at 94% of GDP. Other factors are also playing a part in halting the decline in this debt ratio. Due to the sharp rise in house prices, new mortgages are being granted for larger amounts, putting upward pressure on mortgage debt. In addition, voluntary repayments by households decreased over the past year compared to the previous year, despite a strong increase in savings. Voluntary repayments have made a major contribution to the decrease in the debt ratio in recent years. The number of mortgage defaults remains very low (0.8% as at 2021Q1). The number of homeowners getting into

payment difficulties may nevertheless increase if the government scales back the support measures during the year.

Commercial real estate market

The coronavirus crisis is magnifying existing vulnerabilities in the commercial real estate market, and the impact on prices and the financial sector does not appear to have been fully over yet. There were concerns about valuations of commercial real estate (CRE) even before the coronavirus crisis, partly due to long-term trends such as homeworking and online shopping. The pandemic has accelerated these trends, with a potentially structural impact on the value of commercial real estate. The pandemic is also having temporary effects, such as a fall in rental income as a result of the lockdown. Banks, insurers and pension funds have substantial direct and indirect exposures to the commercial real estate market. Against this background, this FSR analyses the sensitivity of the financial sector to a scenario of long-term falls in commercial real estate prices (see [Box 2 'Commercial real estate risks: an updated pandemic stress test for the Dutch financial sector'](#)). The analysis shows that a shock adjustment in the commercial real estate market, particularly in the context of a broader macroeconomic shock, would also impact the Dutch financial sector. The impact of the CRE shock would be

manageable for banks, insurers and pension funds at sector level. Pension funds would be hit harder, however, due to the combination of the CRE shock with the dynamics in fixed-income and equity markets in the macro shock scenario.

Box 2 Commercial real estate: an updated pandemic stress test for the Dutch financial sector

David-Jan Jansen, Francesco Caloia and Berend Schrijver

Introduction

This box analyses commercial real estate risks.

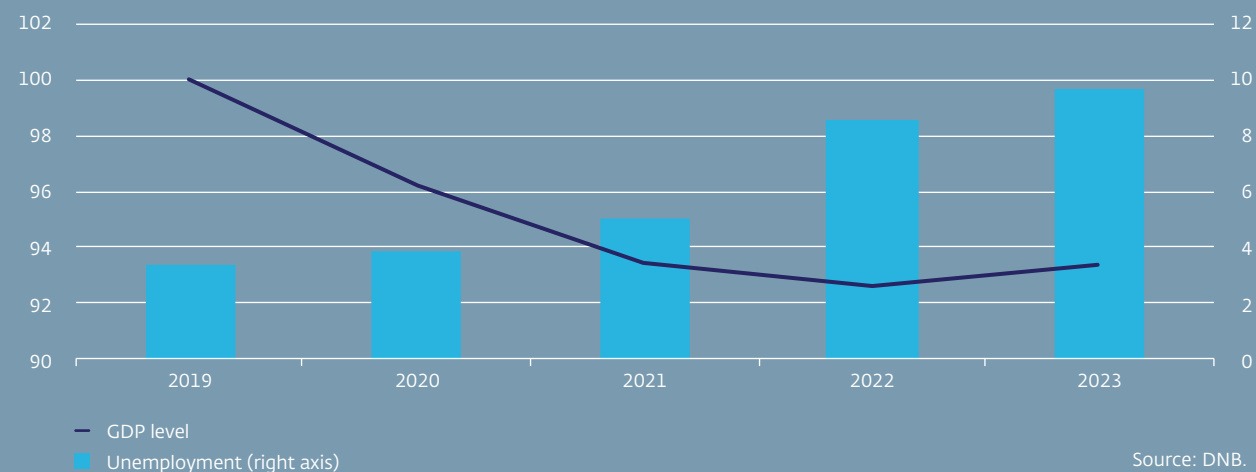
A structural shock in the CRE market is unlikely to be isolated and short-lived. We have therefore opted for a stress test, an instrument that allows a long-term analysis of a CRE shock amid a broader macroeconomic scenario. Such a stress test should not be seen as a prediction but as a thought process to assess tail risks. Here we continue to build on the two pandemic stress tests³ which DNB published in 2020. This new analysis also includes smaller banks, as well as insurers and pension funds. This gives us a clearer view of where potential vulnerabilities for commercial real estate lie in the financial sector.

Methodology

The CRE shocks are embedded in a stress scenario characterised by persistent uncertainty, lack of growth and a steep rise in unemployment. This stress scenario (an update of the very severe stress scenario from the [Economic Developments and Outlook](#) of December 2020) is again based on a relatively protracted vaccine rollout, the possible emergence of

Figure 11 GDP level and unemployment in stress scenario

Index 2019 = 100



Source: DNB.

new virus variants and a continuing need for containment measures. As a result, coronavirus continues to take a substantial toll on the economy in the Netherlands and around the world. On the basis of this narrative a macroeconomic scenario has been calibrated using DNB's Delfi model. In this calibration the Dutch economy does not recover until 2023 and

unemployment rises above 9% (Figure 11). The stress scenario is applied to the situation as at end-2020.

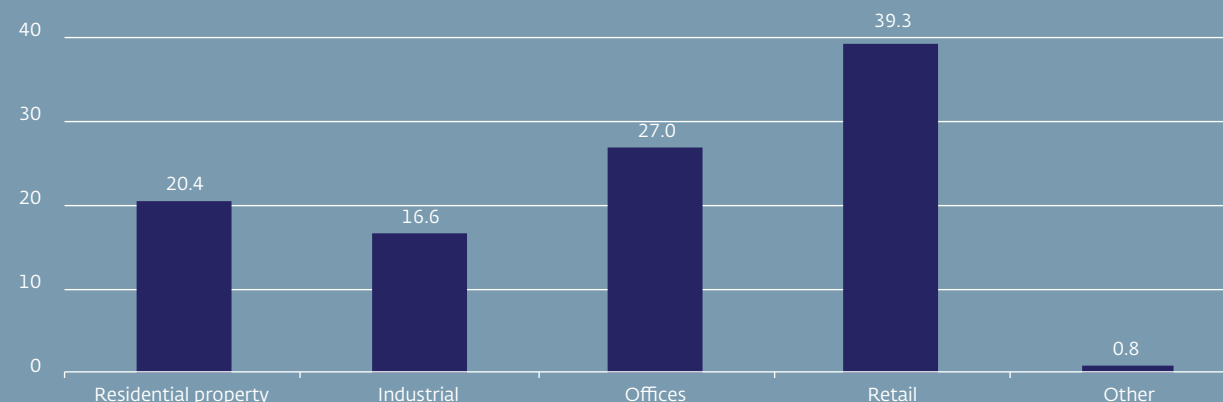
³ See [Financial Stability Report, Spring 2020](#) and [Economic Developments and Outlook, December 2020](#).

The stress test also assumes substantial shocks in commercial real estate. This stress test assumes bigger shocks in the commercial real estate market than we would expect purely on the basis of the macroeconomic picture described above. This is mainly due to the structural pressure on the commercial real estate market described earlier. This has been included, for example, by assuming an additional fall in corporate investment. In this specific stress scenario it has also been assumed that the market for commercial real estate is considerably more volatile than the residential real estate market.

The assumed price falls in commercial real estate differ depending on the subsector. In the stress scenario they exceed 30%. The analysis determines a price shock for each subsector based on historical correlations with house prices (20% cumulative decline in the scenario). The biggest falls in the scenario are in retail (-39%) and office property (-27%). Purely on the basis of historical correlations, the sharpest decline would be expected in these cyclically sensitive segments. Since structural trends also play a role in these sectors, however, the shock is further magnified

Figure 12 CRE shock by segment

Cumulative percentage price decrease



Source: DNB.

compared to subsectors such as industrial real estate (-17%) and residential real estate (-20%).⁴

Results

In the case of banks, the capitalisation in the scenario decreases by around 4 percentage points, particularly due to a rise in risk weights. Banks' resilience is often expressed in terms of their risk-weighted capital (CET1 ratio). Banks are currently well

capitalised despite the pandemic, with an average capital ratio of 17%. This is due in part to the low level of bankruptcies and limited dividend payouts.⁵ In the stress scenario this capitalisation would fall to just over 13%, mainly as a result of rising risk weights. In line with the economic stagnation, the default risk on many loans has risen, requiring more capital to be held. In particular the value of collateral on loans secured on commercial real estate has declined, leading to an

⁴ It is somewhat counterintuitive that homes also fall within commercial real estate. The reason is that commercial real estate includes major investments in social housing projects by pension funds, for example. The smallest shock has been applied to the "other" segment, which includes categories such as car parks and data centres.

⁵ The scenario assumes that 15% of profit will be distributed as dividend.

additional rise in the risk weighting for this category of loans. Without these specific shocks in commercial real estate, the decrease in the CET1 ratio due to rising credit losses and higher risk weights in this stress scenario would be around one percentage point smaller.

The impact on banks in this stress scenario is substantial, but would not immediately cause major lending problems. In this scenario banks would still have scope to absorb losses and large-scale lending cuts would not be necessary.

In the insurance sector the impact is felt particularly by life insurers, but there too the 17-percentage-point impact on the Solvency II ratio is manageable.

Insurers in the Netherlands invest 5% of their total balance sheet in commercial real estate (EUR 26.2 billion). The biggest exposures are to mortgages and are concentrated in the life sector. In this sector the scenario reduces the Solvency II ratio by 17.4 percentage points, so insurers remain well above the required 100% level. Figure 14 shows the Solvency II ratio in each subsector after application of the stress scenario as well as the decline in the ratio. The relatively minor impact also reflects insurers' limited sensitivity to the macro scenario.

Figure 13 Impact on banks

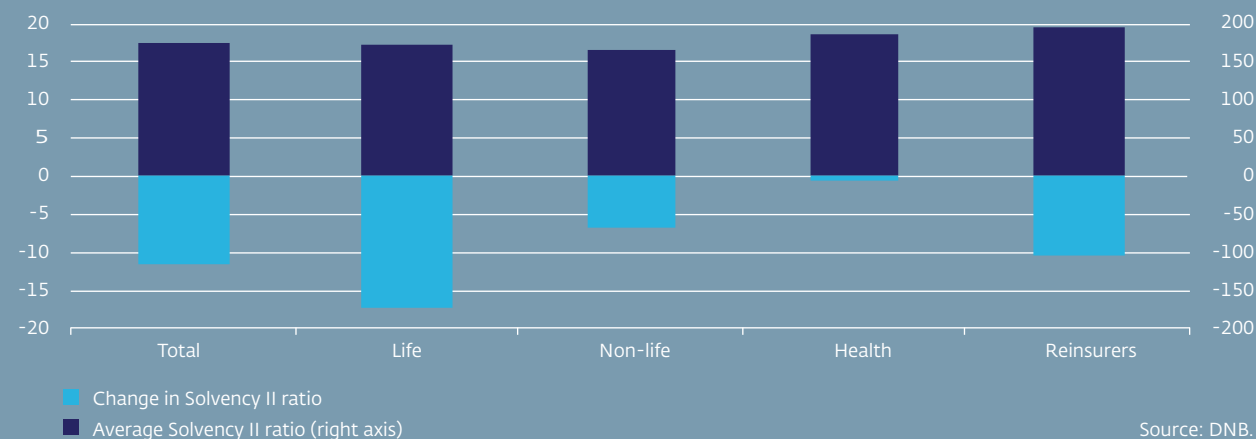
Percentage of risk-weighted assets



Source: DNB.

Figure 14 Impact on insurers

Percentage points; solvency ratio in percent



Source: DNB.

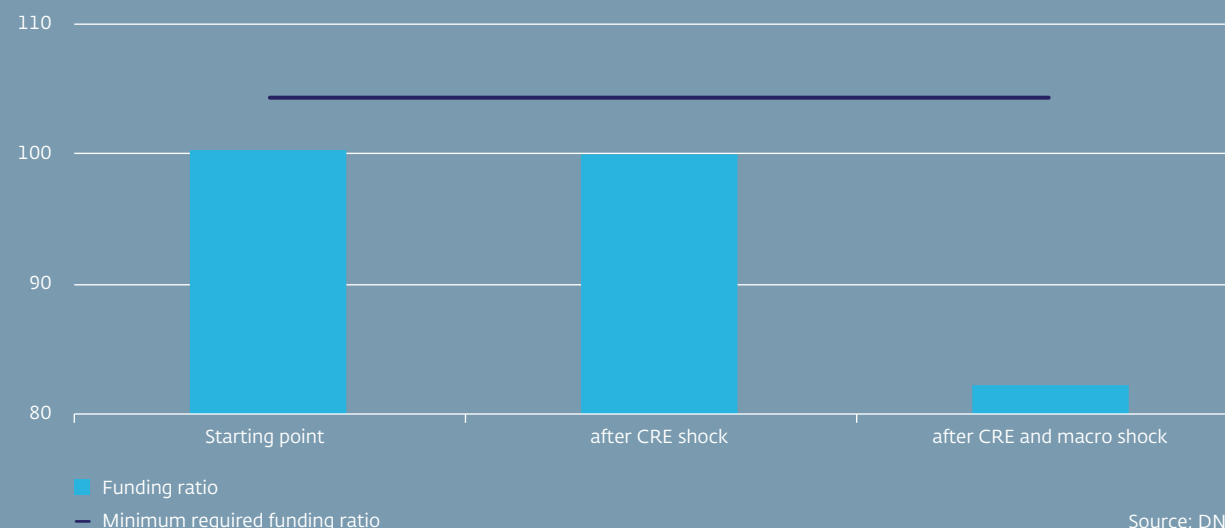
The impact on pension funds is relatively high due to direct exposures to commercial real estate, but particularly as a result of sensitivity to the macro scenario and a less favourable starting position.

Among the larger pension funds in particular, commercial real estate makes up a significant part of the portfolio (EUR 130 billion in total for the sector; 7.3% of the assets of the 10 largest funds). Whereas insurers and to a lesser extent banks are mainly exposed to CRE indirectly through mortgages, pension funds more often invest directly in real estate projects and/or funds. They could therefore be affected more rapidly by a price shock. The isolated impact of a CRE shock on the sector is limited, however, and causes the coverage ratio to fall by less than 1%. Pension funds are nevertheless more affected by the dynamics in the fixed-income and equity markets in the scenario. The average funding ratio in the macro scenario would consequently fall from 100.3% to 83.2 percent, leading to substantial deficits. These results underline the vulnerabilities among pension funds.

Conclusions

Due to a combination of cyclical and structural factors, a substantial commercial real estate price shock cannot be ruled out. The retail and office

Figure 15 Impact on pension funds
Percentage



Source: DNB.

segments are particularly vulnerable. Such a CRE-related shock would have a marked impact on the various Dutch financial institutions, particularly in the event of wider macroeconomic stagnation. The shock for banks would be substantial but manageable, partly due to their relatively comfortable buffers. Insurers would be protected by the limited sensitivity of the Solvency II framework to the macro scenario, their indirect

exposure to commercial real estate and comfortable margins above the statutory Solvency II requirements. The biggest vulnerability is among pension funds. In addition to the exposure to commercial real estate, pension funds are particularly sensitive to the macro scenario and the overall lack of buffers.

Figures

Sharp increase in euro area public and private debt
[See Figure 1 →](#)

Strong growth in balance sheets of Eurosystem and Federal Reserve due to support measures
[See Figure 4 →](#)

Guarantee schemes increase interconnectedness between governments and the corporate sector
[See Figure 2 →](#)

Rise in risk-free interest rates
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Decrease in volatility and policy uncertainty
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Only around 15% of bonds worldwide are trading at a yield of more than 2%.
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US equity valuations at
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Rise in European shares driven
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Bankruptcies at an all-time low
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CRE shock by segment
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Figures

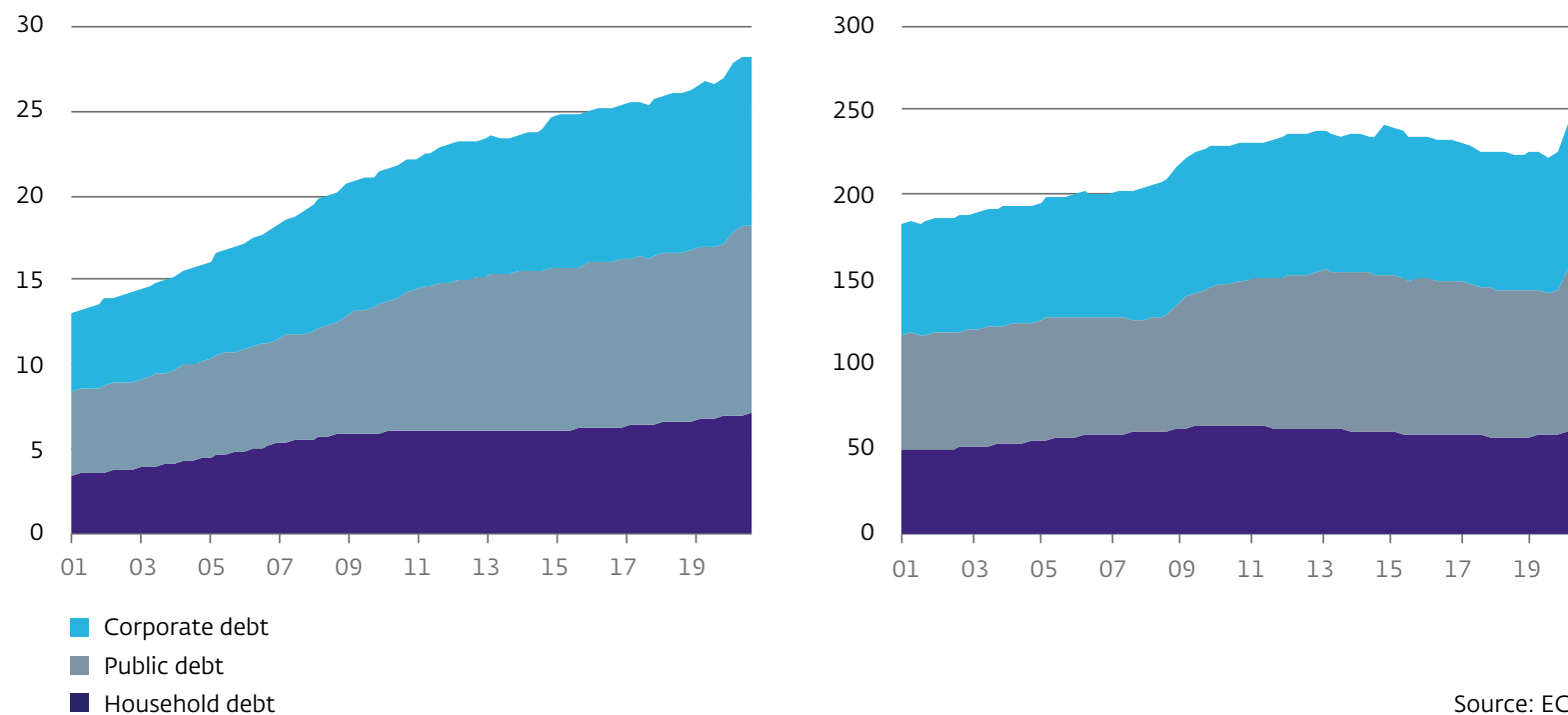
Impact on banks
[See Figure 13 →](#)

Impact on pension funds
[See Figure 15 →](#)

Impact on insurers
[See Figure 14 →](#)

Figure 1 Sharp increase in euro area public and private debt

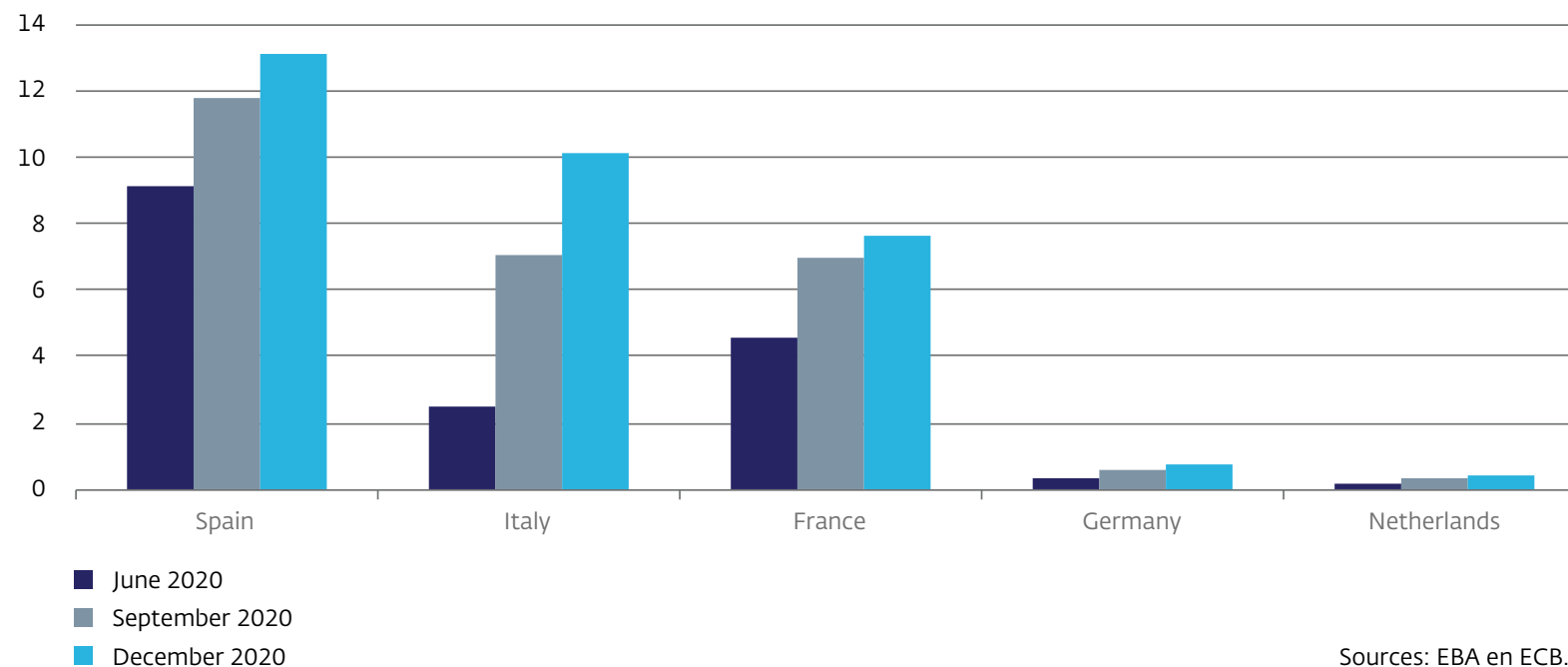
Euro area; EUR trillions (left) and % GDP (right)



Source: ECB.

Figure 2 Guarantee schemes increase interconnectedness between governments and the corporate sector

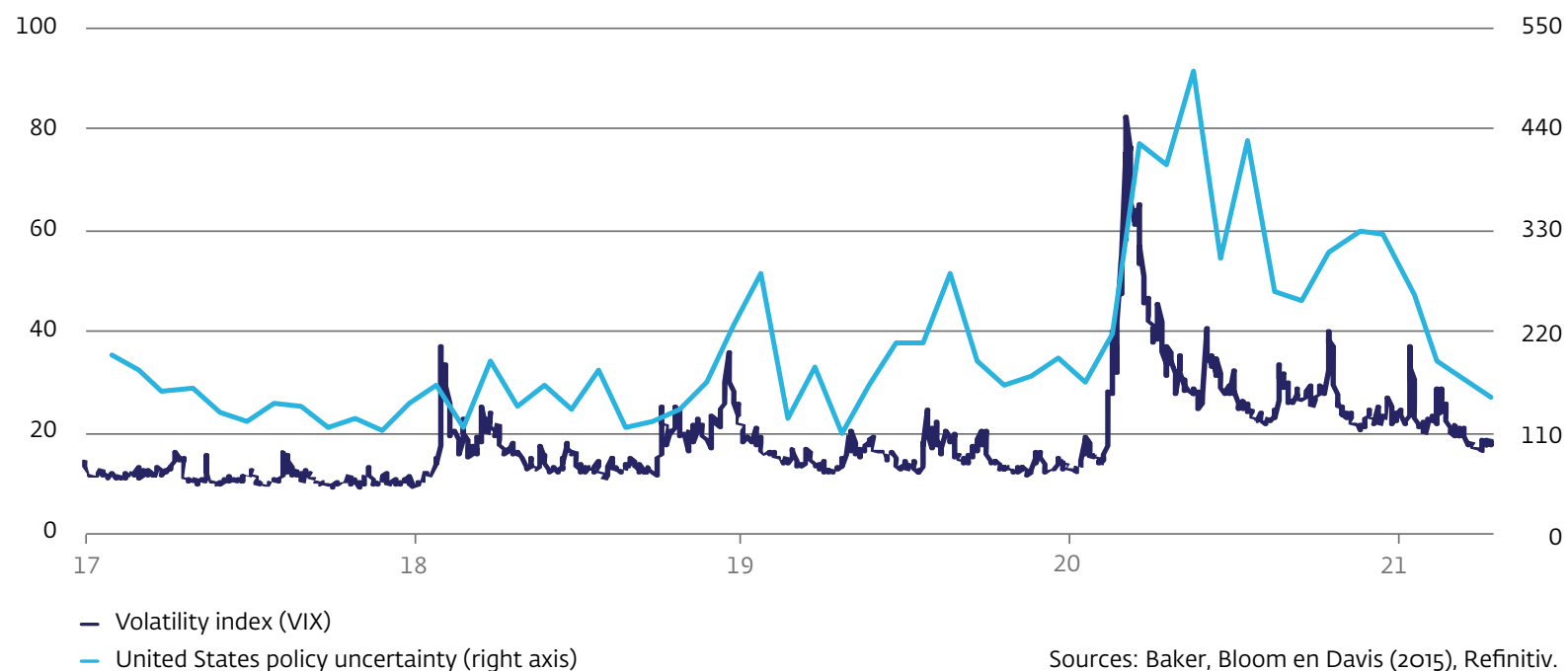
Percentage



Note: the percentage concerns corporate loans backed by guarantees relative to total outstanding corporate loans.

Figure 3 Decrease in volatility and policy uncertainty

Index



Notes: Policy uncertainty is gauged by the Economic Policy Uncertainty Index compiled by Baker, Bloom and Davis (2015). It measures the level of policy uncertainty by the frequency with which specific word combinations appear in major newspapers.

Figure 4 Strong growth in balance sheets of Eurosystem and Federal Reserve due to support measures

Percentage of GDP

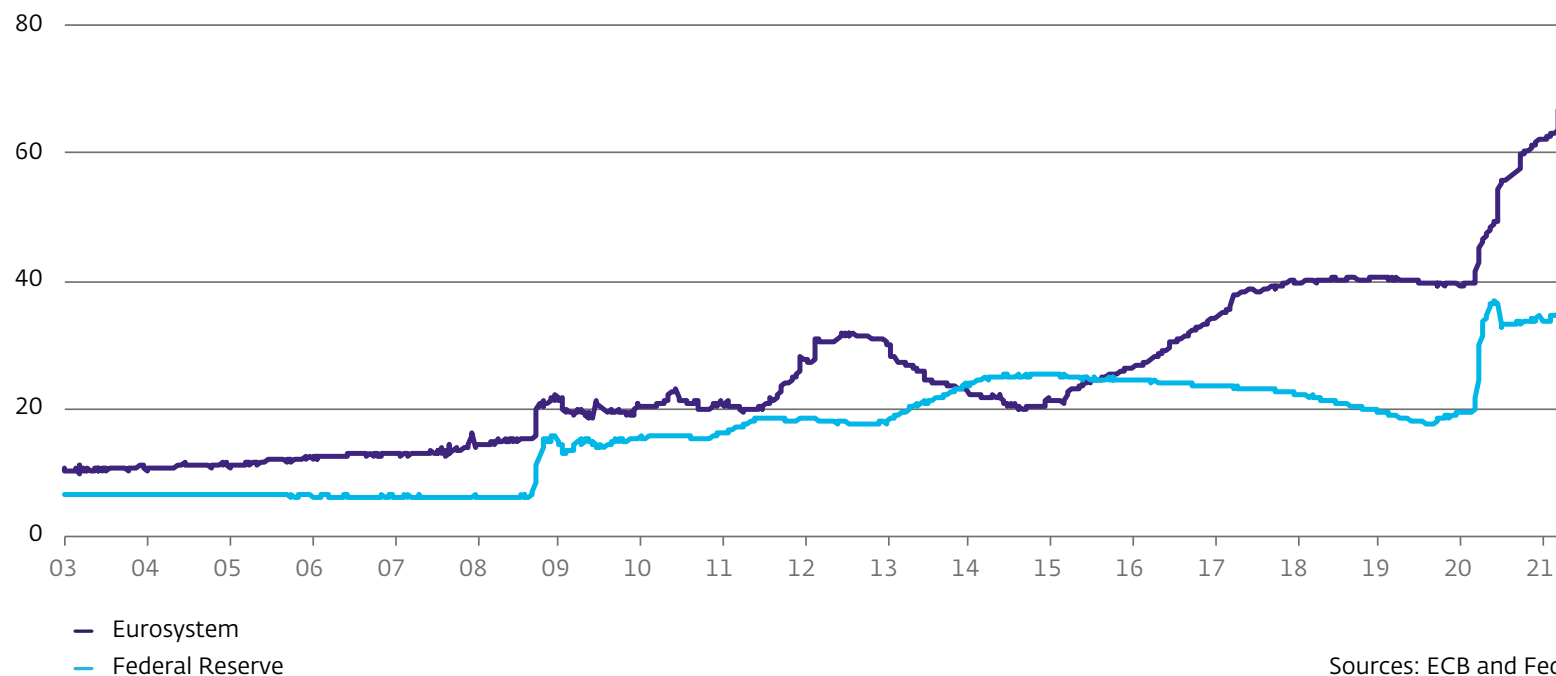


Figure 5 Rise in risk-free interest rates

Percentage yield on 10-year government bonds

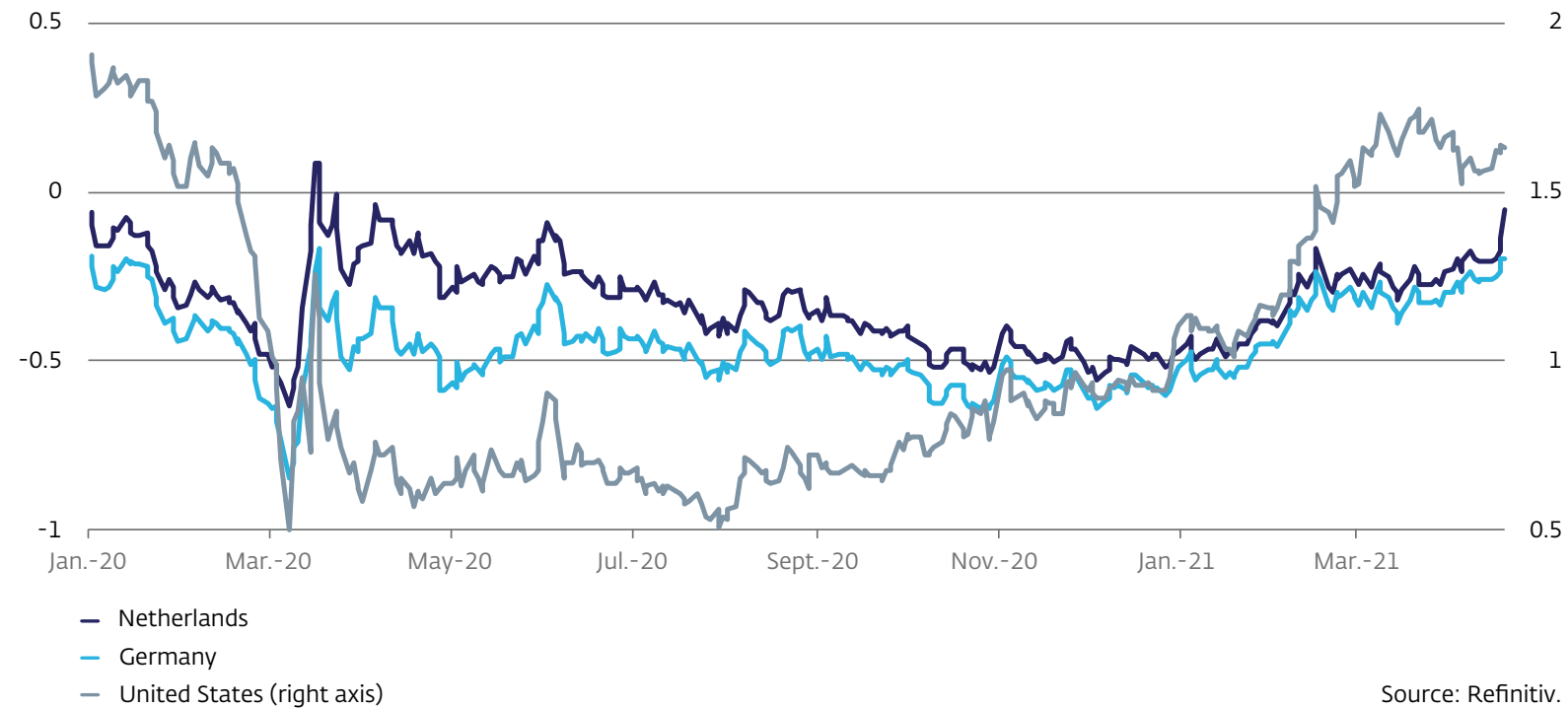


Figure 6 Only around 15% of bonds worldwide are trading at a yield of more than 2%

Percentage of total bonds

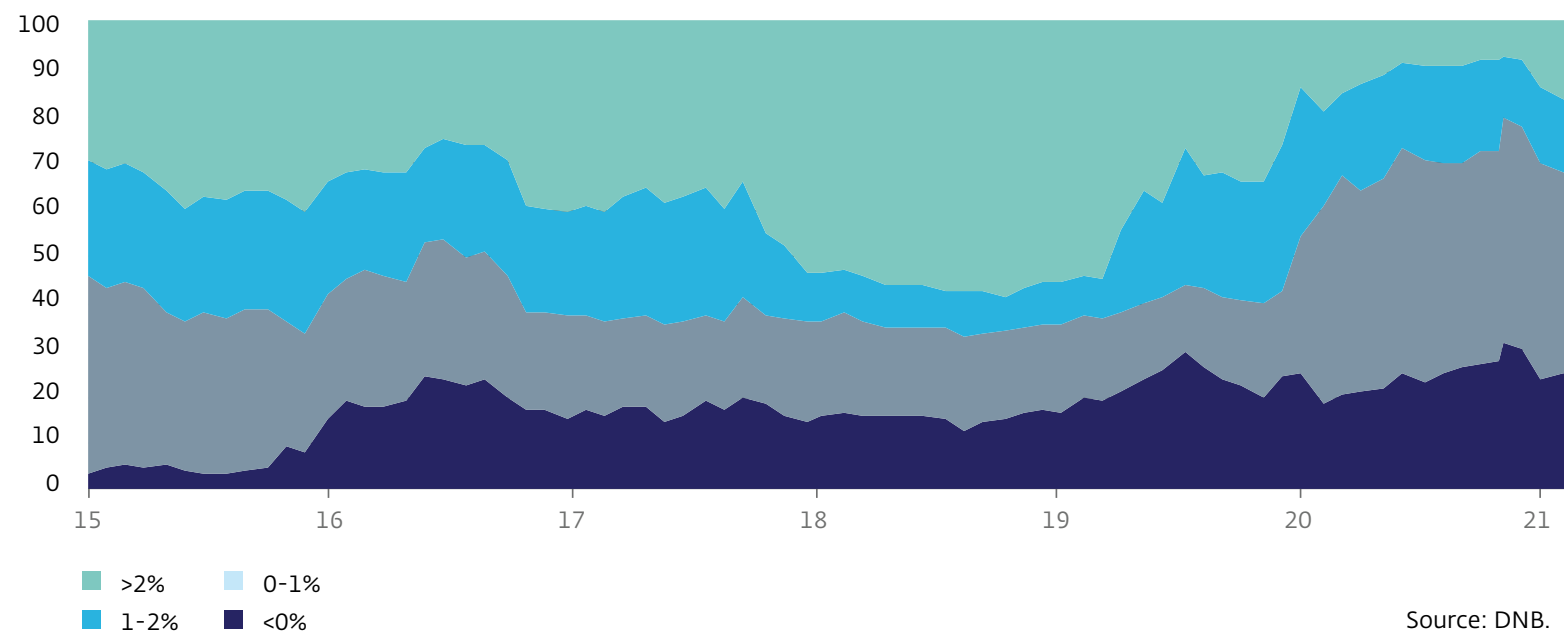


Figure 7 US equity valuations at historic highs

Price-earnings ratios (cyclically adjusted)

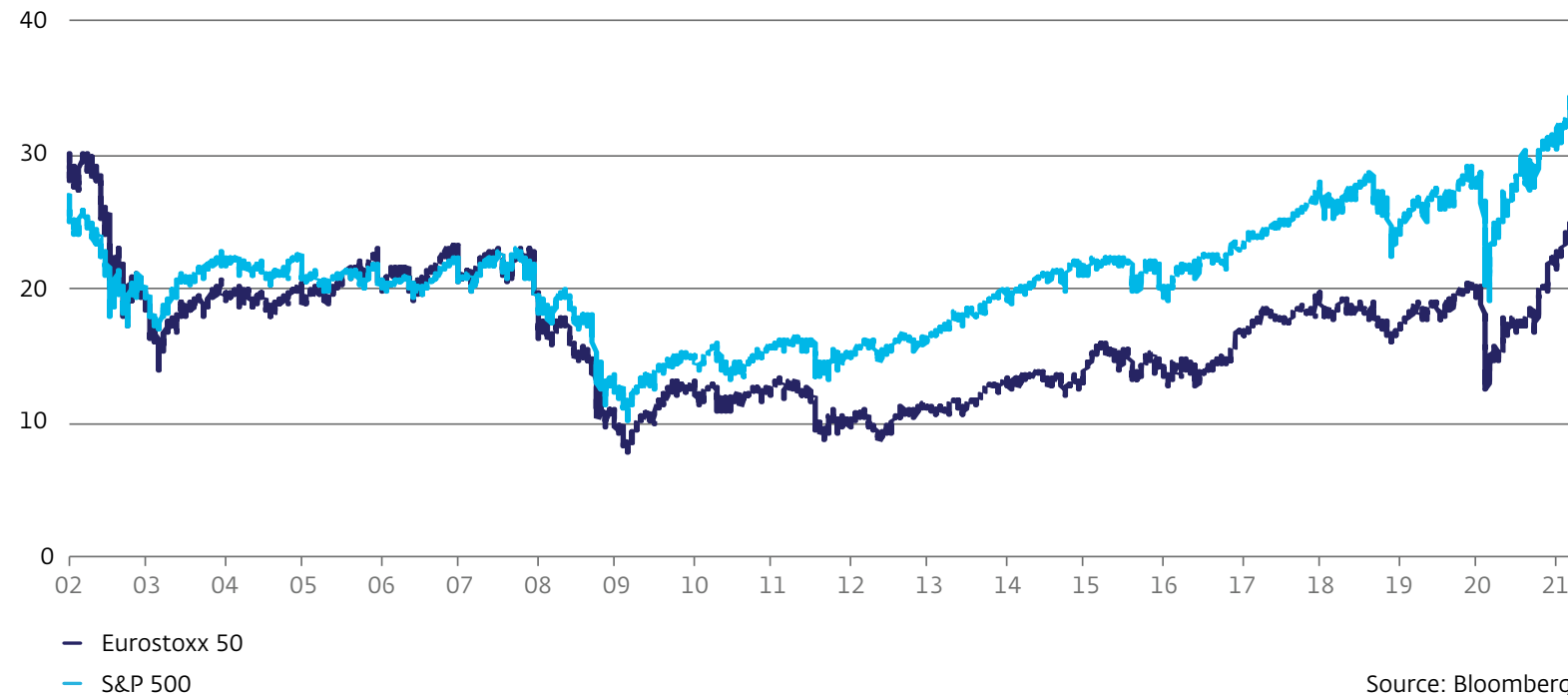


Figure 8 Rise in European shares driven mainly by higher earnings outlook and lower interest rates

Percentages

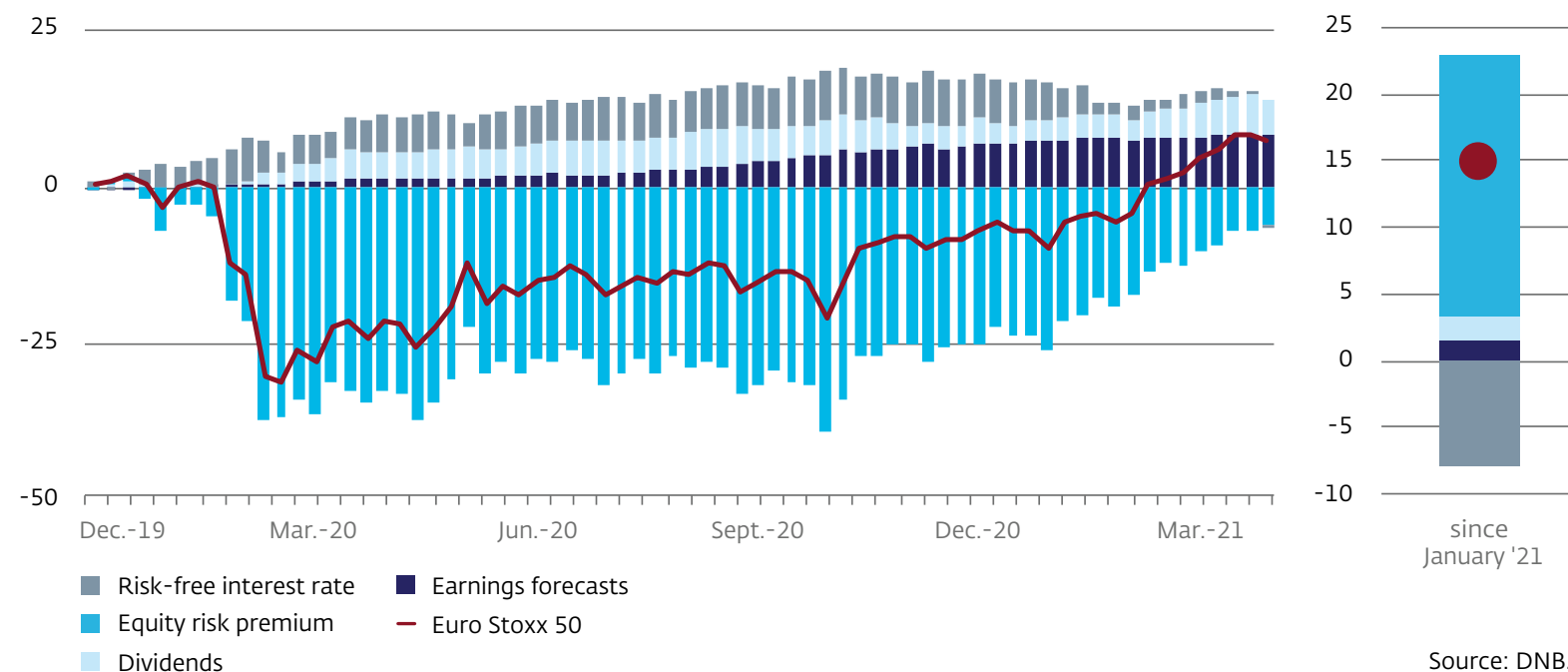


Figure 9 Bankruptcies at an all-time low

Number in past three months

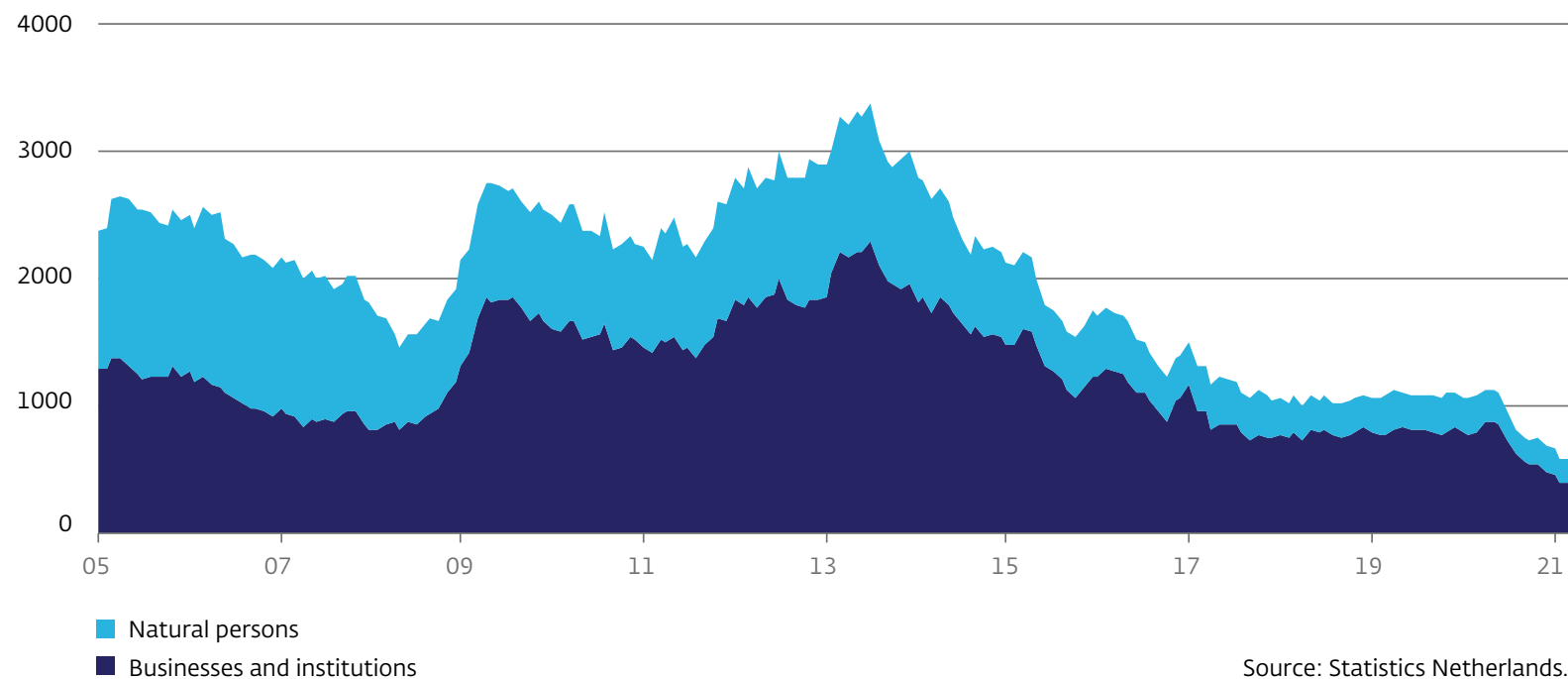
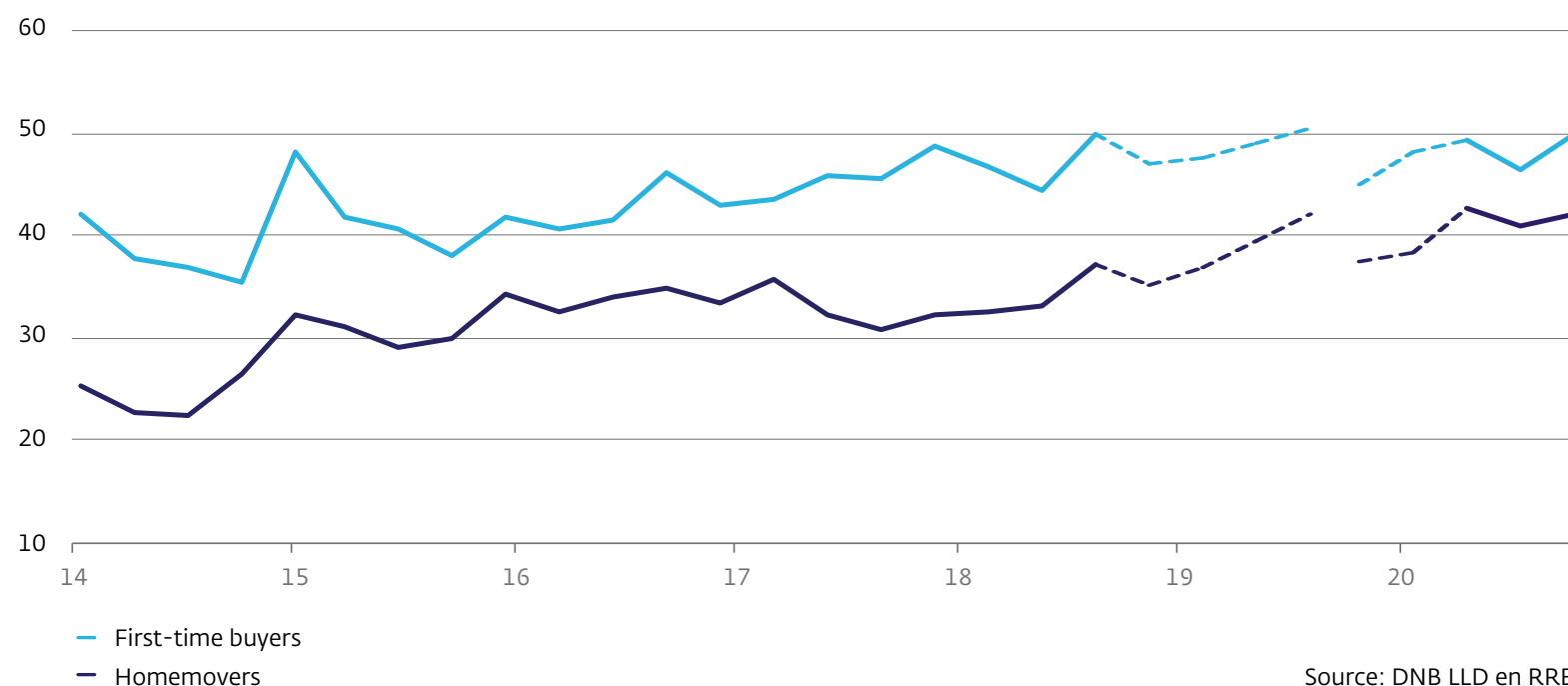


Figure 10 Homeowners' borrowing behaviour

Share of new mortgages with loan-to-income ratio above 90% of the maximum



Source: DNB LLD en RRE.

Notes: Data up to 2020 originates from the Loan Level Data (LLD) database. Data from 2020 onwards comes from the Residential Real Estate (RRE) database. The dotted datapoints in the figure are less reliable due to the limited number of institutions that reported (in case of the LLD) and because of initial issues with the data quality (RRE).

Figure 11 GDP level and unemployment in stress scenario

Index 2019=100

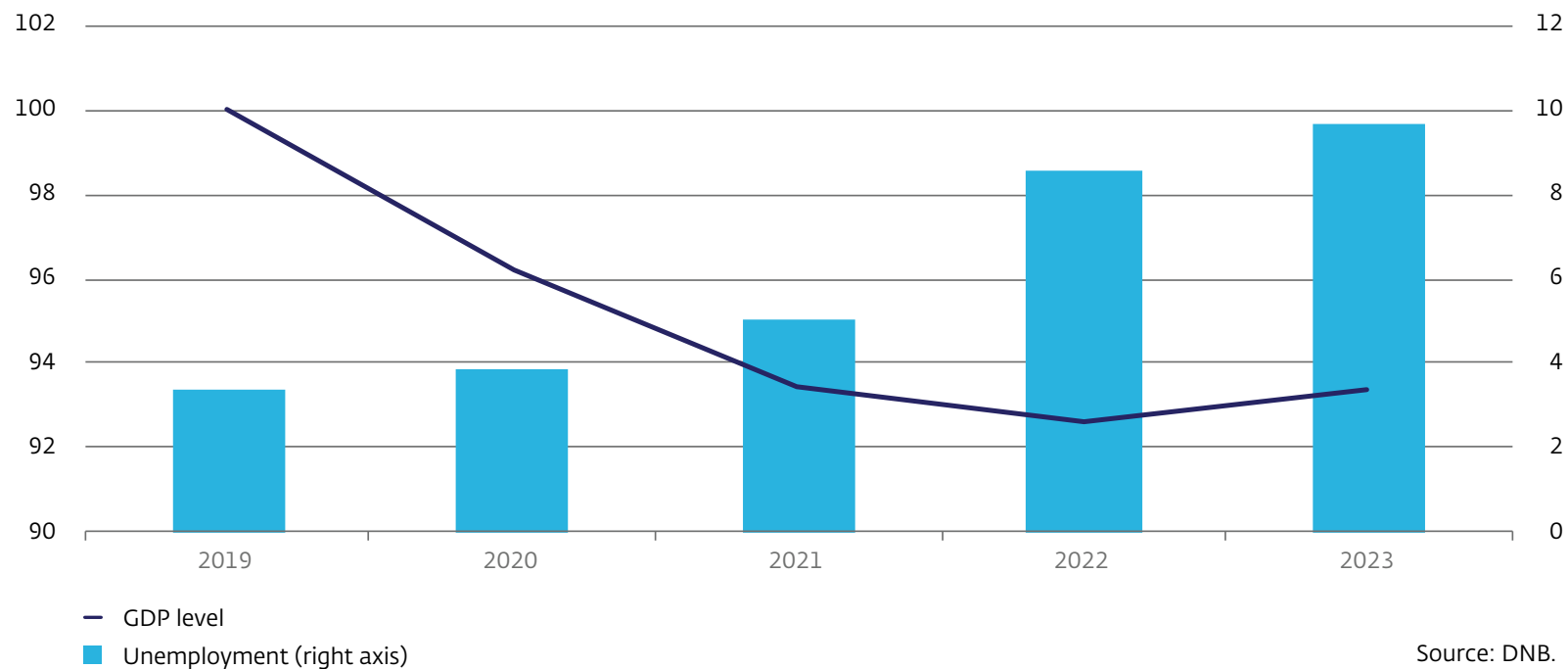
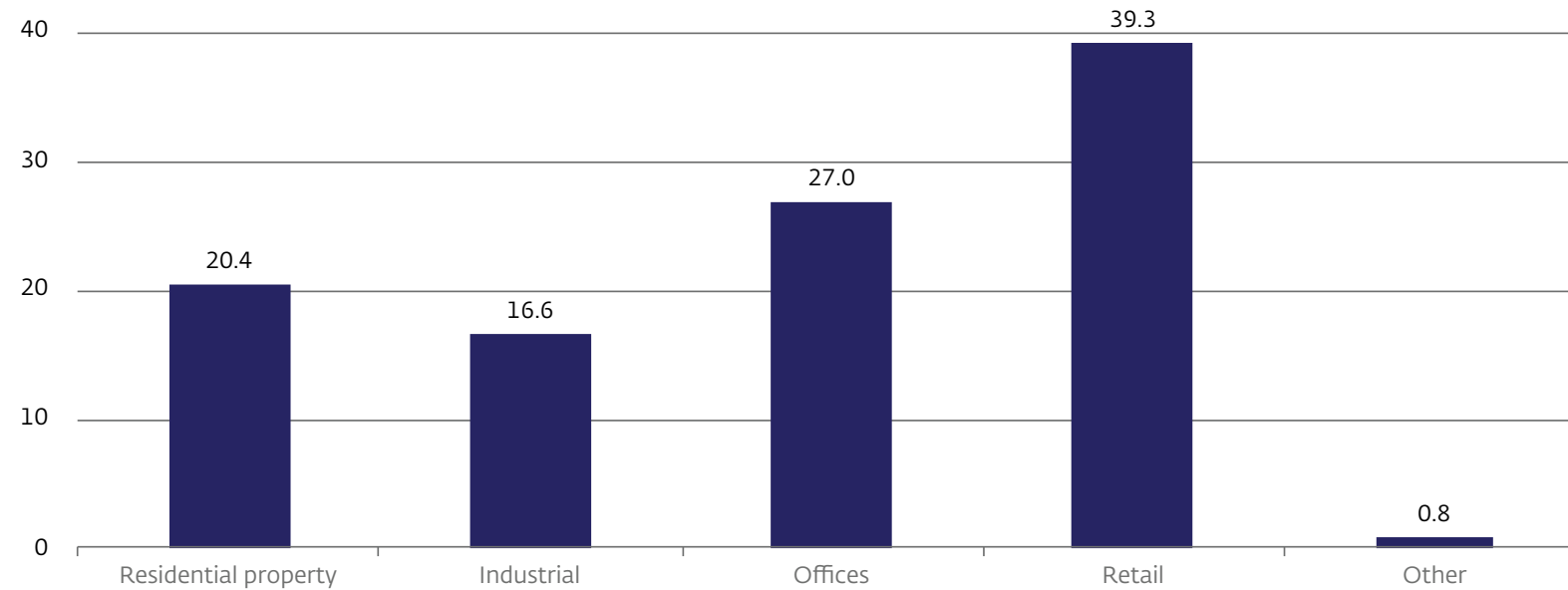


Figure 12 CRE shock by segment

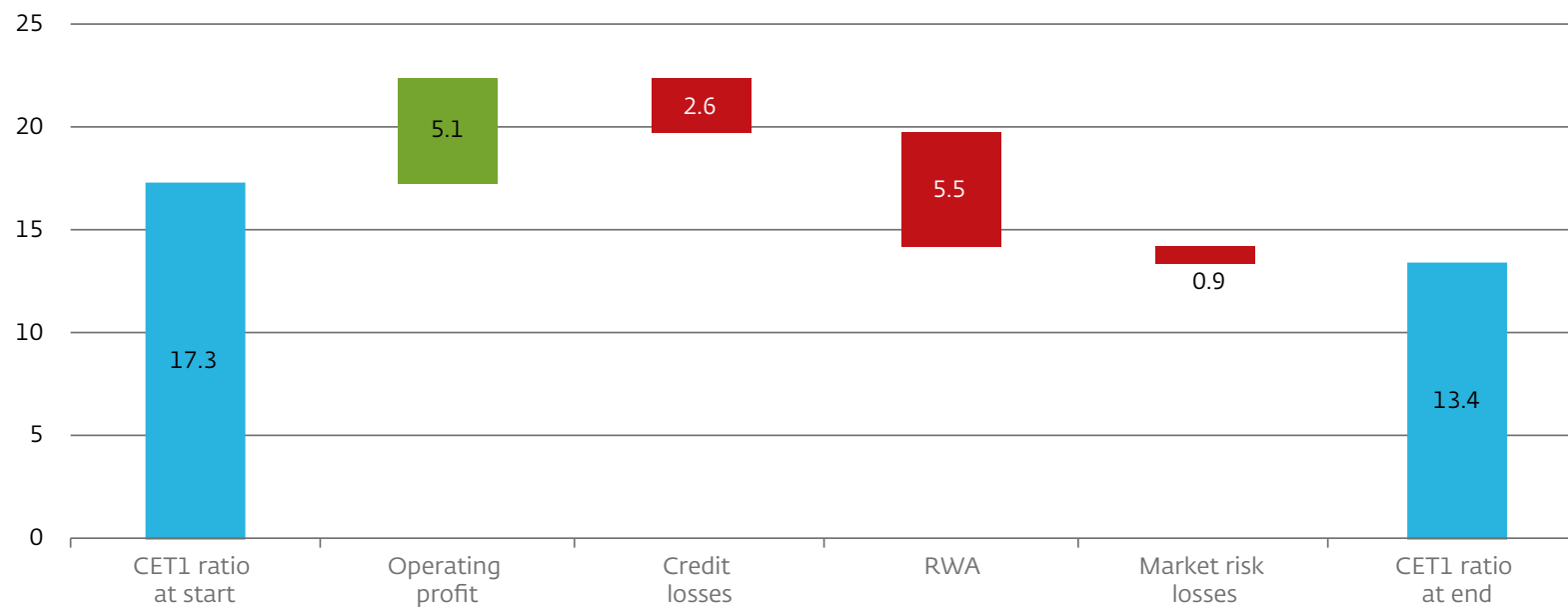
Cumulative percentage price decrease



Source: DNB.

Figure 13 Impact on banks

Percentage of risk-weighted assets



Source: DNB.

Figure 14 Impact on insurers

Percentage points, Solvency ratio percentage

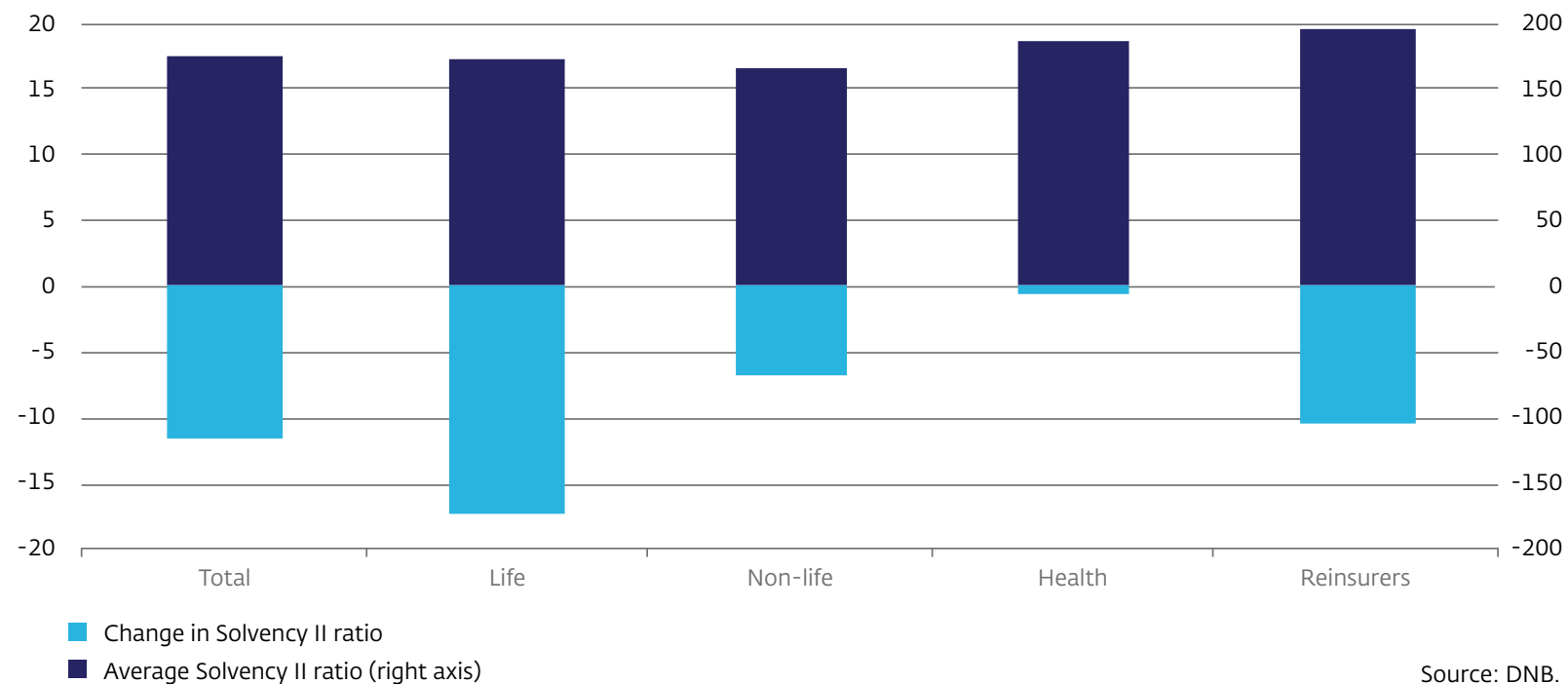
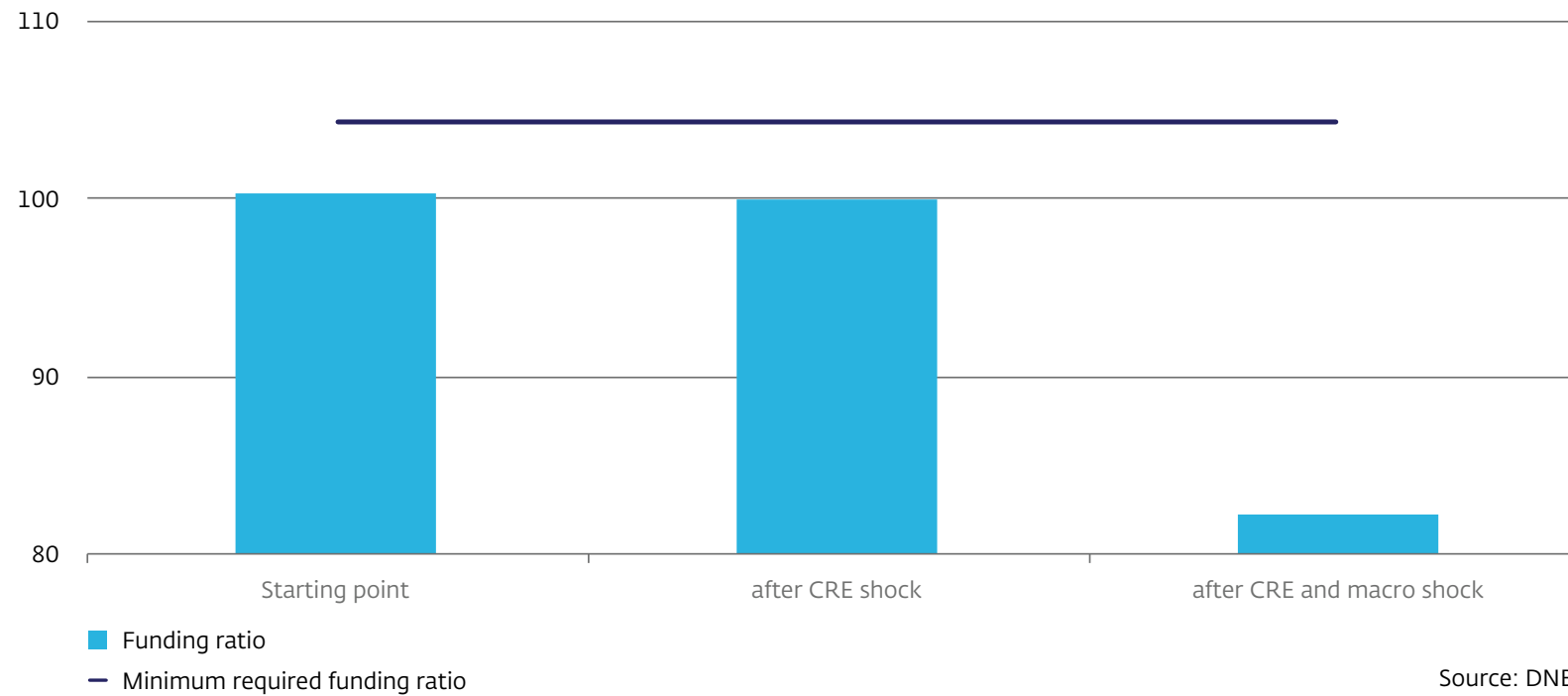


Figure 15 Impact on pension funds

Percentage



2 Financial institutions

2.1 Banks

Dutch banks have so far weathered the economic impact of the coronavirus crisis well. The banks' capital and liquidity positions have remained well above the statutory minimum requirements since the outbreak of the pandemic. Dutch banks' average capital ratio even rose slightly to 17.9% at the end of 2020 (see Figure 16). Partly due to the ECB's accommodative monetary policy, banks have sufficient access to liquidity and Dutch banks' liquidity coverage ratio (LCR) stood at 170% at the end of 2020. Banks' restraint with regard to dividend payouts – as a result of an ECB recommendation in force until 30 September 2021 – has also helped them to maintain a strong capital position.

Banks' current resilience is partly due to the reforms of the prudential framework since the global financial crisis. As a result of these reforms, banks have built up additional capital and liquidity buffers over the past 10 years. The major Dutch banks have been required to build up a systemic importance buffer of 3%, for example. These buffers now protect the banks against exogenous shocks and unexpected losses, but also provide additional scope to maintain lending levels at a crucial time for the economy.

DNB lowered the buffer requirements at the start of the pandemic, making EUR 5 billion of additional capital available to the banks. DNB also postponed the introduction of a lower limit for the risk weights of mortgages (see also [Prudential policy](#)).

Partly thanks to prudential, fiscal and monetary measures, lending by banks has remained stable since the start of the coronavirus crisis. Almost half of Dutch banks' loan books comprised loans to households at the end of 2020 (of which 90% were mortgage loans), so the proportion was fairly constant compared to the pre-crisis period. The volume of new loans to non-financial corporations in the Netherlands has fallen below the pre-crisis level since the autumn of 2020, but it did recover strongly in March 2021 (see [Figure 17](#)). The decline in the autumn was possibly due to the tighter credit conditions imposed by banks, which made it harder for businesses to meet the borrowing requirements. The fact that many firms have received direct government support and therefore had less need of bank loans may also have played a part. A decrease in demand for credit is also due to the fact that firms are deferring investments amid the economic uncertainty. According to the Dutch Banking Association (NVB) the recent rise in outstanding corporate loans has been most marked in loans of

EUR 1 million and over. These loans were mainly issued to large companies. SMEs appear so far to be more cautious about drawing new loans.

Bank's losses on their loan books have barely risen so far. [Figure 18](#) shows no significant rise in the number of non-performing loans (NPLs) issued by banks. The percentage of NPLs among foreign firms borrowing from Dutch banks has nevertheless increased. The extensive government support packages have so far eased firms' solvency and liquidity problems. In 2020 the Dutch government granted support worth EUR 17.6 billion to cover wage costs and overheads (CBS, 2021). Tax deferrals amounting to EUR 16 billion were also granted last year. Partly due to direct government support, the number of bankruptcies has been at a historically low level and firms in the Netherlands have made relatively little use of indirect measures such as moratoria and guarantees compared to firms in other European countries. Since the beginning of the crisis Dutch banks have granted EUR 3.3 billion of financing to more than 8,200 firms backed by government guarantees under various schemes. Payment holidays were also granted to 129,000 firms in 2020 for a total of EUR 3.1 billion ([NVB Corona-monitor](#)). Furthermore, the economic shock is mainly concentrated in sectors to which the

banks are less exposed (see [Figure 19](#)). Dutch banks' exposure to the hardest-hit sectors – such as part of retail, transport, hospitality, culture and education – amounts to around 15-20% of the total corporate loan portfolio. The differences between individual firms within sectors may be substantial, however, with some firms in one sector actually benefiting economically from the pandemic while others are sustaining losses.

Major uncertainty nevertheless surrounds possible future losses on corporate loans. Bank balance sheets have seen a minor deterioration in credit quality since the start of the crisis (see [Figure 20](#)). The proportion of loans with a so-called stage 3 classification has remained stable and amounts to around 5% of the total loan portfolio. These are loans in which losses have arisen or where the bank has concluded that the customer will be unable to repay in full. At the same time the proportion of loans with a stage 2 classification has risen from 10% to 15%. These are loans that do not have long-term payment arrears but do have significantly elevated credit risk compared to the time of granting of the loan. This rise in stage 2 loans mainly occurred just after the outbreak of the pandemic. At that time banks took a more generic approach when assessing their loans. Since then banks have built up a clearer picture of individual firms' financial positions and made more specific risk estimates. Banks are still finding it difficult to make a proper assessment of firms'

creditworthiness, however, because actual credit quality is obscured by the support measures.

Dutch banks appear well able to absorb extra losses, but they must recognise payment problems in time and adjust their provisions accordingly. Banks built up an additional EUR 12.5 billion of extra provisions in 2020. But whereas they added an average of EUR 4.6 billion of provisions in the second and third quarters, the net addition in the fourth quarter of 2020 fell to EUR 850 million (see [Figure 21](#)). Banks thus appear to some extent to be anticipating a new phase of the pandemic, although losses on corporate loans may rise significantly when the crisis support measures are scaled back (see [Box 3 'Tail risks: alternative scenarios with mounting losses in the corporate loan portfolio'](#)). Banks must recognise customers' growing payment problems in good time. It is vital that they monitor all outstanding loans, particularly where payment deferral has been granted, and assess whether customers are still able to meet their commitments. This poses operational challenges for the banks.

In their risk weighting for mortgage loans banks take insufficient account of the systemic risks inherent in the housing market. A key reason for DNB's announcement of the introduction of a lower limit for the risk weights of mortgages in the autumn of 2019 was the fact that the decline of these risk

weights between 2015 and 2018 was at odds with the increased systemic risks inherent in the Dutch housing market. Since then, the discrepancy has continued to grow. The banks' risk weights for mortgage loans continued to decline, partly due to the increase in the value of collateral. At the same time, the systemic risks inherent in the housing market continued to increase, due to accelerating house prices and riskier behaviour (for more details, see Prudential policy).

At the same time, the pressure on banks' profitability and business model continues. Low interest rates are maintaining pressure on banks' earnings models, as banks have limited scope to earn on the margin between the interest on deposits and new loans. This pressure has been exacerbated by the rise in savings since the start of the coronavirus crisis. A number of major banks have responded by setting a savings threshold above which customers pay negative interest (of -0.5%). In mid-April the banks announced that they were lowering this threshold. Part of the reserves that banks hold with central banks are currently exempt from the negative deposit facility rate, which reduces the impact of negative interest rates to some extent.

Box 3 Tail risks: alternative scenarios with mounting losses in the corporate loan portfolio

Marco van Hengel, Francesco Caloia, Michiel Tukker, Carsten Folkertsma

The outlook for the business sector is uncertain. When the crisis support measures are phased out, it should become clear to what extent businesses can continue to fulfil their payment obligations without government support. Many firms will largely be able to resume their normal activities. However, it is also likely that some firms will no longer be viable after the crisis and the number of bankruptcies will rise.

Dutch banks currently appear well placed to absorb future losses on corporate loans. The total exposure to loans to domestic and foreign firms amounts to EUR 550 billion. The proportion of these that banks have designated as non-performing increased slightly last year, to EUR 26.4 billion. At the same time banks have already anticipated possible losses by raising their provisions for specific loans to non-financial corporations fairly sharply by EUR 2.5 billion to EUR 11.4 billion. On the basis of the banks' risk models and the expected economic recovery, this appears sufficient at present to

absorb the impact of rising bankruptcies. Since banks had already taken additional provisions last year, some provisions may even be released (giving rise to profit) if the proportion of non-performing loans remains unchanged. The likelihood is that NPLs will increase, however.

We have calculated a range of alternative scenarios in order to estimate tail risks. The aim is to gain an idea of the scale of the potential impact. Hence this is

not an estimate of the actual expected outcome. Nor is it a fully-fledged stress test. We are making a number of simplified assumptions concerning a rise in the proportion of non-performing loans (NPLs) in order to better assess the potential scale. We also draw a distinction in terms of sectors. Around EUR 100 billion of the total exposure to corporate loans relates to sectors that are relatively vulnerable due to the coronavirus crisis. Figure 1 gives an indication of the results.

Table 1

	A. NPL shock	B. Slow recovery	C. Wave of bankruptcies	D. Economic reorganisation
NPL growth factor relative to Q4 2020 (average)	1.33x	1.5x	1.8x	1.8x
Loss-given-default multiplier	1x	1x	1x	1.2x
NPL ratio (calculated)	6.4%	7.2%	8.6%	8.6%
Additional impairments	1.4 billion	3.0 billion	5.9 billion	8.9 billion

Depending on the assumptions, banks need to take a further EUR 1.4 billion to EUR 8.9 billion of additional provisions. If the recession causes an increase in the number of bankruptcies, insights from previous economic cycles and additional calculations suggest the proportion of NPLs may rise additionally by an average of 33%. The additional provisions required on top of the current level would then amount to around EUR 1.4 billion. If it is also assumed that the recovery

takes longer than expected and the number of NPLs is higher (scenario B), the additional losses may amount to EUR 3.0 billion. If we also assume that the problems are spread more widely across all sectors, the loss increases further to EUR 5.9 billion. Finally, a scenario has been examined in which the average size of the loss increases by 20% (scenario D). In that case the provisions would have to rise by EUR 8.9 billion.

These calculations show that the scale of losses on corporate loans could increase sharply in the event of setbacks to the economic recovery. At the same time the losses are of a scale that banks should still be able to absorb from current earnings and the available capital and buffers. Developments must nevertheless still be monitored closely. The nature of the crisis is such that consequences for firms and calculations of credit risks may be more uncertain than normal.

2.2 Insurers

The direct impact of the coronavirus crisis on insurers has so far been limited, but the sustained period of low interest rates is putting their business model under growing pressure. Dutch insurers' statutory capital position is well above the requirements, with an average solvency ratio of 191% for life insurers and 174% for non-life insurers, and has barely changed during the coronavirus crisis (see Figure 22). Insurers are nevertheless indirectly affected by the consequences of the pandemic. The market value of the investments in corporate bonds may be affected by growing problems in the corporate sector (see Box 3 'Tail risks: alternative scenarios with mounting losses in the corporate loan portfolio') and exposures to commercial real estate

may negatively impact the financial position (see Box 2 'Commercial real estate: an updated pandemic stress test for the Dutch financial sector'). The pressure on insurers' financial position and traditional business model nevertheless comes mainly from the sustained period of low interest rates. To maintain profitability, insurers need to sell new life insurance policies against relatively high premiums. Tax changes have made these products steadily less attractive to customers and few life insurance policies have been taken out in recent years. Some progress has been made in future-proofing the sector through cost-cutting, consolidation and product rationalisation, but it remains highly vulnerable to low interest rates. Additional measures, such as further cost savings, product innovations and premium increases, may ease pressure on the earnings model, but they cannot

eliminate it entirely. EIOPA is conducting stress tests on European insurance groups this year to gain an up-to-date picture of the vulnerabilities in the insurance sector.

There is a risk that life and funeral insurers will be unable to meet their liabilities and deliver previously guaranteed returns. Many insurers have issued long-term guarantees in the past and in a long-term low interest rate environment there is a risk that they will not be able to fulfil these guarantees because of insufficient earning capacity. In part this is because insurers value long-term liabilities on the basis of interest rates that are considerably higher than current market interest rates. The use of the ultimate forward rate (UFR) and the volatility adjustment (VA) produces an overly optimistic picture of the liabilities. On the other hand, the lack of new policy writing makes

earning capacity more dependent on (uncertain) investment returns. Without (sufficient) returns above the risk-free market interest rate, life insurers are seeing their Solvency II equity decrease year after year. The UFR effect feeds into to the regulatory solvency ratio after a time lag, as liabilities to policyholders draw closer. In order to maintain their capital buffers, insurers must therefore earn back the UFR effect, but that is difficult when interest rates are low (or even negative).

The review of Solvency II could include important improvements to the legal framework for insurers, including the introduction of macroprudential policy. At the end of 2020, EIOPA published an [opinion](#) with proposals to amend Solvency II. The European Commission is currently working on a proposal, to be followed by negotiations in the European trilogue, including the Parliament and the Council. DNB supports EIOPA's opinion and believes that most of the proposals will improve the regulatory framework. It is important, for example, that the review results in a more realistic picture of insurers' financial position by adjusting the interest rate curve to value liabilities. EIOPA has also issued proposals to incorporate macroprudential elements in the framework. DNB is in favour of such a macroprudential framework for insurers so that authorities have the right tools to address systemic risks in the insurance sector. EIOPA's

opinion includes tools aimed both at better identifying and monitoring systemic risks and at limiting them.

2.3 Pension funds

Funding ratios rose sharply in 2021, but pension funds remain in a vulnerable financial position.

The rise in long-term interest rates and share prices (see [Financial markets](#)) caused the funding ratio of the pension sector as a whole to rise from 100% at the end of December 2020 to 109% at the end of April (Figure 25). The average funding ratio therefore meets the minimum regulatory own funds requirement, but vulnerabilities remain. Any financial market corrections, particularly if they are not accompanied by a rise in interest rates, could hit the pension funds' financial position hard (see also [Box 2: 'Commercial real estate: an updated pandemic stress test for the Dutch financial sector'](#)). Looking ahead, the gradual adjustment of the ultimate forward rate (UFR) will also weigh on funding ratios. The first of four annual adjustments to the UFR had a negative impact of -1.5 percentage points on the funding ratio as at 1 January. The gradual introduction means that the recommendation of the Parameters Committee will be fully implemented by the start of 2024.

Low interest rates mean high costs for funded pensions. In a low interest rate environment the expected returns on investments are low (see also

[Box 1 'Search for yield during the coronavirus pandemic'](#)). The vulnerabilities of the current system, with commitments to pay benefits into the distant future, have been increasingly laid bare in recent years. The low interest rates also make the financing of funded pensions far more expensive. Partly for that reason members' expectations of a secure and stable pension have not been fulfilled in recent years.

The pension agreement opens up the prospect of a more future-proof system. The new pension system reduces intergenerational tensions, is more in line with the changing labour market and retains the strengths of the current system, such as collective implementation and mandation. In the new system pension funds no longer commit to a specific amount of pension. Although members will still have certain expectations in that regard, trust in the system will not be immediately impacted in the event of disappointing developments. Moreover, there is no longer any need for an actuarial interest rate to value pension rights, which is a major source of intergenerational tension in the current system. In the new system pension funds gear the investment policy to the risk attitudes of the various generations, so the investment risks to which members are exposed are more in line with the risks they are willing and able to bear. The abolition of the flat-rate contribution system brings the new system more into line with the changing labour market. In order to

capitalise on the advantages of the new system, it is important that the agreements made are implemented carefully and energetically in the coming years. As part of that careful implementation the Minister of Social Affairs and Employment informed the House of Representatives in mid-May that the new legislation was now expected come into force on 1 January 2023 rather than 1 January 2022. To ensure energetic implementation, it is important that the parties involved maintain efforts to speed the development of the legislation and that preparatory work for the transition goes ahead as far as possible.

The transition to the new system will be an extensive and complex process in the years ahead.

The pension funds' still vulnerable financial position will also make the transition to the new system particularly challenging. Any deficits will need to be absorbed as part of the transition. In addition, a low funding ratio limits the scope for compensation from the fund capital for the effects of abolishing the flat-rate contribution system. In order to maintain trust in the pension system, it is important in any case to ensure balanced and transparent decision-making and communication on the effects of the transition and of the prior transition phase on members' pensions. Fund boards must properly assess and manage the operational impacts to ensure a controlled transition.

Even after the pension reform the cost of pensions will remain high if interest rates remain low. The Pension Accord includes important steps towards a future-proof pension contract. At the same time it provides no solution for the high cost of pension provisions in a context of persistently low interest rates. After all, the level of pensions remains primarily dependent on contributions and the returns achieved.

2.4 Other financial institutions

Non-bank financial intermediation (NBFI) plays an increasingly important role in the financial system.

NBFI is a commonly used collective name for financial institutions that are not banks and have no access to central bank emergency funding. These institutions are not regulated in the same way as banks, but they do undertake activities that are traditionally carried out by banks. NBFI comprises, for example, insurers and pension funds, but also investment funds, other finance companies, securities and derivatives traders and securitisation vehicles. The role of NBFI has increased greatly around the world in recent decades. NBFI now makes up almost 50% of the world's financial system, compared to 42% in 2008 (FSB, 2020).

Vulnerabilities in non-bank financial intermediation were exposed in the initial phase of the coronavirus crisis. The strong demand for cash in March last year prompted professional investors en masse to try to sell their investments in certain money-market funds. Other investment funds were also hit by large outflows, exacerbating the downward adjustment in financial markets. The [FSB](#) and the [ESRB](#) had already warned of these risks before the coronavirus crisis. The massive monetary policy response has eliminated the liquidity problems, but does not provide a structural solution to the vulnerabilities in the NBFI sector. Box 4 takes a more in-depth look at the role of non-bank financial intermediation and the need to develop macroprudential policy.

Box 4 The role of non-bank financial intermediation and the need for macroprudential policy

Emme van den Boom and Jeroen Huiting

A stable and well-developed non-banking sector can make a lasting contribution to the economy and the stability of the financial system. NBFI makes market finance available as a welcome alternative financing channel that can increase the resilience of lending. This diversification makes the financial system less dependent on banks, thus meeting one of the intended objectives of capital markets union (CMU). Investment funds can also be a more profitable alternative to savings.

At the same time, a bigger role for NBFI may increase the risk of imbalances. The FSB draws a distinction between the broad definition of NBFI, which includes all non-bank financial institutions, and a narrow definition focused on potentially risky activities. These could include liquidity and maturity transformation, for example. In the Netherlands this category mainly comprises investment funds (Figure 24). Due to the growing importance of NBFI, shocks in this sector may affect the real economy, for example if lending through NBFI comes under pressure. The interconnectedness of these institutions and their links to the banking sector may also cause market and liquidity stress to spread rapidly. The high degree of international

interconnectedness makes Dutch institutions susceptible to cross-border risks of NBFI.

Tension in financial markets in the spring of 2020 led to major outflows from investment funds and high market volatility. Market sentiment turned negative on concerns about the coronavirus pandemic, leading to strong demand for liquidity. The rapid rise in margin calls on derivative positions contributed to the 'dash for cash', with investors being forced to liquidate their investments. European money market funds saw EUR 40 billion of withdrawals between February and April 2020, largely driven by margin calls. According to estimates, more than one-third of these withdrawals were attributable to Dutch pension funds (ECB, 2020). Open-ended funds also saw major outflows. High-yield corporate bond funds saw withdrawals of up to 10% of their assets under management during this period (ESRB, 2020). As a result, some investment funds had to accelerate the liquidation of their positions in response to rapidly falling prices (fire sale), so as to be able to meet their liabilities and restore the liquidity buffers (ESRB, 2020 and Bank of England, 2020). This had a procyclical effect; the price implications of fire sales

prompted investors to withdraw even more in the short term. Furthermore, the increased volatility led to a further rise in margin calls.

The outflow was reinforced by the inherent vulnerabilities in the structure of investment funds. In a declining market, investments in open-ended funds sometimes prove less liquid than expected, even though investments can be withdrawn in the short term. A fund can then use liquidity management tools, such as suspending withdrawals. This means investors can no longer access their investment. However, the threat of using these instruments gave rise to a first mover advantage, with investors withdrawing to a greater extent from money market funds that had the ability to suspend withdrawals (Cipriani and La Spada, 2020).

The greatly reduced market liquidity prompted central banks to intervene to restore the functioning of the market. The drying up of liquidity in markets for short-term debt and market financing also had implications for Dutch banks and other financial institutions. Ultimately central banks had to intervene

prompted investors to withdraw even more in the short term. Furthermore, the increased volatility led to a further rise in margin calls.

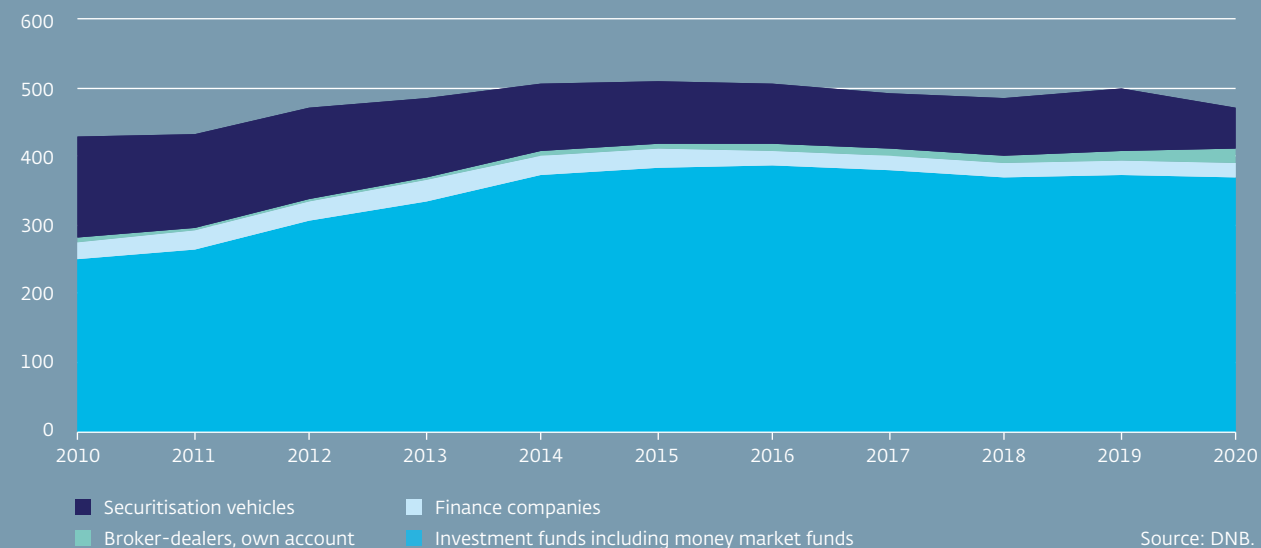
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The greatly reduced market liquidity prompted central banks to intervene to restore the functioning of the market. The drying up of liquidity in markets for short-term debt and market financing also had implications for Dutch banks and other financial institutions. Ultimately central banks had to intervene to restore the functioning of the market, in many cases by buying up assets and setting up liquidity facilities.

Figure 24 Composition of the Dutch NBFI sector

EUR billions



Central bank interventions are not a structural solution to the vulnerabilities of NBFI. In a stable non-banking sector the likelihood of central bank intervention should be minimal. Although the size of the non-banking sector, combined with the inherent vulnerabilities referred to above, makes it necessary for the ECB and others to intervene, over time this can undermine the operation of markets and actually encourage risky behaviour (moral hazard).

Internationally DNB is contributing to the work of the ESRB and the FSB to address the vulnerabilities in NBFI. In November 2020 the FSB published the [FSB holistic review of the March market turmoil](#). This endorses the view that the greater role of NBFI makes it more necessary to increase the sector's resilience to shocks. Improved data quality should also simplify the monitoring of risks within NBFI.

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Macroprudential policy needs to be developed for NBFI. Examples of measures that can make the sector more resilient in times of stress are limiting the liquidity mismatch, or the first mover advantage. This type of reform guarantees access to liquidity at times of stress, but eliminates incentives to be the first to withdraw money, for example by setting up so-called swing factors whereby the value of withdrawals is reduced by the assumed cost of the withdrawal, in combination with more liquid investments. This is particularly relevant to money market funds and (some) open-ended funds. The current revision of the AIFMD and the

MMFR should include increased resilience of the sector to collective withdrawals. It is also important to further reduce the liquidity risks of margin callers in times of stress, to research the causes of high margin calls and to reduce the procyclical effects of margin calls in the system.

More risk-sensitive and harmonised microprudential policy also contributes to the resilience of NBFI. A clearer view of prudential risks can be obtained by introducing an institution-specific supervisory review and evaluation process (SREP) for the largest fund managers. An examination should also be made of ways to harmonise the various regulatory frameworks in order to close regulatory gaps.

Figures

Capitalisation of Dutch banking
sector remains stable
[See Figure 16 →](#)

Dutch banks have limited
exposure to hardest-hit sectors
[See Figure 19 →](#)

Banks' outstanding loans to
Dutch non-financial corporations
[See Figure 17 →](#)

Deterioration in credit quality of
Dutch banks' corporate loans
[See Figure 20 →](#)

Dutch banks' NPL ratios are rising
particularly in the foreign
corporate loans portfolio
[See Figure 18 →](#)

Dutch banks add billions
to provisions
[See Figure 21 →](#)

Figures

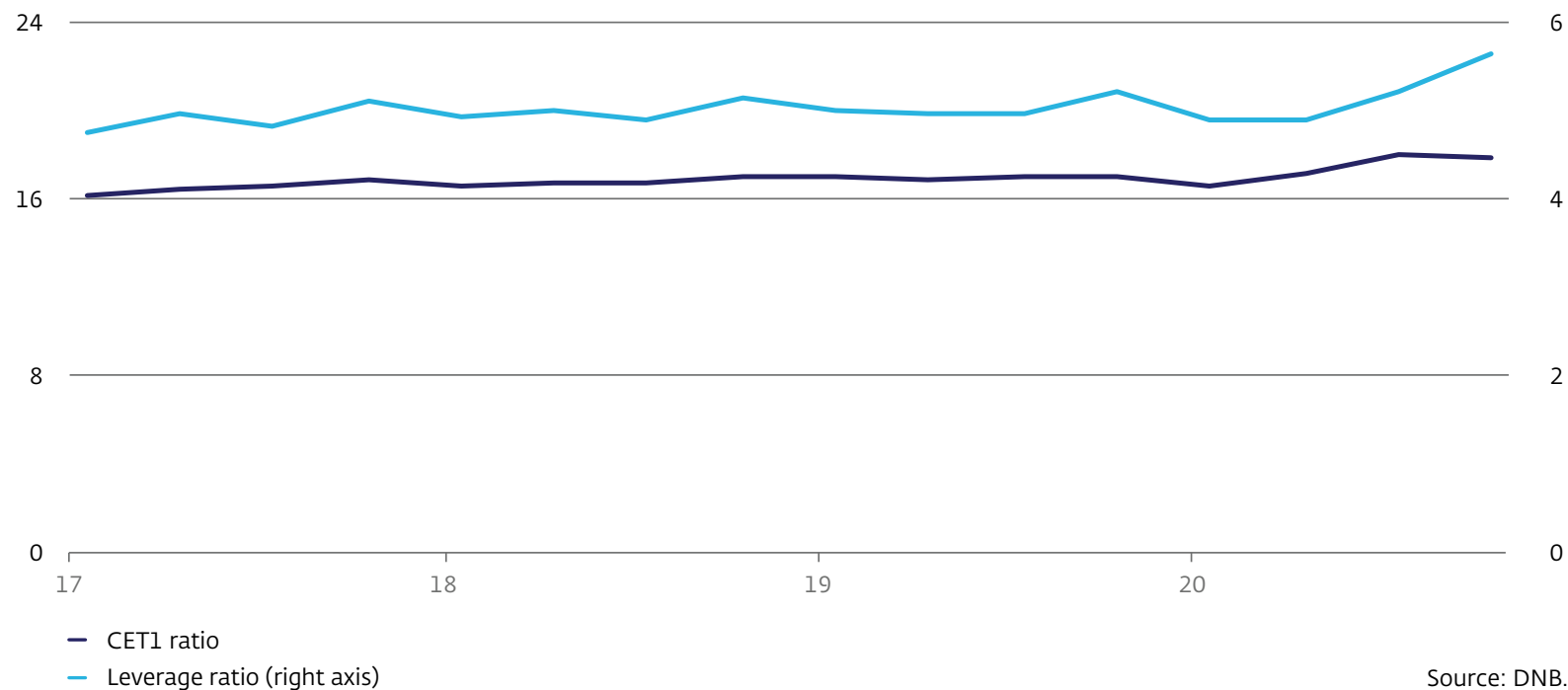
Insurers' regulatory solvency
holds steady
[See Figure 22 →](#)

Composition of
the Dutch NBFI sector
[See Figure 24 →](#)

Funding ratios show recovery
[See Figure 23 →](#)

Figure 16 Capitalisation of Dutch banking sector remains stable

Percentage



Source: DNB.

Figure 17 Banks' outstanding loans to Dutch non-financial corporations

Volume of corporate loans in EUR billions; percentage of year-on-year growth

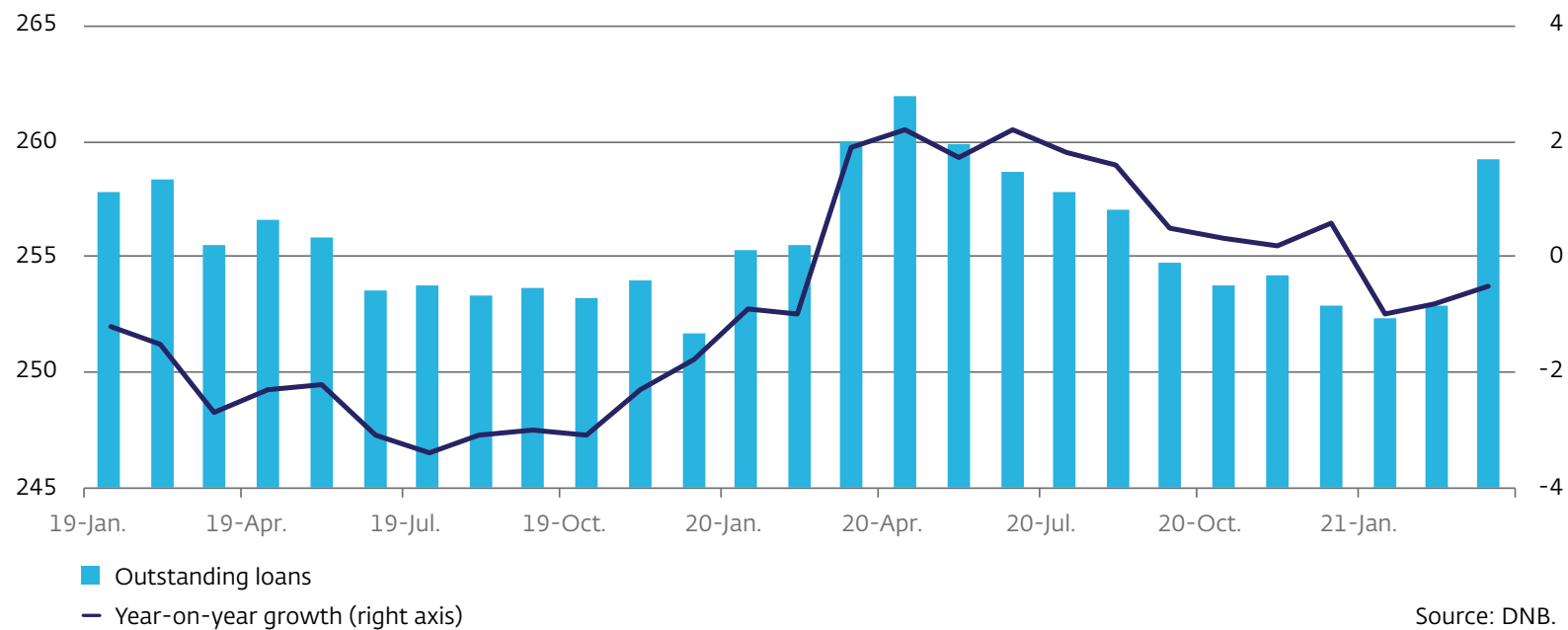


Figure 18 Dutch banks' NPL ratios are rising particularly in the foreign corporate loans portfolio

Percentage

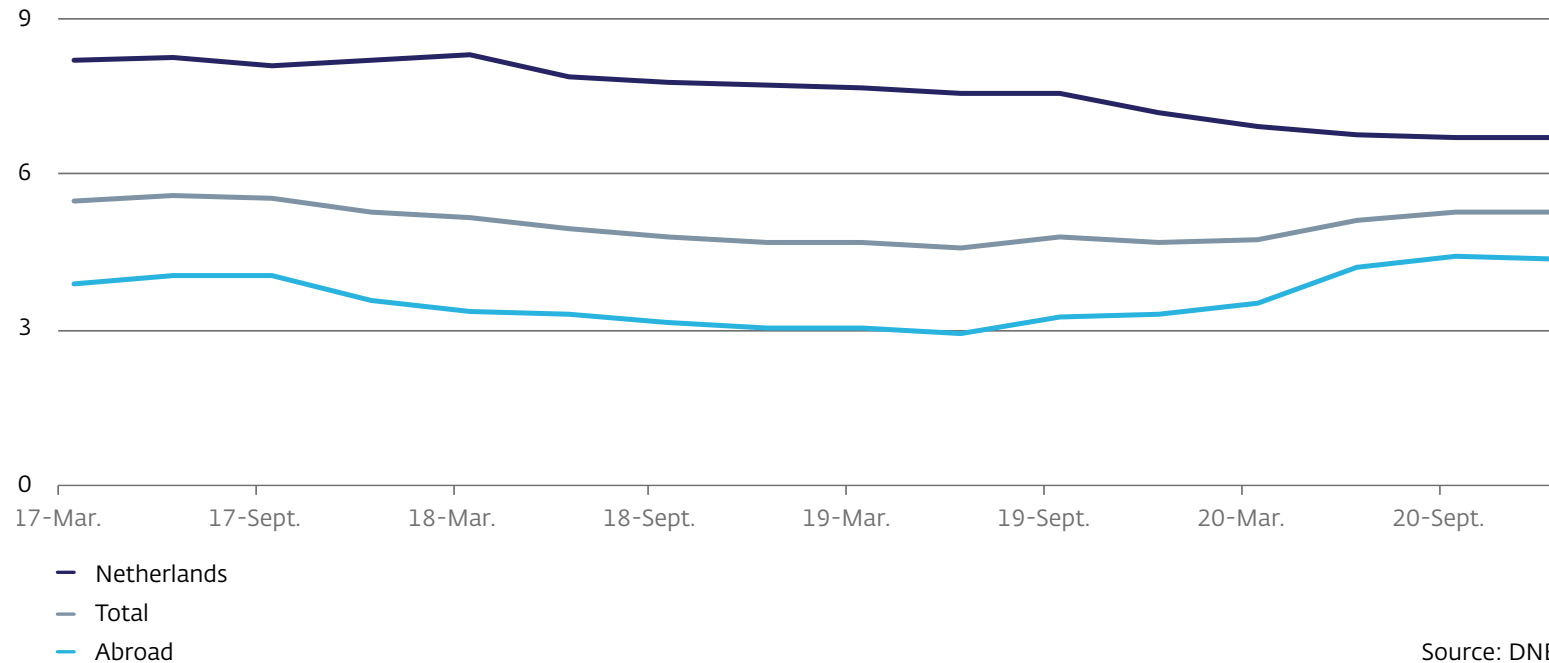
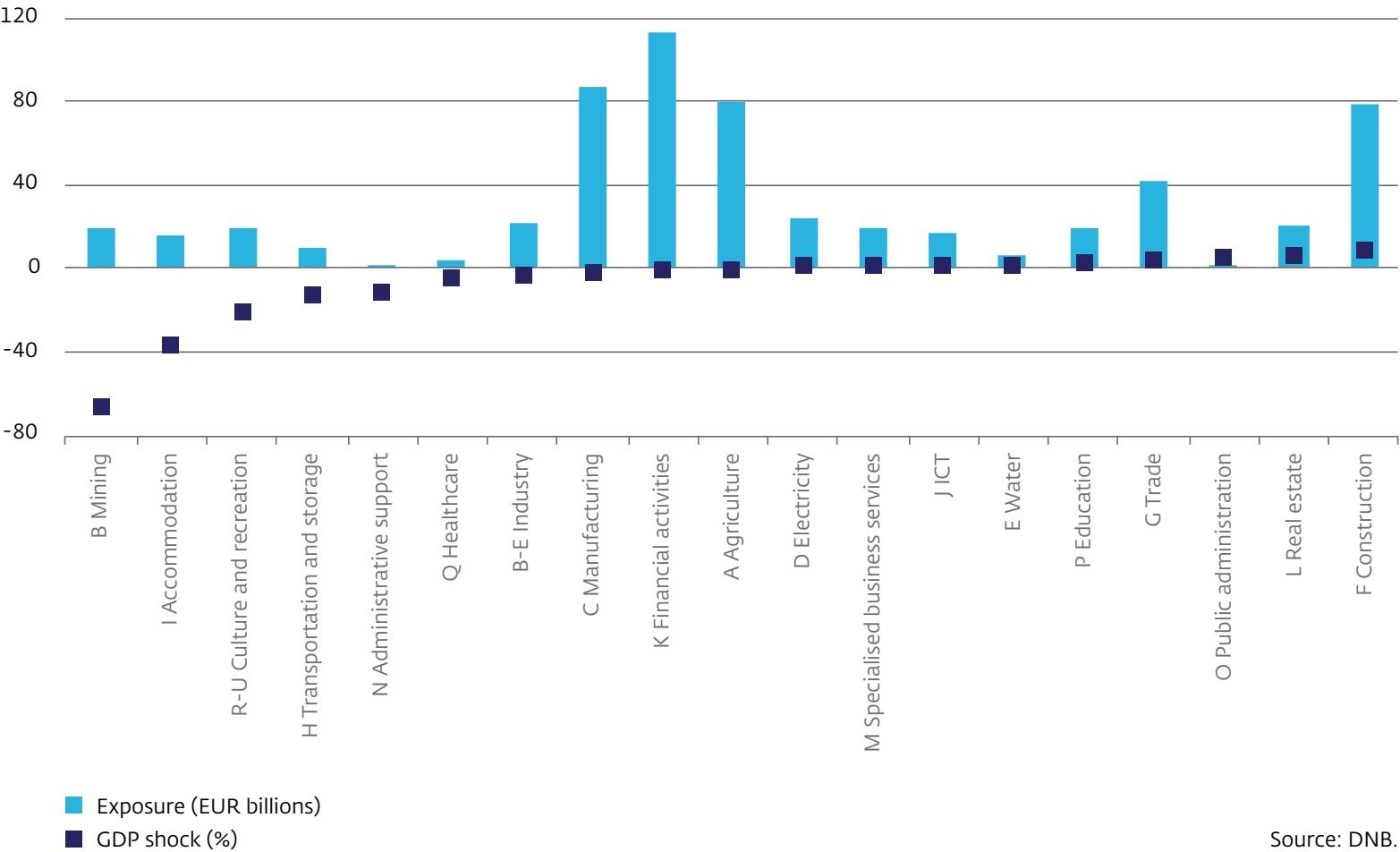


Figure 19 Dutch banks have limited exposure to hardest-hit sectors

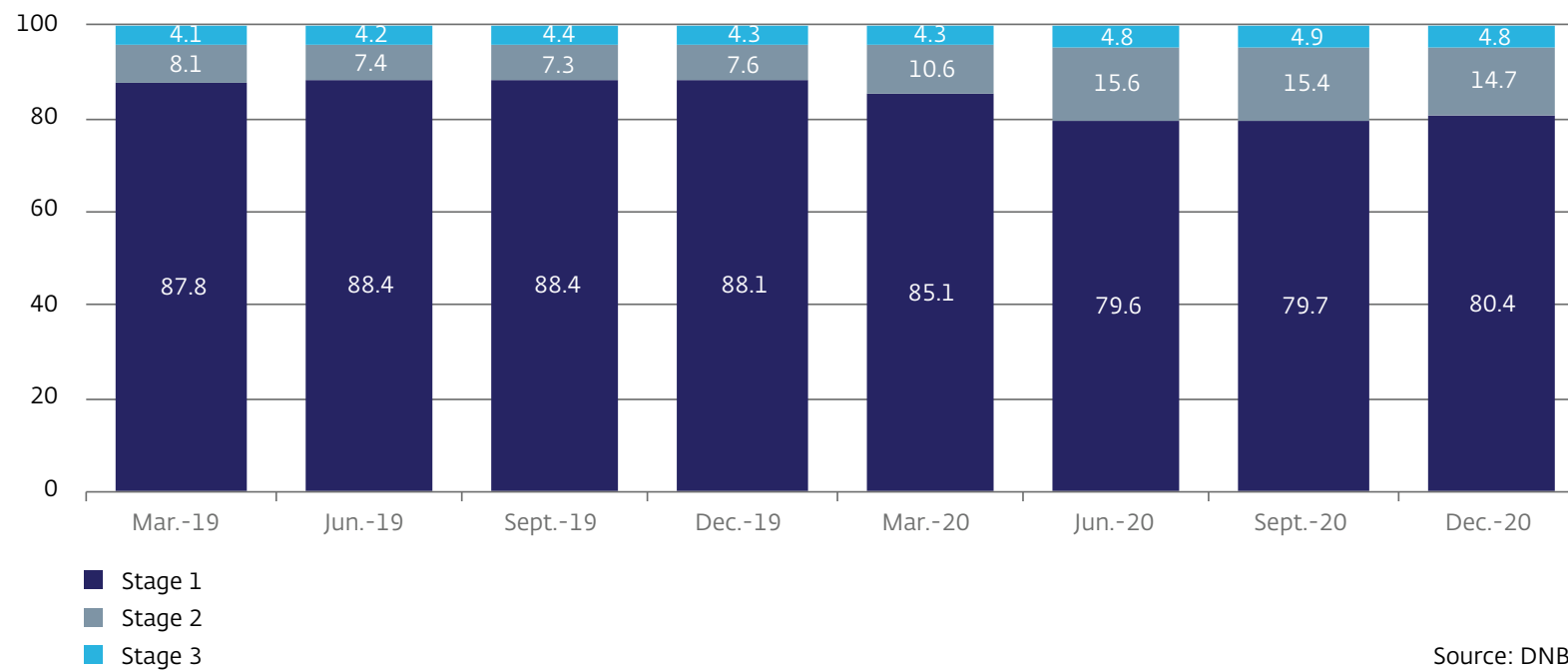
EUR billions, percentage



Source: DNB.

Figure 20 Deterioration in credit quality of Dutch banks' corporate loans

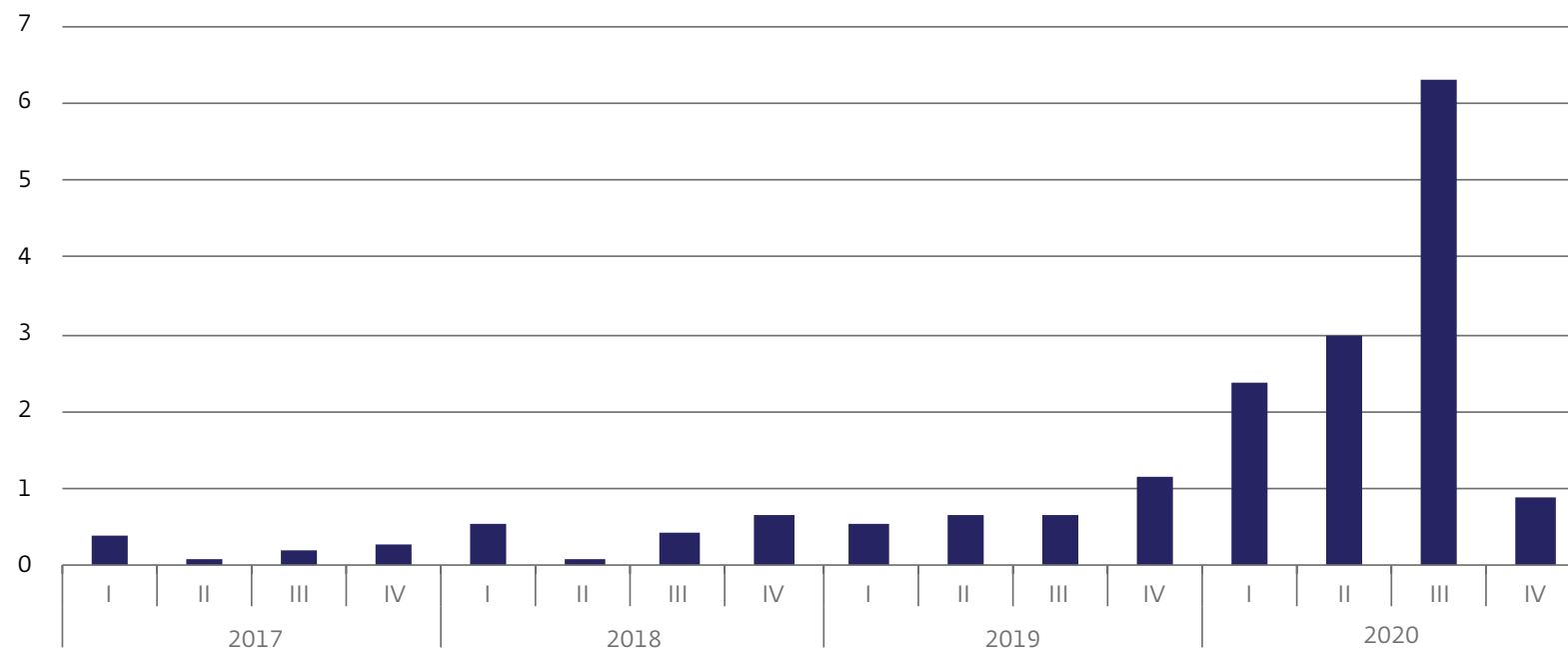
Percentage



Source: DNB.

Figure 21 Dutch banks add billions to provisions

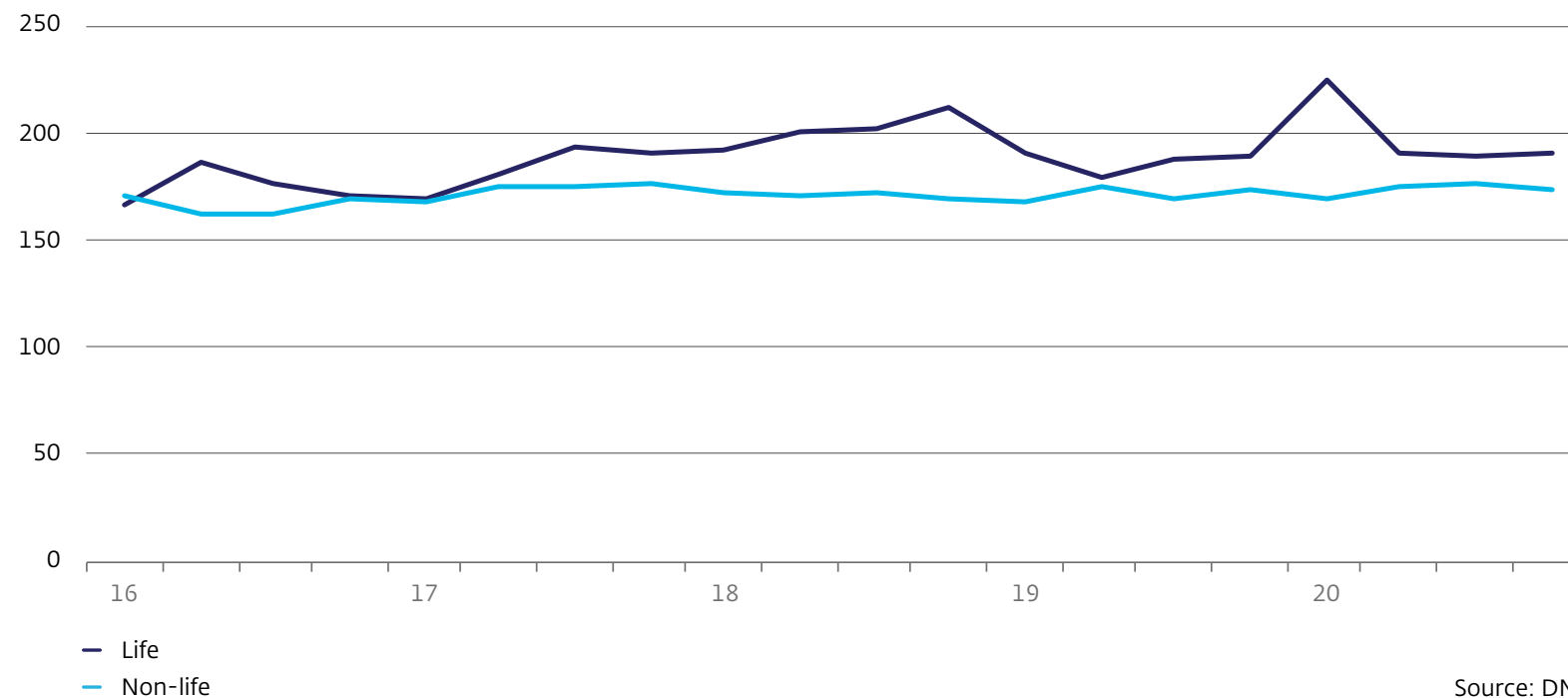
Net additions in EUR billions



Source: DNB.

Figure 22 Insurers' regulatory solvency holds steady

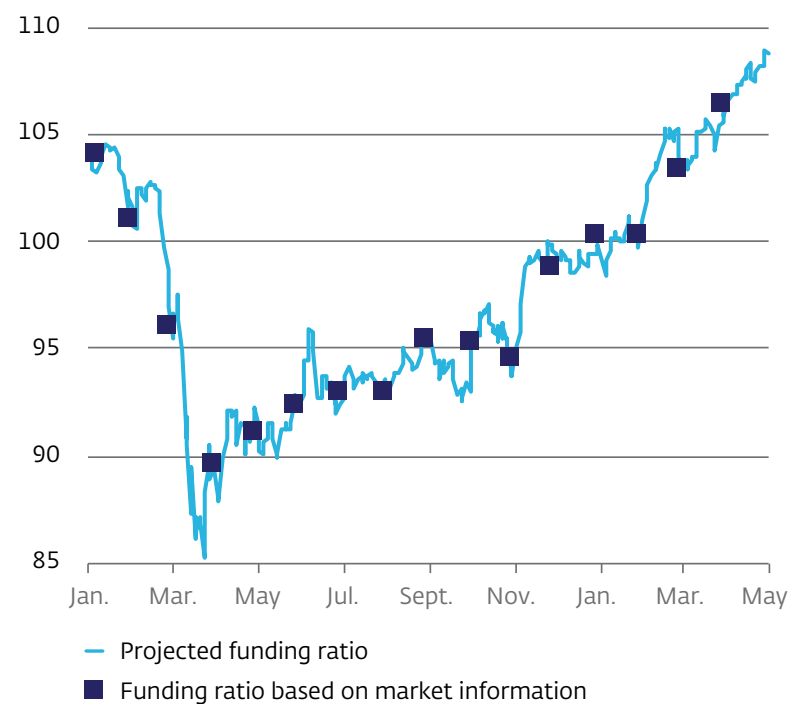
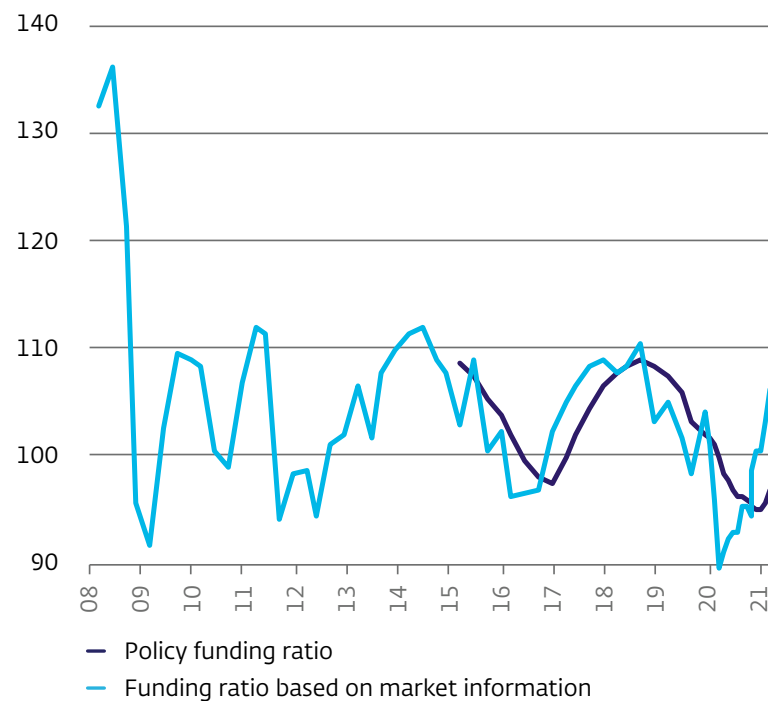
Percentage



Source: DNB.

Figure 23 Funding ratios show recovery

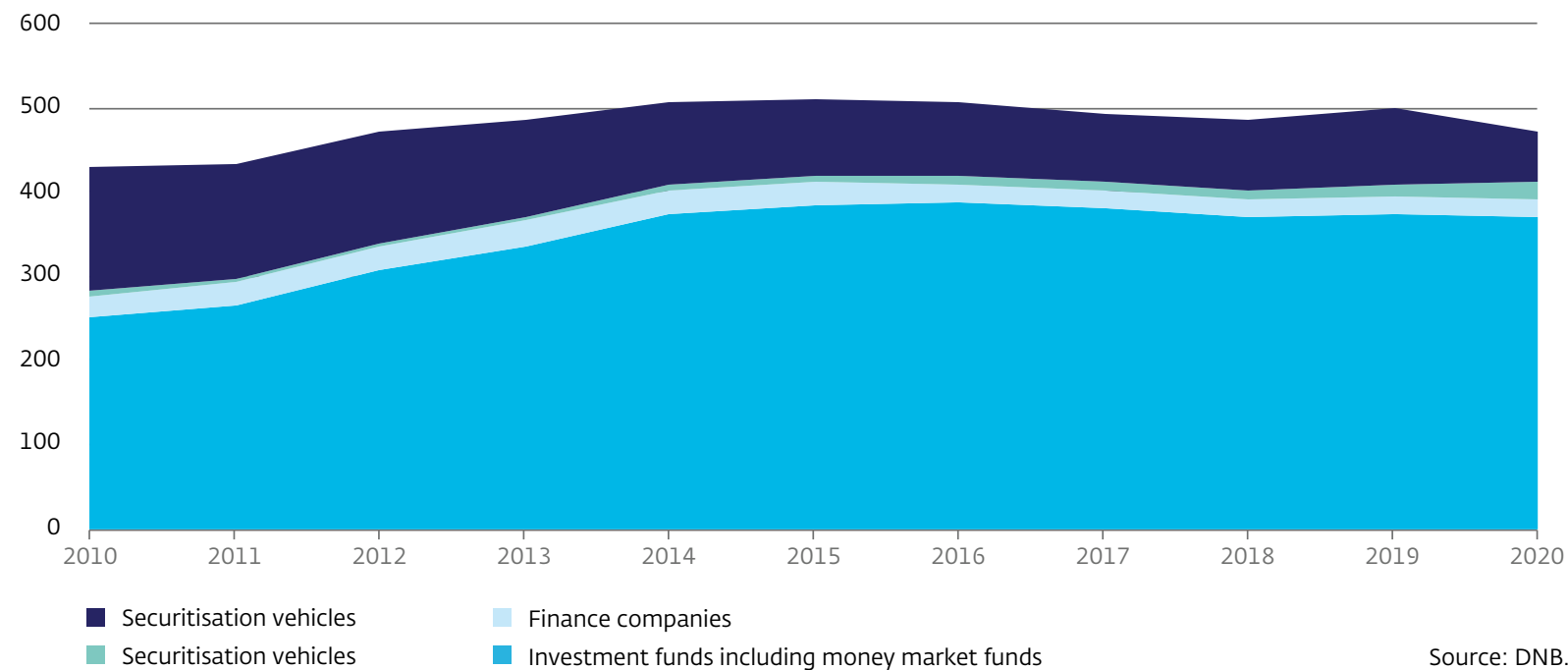
Percentage



Source: DNB.

Figure 24 Composition of the Dutch NBFI sector

EUR billions



Source: DNB.

3 Policy

It is important phase out the crisis measures in good time. The extraordinary fiscal, monetary and prudential measures associated with the coronavirus crisis are of a temporary nature. It is important that the measures are wound down in a gradual and predictable way to prevent cliff-edge effects. At the same time a timely exit from the measures is required in order to halt the build-up of imbalances. Interaction between the various policy measures is also important.

A rapid rollout of the COVID-19 vaccination programme is key to economic recovery. The support measures play an important role in limiting the impact on the economy and the financial sector, but the most crucial factor remains the development of the virus itself. After all, the cause of the economic crisis lies in the pandemic and its ongoing repercussions. Increasing vaccination coverage provides scope to wind down the containment measures and reopen hard-hit sectors of the economy, allowing the economic recovery to take hold.

3.1 Fiscal policy

The existing fiscal support measures must be unwound as the coronavirus crisis is brought under control. The Dutch economy can only achieve a lasting

recovery when the coronavirus is under control and containment measures have been largely phased out. Supportive government policy will remain necessary until that time. The government introduced the support measures at the start of the crisis on a broad and generic basis, ensuring fairly rapid and successful implementation of the policy. This support mitigated the economic impact on firms and curbed job losses. In practice, the support is focused particularly on firms that have been hit hard by the coronavirus crisis, since it usually linked to a loss of revenue. However, the measures may also keep alive firms that have poor prospects after the pandemic, impeding the effective allocation of capital and labour in the economy. The current support measures must therefore be wound down once the virus is under control and the containment measures have been lifted.

In the recovery phase the government has a role in helping businesses with excessive debts but viable business models by maintaining a more lenient collection policy. The government has a social role in offering prospects for overindebted firms in the recovery phase, partly to limit the risk of a debt overhang. The Tax Administration has become a major creditor of businesses through exposures to outstanding tax deferrals (around EUR 16 billion). Applying a lenient collection policy to

these tax debts could help reduce the financial burden of firms, for example by postponing the collection of deferred tax liabilities and extending the collection period. This will give firms more financial headroom to restart and invest in the recovery phase and give banks time to make proper assessments of their viability.

If the more lenient collection policy for viable firms proves insufficient, public-private solutions should be devised. This would encourage burden-sharing with the private sector, thereby delivering the biggest impact for overindebted businesses. An interesting public-private solution worthy of further consideration would involve the Tax Administration matching private operators' voluntary debt write-offs by writing off public debts under predefined policy rules. Simultaneous debt write-off means that the benefits of restructuring do not fall primarily to the other creditors. Another key factor is that the involvement of private operators makes it possible to rely on private assessments of the companies' viability, given that the Tax Administration has limited capacity to conduct such assessments on a large scale. In any case, the government should take steps in the near term to give private operators clarity on the Tax Administration's attitude towards excessive debts, so that private creditors can also initiate restructurings of corporate debt.

Wholesale cancellation of tax debts would be undesirable. Wholesale cancellation would be unfair to business owners that have made up their financing shortfall from other sources, for example by borrowing from friends and family. It would also mean that in many cases the main beneficiaries would be private creditors, rather than the business itself.

Guarantee schemes could help to prevent friction in the granting of new loans by market operators and hence liquidity problems. Banks must continue to offer sufficient credit facilities to structurally healthy firms. It is important that firms are ultimately able to rely on private capital providers, so that the market can also determine when a business is no longer viable. Business demand for finance is likely to increase again in the recovery phase due to investment appetite and demand for working capital. Persistent uncertainty about both the economic recovery and firms' creditworthiness may make banks reluctant to lend. The government could increase access to and awareness of these schemes to further stimulate lending.

Spending cuts and tax hikes are undesirable in the short term, but the long-term health of public finances remains important. The Dutch government remains well able to finance the budget deficits. As a result of the support packages, the reduced tax take and additional expenditure in sectors such as healthcare,

the budget deficit will rise to 6.4% of GDP in 2021 with government debt expected to peak at 59% of GDP (see [DNB Interim Projection](#)). Debt will thus remain well below the 68% seen in 2014, when government debt rose sharply due to the global financial crisis and the European debt crisis. Debt also remains below the European limit of 60% of GDP laid down in the Stability and Growth Pact (SGP). Spending cuts and tax hikes to benefit government balances are therefore neither desirable nor necessary in the near term, as they could actually harm economic recovery. Once the economy has gradually recovered, the government should nevertheless ensure that the public finances include sufficient buffers where necessary. The buffers have proved their worth in this crisis. At the same time, it is important that the government tackles existing and newly revealed vulnerabilities by implementing reforms to eliminate them or to increase the resilience of the economy. This would particularly involve reforms of the housing market (see [Housing market policy](#)) and the labour market. At this particular time there is support in society for structural reforms aimed at emerging from the crisis more sustainably and with greater resilience. The formation of the new government and negotiations on the coalition agreement give the government a unique opportunity to make such agreements now.

The main challenge for the government is to promote increased sustainability of the economy and to focus the transition policy on a green economic recovery. The accommodative fiscal support measures were initially aimed at mitigating the economic shock after the outbreak of the pandemic. In the forthcoming recovery phase, necessary climate investments should be integrated in order to support a sustainable economic recovery. Achieving the goals of the Paris Climate Agreement and the subsequent European and national targets requires large-scale public and private investments to increase the sustainability of the economy and energy supplies. In the Netherlands too there is an inadequate level of such investment by both private and public operators, which ultimately increases the need to take more drastic measures and poses transition risks to the economy and the financial sector. The Dutch government needs to accelerate the scaling up of climate investments by setting the right conditions and introducing financial incentives. Policy options are set out in more detail in the recent [DNB publication](#) 'De financiering van transitie: kansen grijpen voor groen herstel' (Financing the transition: seizing opportunities for a green recovery').

3.2 Monetary policy

The protracted period of accommodative monetary policy entails risks and the crisis measures must be wound down once the economic situation starts to normalise and inflation moves towards the target.

The dependence on central bank funding has increased further during the coronavirus crisis. Firms and governments are becoming more vulnerable to rising interest rates due to growing debts. There is also a risk that banks will become overly dependent on cheap central bank financing, partly due to its sustained availability. Overdependence on the ECB could hinder the winding down of monetary easing measures, since monetary policy is transmitted in part through the banking sector. The extended period of exceptionally accommodative monetary policy also further increases the risks to financial stability and makes it more difficult to normalise the policy in the future. A gradual, but timely strategy to exit the crisis measures is therefore crucial once the acute phase of the crisis has passed and the economy starts to recover.

Monetary policy must take account of the side effects on financial stability. The macroprudential toolbox plays a very important role in mitigating financial stability risks, but is not sufficient to fully counter the current accumulation of financial vulnerabilities and

offset the side effects of a long-term accommodative monetary policy (see also [FSR autumn 2019](#)). The current toolbox is designed particularly to increase the resilience of banks and households (second line of defence), but cannot prevent the accumulation of imbalances (first line of defence) that are partly due to a long period of very accommodative financial conditions. This is important in the context of the strategic review that ECB hopes to complete this year. In this review the ECB will assess whether any elements of the monetary policy strategy require adjustment. The review focuses on various factors, including the effect of structural trends on inflation and the use of tools with a view to price stability, but also on the importance of matters such as climate change and financial stability for price stability and hence monetary policy. This review must lead to a monetary strategy that is robust enough to withstand uncertainty and takes account of financial stability concerns and side effects when setting monetary policy.

3.3 Housing market policy

The overheating of the housing market requires a broad-based approach. This approach must as far as possible address the causes of the current overheating and therefore focus on both the tax treatment of owner-occupied homes and increased housebuilding. Such a broad approach could dampen rising house

prices and thereby counter a further deterioration in affordability. It would also help create a larger and more affordable deregulated rental segment and reduce the volatility of the housing market and the economy.

The stimulation of demand for owner-occupied homes and the accumulation of mortgage debt should be phased out.

Tax subsidies for owner-occupied homes drive prices higher and are a major cause of the high level of mortgage debt. It is therefore important to phase out these tax advantages. Specifically, this means that owner-occupied homes must be gradually transferred from Box 1 to Box 3 of the Dutch tax system return (see also [DNB, 2021](#)). Steps must nevertheless be taken to ensure that certain groups are not financially disadvantaged by hasty changes to the tax system. Measures that increase demand, such as the easing of borrowing rules or the granting of subsidies to first-time buyers, only drive prices higher and are therefore counterproductive in the current situation.

Housing market policy must focus primarily on accelerating construction to increase the scarce supply. A stronger coordinating role for central government is essential in this regard. The housing supply needs to be increased particularly in the mid-segment of the rental market. This will make the housing market more accessible to households that are

ineligible for social rents but are not yet able to buy their own home.

3.4 Prudential policy

As announced the prudential relief measures for banks are of a temporary nature. In order to support lending, DNB lowered banks capital requirements at the start of the pandemic by reducing the systemic buffers and postponing the introduction of a floor for the risk weighting of mortgage loans. As already announced at the time, these measures are temporary and were prompted by the exceptional crisis situation. The release of macroprudential buffers must not result in a structural weakening of capital positions. The financial sector must also be able to absorb future shocks and have buffers available for a subsequent crisis.

DNB has decided to no longer delay the introduction of a floor for the risk weighting of mortgage loans.

Provided the economic recovery continues in line with current expectations, the measure will enter into effect on 1 January 2022. The introduction of such a floor is important as the current risk weighting for mortgage loans takes insufficient account of the systemic risk of a housing market correction. The banks' risk weights have decreased since DNB's initial announcement of this measure in the autumn of 2019, while the systemic risk in the housing market has actually increased due to

sustained overheating and an increase in risky behaviour. The total capital impact of the measure currently amounts to around EUR 5 billion, but may still change when it enters into effect. With the current capital levels banks are well able to absorb these additional requirements. The floor requires banks to hold a minimum level of capital for their mortgage loan portfolios and prevents the increasingly higher house prices from leading to increasingly lower risk weights.

At a later stage DNB will also begin a gradual build-up of the countercyclical capital buffer (CCyB). DNB will determine the appropriate time on the basis of the economic recovery, banks' health and the interaction with government measures, as well as measures taken by supervisory authorities in other countries. The timing and pace of the build-up of the CCyB to a neutral level of 2% will also take explicit account of both reversed and continuing relaxations of other supervisory measures, including at the microprudential level. DNB will provide more detail on the design of the CCyB and the future buffer accumulation in due course.

Risk map

**Note**

The data used in this OFS are published separately in one data file on dnb.nl, together with an overview of microprudential indicators.

The data in this OFS was last updated on the 3rd of May 2021.

Note

The risk map presents a schematic overview of the main risks to financial stability. The size of the circles reflects the magnitude of risk. The colour of the circles reflects whether viewed over the medium term, a risk sharply increases (red), moderately increases (yellow) or remains unchanged (grey).

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