FINANSTILSYNET
THE FINANCIAL SUPERVISORY
AUTHORITY OF NORWAY

RISK OUTLOOK
JUNE 2021

Risk Outlook

Finanstilsynet analyses and assesses stability in the Norwegian financial system. Its assessments are published in the report *Risk Outlook* twice yearly, in June and December.

RISK OUTLOOK JUNE 2021

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SUMMARY

Since March 2020, developments in the Norwegian and international economy have been strongly influenced by the Covid-19 pandemic and measures to contain the infection. Industries affected by shutdowns experienced a sharp fall in output and employment. The decline in GDP was of historical magnitude, but more moderate in Norway than in many other countries. Extensive government measures have curbed the decline. The level of activity in the Norwegian economy picked up relatively rapidly in a number of industries but decreased in the first quarter of 2021.

Vaccination of the population will help to gradually scale down the containment measures, thus triggering increased activity in industries subject to government restrictions. Nevertheless, considerable uncertainty attends the future path of the pandemic and its impact on the real economy. High global vaccination rates are vital to preventing new mutations and disruptions in value chains as a result of shutdowns. However, access to vaccines varies significantly between countries. The long-term protection of vaccines, also against new mutations, also remains uncertain.

The heavy household debt burden and high house prices constitute a material risk for the Norwegian economy. There has been a significant increase in prices in the Norwegian housing market throughout the pandemic, and growth in household lending has picked up. Household debt is growing at a higher rate than income, and the share of households with a high debt-to-income ratio has risen in recent years. Many households will be in a vulnerable position in the event of a substantial interest rate increase, a fall in house prices or declining incomes.

Commercial property prices have increased considerably over many years. High commercial property prices constitute a significant vulnerability that may affect financial stability in Norway. Changes in consumption patterns and other long-term effects of the pandemic may result in reduced demand and impaired values in various parts of the market. Norwegian financial institutions are heavily exposed to commercial real estate.

In the past, Norwegian banks' losses on loans to Norwegian non-financial firms have far exceeded losses on loans to households. An analysis conducted by Finanstilsynet based on accounting data for Norwegian enterprises indicates that enterprises with weak debt servicing capacity hold an increasing share of outstanding debt. The number of bankruptcies declined in 2020 but may increase as the authorities' support measures are discontinued.

Prices of equities and bonds in Norwegian and international financial markets rose rapidly after the market turbulence and sharp fall in prices in March 2020. In 2021, equity prices have reached new all-time highs in many countries. Several stock exchanges are experiencing a historically strong market for initial public offerings, often in special purpose acquisition companies – SPACs. Risk premiums on bank and corporate bonds are now in many cases lower than prior to the pandemic, and valuations are high in several markets. This trend must be viewed in the light of extensive fiscal and monetary stimulus in many countries, including central banks' bond purchases.

Government finances have deteriorated in a number of countries due to extensive support measures and lower tax revenue. Several countries also have a high corporate debt level. High debt poses a risk to the global economy and the financial system.

Prices of important commodities have risen sharply in the recent period. There are reports of an increasing shortage of input factors, and freight rates have risen. Capacity constraints in key markets and higher inflation may require a tightening of economic policy sooner than expected. Risk premiums may also increase from the current very low level and lead to a sharp fall in prices of equities, bonds and real estate.

Banks experienced a decline in profits and return on equity in 2020 but retained healthy profitability. For

2020 as a whole, recorded loan losses were at the highest level since the banking crisis in the 1990s, but still lower than feared in the early stages of the pandemic. Losses were particularly high on loans to enterprises in the oil and offshore sector, which due to high overcapacity and weak profitability were exposed to loss even before the pandemic. There was also an increase in losses on loans to sectors that were particularly hard hit by the containment measures, such as tourism and food services. However, the banks' overall exposure to these sectors is relatively low. Within retail trade, there was a decline in loan losses and non-performing loans, probably as a result of closed borders. Banks' deposit spreads narrowed in 2020, which was a factor behind the reduction in income from core operations. The decline was particularly sharp for banks that are largely funded by deposits, which in practice are often small banks. Figures for the first quarter of 2021 show higher earnings as a result of lower recorded loan losses.

Norwegian banks' capital adequacy ratios increased in 2020 as a result of retained profits. On the basis of a recommendation from the European Systemic Risk Board (ESRB), the Ministry of Finance has asked Norwegian banks to apply caution in making dividend payments due to the continued high level of uncertainty attending economic developments. The Ministry expressed an expectation that banks will limit total distributions for the financial years 2019 and 2020 to maximum 30 per cent of cumulative annual profits for the two years. In the first half of 2021, banks have kept dividend payments within this limit. At the same time, many banks' Boards of Directors have been authorised to make further distributions in the fourth quarter of 2021.

The market turmoil in the spring of 2020 affected the price of banks' market funding. For a short period, risk premiums were as high as during the financial crisis. Owing to positive market developments following the implementation of extensive fiscal and monetary policy measures, however, risk premiums quickly returned to pre-pandemic levels. Norges Bank has terminated several of its extraordinary liquidity measures.

Finanstilsynet's stress test for 2021 shows that many banks may be strongly affected in the event of a serious setback in the Norwegian economy. In the stress scenario, it is assumed that global supply-side capacity problems and pent-up demand as a result of the shutdown measures lead to rising inflation and higher key policy rates internationally. This also gives an increase in inflation and a higher key policy rate in Norway. Money market rates and risk premiums rise parallel to a sharp fall in securities and property prices. Inflation remains high, and the interest rate level does not decrease until the end of the projection period. This leads to a severe contraction in economic activity and sizeable loan losses. The stress test shows the importance of banks retaining the strong financial position they have built up in recent years.

After several years of strong growth, there has been a reduction in the volume of consumer loans over the past couple of years. This is partly attributable to government measures, including regulation of lending practices and the establishment of debt registers. On the other hand, the quality of banks' consumer loan portfolios has deteriorated sharply, and there was a high proportion of non-performing consumer loans at end-March 2021. This proportion has increased markedly in recent years despite the banks' sale of non-performing loans to debt collection agencies. There is a risk of increased losses on consumer loans in the years ahead.

The containment measures have affected households' financial position in different ways. While some have experienced a loss of income, many have increased their savings due to limited consumption opportunities. Households' financial savings rose considerably from 2019 to 2020. A similar trend has been observed in many other countries. Both in Norway and internationally, a rising number of households invest directly in the stock markets. The increase is particularly strong in the younger age groups. As a result of the increase in equity investments, pension savings

and equity fund subscriptions, Norwegian households' equity exposure has doubled since 2015.

Over the past year, a substantial proportion of the listings in the Norwegian market have been carried out by relatively newly established enterprises on the Euronext Growth trading platform, which is an unregulated trading venue linked to Oslo Børs. Such listings may contribute to giving these enterprises easier access to risk capital. However, there is considerable risk associated with investments in startups. Arrangers, the trading venue and other professional players therefore carry a great responsibility to ensure that relevant risks are communicated to potential investors. Investor protection is especially important for consumers, who do not have the same expertise as professional investors to assess investment risk.

Life insurers and pension funds have large securities portfolios and experienced significant fluctuations in returns through 2020. In spite of the fact that equity prices had largely rebounded at year-end 2020 after declining in the spring, there was a reduction in the return on policyholders' funds in the collective portfolios in 2020. At the same time, the financial position of many pension undertakings deteriorated, as the decline in interest rates gives an increase the present value of future liabilities relating to products with guaranteed rates of return. Thus far in 2021, interest rates have risen somewhat again, but the interest rate level remains far below the average guaranteed return. Overall, the undertakings' solvency ratios, according to fully phased-in Solvency II rules, are slightly below pre-pandemic levels.

Non-life insurers are also affected by the Covid-19 pandemic. Financial revenues declined in 2020, but there was a rise in profits from insurance operations. This is partly due to a reduction in car traffic, quick prevention of water and fire damage as people are increasingly present at home and at holiday homes, and reduced travel activity.

Climate change and the transition to a low-emission society entail a significant restructuring of the economy, with financial losses in industries and enterprises that are negatively affected by the changes. This may also inflict losses on financial institutions. Finanstilsynet expects financial institutions to cover all significant risks, including climate risk, in their risk management systems. Several of the banks have included general reflections on sustainability and climate risk in their governing documents. However, the banks have not come very far in assessing climate risk in their loan portfolios. Finanstilsynet will further refine its supervision in this area.

A key function for financial institutions and the securities markets is to allocate capital to sustainable projects. Lack of uniform information about the climate effects of various investment projects and enterprises' exposure to climate risk makes it more difficult to price climate risk correctly in the financial markets, which could result in less efficient capital allocation. In April 2021, the EU published the first technical criteria for defining sustainable activities. The taxonomy does not leave room for national discretion in the implementation and will apply to enterprises and the financial industry throughout the EEA. Over the past year, Finanstilsynet has carried out surveys of how enterprises deal with climate risk and sustainability. Although many enterprises have made strides in this field, the general impression is that this work must be intensified in order to comply with new EU requirements that are expected to be implemented in Norwegian law shortly.

The Covid-19 pandemic has speeded up the digitalisation of financial services. This provides major benefits for users and society, but also creates new vulnerabilities. The scale of cyber attacks is increasing year-on-year, but so far has not resulted in major incidents at institutions in the Norwegian financial sector. However, serious vulnerabilities have been revealed in some institutions. It is important that the institutions are working continuously to strengthen their defences in order to ward off attacks before they have serious consequences.

CHAPTER 1 ECONOMIC DEVELOPMENTS AND RISK AREAS

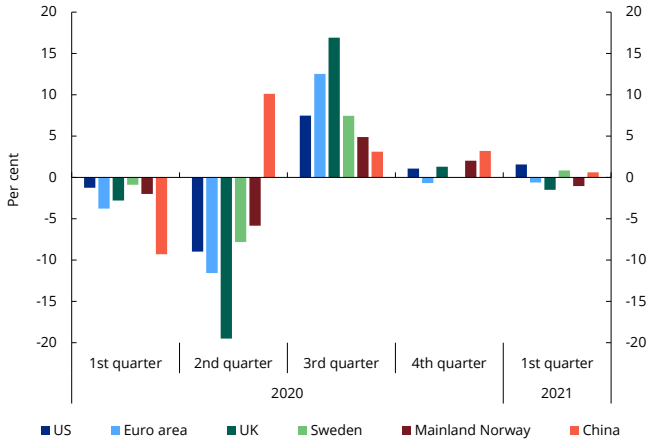
As a consequence of the Covid-19 pandemic, the Norwegian economy entered the deepest recession since World War II in 2020. Extensive fiscal support measures, interest rate cuts and periodic reopening have helped to ensure a partial rebound in economic activity, which nevertheless remains below pre-pandemic levels. There are wide differences between industries, and unemployment is higher than prior to the pandemic. Debt in Norwegian firms has increased, and firms with weak debt servicing capacity hold an increasing share of outstanding debt. House prices have risen substantially since the summer of 2020, and household debt is growing at a higher rate than income. The vaccination rollout has improved the prospects for the global economy, but there are significant differences in vaccine availability between countries and regions. There is great uncertainty attending future developments in both the Norwegian and the international economy.

INTERNATIONAL ECONOMY

Global economic growth is increasing.

Global economic growth picked up through 2020 and was particularly strong in the third quarter. During the autumn, however, the number of infected persons rose in large parts of the world, and new shutdowns contributed to slowing down GDP growth towards the end of the year. Thus far in 2021, the pandemic has followed a more negative path than assumed by the IMF and the OECD at the turn of the year. This winter, more contagious mutations led to stricter containment measures in several European countries. A setback in vaccination deployment has also resulted in weaker growth in the global economy. While the US and the UK had vaccinated a significant proportion of the population at end-May, the proportion was considerably lower in the EU.

1.1 GDP in selected countries, growth from the previous quarter



Sources: Refinitiv and Statista

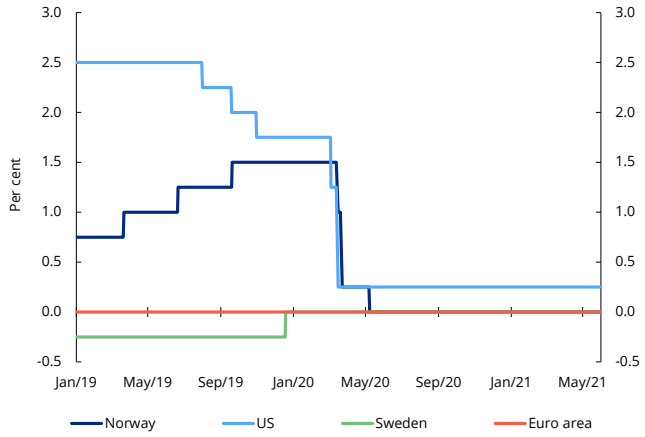
After a substantial rise, unemployment has declined in step with the rebound in activity. Nevertheless, unemployment remains above pre-pandemic levels in the vast majority of countries. Groups with low education and income have been hit the hardest.

Overall, consumer price growth in advanced economies has picked up this far in 2021, while growth is slightly down in emerging market economies.

Considerable cross-country differences

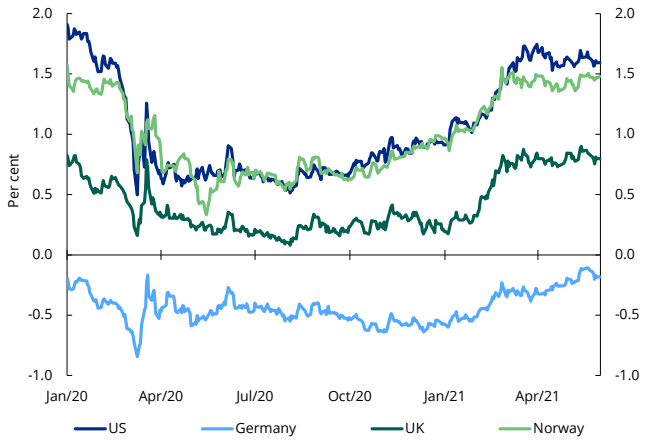
There are considerable differences between countries, and growth was weak among most of Norway's most important trading partners towards the end of last year (chart 1.1). In the euro area and Sweden, output was down in the fourth quarter. The decline continued in the euro area in the first quarter of 2021, while there was an increase in GDP in Sweden. In 2020, the UK economy entered the deepest recession since World War II due to high levels of infection in the population, while uncertainty surrounding Brexit had an additional negative impact. The downturn continued in the first quarter of 2021, with a fall in GDP of 1.5 per cent from the preceding quarter. China has seen an increase in output over the past four quarters.

1.2 Key policy rates, selected countries



Source: Refinitiv

1.3 10-year government bond yields



Source: Refinitiv

However, growth has abated and was low in the first quarter of 2021.

International trade is back at pre-pandemic levels

There was a sudden and sharp fall in international trade in March 2020. The trend was quickly reversed, and trade has increased every month since the summer of 2020. Greater demand for medical equipment and electronics as a result of the pandemic has contributed to increased exports from and imports to China. A rise in household consumption of goods has also helped to boost cross-border trade, while consumption of services remains low. During the first quarter of 2021, international trade was back at pre-pandemic levels. Capacity problems within shipping may put a damper on growth in international retail trade in the period ahead.

Strong economic measures

In April 2021, the IMF estimated that the total fiscal policy support announced over the past twelve months to mitigate the effects of the pandemic represents close to 16 per cent of global GDP. The measures include guarantees, loans, increased public spending and tax cuts. The greatest stimulus is provided in advanced economies and the large emerging market economies. The fiscal stimulus in 2021 is estimated at around 6 per cent of GDP in advanced economies, but there are significant differences among countries. In March, the US adopted a fiscal stimulus package that represented just over 8.5 per cent of GDP. Many emerging economies and developing countries have little room for manoeuvre in fiscal policy.

Still record low key policy rates, but increase in government bond yields

Monetary policy remains highly expansionary. Central banks in a number of countries quickly lowered their key policy rates in the spring of 2020 in response to the economic downturn (chart 1.2). Pricing in the futures market now indicates that key policy rates in several countries are expected to be raised around year-end 2022.

Throughout the pandemic, massive quantitative easing by several central banks has provided considerable liquidity to the markets and contributed to driving up prices for e.g. government bonds. Government bond yields fell markedly in March 2020 and remained low throughout the second half of the year (chart 1.3). Thus far in 2021, yields on US, German and UK government bonds have risen and are now at pre-pandemic levels. The rise in yields may be due to expectations of both higher growth and rising inflation.

Stock market upturn

The Covid-19 outbreak led to an immediate and sharp fall in stock markets (chart 1.4). The markets recovered relatively quickly. Thus far in 2021, equity prices have risen further in advanced economies. In China, there was a significant fall in equity prices in

the first quarter of this year, but prices are still higher than prior to the pandemic. On average, prices in the US stock market have risen considerably and are well above pre-pandemic levels. In Europe, the stock market has now returned to the level prior to the decline from March 2020 onward. See chapter 4 for a fuller account of the securities markets.

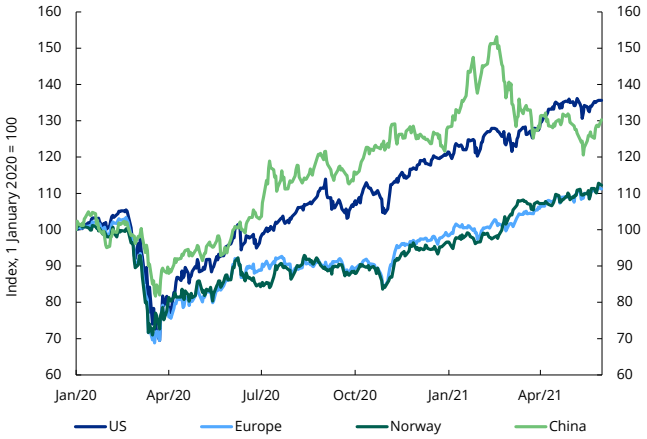
Increase in commodity prices

Prices of important Norwegian export goods have risen over the past six months. Good vaccine news and increased growth in Asia contributed to a doubling of the price of oil from November 2020 to March 2021. In April and May, the price was relatively stable and stood at close to USD 70 per barrel at end-May. While energy products account for the most pronounced rise in prices due to expectations of higher economic growth, prices of metals have also increased significantly since March 2020. After bottoming out in the spring of 2020, the price of aluminium has risen by as much as 72 per cent and is 38 per cent above the pre-pandemic level. The price of fresh salmon declined sharply in the autumn of 2020 and remained low during much of the winter. Through the spring there was an increase in salmon prices, and at end-May 2021, prices were back at the level seen in March 2020. Other food prices have also risen and are considerably higher than prior to the pandemic. Higher commodity prices and a doubling of freight rates since the beginning of 2021 push up costs and may lead to higher consumer price growth in the period ahead.

Future developments are highly uncertain

High uncertainty still surrounds the global economic outlook. The IMF points out that future developments will depend on the path of the pandemic and any changes in the policy actions implemented to mitigate its economic repercussions. In addition, developments in financial markets and commodity prices will have a significant impact. In many countries, infection rates increased in late 2020 and into 2021. The vaccination prospects for vulnerable groups also vary greatly. The IMF assumes that mass vaccination of the population in most of the advanced and some of the emerging

1.4 Equities, total return indices, selected countries

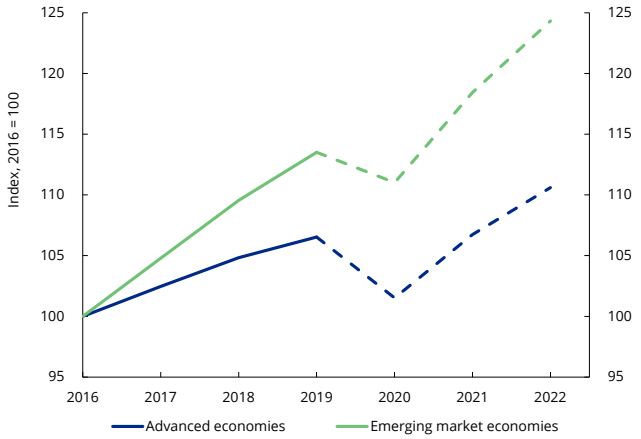


MSCI indices. Source: Refinitiv

market economies will be completed during the summer of 2021. For other countries, it is assumed that most of the population will not be vaccinated until the end of 2022. A high proportion of people that are not vaccinated in large regions can lead to an asymmetric recovery in the global economy. The IMF points out that the risk is particularly high if normalisation of economic policy results in elevated interest rates and a subsequent flow of capital from emerging market economies to advanced economies.

The IMF and the OECD estimate that global GDP declined by close to 3.5 per cent in 2020. The decline is somewhat below the projections presented in the autumn of 2020 as a result of higher growth towards the end of the year. Both institutions expect global growth to pick up to between 5.8 and 6 per cent in 2021, and to be 4.4 per cent in 2022. While output was down in all countries apart from China in 2020, positive growth is expected in all countries this year. However, wide variations are expected across countries and regions (chart 1.5). Among advanced economies, growth in the US is expected to far exceed growth in the euro area. Particularly strong growth is expected in emerging market economies. This estimate is largely driven by high expected growth in India, but must be considered to be highly uncertain due to the recent extensive spread of the virus in the country.

1.5 Developments in the global economy (GDP)



Sources: IMF and Refinitiv

As a result of the great uncertainty, the OECD has prepared two alternative pathways for global economic growth. Faster vaccination deployment may facilitate the easing of containment measures and inspire optimism in firms and households. In a scenario where economies are reopened more quickly and savings decline, the OECD estimates that global economic growth will increase by 0.7 percentage points in the current year and by 1.5 percentage points in 2022. The WHO estimates that more than 80 per cent of the vaccines have so far been purchased by high-income countries with a small proportion of the world's population. It is likely that low vaccination rates globally will cause the pandemic to last longer. The OECD's calculations show that in a situation with slow vaccination rollout, growth may be close to 0.8 percentage points lower than expected in 2021 and up to 1.5 percentage points lower in 2022. If this scenario occurs, it will take longer for output to return to pre-crisis levels, and the risk of long-term adverse effects of the pandemic will increase.

Risk of economic 'scarring'

The duration of the pandemic and the way it is handled will have a strong impact on developments in the global economy in the medium term and on the extent of so-called economic scarring. Young workers with low education and a weak attachment to the labour market have been hit the hardest by the pandemic. There is a risk that many of these will leave the labour force permanently, which will lead to increased structural unemployment as a result of gaps between workers' qualifications and firms' needs.

The resurgence of the pandemic at the beginning of 2021 has caused greater uncertainty and may lead to reduced household consumption and lower corporate investment. Structural changes caused or accelerated by the pandemic could gradually lead to more bankruptcies and higher unemployment. While structural changes are necessary in order to achieve renewed economic growth in the long term, the transition may lead to a prolonged period of slower growth. Vulnerabilities built up in recent years, such as high debt in both the public and private sector in a number of countries, may contribute to curbing economic growth and prolonging the transitional period. Political tensions and trade restrictions between countries may also result in lower than expected growth for a protracted period.

The pandemic has heightened the risk of financial instability

Extraordinary fiscal policy measures, zero interest rates and substantial central bank liquidity supplies have dampened the downturn in the global economy. This has also helped to promote a strong stock market upturn and low risk premiums. The ECB and the IMF believe that an apparent disconnect between the real economy and financial markets is a key risk factor which has been reinforced during the first half of 2021. Greater belief in an economic recovery has led to higher yields on long-term government bonds, particularly in the US. According to the IMF, further interest rate increases combined with possible negative incidents could lead to a turnaround in investor sentiment and a sharp fall in equity prices, high volatility and more restricted access to financing for non-financial firms. Insurers may also be adversely affected by declining values in their equity, bond and property portfolios, and banks' funding costs may increase.

Debt levels are on the rise in many countries

Several countries had large budget deficits and high debt levels before the onset of the Covid-19 pandemic. A number of countries are also facing major long-term challenges due to an ageing population. Fiscal stimulus measures gave a significant increase in public debt in 2020 (chart 1.6). This raises questions about whether public finances in some countries are sustainable. According to the IMF, public debt in the euro area represented close to 97 per cent of total GDP in 2020, and a further slight increase is expected in 2021. However, there are wide differences between countries. Public debt represents just under 70 per cent of GDP in Germany, while the corresponding figure for Italy is 155 per cent. Greece, Portugal and Spain also have high debt levels. In the US, the public debt ratio has increased by more than 21 percentage points since 2017, and the IMF estimates that debt will increase further and be close to 133 per cent of GDP in 2021. Developments must be viewed in the light of the extensive fiscal stimulus packages.

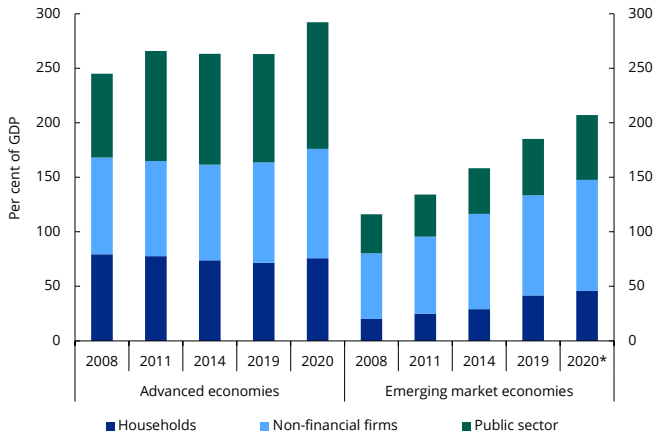
Persistent risk associated with high household debt in several countries

There is still significant risk associated with high household debt in several countries. This is particularly true for China, but countries such as Denmark, the Netherlands, Switzerland, Canada and Australia also have high household debt levels. Various support measures during the pandemic and a continued rise in house prices have helped households through closures, but the IMF points out that the debt servicing capacity of many households has deteriorated as a result of higher debt accumulation, partly to cover loss of income.

Sharp rise in debt in private firms

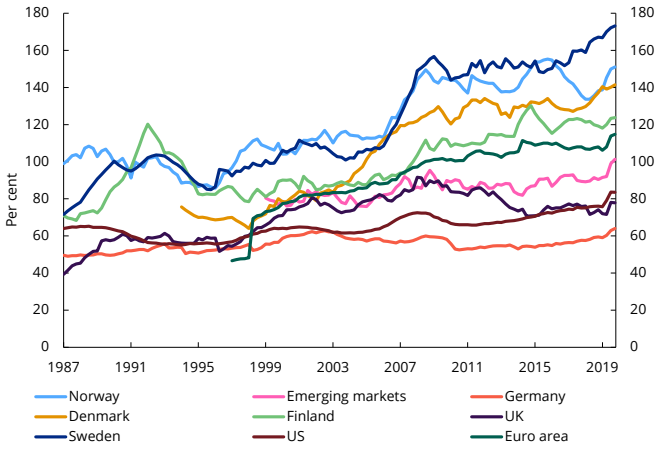
In a number of countries, the stimulus measures have helped to prevent bankruptcies in non-financial firms but have not eased the firms' debt burden. In several countries, the level of debt in non-financial firms was already at a high level and has increased further during the pandemic (chart 1.7). High and increasing debt means that many firms will be highly vulnerable to reduced demand, higher interest rates or other

1.6 Global debt



* End-September. Source: Bank for International Settlements (BIS)

1.7 Debt in per cent of gross domestic product (GDP). Quarterly figures 1987–2020. Non-financial firms



Source: Bank for International Settlements (BIS)

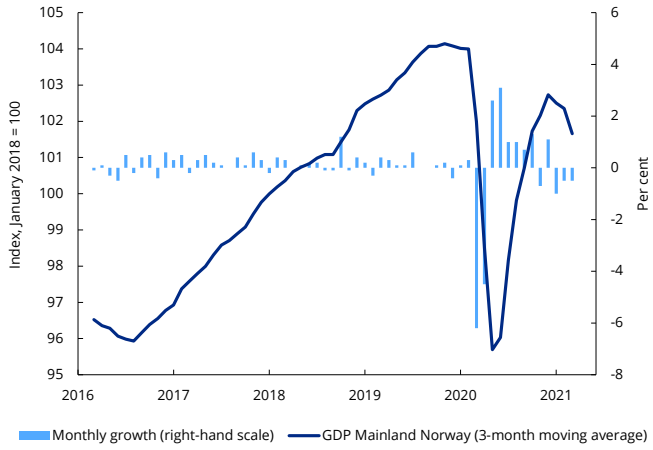
factors that weaken their debt servicing capacity. The ECB points out that defaults and bankruptcies may increase significantly in the most exposed industries and cause difficulties for a banking sector that is already under pressure in several countries, particularly in Europe, where earnings have been weak for a long time and defaults are already high.

NORWEGIAN ECONOMY

The Norwegian economy is still affected by the pandemic

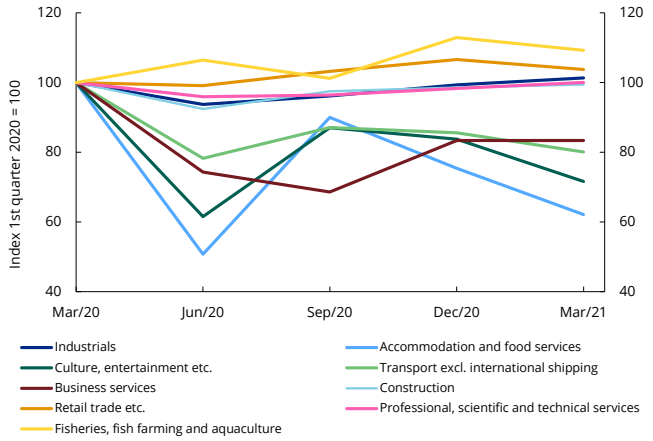
In Norway, economic activity has partly rebounded after the sharp reduction in March and April 2020. Nevertheless, economic activity remains below the

1.8 GDP Mainland Norway, monthly figures



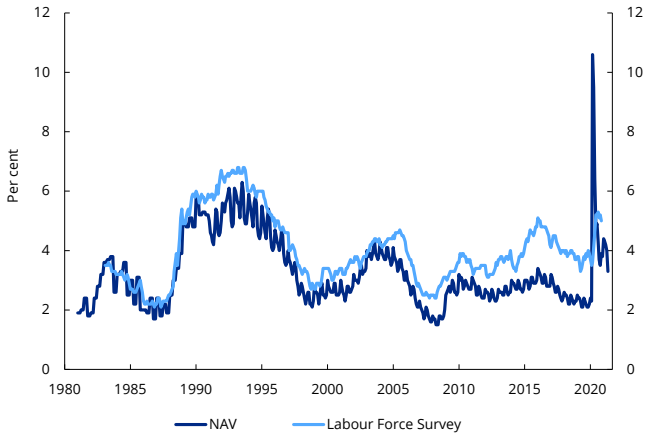
Seasonally adjusted. Sources: Statistics Norway and Refinitiv

1.9 Gross output in selected industries



Sources: Statistics Norway and Refinitiv

1.10 Number of registered unemployed



Sources: NAV (Norwegian Labour and Welfare Administration), Statistics Norway and Refinitiv

pre-pandemic level (chart 1.8). At the beginning of 2021, higher infection rates and new restrictions resulted in a slowdown in economic activity. GDP for mainland Norway was down 1 per cent from the fourth quarter of 2020 to the first quarter of 2021. At end-March 2021, output was around 3 per cent lower than before the pandemic hit the economy.

Many service industries have been severely affected by shutdowns and restrictions over the past year. The decline has been most pronounced for services related to entertainment and accommodation and food services (chart 1.9). On the other hand, the level of activity within retail trade, industrials and construction has remained high during the pandemic.

As a result of progress in vaccine coverage and the reopening of the economy, growth in the Norwegian economy is expected to pick up markedly in 2021 and 2022. However, uncertainty attends the vaccines' effects against detected and future virus mutations and the duration of vaccine protection. Even if deliveries increase, it will take some time before adequate vaccine coverage is achieved, especially if children and adolescents are not vaccinated. Although containment measures are now gradually being scaled back, the health authorities have announced that some restrictions will be necessary for a long time. In consequence, it may take long before unemployment and economic activity return to more normal levels.

Number of furloughs remains high

The level of unemployment has fallen sharply since the peak in the spring of 2020 but is still considerably higher than prior to the Covid-19 crisis (chart 1.10). Most of the increase is due to the fact that a large number of employees are still fully or partially furloughed. Fiscal policy measures and targeted support schemes have helped to curb the rise in unemployment while sustaining the level of household income. Long-term unemployment may cause vulnerable workers to permanently fall outside the labour market. This may increase the likelihood and the consequences of economic scarring, as referred to in the first part of this chapter.

Unemployment in various occupations reflects the sectoral differences in economic activity. The unemployment rate has risen particularly sharply for employees within tourism and transport, shops and sales, and other service occupations (chart 1.11). In May, the share of fully or partially unemployed workers within tourism and transport was almost 18 per cent of the labour force in this sector. Unemployment has risen the least within education and academic professions as well as health care and social work.

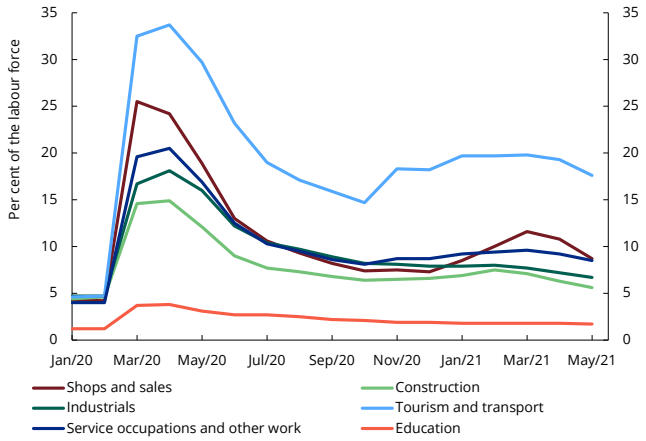
High household debt burden

The debt burden of Norwegian households is high, both in historical terms and compared with other countries. Low interest rates have stimulated households' demand for loans, and the proportion of households with a high debt-to-income ratio has risen in recent years. Many households are thus vulnerable to rising interest rates, declining incomes and falling house prices. Total household debt is estimated at 125 per cent of GDP for mainland Norway and 236 per cent of households' disposable income (chart 1.12).

The low interest rate level has contributed to the decline in households' average interest burden, measured as interest expenses in per cent of disposable income before interest expenses, to a historically low level. Norges Bank has signalled that its key policy rate will most likely be raised during the second half of 2021 and assumes a somewhat faster rate increase than previously communicated (chart 1.13). Only a very small proportion of household debt carries fixed interest rates. Higher interest rates will therefore quickly be reflected in higher interest expenses.

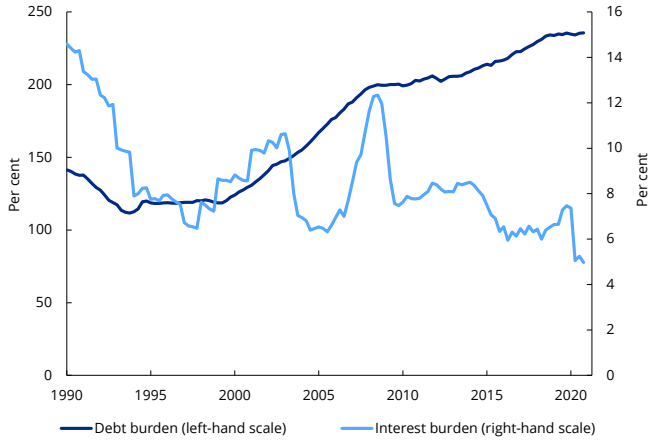
Developments in household debt are closely related to developments in house prices. Higher house prices give a rise in housing wealth and thus provide scope for increased borrowing secured on residential property. Greater access to credit enables borrowers to buy more expensive homes. Over time, this interdependence has resulted in strong growth in both debt and house prices (chart 1.14).

1.11 Fully or partially unemployed, selected occupations



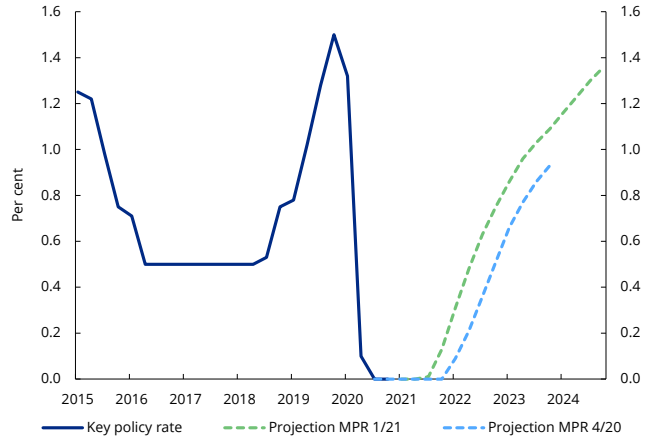
Source: NAV (Norwegian Labour and Welfare Administration)

1.12 Households' debt burden and interest burden



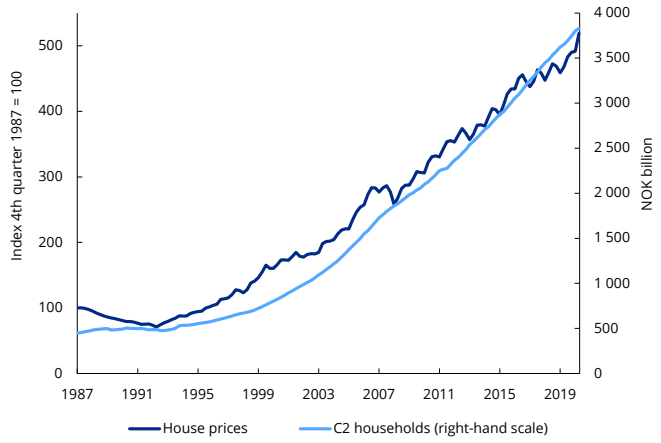
Last observation: fourth quarter 2020. Sources: Statistics Norway and Finanstilsynet

1.13 Norges Bank's policy rate path



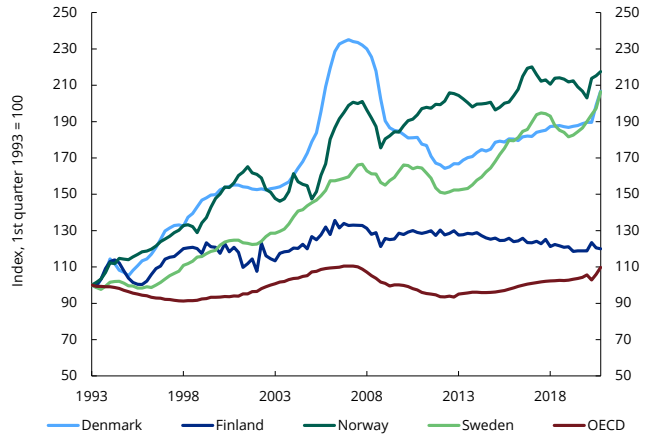
Source: Norges Bank

1.14 House prices and household debt (C2)



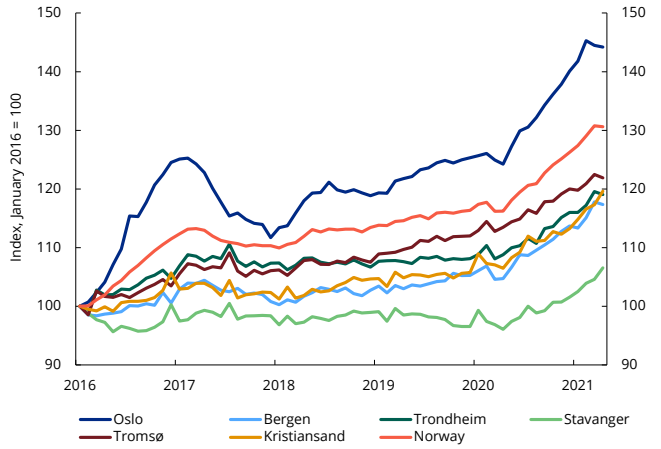
Sources: Statistics Norway and Finanstilsynet

1.15 House prices deflated by disposable income per capita



Source: OECD

1.16 House prices, selected towns



Sources: Eiendom Norge, Finn.no, Eiendomsverdi and Refinitiv

In a report on the Norwegian economy from April 2021, the IMF repeated its earlier warnings that high household debt ratios and high house prices are among the most important risk factors for financial stability in Norway. The IMF believes that the acceleration in house prices should be contained through a mix of monetary, tax, structural and financial sector policies in order to improve the balance between supply and demand. According to the report, the authorities should consider tightening mortgage regulations if house price growth does not slow and if other targeted measures are not implemented.

Strong house price growth

House prices in Norway have increased considerably over a long period of time and significantly more than disposable income per capita (chart 1.15). The interest rate reduction in the spring of 2020 has probably further stimulated demand in the housing market. At end-April 2021, twelve-month growth was 12.2 per cent.

House prices have risen considerably in all major towns (chart 1.16). The strongest increase has been seen in Oslo, where annual growth in April 2021 was 15.7 per cent, in spite of the fact that 2020 was the first year of net migration out of Oslo since 2000.

In order to give banks greater scope for granting vulnerable households instalment payment deferrals in new loan agreements, the flexibility quotas in the residential mortgage lending regulations were temporarily raised to 20 per cent in the second and third quarter of 2020. Reports from the largest financial institutions and branches of foreign institutions show that the proportion of residential mortgages granted that deviated from the requirements of the residential mortgage lending regulations increased markedly during this period (chart 1.17). There was a particularly steep rise in Oslo. In the first quarter of 2021, there was a reduction to 6.2 per cent for residential mortgages outside Oslo and to 5.7 per cent for residential mortgages in Oslo.

High prices on commercial real estate

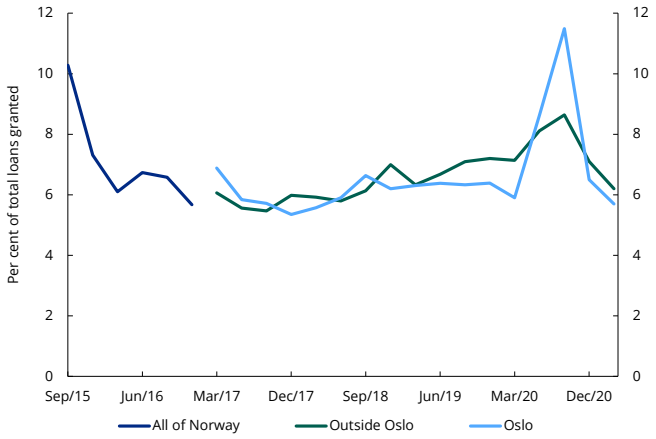
Commercial real estate prices have increased considerably over many years. Finanstilsynet's price indicator for commercial real estate shows that prices continued to rise in 2020 (chart 1.18). The price indicator is based on prime office space in central locations in Oslo, where prices are now at a historically high level after rising continuously since 2013. This segment is an important indicator of the vulnerability to the financial system represented by commercial real estate, as the banks have particularly large loans secured on office property in Oslo.

Reports from the industry also indicate that rental prices overall have held up better than developments in the real economy would suggest. This is probably due to the fact that several of the industries that are among the largest users of office space have fared relatively well through the crisis. With respect to firms that were severely affected, the support measures have made them better able to keep paying current fixed costs, such as rent and debt servicing costs.

Statistics from real estate agents show that both the number of transactions and the average price per transaction fell markedly in the first half of 2020. However, the prices more than rebounded in the second half of 2020. Overall, transaction volume in 2020 was the highest reported since 2007 (chart 1.19).

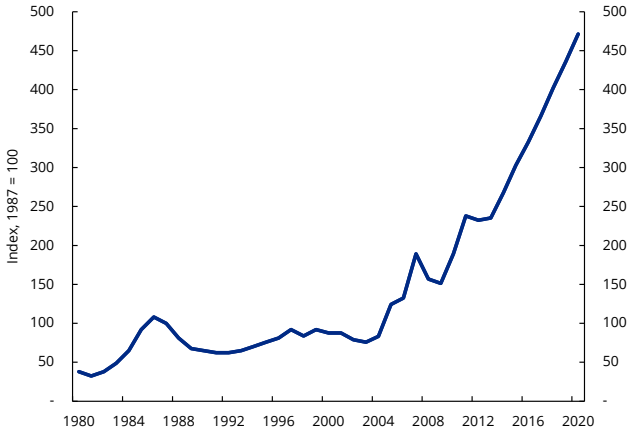
High commercial property prices constitute a significant vulnerability that may affect financial stability in Norway. Many of the largest banks are heavily exposed to commercial property companies, which account for the largest share of banks' lending to non-financial firms. In its latest review of the Norwegian economy, the IMF points out that the pandemic has increased the risk within commercial real estate, as future demand for office, retail and hotel space could be permanently lower. Insurers also have sizeable investments in commercial real estate. Developments in the commercial property market, and in the companies operating in this market, are thus important for the earnings and financial strength of a number of financial institutions, see further account in chapters 2 and 3.

1.17 Granted loans deviating from the requirements of the residential mortgage lending regulations



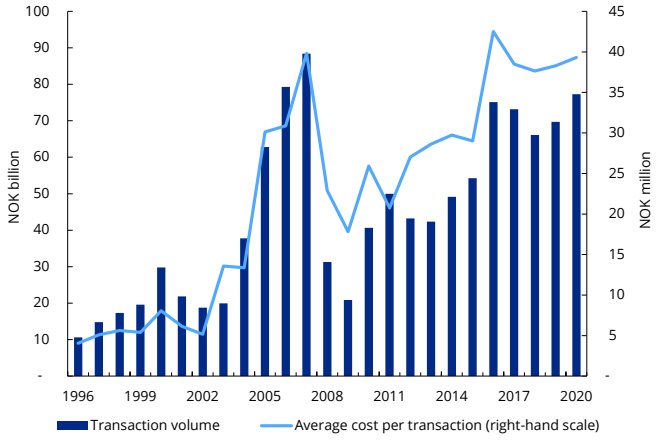
Quarterly data. Source: Finanstilsynet

1.18 Price indicator, commercial real estate



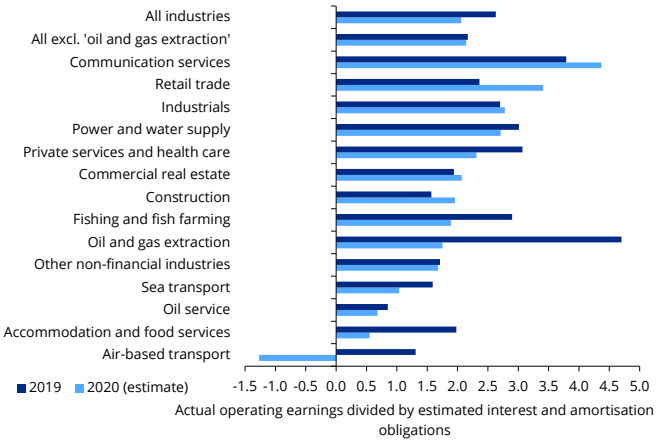
Based on prime office space in central Oslo. Sources: OPAK, Dagens Næringsliv, Entra and Finanstilsynet

1.19 Commercial real estate, transaction data



Source: Finanstilsynet

1.20 Debt servicing indicator*. Norwegian-registered limited companies



* Actual operating earnings (EBITDA) divided by estimated interest and amortisation obligations. A high ratio indicates a good debt servicing capacity and vice versa. Over time, the indicator should be significantly higher than 1. Source: Finanstilsynet

Debt servicing capacity in many industries has deteriorated since the onset of the Covid-19 pandemic

In a historical perspective, non-financial firms have accounted for the greater part of banks' loan losses. Developments in the non-financial sector are therefore important. Parts of the business sector in Norway have been hit hard by the Covid-19 pandemic.

Finanstilsynet has analysed debt servicing capacity in the business sector on the basis of the 2020 accounts of Norwegian listed companies and used these to project developments for non-listed companies in the same industry. The calculations indicate that operating earnings, measured as earnings before interest, taxes, depreciation and amortisation (EBITDA), were strongly reduced in a number of industries in 2020 compared with 2019.

The most pronounced decline was seen within 'air-based transport', 'accommodation and food services', 'oil and gas extraction ', 'sea transport' and 'oil service'. However, there are two different development paths. Within 'retail trade', 'communication services', 'construction' and 'industrials', operating earnings improved in 2020. There is considerable uncertainty associated with the figures for 'construction' and 'retail trade' as listed companies in these industries constitute a small proportion of the industries as a whole. The operating earnings of Norwegian-registered companies listed on Oslo Børs within 'oil and gas extraction', 'oil service' and 'fishing and hunting' improved in the first quarter of this year compared with the fourth quarter of 2020, which was partly attributable to higher oil and salmon prices. 'Oil service' still had high debt relative to operating earnings at end-March 2021. In most other main industries, operating earnings decreased in the first quarter compared with the previous quarter. Thus far, the second quarter has also been characterised by shutdowns and strict containment measures. In light of the gradual reopening in Norway and some other countries, it is not unrealistic to assume that earnings in several of the industries will improve somewhat in the second quarter compared with the first quarter.

A key question is to which extent the decline in operating earnings has affected the companies' debt servicing capacity. Operating earnings divided by net interest expenses and estimated amortisation obligations are one indicator of debt servicing capacity.[1] Based on Finanstilsynet's estimate, the debt servicing indicator declined in most industries in 2020 (chart 1.20). In 'air-based transport', 'accommodation and food services' and 'oil service', the debt servicing indicator was lower than 1, which means that the level of operating earnings was not adequate to cover interest and normal instalments, while it was only marginally higher than 1 in 'sea transport'.

If a company has a debt servicing indicator that is lower than 1, it does not automatically entail that it does not fulfil its payment obligations. Use of liquid assets and deferral of payment obligations could mean that the company avoids defaulting on its loans in the short and possibly medium term. In the longer term, however, operating earnings must satisfy the operating earnings requirement.[2] Repeated deferrals of payment obligations may create so-called 'zombie' firms.[3] Such a development may have an adverse effect on productivity, the pace of innovation and competitiveness in the business sector.

Firms with weak debt servicing capacity hold an increasing share of outstanding debt

The Norwegian business sector has previously demonstrated a high level of adaptability. Although restructuring entails new challenges, it is realistic to assume that the majority of strong and semi-strong firms will either retain their good debt servicing capacity or improve their debt servicing capacity once the pandemic gradually comes under control. Many of the weakest companies, however, face uncertain and challenging times, even after the pandemic is over. Total debt in firms (excluding 'oil and gas extraction') with a debt servicing indicator below 1 (weak debt servicing capacity) as a share of total debt in all firms increased from about 19 to 25 per cent in 2020 (chart 1.21). This represents approximately NOK 200 billion. As shown in the chart, there are significant differences between industries.

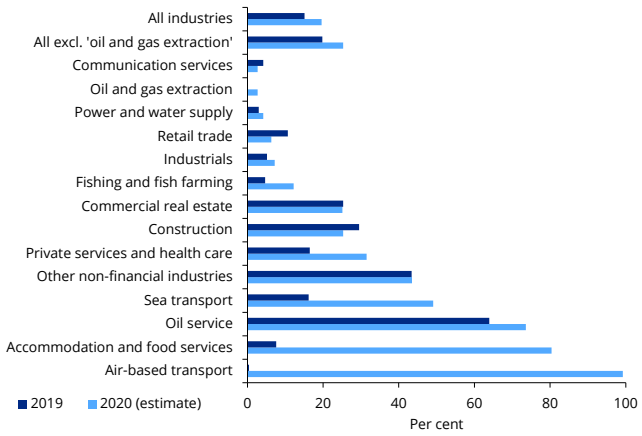
Debt servicing capacity has deteriorated in many industries, also internationally

The IMF recently published an analysis showing that more than 60 per cent of banks' corporate exposures are to sectors that have been strongly affected by the pandemic.[4] An analysis by the OECD indicates that debt in non-financial firms with a weak debt servicing capacity has increased sharply in many countries in recent years, and that the Covid-19 pandemic has contributed to further deterioration.[5] The OECD analysis also contains a stress test of the firms indicating that a further reduction in operating earnings (EBITDA) and an increase in borrowing rates would be dramatic for the most highly leveraged firms, especially in the US, China and emerging market economies.

Norwegian non-financial firms have a high interest rate and instalment burden

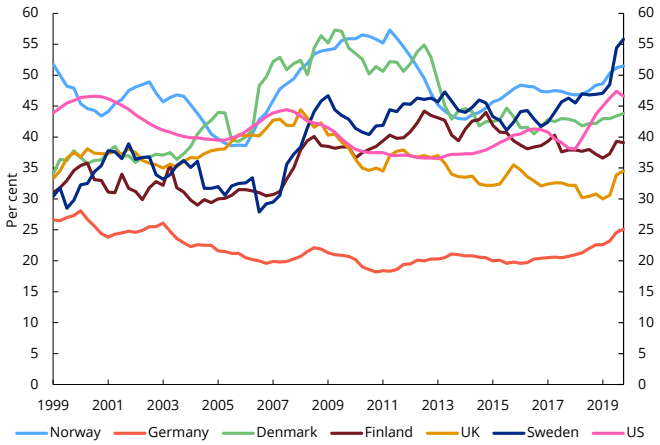
Neither the IMF nor the OECD analysis includes separate figures for Norway. However, the BIS has established a database that makes it possible to compare indicators of debt servicing capacity and debt relative to value creation in a number of countries, including Norway.[6] Despite the BIS' attempts to harmonise the figures, uncertainty still attends comparisons between countries. According to the BIS figures, it appears that Norwegian non-financial firms have a high interest rate and instalment burden compared with firms in a number of comparable countries (chart 1.22).[7] This indicates that Norwegian non-financial firms are generally more sensitive to reductions in operating income and rising interest rate levels than firms in many other countries. It is unclear why Norwegian firms apparently have a relatively high level of debt relative to value creation and earnings. One reason may be that the Norwegian business sector, with the exception of certain industries, have fared very well for many years, and that optimism has

1.21 Total debt in companies with a debt servicing indicator below 1 as a share of total debt in the industry. Norwegian-registered limited companies.



Source: Finanstilsynet

1.22 Debt servicing indicator*. Non-financial firms



*Quarterly figures. Source: Bank for International Settlements (BIS)

generally been strong. Decisions to grant loans are often made on the basis of past and expected developments. In many other countries, there have been more divergent developments in the business sector, whereby banks and other lenders have been more cautious in providing loans during certain periods.

The business sector in Norway is quite heavily dependent on the oil sector, which entails challenges related to climate change and the transition to a low-emission society.[8] The vulnerability of the non-financial sector in Norway may be further exacerbated by the fact that Norwegian households have more debt relative to disposable income than households in most other countries and that most of the debt carries floating interest rates. An interest rate increase thus affects non-financial firms both directly in the form of higher costs and indirectly in the form of reduced private consumption and housing investment.

Digitalisation and financial infrastructure

The digitalisation of financial services provides major benefits for users and society, but also creates new vulnerabilities that can have consequences for financial stability. The scale of cyberattacks is increasing year-on-year, but so far has not resulted in major incidents at institutions in the Norwegian financial sector. However, incidents that occurred in 2020 revealed serious vulnerabilities in some institutions. The institutions are working continuously to strengthen their defences, and attacks are generally warded off before they have serious consequences. See a further account in Finanstilsynet's Risk and Vulnerability Analysis 2021.

Climate risk will require extensive restructuring

Climate change and the transition to a low-emission society will entail a significant restructuring of the economy, with financial losses in industries and firms that are adversely affected. This will also inflict losses on financial institutions. At the same time, financial institutions and securities markets play an important part in channelling capital into investments in climate-friendly production. This is vital to a successful restructuring, but is dependent on the risk-bearing capacity of lenders and investors.

Lack of uniform information about the actual climate effects of various investment projects and firms' exposure to climate risk makes it more difficult to price climate risk correctly in the financial markets and thus to channel capital to the right projects. In April this year, the EU published the first technical criteria for defining sustainable activities. The taxonomy does not leave room for national discretion in the implementation and will apply to firms and the financial industry throughout the EEA, see box 6 in chapter 4.

Finanstilsynet expects financial institutions' risk management systems to cover all significant risks, including risks related to the impact of climate change and the transition to a low emission society. Sustainability and climate risk have been on the agenda at inspections at a number of institutions. Finanstilsynet has included sustainability risk and climate risk in its framework for assessing credit risk management and control. At on-site inspections, banks' management of sustainability risk, with particular emphasis on climate risk, is reviewed. Finanstilsynet observes that several of the banks have included general reflections on sustainability and climate risk in their governing documents. However, the banks have not come very far in assessing climate risk in their loan portfolios. Finanstilsynet will further refine its supervisory methodology in this area.

Exposure analyses, sensitivity analyses and stress tests of climate scenarios are tools that can provide increased insight into the exposure of financial institutions and the financial system to climate risk. In 2021, Finanstilsynet published a survey of insurers' exposure to apparently climate-sensitive sectors, see further account in chapter 3. In 2021, the Ministry of Finance and the Ministry of Climate and Environment have invited Norwegian financial institutions to test a tool for assessing climate risk in investment and loan portfolios.

Over the past year, Finanstilsynet has carried out surveys of how Norwegian fund managers and listed companies address climate risk and sustainability. A survey of fund managers showed that there are major

differences in how far they have come in their sustainability efforts. Several firms now include information on sustainability in prospectuses to adapt to requirements in the Sustainable Finance Disclosure Regulation, which entered into force in the EU in March 2021. Nevertheless, the main impression is that firms need to intensify their preparations in order to be ready to comply with the new requirements that are expected to be implemented in Norwegian law shortly. A survey of listed companies' sustainability reporting showed that many of them have a sustainability strategy that has been endorsed by their Board of Directors and senior management. However, the companies provide little information on risk and materiality assessments. There is limited reporting and quantification of climate risk, and few companies report the financial consequences of risks associated with sustainability and climate change. Based on these results, Finanstilsynet conducted a survey in the spring of 2021 of the firms' assessments of so-called stranded assets, i.e. assets that have reduced or no value as a result of risks related to climate change or climate change adaptation.

CHAPTER 2 BANKS

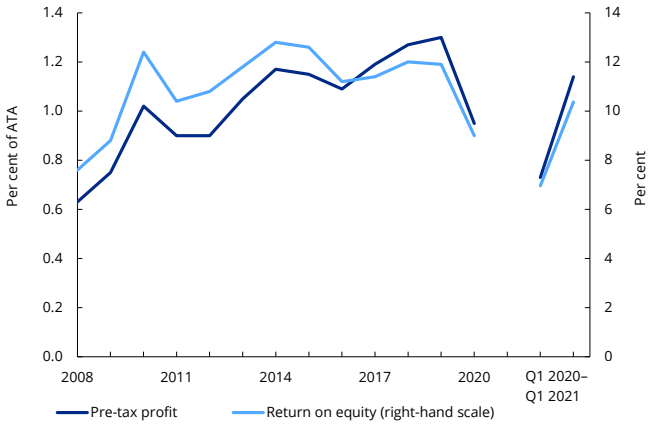
Norwegian banks have thus far fared relatively well after the outbreak of the pandemic and the subsequent economic downturn. Profitability in 2020 was nevertheless weaker than in the preceding years, mainly as a result of lower net interest income and higher loan losses. The extensive government measures implemented to mitigate the impact of the pandemic on the Norwegian economy have helped to limit banks' loan losses. As a result of considerable market turbulence at the start of the pandemic, risk premiums on banks' securities market funding rose sharply but were quickly reduced and were below pre-pandemic levels at end-March 2021. Both liquidity reserves and the share of stable, long-term funding are at historically high levels. Banks' performance in the first quarter of 2021 show signs of returning to normal, and loan losses are low. Profit retention has helped to ensure that the banks' capital adequacy ratios are well above current requirements.

Well-capitalised banks have a sound basis for providing loans to creditworthy customers even in a situation with higher losses. Future developments are highly uncertain. As the powerful monetary and fiscal policy measures are scaled back, weaker debt servicing capacity among vulnerable borrowers may materialise. As discussed in chapter 1, government measures to mitigate the economic consequences of the pandemic may also have heightened the risk of financial instability.

IMPROVED PROFITABILITY IN BANKS

Banks' performance was adversely affected by the outbreak of the Covid-19 pandemic in 2020. Return on equity for the full year declined to 9 per cent for Norwegian banks combined, which was almost 3 percentage points lower than the year before and the lowest level since 2009 (chart 2.1). The first quarter of 2021 saw a rise in profits and total return on equity was 10.4 per cent (annualised).

2.1 Pre-tax profit and return on equity



Source: Finanstilsynet

The onset of the pandemic in March 2020 entailed a higher risk of losses in the banks' loan portfolios, which was manifested in increased impairment losses already in the first quarter. There was a further rise in the level of losses for the banks combined as several of the largest banks increased their impairment losses on exposures to offshore-related industries. These loans were exposed to loss even before the pandemic. The strong fiscal and monetary policy measures that were implemented to deal with the consequences of the pandemic and the easing of containment measures helped to ensure a decrease in Norwegian banks' loan losses as 2020 progressed. Nevertheless, losses for the year as a whole were at the highest level since the Norwegian banking crisis in the early 1990s. Losses in the first quarter of 2021 were 90 per cent lower than in the same period a year earlier, standing at 0.1 per cent of average lending.

The decline in profits in 2020 was also a result of a significant reduction in banks' net interest income (chart 2.2). Net interest income accounts for the predominant share of Norwegian banks' operating income, representing more than 75 per cent of total income in recent years. After growing for several years, banks' net interest income declined as a result of the reduction in market rates after the outbreak of the pandemic. The decline in net interest income was mainly a consequence of the lower deposit spread. Owing to the general provisions of the Financial Contracts Act on a two-month notification period for

reductions in deposit rates, unless otherwise set out in the agreement with the customer, the banks were unable to reduce deposit rates as quickly as lending rates. The deposit spread, i.e. the difference between the money market rate and deposit rates, was thus negative in the second quarter of 2020. In the subsequent quarters, the banks have been able to increase their deposit spread somewhat, although it was still considerably lower at end-March 2021 than a year earlier (chart 2.3). The low interest rate environment also leads to continued pressure on the deposit spread, as market conditions make it difficult to offer customers negative deposit rates.

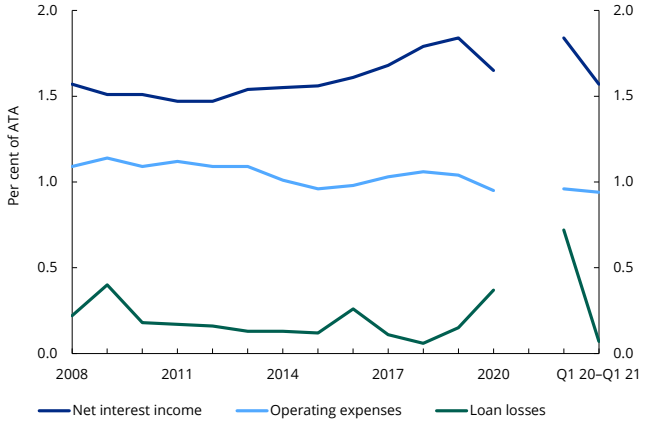
As shown in chart 2.4, the group of small banks has experienced the most pronounced reduction in net interest income over the past year. An important reason for this is that this group of banks obtains a significantly higher share of funding from deposits than the large and medium-sized banks. For the group of small banks, deposits account for more than 70 per cent of total funding, while the figures for the groups of large and medium-sized banks are 44 and 50 per cent, respectively. The weakening of the deposit spread in the first half of 2020 thus had the most adverse impact on banks that are largely funded by deposits.

REDUCED CREDIT QUALITY

Banks classify their loan portfolios according to the IFRS 9 accounting standard, whereby portfolios should be classified on the basis of estimated credit risk. Stage 1 is where credit risk has not increased significantly since initial recognition. Stage 2 is where credit risk has increased significantly since initial recognition, while stage 3 is where the loan is assessed to be credit impaired. In the first quarter of 2020, the proportion of stage 2 loans increased significantly (chart 2.5). This proportion has decreased in subsequent quarters. At end-March 2021, the group of medium-sized banks stood out, as these banks had a considerably lower proportion of loans with a significant increase in credit risk than prior to the pandemic.

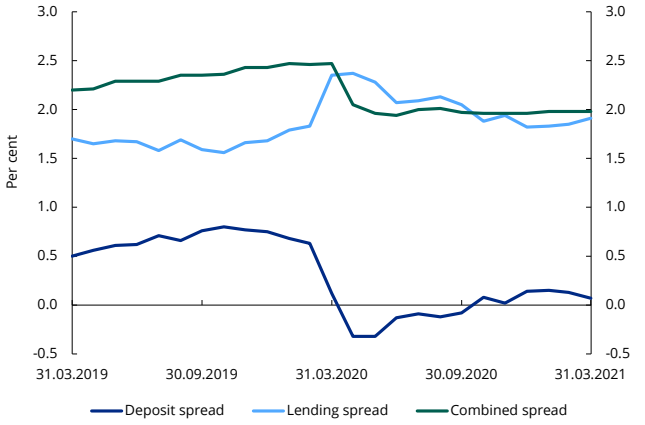
Non-performing loans[9] increased markedly after the outbreak of the pandemic, but from a low level. At end-March 2021, non-performing loans represented

2.2 Net interest income, operating expenses and loan losses



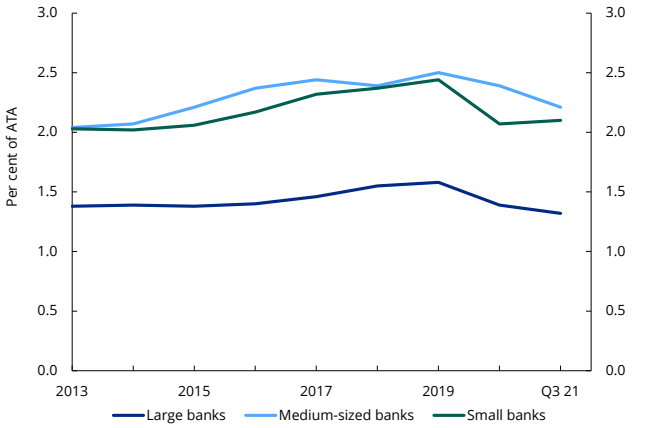
Source: Finanstilsynet

2.3 Interest spreads



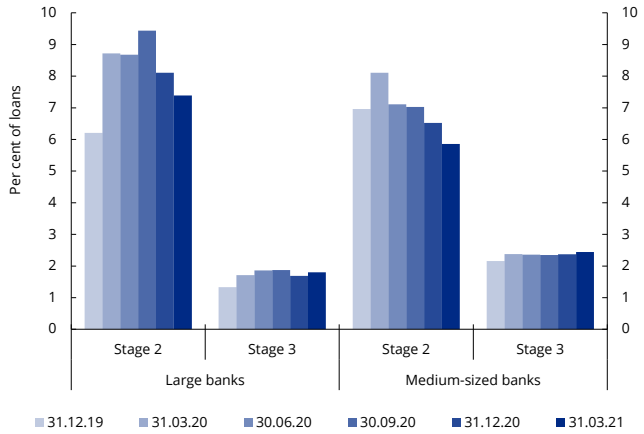
Source: Statistics Norway

2.4 Net interest income in groups of banks



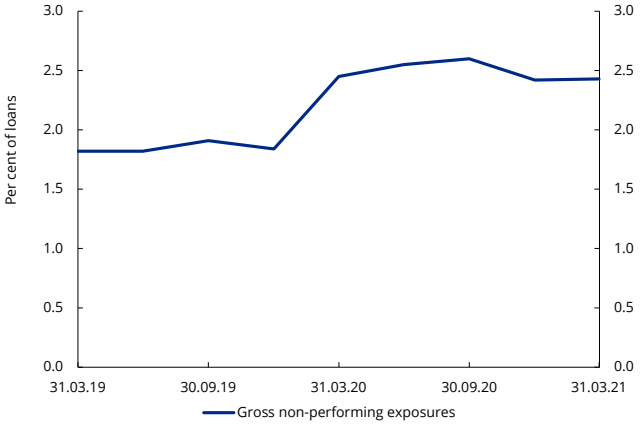
Source: Finanstilsynet

2.5 Share of loans with heightened credit risk



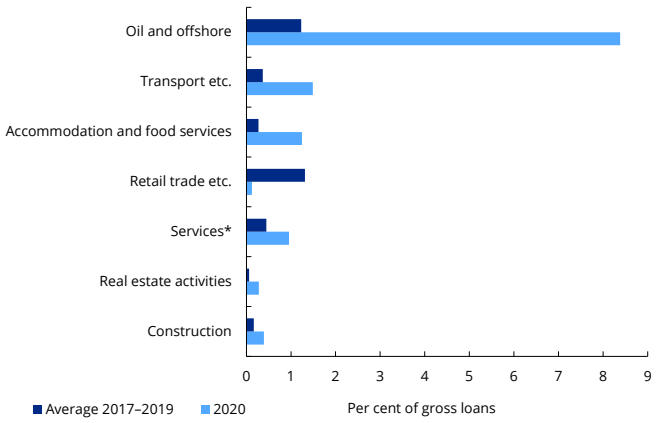
Source: Finanstilsynet

2.6 Non-performing loans, all banks



Source: Finanstilsynet

2.7 Losses on loans to individual industries



* Professional, financial and business services.
Source: Finanstilsynet

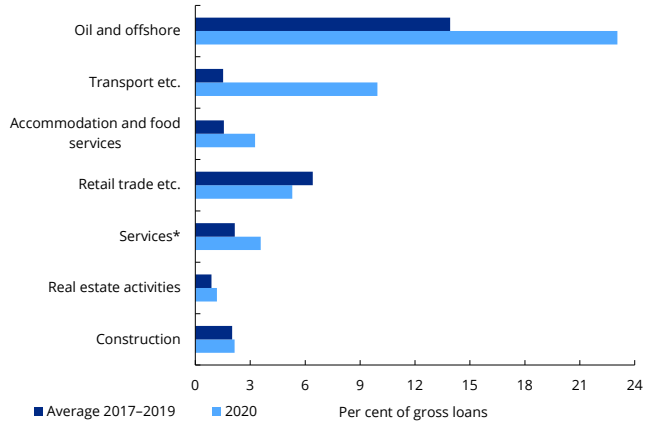
2.4 per cent of total lending volume after declining slightly during the preceding six months (chart 2.6). Just over a third of total non-performing loans are more than 90 days past due. In the personal customer market, the share of non-performing loans was 1.2 per cent, with consumer loans accounting for the highest share, cf. below. Residential mortgages represent the major part of banks' personal customer loans. Only 0.2 per cent of such mortgages were non-performing at end-December 2020. 4.2 per cent of loans to corporate customers were non-performing at end-March 2021. Forborne loans came to 1.9 per cent of total lending in the first quarter of 2021, which is 0.5 percentage points higher than a year earlier.

INCREASE IN LOAN LOSSES AND NON-PERFORMING LOANS IN MANY INDUSTRIES IN 2020

Norwegian banks recorded significantly higher losses on loans to some industries in 2020 than in the preceding years (chart 2.7). Oil and offshore-related industries were hit by the fall in oil prices resulting from the pandemic. Losses as a share of gross lending to these industries were almost seven times as high in 2020 as the average for the years 2017–2019 and accounted for more than half of total loan losses in Norwegian banks. There was also a marked increase in losses on loans to a number of other industries that were severely affected by the pandemic, such as accommodation and food services and transport. Banks' losses on loans to firms within real estate activities have been very low in recent years but increased to 0.3 per cent of lending volume in 2020. Lending to this industry accounted for about 41 per cent of banks' total corporate loans at the end of the year.

In 2020, the share of non-performing loans increased in many industries (chart 2.8). Some 23 per cent of banks' loans to oil and offshore-related industries were non-performing at the end of the year, which is 9 percentage points higher than the average level in 2017–2019. After a few major non-performing loans in the offshore industry were either sold or debt converted to equity in 2020, the level of non-performing loans in the remaining loan portfolio declined.

2.8 Non-performing loans in individual industries



* Professional, financial and business services.
Source: Finanstilsynet

In the transport industry, which has been severely affected by cancellations and reduced demand during the pandemic, the share of non-performing loans was 10 per cent at the end of 2020. This is more than 8 percentage points higher than the average for the previous three years. For retail trade, on the other hand, the share of non-performing loans was reduced in 2020, to around 5 per cent at the end of the year. Although the containment measures have had a profound impact on parts of this industry, consumption has increased within some sectors of the retail industry. Domestic trade has also risen, reflecting the sharp drop in cross-border shopping.

Box 1: EU strategy for tackling non-performing loans in the banking industry

Thus far during the pandemic, non-performing loans in European banks have been relatively stable at just under 3 per cent of lending.* Significant growth in lending volume and the sale of non-performing portfolios have contributed to this development, despite signs of declining credit quality. The authorities also opened up for allowing loans for which payment deferral had been granted through moratoria schemes to not automatically be reported as non-performing provided that the borrower's inability to pay could be considered to be temporary. As part of the authorities' measures to mitigate the negative effects of the Covid-19 pandemic, the European Commission presented a strategy in December 2020 to prevent a sharp increase in the volume of banks' non-performing loans. The background was concern that a further build-up of non-performing loans would put pressure on banks' earnings and capital base, thereby reducing businesses' and households' access to financing. Among other things, the strategy aims to promote the development of a well-functioning market for non-performing loans, reform corporate insolvency and debt recovery legislation and support the establishment and cooperation of national asset management companies ('bad banks'), i.e. companies that can take over portfolios of non-performing loans from the ordinary banking system. The strategy is based on a package of measures adopted by the EU in 2017 to tackle banks' non-performing loans. As part of this package, an amending regulation to the Capital Requirements Regulation as regards minimum loss coverage for non-performing exposures ((EU) 2019/630) was adopted. The package also included a proposal for a directive that will make it easier for lenders to realise collateral attached to non-performing loans, as well as foster the development of a well-functioning secondary market for non-performing loans.

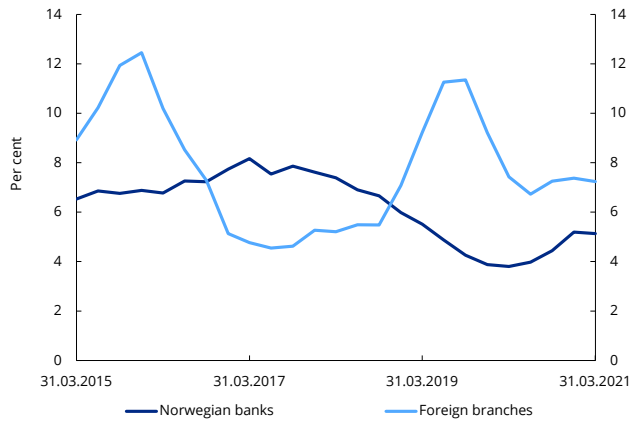
The purpose of the measures is to enable banks, by freeing their balance sheets from non-performing portfolios, to reduce the risk of future losses and free up capital in order to be better able to provide loans to creditworthy customers. Non-performing loans may be purchased by specialised companies that have greater expertise in debt recovery than traditional banks, which may help to reduce total losses. Such transactions can be financially rational for individual banks, but do not in themselves reduce the overall volume of non-performing loans in the economy. Asset management companies are funded by

equity, bank loans and loans from the parent company.

The European Capital Requirements Regulation CRR sets capital requirements for credit institutions that can take repayable funds from the public. Pursuant to Norwegian legislation, all lending activities are licensable and subject to harmonised capital requirements, which mean that Norwegian finance companies are subject to the same capital requirements as banks.

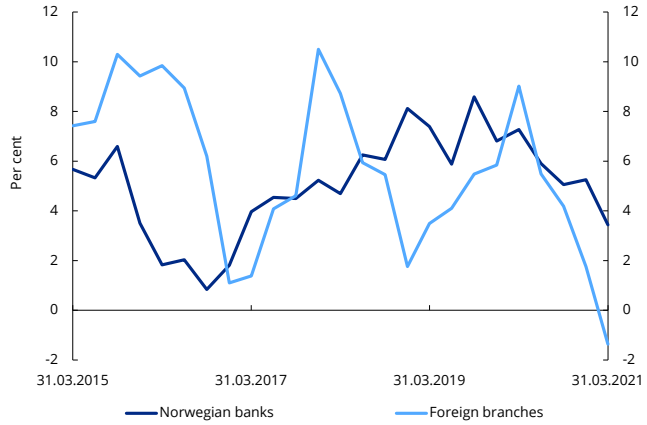
*https://www.esma.europa.eu/document/joint-esa-report-risks-and-vulnerabilities-in-eu-financial-system-no-1-2021

2.9 Growth in lending to personal customers



Source: Finanstilsynet

2.10 Growth in lending to corporate customers



Source: Finanstilsynet

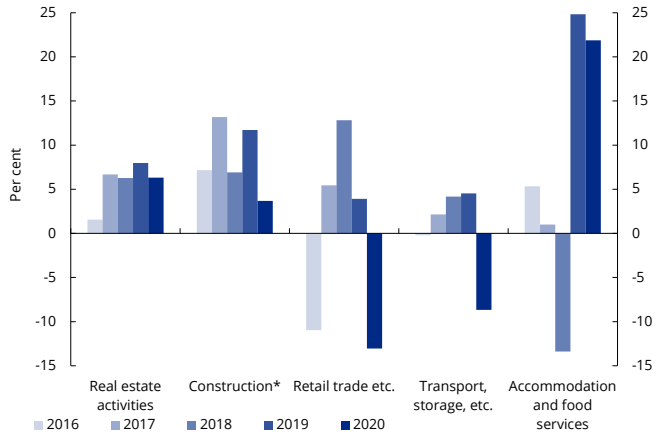
HIGHER GROWTH IN LENDING TO PERSONAL CUSTOMERS IN 2020

Norwegian banks' total lending growth has slowed over the past year. This is partly due to a stronger krone exchange rate, which reduces the NOK value of loans in foreign currency. However, growth in lending to personal customers increased through 2020, but slowed somewhat in the first quarter of 2021 (chart 2.9). Lending to personal customers moves largely in tandem with developments in the housing market, which has been characterised by high activity and strong price growth over the past year. See chapter 1 for an account of the housing market and households' debt burden.

In the corporate market, twelve-month growth in banks' lending has been markedly reduced since end-March 2020. The sharpest decline in lending growth is seen among branches of foreign banks, whose lending volume at end-March 2021 was lower than a year earlier (chart 2.10). In the past, lending to corporate customers has been more volatile among foreign banks than Norwegian banks.

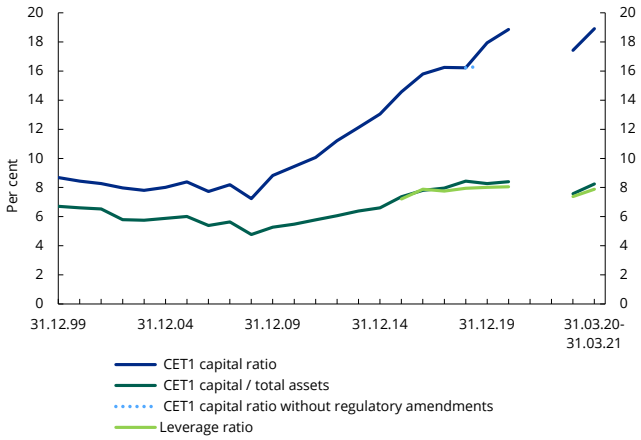
Loans to real estate activities constitute the far greatest share of corporate lending for both Norwegian banks and branches of foreign banks at 41 per cent and 47 per cent, respectively. Total growth in lending to real estate activities, from banks and branches combined, slowed somewhat in 2020. Nevertheless, growth remained higher than the overall increase in lending to corporate customers. For industries that are most adversely affected by pandemic measures, developments have been quite diverse over the past year. For example, lending to both retail trade and transport/storage was reduced in 2020 (chart 2.11). For the industry group 'transport, storage, etc.' the figures are influenced by a significant reduction in lending to offshore-related activities. However, there was also a marked reduction in lending volume for other transport services, which dropped by 7 per cent in 2020. The growth in loans to accommodation and food services was brisk during 2020, albeit somewhat lower than the year before. The increase in 2020 reflects greater need for borrowing in

2.11 Growth in lending to individual industries



*Construction includes development of construction projects.
Source: Finanstilsynet

2.12 Tier 1 capital ratio



Source: Finanstilsynet

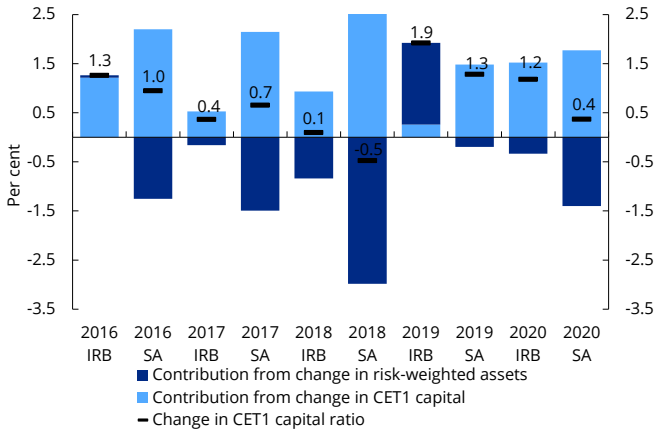
some of the major hotel groups owing to reduced travel activity and fewer overnight stays during the pandemic. Lending to this industry accounts for just over 1 per cent of banks' lending to corporate customers.

BANKS' CAPITAL ADEQUACY HAS IMPROVED

At end-March 2021, Norwegian banks' CET1 capital ratio was 18.9 per cent, which was unchanged from year-end 2020, but 1.5 percentage points higher than a year earlier (chart 2.12). The increase in CET1 capital ratios is mainly due to retained profits (chart 2.13). Over the past ten years, increased use of the internal ratings-based approach (IRB) to measure credit risk and higher growth in lending to the personal customer market than to the corporate market have helped to raise the CET1 capital ratio. Over time, banks using the standardised approach have seen a stronger increase in risk-weighted assets than banks using the IRB approach.

The incorporation of the European solvency framework into the EEA Agreement in 2019 entailed the removal of the Basel 1 floor for IRB banks and the introduction of the SME supporting factor for the calculation of capital requirements for loans to small and medium-sized enterprises. These two rule changes did not affect banks' financial soundness. However, the resulting reduction in risk-weighted assets gave an increase in the CET1 capital ratio at the end of 2019.

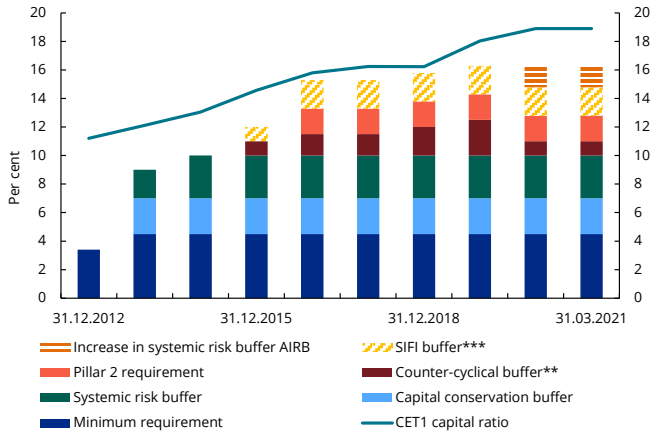
2.13 Change in CET1 capital ratio, IRB banks vs. banks using the standardised approach (SA)



*The increase in CET1 capital and risk-weighted assets in 2018 reflects extended consolidation for parent entities in cooperating groups. Source: Finanstilsynet

The banks' leverage ratio was 7.9 per cent at end-March 2021, up 0.5 per cent compared with a year earlier, but down 0.2 per cent from year-end 2020. The leverage ratio is defined as Tier 1 capital (numerator) relative to total exposure before risk weighting (denominator). The increase in the CET1 capital ratio is not reflected in a corresponding increase in the leverage ratio. This is partly due to a reduction in other eligible Tier 1 capital in the form of redeemed additional Tier 1 capital from year-2019 to year-end 2020. At the same time, the increase in banks' exposure measure before risk weighting is significantly higher than the increase in risk-weighted assets during the same period.

2.14 Capital requirements and capital adequacy ratios for Norwegian banks*



* Weighted Pillar 2 requirement for the seven large banks. ** The countercyclical capital buffer requirement is set at the Norwegian rate.*** DNB Bank is the only Norwegian bank that has to meet the buffer requirement for systemically important banks.
Source: Finanstilsynet

With effect from year-end 2020, the systemic risk buffer rate was raised from 3 to 4.5 per cent for institutions using the advanced IRB approach (chart 2.14). Institutions which use the standardised approach or the foundation IRB approach to measure credit risk and are not systemically important, are still subject to a systemic risk buffer requirement of 3 per cent through 2022. The systemic risk buffer requirement is intended to cover risks related to structural vulnerabilities and systemic risk in Norway and thus only applies to banks' domestic exposures. The countercyclical capital buffer requirement was reduced from 2.5 per cent to 1 per cent in March 2020. At the end of 2020, all banks met current capital requirements by an ample margin.

PAYMENT OF DIVIDENDS AND OTHER DISTRIBUTIONS

On 18 December 2020, the European Systemic Risk Board (ESRB) issued a recommendation to national authorities to request banks and insurers to refrain from making dividend payments and other distributions until 30 September 2020, unless the institutions apply extreme caution and the distributions do not exceed the conservative thresholds set by the national supervisory authorities. The ESRB's recommendation was addressed to all financial institutions regardless of their financial situation. Within 30 September the ESRB will, on the basis of macroeconomic developments and financial stability considerations, decide whether the recommendation should be retained. [10]

In December 2020, Finanstilsynet sent a letter to the Ministry of Finance on how the ESRB's recommendation should be followed up. Based on Norwegian banks' financial soundness and earnings at end-September 2020, Finanstilsynet recommended a threshold for distributions of 25 per cent of cumulative annual profits for 2019 and 2020, which includes any form of distributions that had already been made or approved in 2020, as well as distributions that will be made or approved up until 30 September 2021. In January, the Ministry of Finance asked the banks to apply caution in making dividend payments due to the continued high level of uncertainty attending economic developments.[11] The Ministry expressed an expectation that banks will keep total distributions within a maximum of 30 per cent of cumulative annual profits for 2019 and 2020. The Ministry's rationale is that Norwegian banks are profitable and well-capitalised, and that much of Norwegian saving banks' distributions are donations to charitable causes that may be in great need of funds during the pandemic.

In January, Finanstilsynet asked the banks to submit a notification if they were planning to make dividend payments or other distributions. At the end of May 2021, about 25 banks had notified Finanstilsynet of total distributions of close to 30 per cent of total profits for 2019 and 2020. No banks have reported higher distributions, but many banks' Boards of Directors have been authorised to make further distributions in the fourth quarter of 2021.

REGULATORY CHANGES

In the spring of 2019, changes to the EU capital adequacy framework and the Bank Recovery and Resolution Directive (the 'banking package') were adopted. The changes include a minimum leverage ratio requirement, a net stable funding ratio (NSFR) requirement and greater flexibility for national authorities to implement measures to handle various forms

of system risk, including increased capital buffer requirements and minimum requirements for risk weighting of real estate loans. The changes to the Capital Requirements Regulation (CRR2) will apply in the EU from 28 June 2021 but will not be incorporated in the EEA Agreement at the same time. The Ministry of Finance has announced that it will revert to when new rules are expected to enter into force in Norway.

The changes in the banking package will, among other things, affect the CET1 capital ratio due to an increase in the SME supporting factor. According to the CRR, the capital requirement for loans to small and medium-sized enterprises (SMEs)[12] will be reduced by 23.8 per cent for all loans under EUR 1.5 million. In CRR2, the supporting factor will be extended to apply to loans of up to EUR 2.5 million. In addition, the capital requirement for loans in excess of EUR 2.5 million will be reduced by 15 per cent. The effect of an extended SME supporting factor is estimated to raise the large banks' CET1 capital ratios by between 0.3 and 0.8 percentage points.[13] There will be a greater effect for some small banks.

In addition to the extended SME supporting factor, CRR2 includes reduced capital requirements for lending to enterprises that operate or finance infrastructure projects. The capital requirement for lending to infrastructure projects is reduced by 25 per cent. The regulation sets out a number of criteria that must be met for loans to be eligible. The effect of the infrastructure supporting factor is therefore more difficult to estimate.

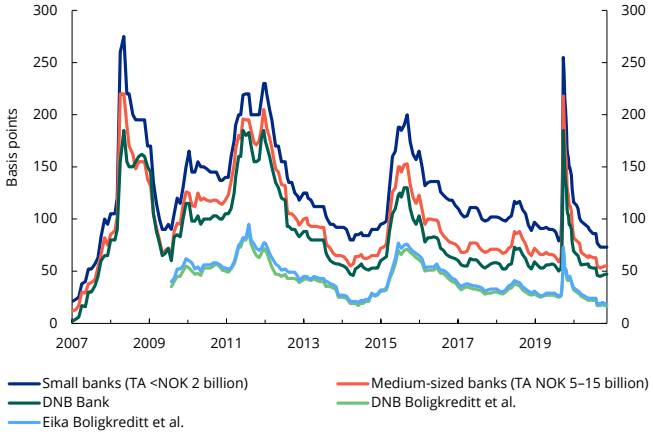
CRR2 also entails changes in the minimum leverage ratio requirement, which comes in addition to the risk-weighted CET1 capital requirements. Since 2015, banks in the EU have had to calculate and publish their leverage ratios. In Norway, the majority of financial institutions have been subject to a binding leverage ratio requirement of 3 per cent of the institution's exposure measure since 2017. In addition, all Norwegian banks are required to have a leverage ratio buffer of minimum 2 per cent of the bank's exposure. For systemically important banks, the leverage ratio buffer must be at least 3 per cent. The buffer requirement in CRR/CRD IV thus does not apply to mortgage companies. According to CRR2, financial institutions are subject to a binding leverage ratio requirement of at least 3 per cent. As from 1 January 2022, an additional leverage ratio buffer will apply to global systemically important institutions (G-SIIs), set at 50 per cent of the institution's risk-based G-SII buffer rate. CRR2 includes only buffer requirements for global systemically important institutions, which means that the 2 per cent buffer requirement for Norwegian banks will no longer apply. However, the supervisory authority may set individual Pillar 2 requirements and communicate its expectation regarding a margin above the requirement.

CRR2 imposes a minimum net stable funding ratio requirement, NSFR, of 100 per cent. All Norwegian banks currently have an NSFR above 100 per cent. There are some changes to the calculation of the NSFR compared with the current calculation method. For some assets, calculations will be less stringent than under the current requirements, including covered bonds eligible as level 1 assets in the liquidity coverage ratio (LCR), while other assets will receive somewhat stricter treatment, including mutual fund holdings. The overall effect of the new regulations will depend on the composition of the institutions' balance sheets.

LOW RISK PREMIUMS ON BONDS

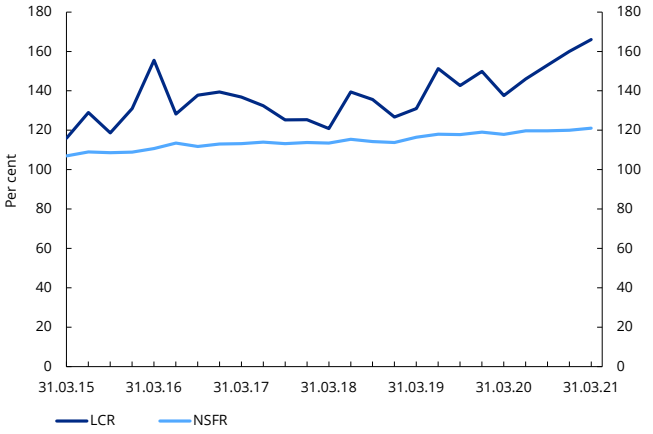
In March 2020, the outbreak of the Covid-19 pandemic triggered significant market turbulence and gave a rise in risk premiums. In mid-March 2020, risk premiums were about the same as during the global financial crisis in the autumn of 2008 (chart 2.15). However, the markets recovered relatively quickly. At end-October, risk premiums on covered bonds had returned to the level prior to the increase in March, while risk premiums on senior bonds were still somewhat higher. Towards the end of 2020, these risk premiums were also back at pre-pandemic levels. Despite new waves of infection and negative vaccine news, volatility has been low thus far in 2021, and risk premiums are lower than for many years.

2.15 Risk premiums on senior and covered bonds



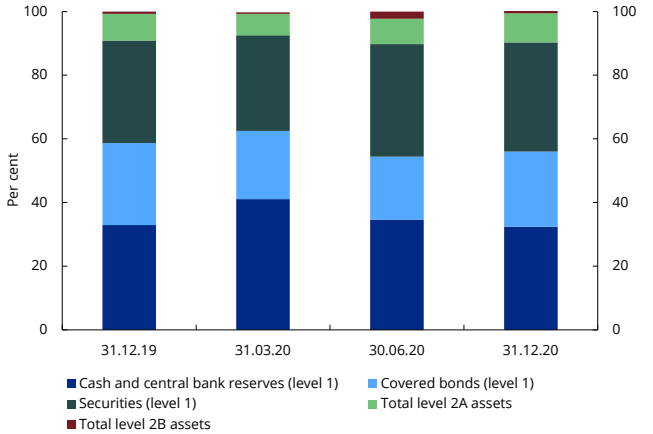
Source: DNB Markets

2.16 Liquidity coverage ratio (LCR) and net stable funding ratio (NSFR)



Source: Finanstilsynet

2.17 Liquidity reserve in Norwegian banks



Source: Finanstilsynet

INCREASE IN LIQUIDITY RESERVES

The banks are required to maintain liquidity reserves sufficient to enable them to honour their commitments in a brief period of limited access to fresh funding. The liquidity reserve, measured by the LCR, shall constitute at least 100 per cent of the net liquidity outflow over a given stress period of 30 days, both in total and for each significant currency. Norwegian banks have increased their liquidity reserves since the minimum LCR requirement was introduced (chart 2.16). Combined with an increase in the net stable funding ratio (NSFR), this helped Norwegian banks to cope well during the period of market turbulence in the spring of 2020. The total LCR for banks was 166 per cent at end-March 2021, which is 6 percentage points higher than at year-end 2020. This is the highest LCR level since the reporting was introduced in 2014.

REDUCTION IN CENTRAL BANK DEPOSITS IN NORWEGIAN BANKS

Approximately 90 per cent of Norwegian banks' total LCR consists of so-called level 1 assets. In the regulations, such assets are defined as highly liquid assets of very good credit quality and include deposits with central banks (central bank reserves), government bonds and covered bonds with good ratings. The remainder of Norwegian banks' total liquidity reserves consists of what are known as level 2A and 2B assets in the regulations, defined as liquid assets of good credit quality. Norwegian banks' level 2A assets mainly comprise covered bonds, but also securities with a risk weight of 20 per cent, such as bonds issued by Norwegian municipalities. Norwegian banks have few 2B assets, e.g. equities, in their liquidity reserves.

In recent years, the composition of Norwegian banks' liquidity reserves has been relatively stable. In March 2020, however, central bank reserves increased as a share of banks' total liquidity reserves, while there was a reduction in covered bonds (chart 2.17). In order to secure the liquidity of the Norwegian money market during the pandemic, Norges Bank offered extraordinary F-loans with longer maturities than normal and temporarily relaxed the guidelines for pledging collateral for banks' loans from Norges Bank.

The last extraordinary F-loan was offered on 11 December 2020, and the relaxations in the guidelines for pledging collateral were reversed on 1 February 2021.[14] In December 2020, the share of central bank reserves and covered bonds in banks' total liquidity reserves were back to pre-pandemic levels.

HIGH SHARE OF CENTRAL BANK RESERVES IN EUROPEAN BANKS

European banks have a higher share of level 1 assets in their liquidity reserves than Norwegian banks (chart 2.18). The level 1 assets of European banks consist mainly of government securities and central bank reserves, while covered bonds account for a relatively small share. In the euro area, banks have been offered liquidity support for a long time through the ECB's TLTRO programme. This has played a key role in enabling European banks to maintain high liquidity reserves. The liquidity support from the ECB was strengthened as a result of market turbulence in March 2020 and led to a further increase in the share of central bank reserves in European banks' liquidity reserves. In its December 2020 risk assessment report, the EBA expressed concern that European banks are getting used to cheap central bank funding.

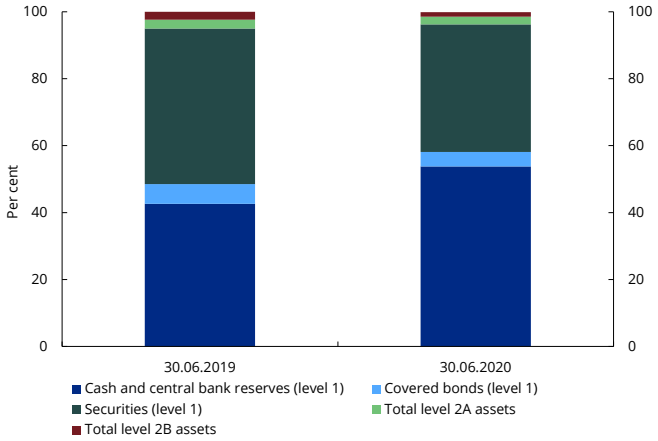
REDUCED LENDING VOLUME IN THE CONSUMER LOAN MARKET

Lending volumes in the Norwegian consumer loan market have fallen sharply over the past year. The decrease was amplified during the Covid-19 pandemic, and several institutions report lower demand for consumer loans over the past year.

The 33 institutions included in Finanstilsynet's survey of consumer loans experienced a 16 per cent decline in total consumer loans in the Norwegian market, from NOK 104.4 billion at end-March 2020 to NOK 87.9 billion at end-March 2021 (chart 2.19). Adjusted for the sale of portfolios of non-performing loans to finance companies, there was a reduction of 14 per cent.

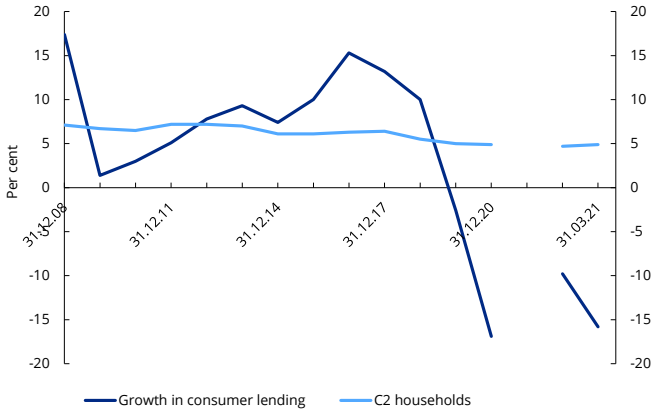
The volume of consumer loans has contracted in all age groups over the past year. At year-end 2020, borrowers over the age of 40 accounted for 73 per

2.18 Liquidity reserve in European banks



Source: EBA Risk assessment of the European banking system, December 2020

2.19 Twelve-month growth in the Norwegian market for consumer loans and domestic household debt (C2)

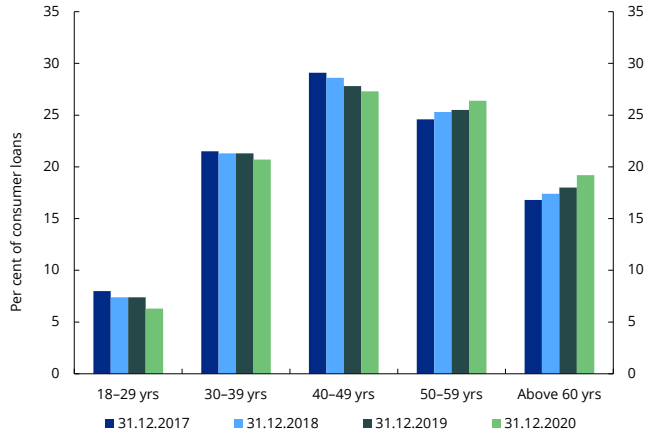


Sources: Finanstilsynet and Statistics Norway (C2)

cent of consumer loans in Norway, which is about 2 percentage points higher than a year earlier (chart 2.20). Borrowers aged between 40 and 49 accounted for 27 per cent of such loans. The over 50 age groups have represented a gradually increasing proportion over the past four years. The share of consumer loans taken up by persons aged between 18 and 29 has decreased somewhat and was 6.3 per cent at year-end 2020.

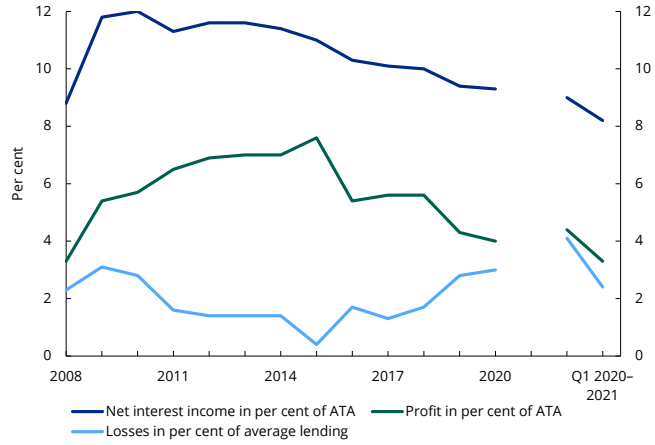
High interest rates on consumer loans continue to generate substantial interest income for the institutions, even though the lending volume is down.

2.20 Consumer loans in Norway by age group



Source: Finanstilsynet

2.21 Profit trend, consumer lending*

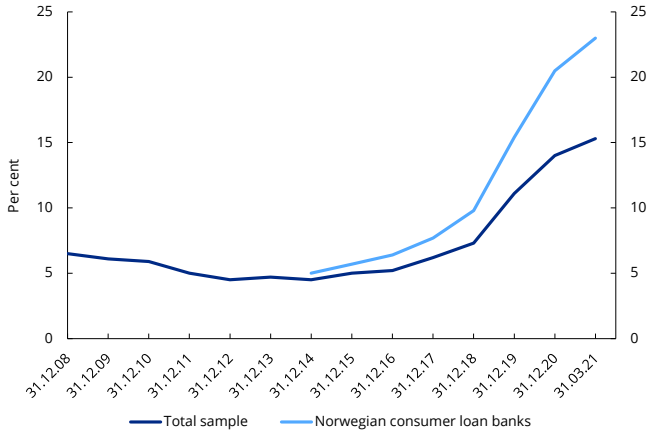


* Incl. Norwegian institutions' loans abroad. Annualised.
Source: Finanstilsynet

Specialised consumer loan banks are largely funded by deposits, and lower deposit rates have contributed to lowering these banks' interest expenses. Overall, the profitability of institutions participating in the survey has decreased somewhat in recent years, mainly as a result of lower net interest income (chart 2.21).

The level of losses on consumer loans is high compared with mortgages. Losses came to 2.4 per cent (annualised) of loans in the first quarter of 2021 for all the institutions in the selection, which is 1.7 percentage points lower than in the corresponding period last year (chart 2.21). For Norwegian banks that specialise in consumer loans, losses amounted to 3.3 per cent,

2.22 Share of non-performing consumer loans more than 90 days past due*



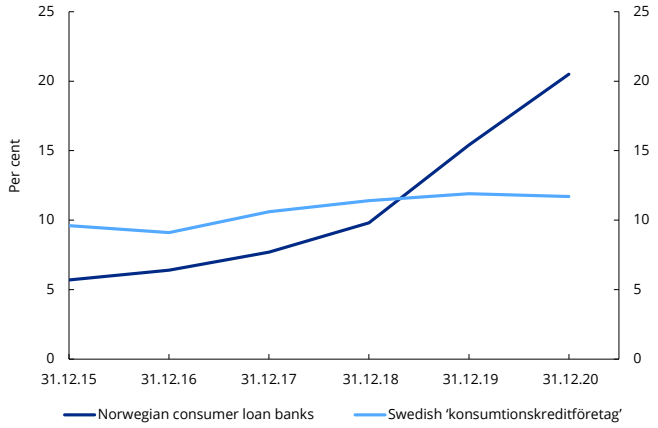
* Incl. Norwegian institutions' loans in other countries.
Source: Finanstilsynet

down 2.1 percentage points from the first quarter of 2020. In comparison, aggregate loan losses for all banks came to 0.1 per cent (annualised) in the first quarter of 2021.

For the institutions in the sample, the volume of non-performing consumer loans was NOK 22.5 billion at end-March 2021, compared with NOK 21.1 billion a year earlier. The share of non-performing consumer loans has continued to rise, despite the sale of portfolios of non-performing loans (chart 2.22). At end-March 2021, this share was 15.3 per cent for all the institutions in the selection (including Norwegian institutions' lending abroad), compared with 14.0 per cent at year-end 2020 and 5.0 per cent at year-end 2015. At end-March 2021, Norwegian consumer loan banks'[15] non-performing loans stood at 23.0 per cent, compared with 20.5 per cent at year-end 2020 and 5.7 per cent at year-end 2015.

The share of non-performing loans for Norwegian consumer loan banks is high compared with the corresponding share in Swedish institutions with consumer loans as their main line of business (konsumtionskreditföretag), which was 11.7 per cent at year-end 2020.[16] The share of non-performing loans in Swedish institutions was between 9 and 12 per cent in the period 2015 to 2020 (chart 2.23).

2.23 Share of non-performing consumer loans, Norway and Sweden*



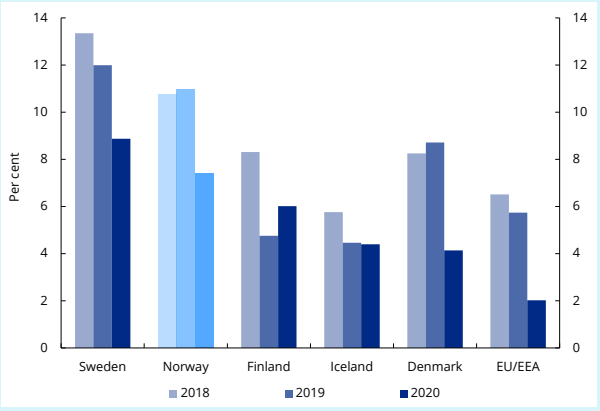
* Incl. the institutions' loans in other countries.
Sources: Finanstilsynet and Finansinspektionen

Every six months, Finanstilsynet prepares reports on developments in consumer debt. The reports include abroad discussion of the consumer loan market, including institutions' compliance with the Lending Regulations. The reports also describe developments in consumer debt referred to debt collection. Non-performing consumer debt accounted for almost half of the total principal in default (original debt) for recovery by debt collection agencies at the end of 2020. In addition, developments in debt registered in debt information undertakings are described. The reports are published on Finanstilsynet's website (in Norwegian only).

Box 2: The Covid-19 pandemic and banks in Norway, the Nordic region and the EEA

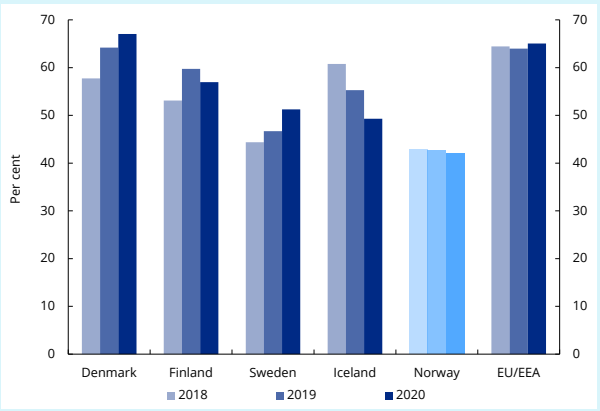
The outbreak of the pandemic in 2020 had significant, but diverse consequences for banks in all European countries. Figures from the European Banking Authority (EBA) for the largest banks in each country and in the EEA as a whole* show a particularly sharp reduction in profitability for Danish banks (chart 2.A), while the decrease in profitability in Swedish banks were broadly in line with Norwegian banks. The large Finnish banks stand out, with an increase in total return on equity from 2019 to 2020, which

2.A Return on equity



Source: EBA Risk Dashboard

2.B Cost/income ratio

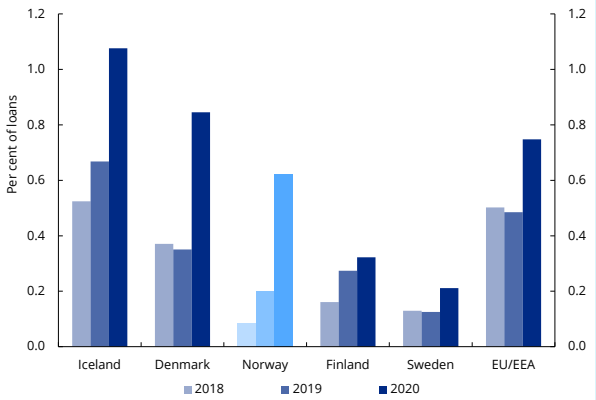


Source: EBA Risk Dashboard

reflected a number of negative non-recurring effects in the accounts for 2019.

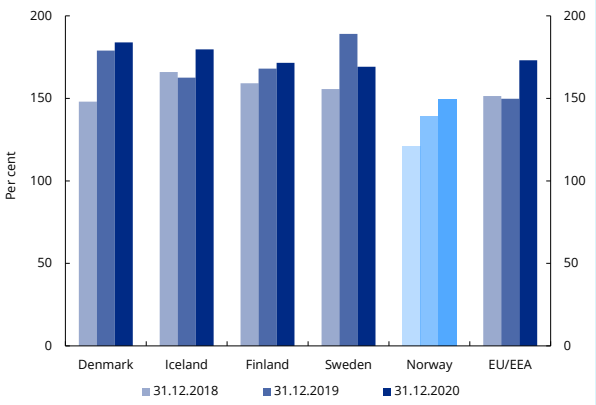
In the years prior to the pandemic, Norwegian banks enjoyed relatively strong profitability compared with banks in other Nordic countries. This was partly due to low loan losses and relatively low operating expenses. Norwegian banks' cost to income ratio declined further in 2020, despite an only moderate rise in income (chart 2.B). The level of loan losses in Norwegian banks has been lower than in most other countries for several years. Uncertainty surrounding economic developments led to a sharp increase in loan losses in most countries in 2020. The increase for the Norwegian banks is largely due to the fact that all three banks in the EBA sample

2.C Loan losses



Source: EBA Risk Dashboard

2.D LCR

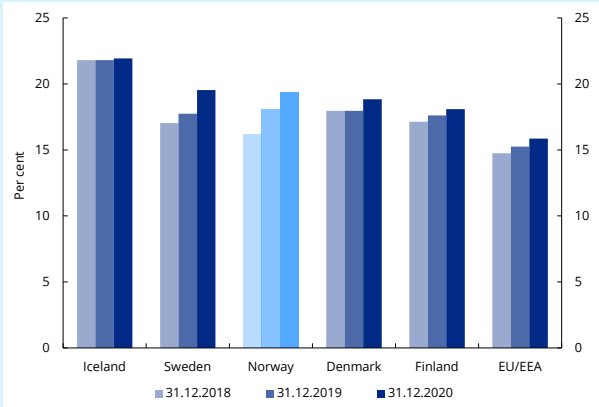


Source: EBA Risk Dashboard

have exposures to the oil-related sector, where overcapacity and subdued profitability in individual segments led to substantial impairment losses. Several of the major Nordic banks also recorded impairment losses on oil-related exposures. This had a particular effect on Danish banks' level of losses and contributed to reducing profitability (chart 2.C).

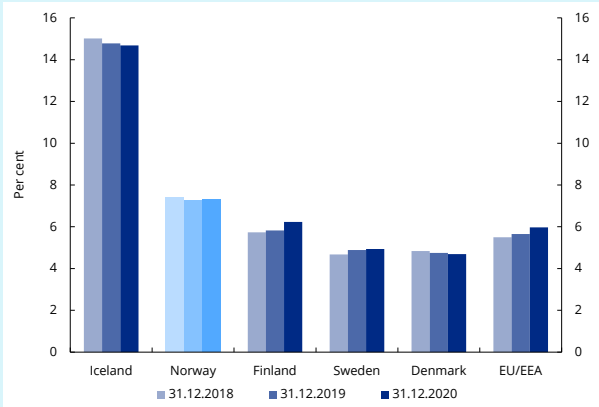
The liquidity reserve, LCR, is generally higher in the other Nordic countries and in the EU/EEA countries as a whole than in Norwegian banks (chart 2.D). This partly reflects the access to liquid funds (both quantity and price) in the various countries. In the euro countries, the extraordinary central bank measures constitute the key factor behind the high LCR values. In

2.E CET1 capital ratio



Source: EBA Risk Dashboard

2.F Leverage ratio



Source: EBA Risk Dashboard

Norway, Norges Bank initiated extraordinary measures in March 2020, but these have now been revoked. There is also a larger market for government securities in the other countries than in Norway. The sample of institutions included in the dashboard also influences the figures. Only the three largest Norwegian banks are included. The largest Norwegian banks have a high proportion of market funding. Seen in isolation, this gives them a lower LCR than banks that are largely funded by deposits, as is the case for many of the European banks. The average total LCR for medium-sized and small Norwegian banks was 248 and 204 per cent, respectively, at the end of 2020.

As mentioned above, the incorporation of the European capital adequacy framework into the

EEA Agreement as from 31 December 2019 resulted in a significant increase in Norwegian banks CET1 capital ratios without this reflecting an improvement in their financial soundness. While Norwegian banks used to have lower ratios than banks in the other Nordic countries, their ratios are now therefore on a level with, or somewhat above, those of the major banks in Sweden, Denmark and Finland (chart 2.E). Norwegian banks' leverage ratios have been higher than in other Nordic banks, apart from the Icelandic banks, which have considerably higher ratios (chart 2.F).

* Norway is represented by DNB Bank, Sparebank1 SR-Bank and Sparebank1 SMN in EBA's Risk Dashboard.

CHAPTER 3 INSURANCE AND PENSIONS

Pension institutions recorded lower profits in 2020 than the year before, mainly as a consequence of the fall in equity prices in the spring of 2020. The decline in interest rates in 2020 contributed to weakening their financial position, as measured by the solvency ratio without the transitional measure on technical provisions.

Thus far in 2021, stock markets have recovered parallel to a rise in interest rates. Life insurers recorded a higher level of profits in the first quarter of 2021 than in the same quarter of 2020, and their financial position improved.

Non-life insurers reported higher profits in 2020 than in 2019 when adjusting for the non-recurring effects of Gjensidige's sale of Gjensidige Bank in 2019. Profits in the first quarter of 2021 were also stronger than in the same quarter of 2020. Non-life insurers' solvency position improved somewhat in the first quarter of 2021.

The continued low interest rate level makes it challenging for the undertakings to achieve returns in excess of the guaranteed rate in defined-benefit occupational pension schemes. A new fall in interest rates, renewed financial market turbulence with declining equity prices and higher risk premiums, or a downturn in the Norwegian economy with falling commercial property values, will have an adverse impact on pension institutions' and non-life insurers' profits and solvency position.

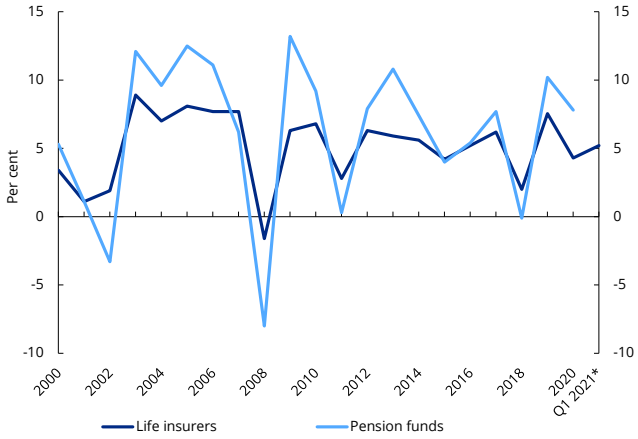
LIFE INSURANCE AND PENSIONS

PROFITABILITY AND FINANCIAL SOUNDNESS

Stock markets experienced a sharp fall in the first quarter of 2020, but largely rebounded by the end of the year. Nevertheless, the fall in equity prices was the main reason for the decline in pension institutions' returns and profits from 2019 to 2020 (chart 3.1). An upturn in the stock markets and higher investment income helped to boost life insurers' profits in the first quarter of 2021 compared with the first quarter of 2020. For a more detailed description of the profit performance of life insurers and pension funds, see Finanstilsynet's quarterly reports on financial institutions' performance (in Norwegian only).

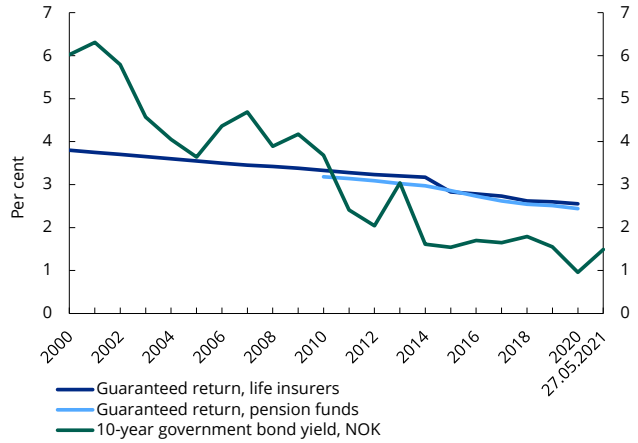
In 2020, the risk-free market rate, represented by the 10-year Norwegian government bond yield, declined from an already low level. However, the yield rose somewhat towards the end of the year and has increased so far in 2021 (chart 3.2). The level is still

3.1 Adjusted return on pension institutions' collective portfolios



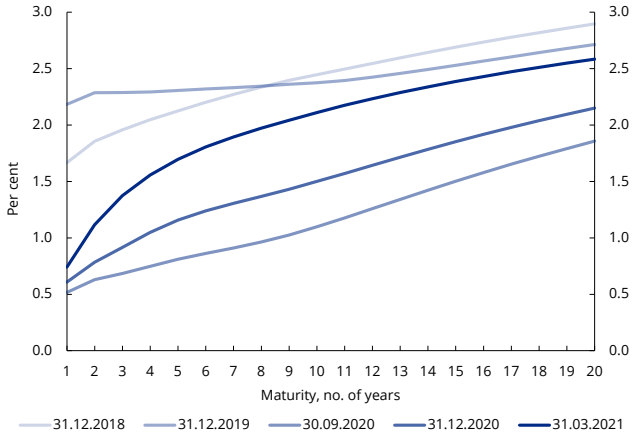
*Annualised. Source: Finanstilsynet

3.2 10-year government bond yield and average guaranteed rate of return



Sources: Finanstilsynet and Norges Bank

3.3 Interest rate curve in Norwegian kroner under Solvency II subject to volatility adjustment



Source: EIOPA

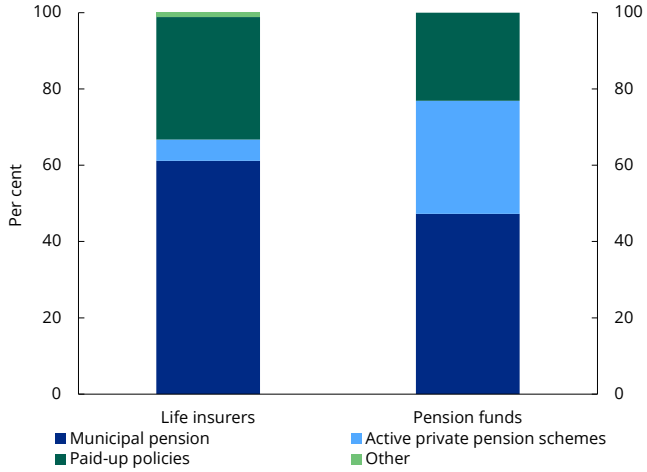
considerably lower than the average guaranteed rate of return in pension institutions' defined-benefit pension schemes. The risk-free interest rate curve used as a discount rate for calculating insurance obligations under Solvency II has shown a similar development (chart 3.3).

A low interest rate level increases the present value of future liabilities and makes it more challenging to achieve excess returns for pension institutions with guaranteed products. In recent years, the institutions' returns have exceeded the guaranteed rate of return, which is partly attributable to returns on equities and real estate and interest income from lending.

Despite the fact that defined-contribution schemes have gained in importance over the past few years, defined-benefit schemes accounted for 71 per cent of life insurers' insurance obligations under Solvency II at year-end 2020. Chart 3.4 shows the distribution of pension institutions' insurance obligations in defined-benefit schemes.

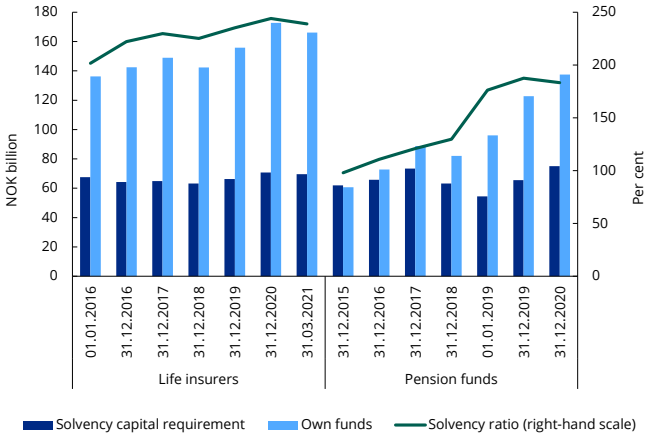
Life insurers' solvency ratios have improved somewhat in recent years but narrowed in the first quarter of 2021. At the end of 2020, the solvency ratios of life insurers and pension funds were 244 per cent and 183 per cent, respectively (chart 3.5). The rules for calculating solvency ratios includes a transitional measure on technical provisions that partly offsets the

3.4 Unit-linked insurance obligations in defined-benefit schemes in the statutory accounts as at 31 December 2020



'Other' includes hybrid pensions at 0.9 per cent.
Sources: Finance Norway and Finanstilsynet

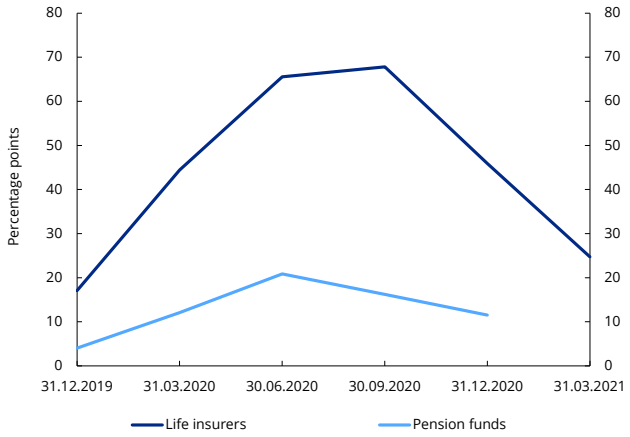
3.5 Solvency position of life insurers and pension funds



*The requirement for a solvency ratio above 100 for pension funds was introduced on 1 January 2019. The basis of the calculations was also changed. Source: Finanstilsynet

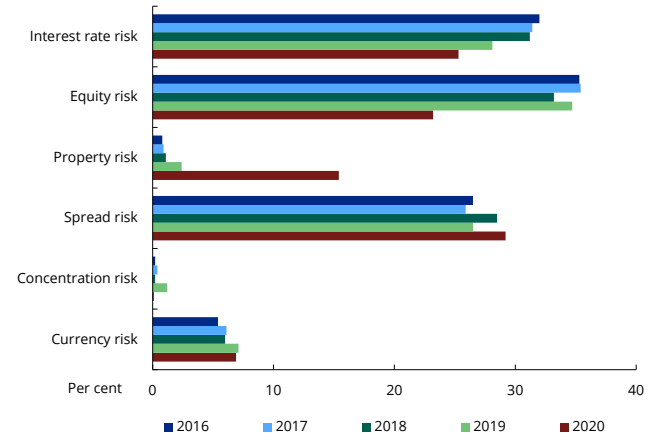
effect of lower interest rates in solvency calculations. The transitional measure means that the value of insurance obligations in part are calculated according to the former regulations up to 2032 and that the weighting of the former regulations will be gradually reduced during this period. Without the use of the transitional measure, life insurers' solvency ratio was 198 per cent as at 31 December 2020, down from 218 per cent at year-end 2019.

3.6 Effect of the transitional measure on technical provisions on solvency ratios



Source: Finanstilsynet

3.7 Breakdown of life insurers' solvency capital requirement for market risk*



* Before deducting diversification gains. Source: Finanstilsynet

The transitional measure is of great significance to life insurers. As a result of lower interest rates, the effect was particularly high as at 30 June and 30 September 2020, when the solvency ratio with the use of the transitional measure was almost 70 percentage points higher than without the use of the transitional measure (chart 3.6). The higher interest rate level in the first quarter of 2021 contributed to reducing the effect of the transitional measure. As at 31 March 2021, the solvency ratio of life insurers, with and without the transitional rule, was 239 per cent and 214 per cent, respectively.

For further information about the solvency of insurers and pension funds, see Finanstilsynet's solvency reports (in Norwegian only).

Market risk

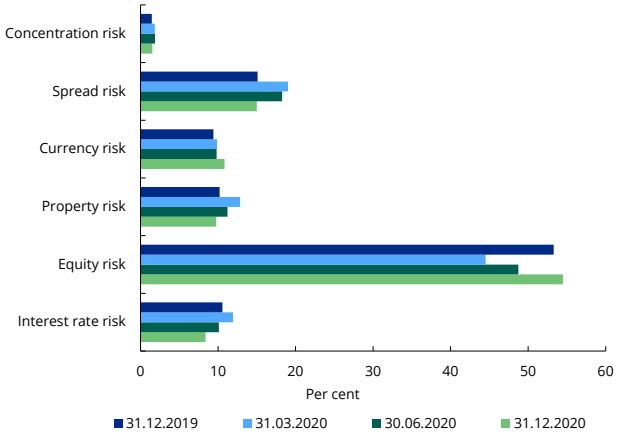
Pension institutions are exposed to market risk both through insurance obligations and through their investments in bonds and equities etc. Market risk constitutes the largest risk component of the solvency capital requirement for both life insurers and pension funds at 60 per cent and 84 per cent, respectively, of the total risk (before deducting diversification gains).

Spread risk represented the major part of market risk for life insurers at year-end 2020, followed by interest rate risk (chart 3.7).

Based on regulatory changes effective as of the second quarter of 2020, investments in related property companies are no longer treated as equity risk when calculating insurers' solvency capital requirement, but as property risk. This change in methodology is the main factor behind the 13 percentage point increase in property risk as a share of total market risk over the past year, to 15 per cent at year-end 2020, while equity risk was reduced by 12 percentage points to 23 per cent during the same period. In the solvency capital requirement for pension funds, investments in related property companies are already stressed as property.

The European Insurance and Occupational Pensions Authority (EIOPA) presented its final review of the Solvency II framework for insurers in December 2020. Among other things, EIOPA proposes that interest rate risk calculations be based on greater changes in interest rates (higher stress factor) on the grounds that the current method does not adequately reflect the actual interest rate risk when interest rates are low. If the regulations are changed in line with EIOPA's proposal, there will be a higher solvency capital requirement for interest rate risk and a significant reduction in the solvency ratios of Norwegian life insurers with a large proportion of liabilities with guaranteed rates of return. In the light of possible amendments to the Solvency II framework,

3.8 Breakdown of pension funds' solvency capital requirement for market risk*



* Before deducting diversification gains. Source: Finanstilsynet

Finanstilsynet will consider whether to make adjustments to the simplified solvency capital requirement for pension funds.

Equity risk constitutes the greater part of market risk for pension funds at 54 per cent (chart 3.8).

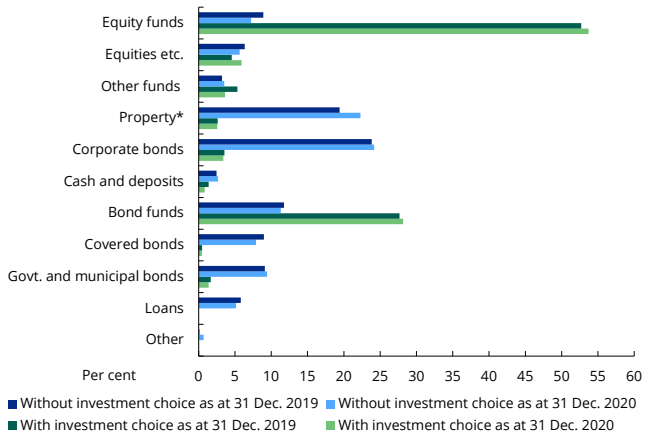
LIFE INSURERS' INVESTMENTS

Higher proportion of equities in the unit-linked portfolio

Life insurers' investments totalled NOK 1 831 billion at the end of 2020. Of this, NOK 461 billion (25 per cent) was placed in the unit linked portfolio, where the customers choose the allocation and carry the investment risk. At the end of 2019, the unit linked portfolio represented 23 per cent of life insurers' investments. In 2020, the proportion of equities including equity funds in the unit linked portfolio increased by 2 percentage points to 60 per cent (chart 3.9). Bond investments were stable at approximately 33 per cent. Mutual funds represent a large share of the unit linked portfolio, especially equity and bond funds.

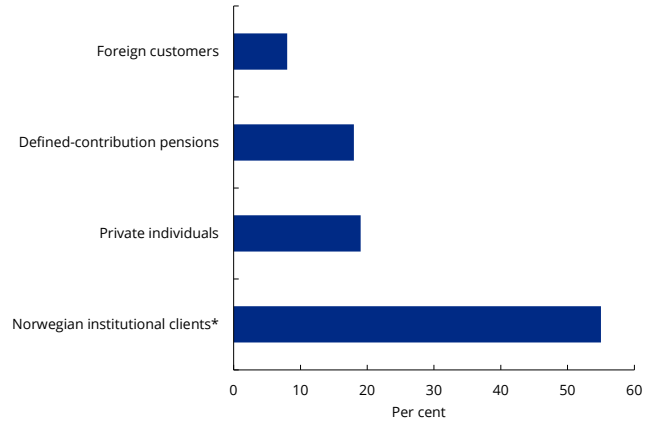
Unit-linked pension plans accounted for 18 per cent of Norwegian fund managers' total assets at the end of 2020 (chart 3.10).[17]

3.9 Life insurers' investments



* Property includes real estate, equity of real estate related corporations, real estate funds, real estate exposure related to collateralised securities and mortgages, as well as property bonds and other assets with a 'property' sector code. Source: Finanstilsynet

3.10 Allocation of Norwegian fund managers' total assets

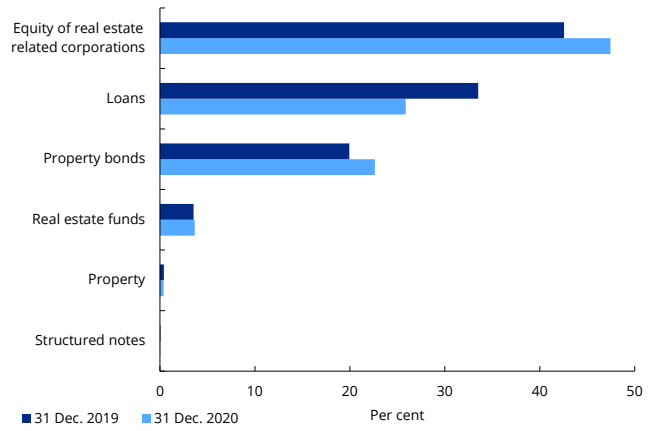


*This includes insurers, pension funds, municipalities and banks. Source: Norwegian Fund and Asset Management Association

Investments in the collective and company portfolios

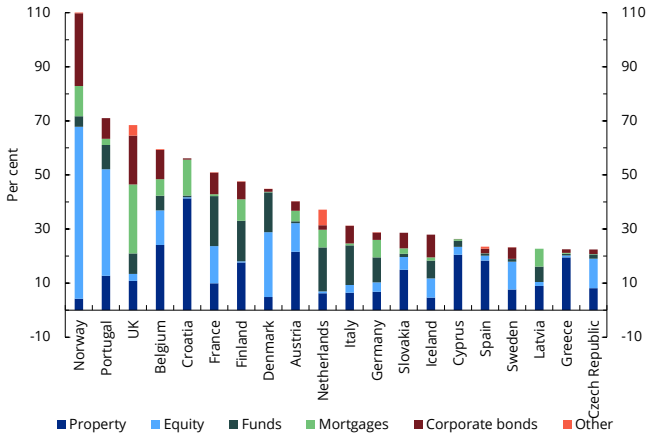
Bonds constitute the main asset category in the collective and company portfolios of life insurers at 53 per cent, followed by property-related investments at 22 per cent (chart 3.9). The proportion of bonds was reduced by 1 percentage point from 2019 to 2020. The finance and real estate sectors represent the greatest corporate bond exposures in life insurers' collective and company portfolios at 58 per cent and 14 per cent, respectively.

3.11 Real estate investments in life insurers' collective and corporate portfolios



Source: Finanstilsynet

3.12 Commercial real estate to excess assets over liabilities by country



Source: EIOPA

The proportion of equities in life insurers' collective and company portfolios was reduced from 15 to 13 per cent in 2020. Life insurers have a relatively limited investment exposure to climate risk, see box 3 below.

Real estate investments

Real estate-related investments in life insurers' collective and company portfolios totalled NOK 305 billion as at 31 December 2020, of which a large proportion represented commercial real estate.

Equity of real estate related corporations accounted for the largest share of life insurers' real estate investments at 47 per cent (chart 3.11).

Investments in equities are primarily made through subsidiaries that own and operate commercial property. The largest commercial real estate (CRE) investments are within the segment 'office buildings etc.', which accounted for about 60 per cent of the three largest life insurers' total CRE investments at year-end 2020, followed by 'shopping centres etc.' at 14 per cent. and 'hotels' at 13 per cent. Several of the other life insurers also have substantial CRE investments.

The commercial real estate market has been affected by the Covid-19 crisis through, among others, shutdowns and reduced travel activity. Some life insurers wrote down the value of their properties in 2020, but to a relatively moderate extent. A sharp economic downturn could trigger a significant fall in commercial property values. Structural changes in the wake of the pandemic may also affect parts of the property market.

The risk of a fall in the value of commercial real estate is also highlighted by EIOPA, which emphasises that the real estate sector is affected by Covid-19 and that a drop in commercial real estate values will negatively affect insurers' balance sheets.[18] According to EIOPA, Norwegian insurers have by far the highest exposure to commercial real estate among the countries included in the overview[19] (chart 3.12).

EIOPA has also reviewed 205 European undertakings that had invested more than EUR 500 million in commercial real estate at end-September 2020. Among these, the highest share of commercial real estate investments was 282 per cent of equity, and nine undertakings had a share of more than 200 per cent.

PENSION FUNDS' INVESTMENTS

At the end of 2020, the 23 largest Norwegian pension funds' investments totalled NOK 326 billion. Bonds accounted for the largest share at 49 per cent, followed by equities at 33 per cent and real estate at 14 per cent (chart 3.13). Equity of real estate related corporations represented 29 per cent of total real estate investments, followed by property bonds at 28 per cent (chart 3.14).

FUTURE DEVELOPMENTS ARE HIGHLY UNCERTAIN

A joint statement of 31 March 2021 from the European Supervisory Authorities EBA, EIOPA and ESMA emphasises the very low interest rate level, the financial market volatility and the risk of bond downgrades as risks facing pension institutions.

Norwegian pension institutions have mainly invested in investment grade bonds, but extensive downgrades of bonds will have a negative impact. The share of life insurers' investments in bonds in the lowest investment grade category (BBB) increased from 13 per cent at year-end 2019 to 18 per cent as at 31 December 2020. For pension funds, this share increased from 22 to 28 per cent during the same period. The highest proportion of life insurers' BBB rated bonds is in the financial services industry, followed by utilities, property, energy-intensive production and communication services.

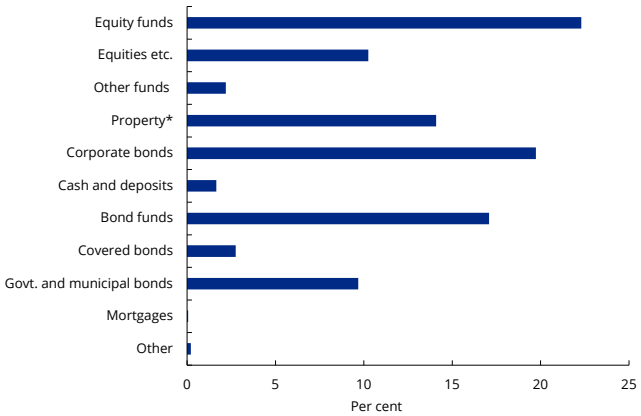
At the end of 2020, 18 per cent and 27 per cent, respectively, of life insurers' and pension funds' bond investments were in non-rated bonds.

EIOPA's stress test of insurance groups in 2021

EIOPA will conduct a stress test of European insurance groups in 2021. The stress test will cover both solvency (market and insurance risk) and liquidity risk. The Norwegian insurance groups participating in the test are KLP, Storebrand ASA and Gjensidige Forsikring ASA.

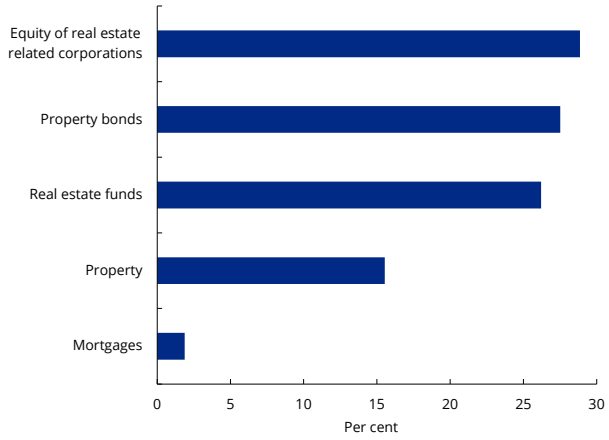
The market risk shocks in the stress test have been designed and calibrated by EIOPA in cooperation with the European Systemic Risk Board (ESRB). The stress test is based on a scenario where the economic situation worsens as a result of the evolution of the Covid-19 pandemic and the confidence crisis this triggers. After completion of the stress test, EIOPA will publish a report with aggregated data. In addition, individual data will be published provided that permission is obtained from the individual group.

3.13 Pension funds' investments as at 31 December 2020



* Property includes real estate, equity of real estate related corporations, real estate funds, real estate exposure related to collateralised securities and mortgages, as well as property bonds and other assets with a 'property' sector code. Source: Finanstilsynet

3.14 Pension funds' real estate investments as at 31 December 2020

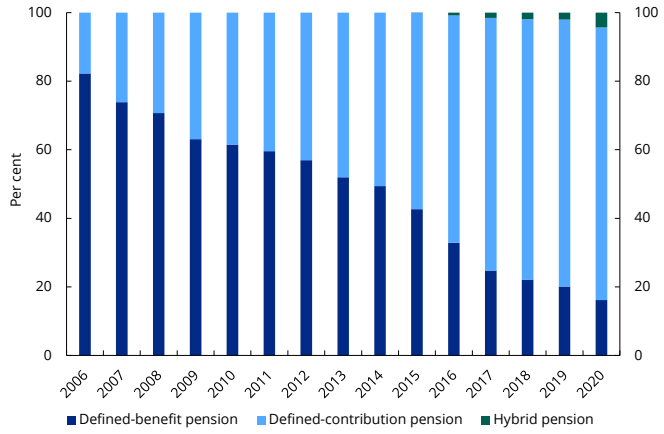


Source: Finanstilsynet

CHANGES IN THE DEFINED-CONTRIBUTION PENSION MARKET

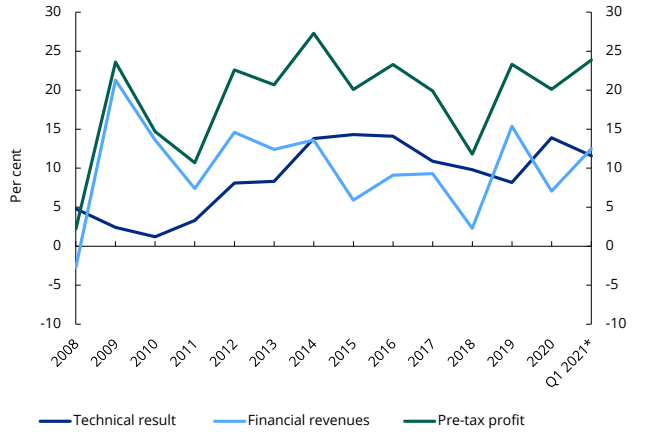
Defined-contribution schemes have gained in importance in recent years. Many private sector companies have replaced their defined-benefit scheme with a defined-contribution scheme. Within private group pension, defined-contribution schemes accounted for an increasing share of premiums due, from 18 per cent in 2006 to 80 per cent at year-end 2020 (chart 3.15). Hybrid pensions, which have some of the characteristics of both defined-contribution and defined-benefit pensions, represented 4 per cent of premiums due.

3.15 Gross premiums written in private group pension schemes – life insurers



Source: Finance Norway

3.16 Overall profits of non-life insurers as a percentage of premium income for own account*



* The financial result and pre-tax profit in 2019 are affected by Gjensidige's sale of Gjensidige Bank, which generated extraordinary income of NOK 3.1 billion.
Source: Finanstilsynet

Defined-contribution pensions also constituted a rising share of insurance obligations in private group pension schemes, standing at 49 per cent at year-end 2020. Insurance obligations related to defined-contribution schemes accounted for 24 per cent of life insurers' insurance obligations at the end of 2020.

According to Finance Norway, life insurers had NOK 223 billion in insurance obligations relating to active defined-contribution schemes and NOK 131 billion in pension capital certificates at the end of 2020. Pension capital certificates are issued when someone leaves an employer with a defined-contribution scheme. The share of pension capital certificates is expected to decline as a result of the introduction of the individual pension account as from 1 January 2021.

INDIVIDUAL PENSION ACCOUNT INTRODUCED ON 1 JANUARY 2021

The new rules on individual pension account apply to around 1.5 million employees. With an individual pension account, defined-contribution pensions from the employee's former and current employer are combined. Pension capital certificates will be transferred to the current employer's active defined-contribution pension scheme during 2021 unless the employee reserved the right to refuse this by 1 May 2021. According to Finance Norway, holders of 6 500 pension capital certificates opted out of the new scheme within the deadline. 39 000 had chosen a pension provider themselves.

In connection with the introduction of the individual pension account, approximately NOK 75 billion will be transferred between different pension providers between 1 May and 31 December 2021.[20] The industry entered into an agreement on an individual pension account on 23 December 2020 which was extended on 25 January 2021. For example, the agreement regulates how the parties involved should handle operational and financial risks in connection with the transfer.

NON-LIFE INSURANCE

PROFITABILITY AND FINANCIAL SOUNDNESS

Non-life insurers reported higher pre-tax profits in 2020 than in 2019 when adjusting for a realised gain of NOK 3.1 billion from Gjensidige's sale of Gjensidige Bank in 2019. Both the total claims ratio and the total cost ratio improved compared with 2019, reflecting pronounced premium growth. A mild winter in large parts of the country and reduced activity levels in the population as a result of the Covid-19 pandemic contributed to curbing the increase in claims payments. However, the decline in equity prices in the spring of 2020 gave a reduction in non-life insurers'

financial revenues in 2020 compared with 2019 (chart 3.16).

Non-life insurers also generated higher profits in the first quarter of 2021 than in the same quarter of 2020. There was a significant improvement in the financial result.

Reduced travel activity among Norwegians as a result of the Covid-19 pandemic ensured increased profitability for non-life insurers. For a more detailed description of the profit performance of non-life insurers, see Finanstilsynet's quarterly reports on financial institutions' performance (in Norwegian only).

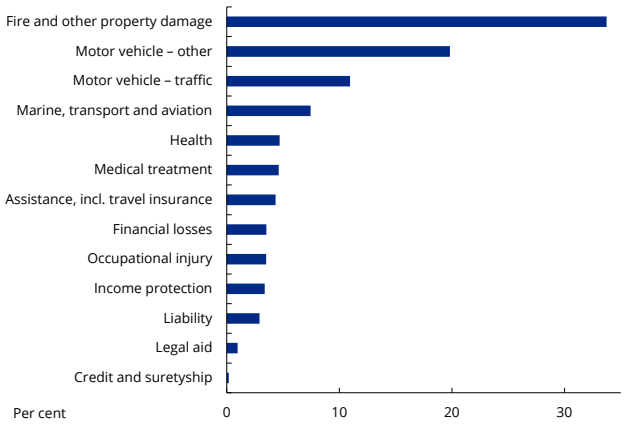
'Fire and other property damage' is the largest line of business in non-life insurance (chart 3.17). The claims ratio for this line of business increased from 2019 to 2020 (chart 3.18), the main reason being the fire at Equinor's plant at Melkøya in September 2020. Several lines of business have seen an improvement in profitability from 2019 to 2020. This is partly due to reduced travel activity and the fact that people have spent a lot of time at home. Non-life insurers' profits were affected by the Gjerdrum landslide. Finance Norway has estimated that the landslide resulted in claims payment expenses of around NOK 900 million, most of which is handled through the Norwegian Natural Perils Pool.

Non-life insurers' overall solvency ratio was down 23 percentage points in 2020, to 212 per cent as at 31 December 2020 (chart 3.19), which mainly reflected the dividend distributions made and planned by the insurers. Non-life insurers' financial soundness improved somewhat from 31 December 2020 to 31 March 2021. For further information about the solvency of non-life insurers, see Finanstilsynet's solvency reports (in Norwegian only).

NON-LIFE INSURERS' INVESTMENTS

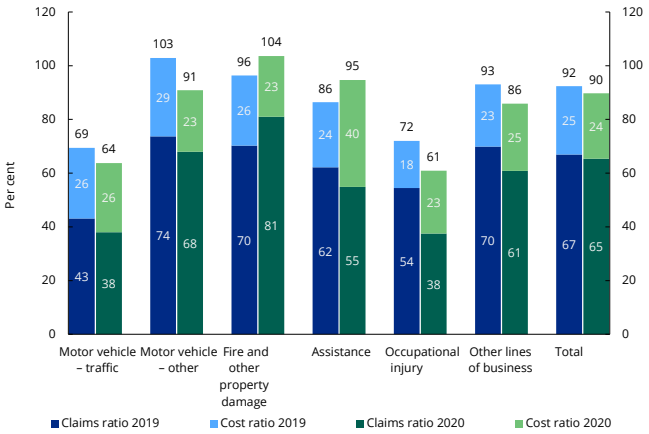
Non-life insurers' total investments came to NOK 143 billion at year-end 2020. Bonds represented the largest asset category at 65 per cent. The proportion of bond investments was unchanged in 2020, but there

Chart 3.17 Non-life insurance by lines of business. Per cent of gross earned premiums. 2020



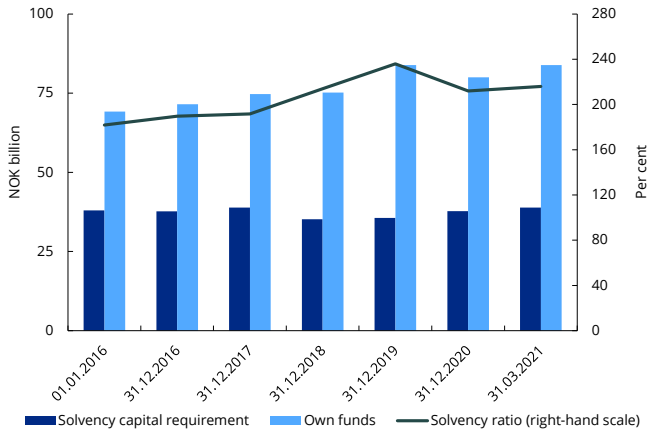
Source: Finanstilsynet

3.18 Net combined ratio for all non-life insurers. Selected lines of business, aggregated



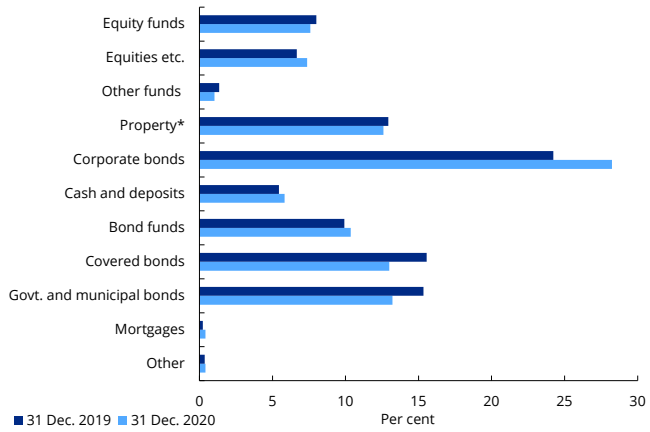
Source: Finanstilsynet

3.19 Non-life insurers' solvency position



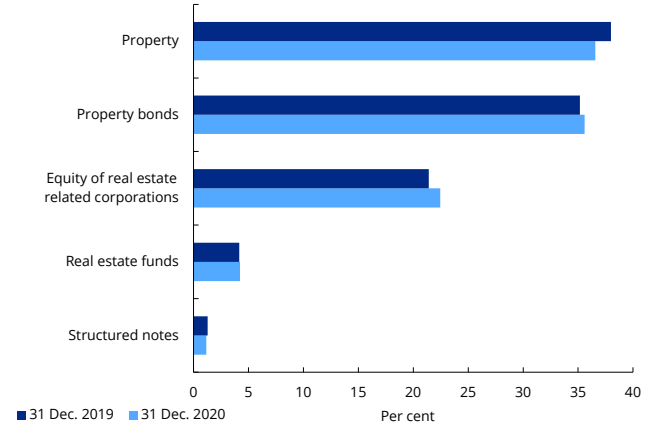
Source: Finanstilsynet

3.20 Non-life insurers' investments



* Property includes real estate, equity of real estate related corporations, real estate funds, real estate exposure related to collateralised securities and mortgages, as well as property bonds and other assets with a 'property' sector code.
Source: Finanstilsynet

3.21 Non-life insurers' real estate investments



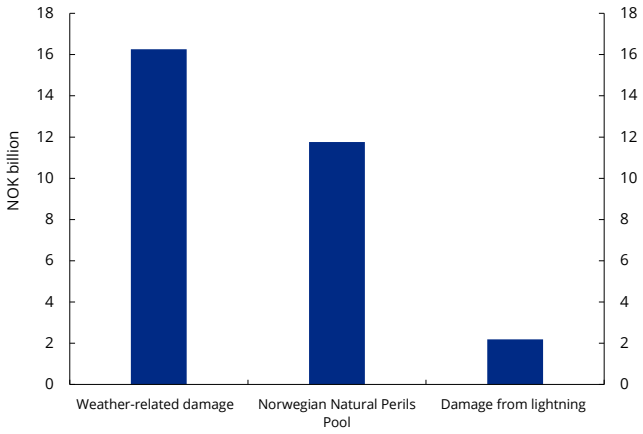
Source: Finanstilsynet

were some changes in the composition of the bond portfolio (chart 3.20). The proportion of equities was stable at 15 per cent. Property accounted for 13 per cent of the investments. The highest property investments were within property (land and buildings), property bonds and equity of real estate related corporations (chart 3.21).

CLIMATE RISK IN NON-LIFE INSURANCE

Over a period of time, Finanstilsynet has held meetings with a total of nine non-life insurers where climate risk has been on the agenda. The purpose of the meetings has been to identify how climate change affects non-life insurers' risk, how they think such risk will affect them in the future and how they manage climate risk. Experience gained so far is that non-life insurers with customers who produce, make extensive use of or transport fossil fuels have come the furthest in identifying and managing climate risk. At the same time, the general impression is that most non-life insurers will focus more on climate and sustainability in the period ahead.

3.22 Claims payments, natural damage last ten years



Sources: Finance Norway and the Norwegian Natural Perils Pool

Natural damage resulting from storms, storm surges, floods and landslides is covered by the Norwegian Natural Perils Pool. Some other types of natural and climate-related damage, e.g. external water penetration, is not covered by the Natural Perils Pool. According to Finance Norway, Norwegian insurers have made claims payments of more than NOK 30 billion for weather and natural damage to buildings and contents over the past ten years (chart 3.22). Of this, just under NOK 12 billion was payments covered by the Natural Perils Pool. All non-life insurers that offer fire insurance are members of the scheme.

EIOPA has published a 'pilot dashboard' depicting the insurance protection gap for natural catastrophes. The aim is to represent the drivers of the insurance protection gap in order to identify measures that will help in decreasing society's losses in the event of natural catastrophes. Stakeholders were invited to provide views on the dashboard by 31 March 2021.

Including climate change in the solvency capital requirement for catastrophe risk

In December 2020, EIOPA launched a discussion paper on how climate change could be captured in calculations of the solvency capital requirement for catastrophe risk in the Solvency II framework. The public consultation period for the discussion paper lasted until end-February 2021, and EIOPA's final report will be available in June 2021. The discussion paper does not include any specific proposals for the calibration of the natural catastrophe risk module according to the standardised approach but provides a qualitative assessment of the risks that may be relevant for certain countries or geographical areas in the EEA in connection with future calibration.

According to the standardised approach in the current regulations, non-life insurers offering insurance against natural catastrophes in Norway need only calculate solvency capital requirements for natural catastrophes related to storm risk. In the discussion paper, these undertakings are considered to be exposed to catastrophe events generated by flooding and hail, in addition to storms. Forest fires are among other risks that are not currently part of the catastrophe risk module and may be a relevant type of coverage for non-life insurers in Norway.

Pandemic insurance

In July 2020, EIOPA published advice on pandemic insurance and elaborated further on the topic in a staff paper in February 2021. Business interruption insurance for pandemics is not commonly offered. It is also unclear whether reinsurance undertakings will cover this type of insurance in the future. EIOPA questions whether business interruption risk associated with pandemics is insurable according to traditional insurance models. According to EIOPA, cooperation between the industry and the authorities is necessary if such insurance cover is to be offered in the future.

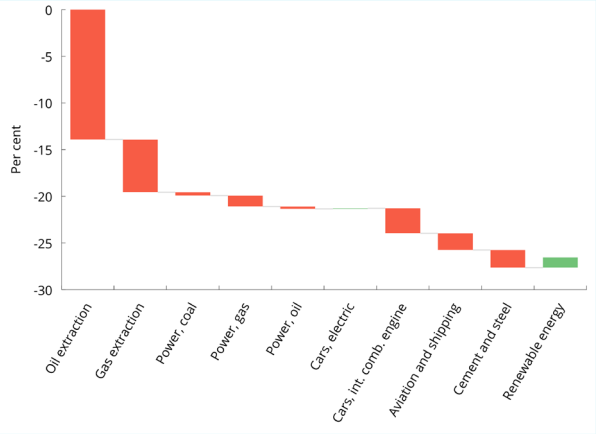
Box 3: Insurers' climate risk: PACTA model

Through their insurance obligations, insurers are exposed to climate risk in the form of physical risk from higher temperatures and more extreme weather, e.g. precipitation, wind and landslides. Non-life insurers are highly experienced in managing physical risk. However, this risk will increase as the physical consequences of rising temperatures materialise. At the same time, insurers'' assets are exposed to changes in policy, technology and market conditions as a result of the transition to a low-emission society. The PACTA model, developed by the independent think tank 2° Investing Initiative (2DII), is designed, among other things, to analyse transition risk in securities portfolios. PACTA classifies investments in sectors that are expected to be particularly strongly affected by climate change, as climate sensitive.

Finanstilsynet's analysis based on the PACTA model classifies approximately 6 per cent of the equity and bond investments of Norwegian life and non-life insurers as climate sensitive, see the report Climate Risk in Insurance (in Norwegian only). This is on a level with the average for European insurers.* Approximately 2 per cent of insurers' investments is exposed to renewable energy, mainly hydropower, while more than 4 per cent is exposed to the production and use of fossil energy sources. Norwegian insurers have a somewhat lower exposure to fossil fuels and a somewhat higher exposure to renewable energy than the average for European insurers.

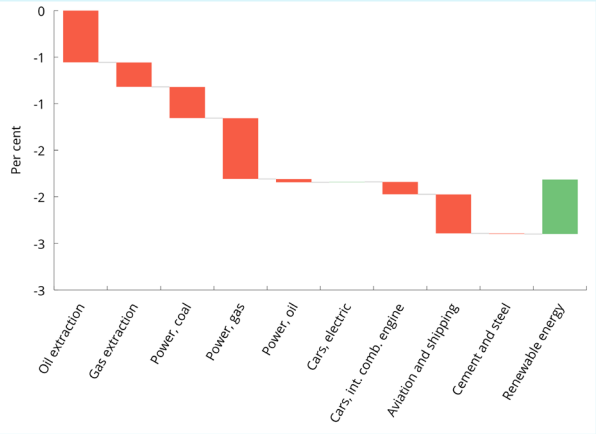
In the event of abrupt climate change, the value of climate-sensitive exposures may change significantly. The effect of such sudden climate change adaptation may, on an uncertain basis, be illustrated by the estimated exposure based on the PACTA model and estimated effects on equity and bond prices. Based on similar changes in value that were used in a stress test carried out by the

3.A Changes in equity values. Share of market value of repriced shares at the end of 2019



Sources: Finanstilsynet, PRA and 2DII

3.B Changes in bond values. Share of market value of repriced bonds at the end of 2019



Sources: Finanstilsynet, PRA and 2DII

Prudential Regulation Authority (PRA) in the UK in 2019, the value of climate-sensitive equities held by Norwegian insurers falls by more than 25 per cent and the value of climate-sensitive bonds by almost 2 per cent (charts 3.A and 3.B). The largest negative contribution comes from investments in companies involved in oil and gas extraction.

The average fall in value is about 0.5 per cent of the insurers' total securities portfolios, which is moderate compared with observations during periods of significant market turbulence.

However, the exposure of some Norwegian insurers is considerably higher than the average. Parts of the portfolios of these insurers may be subject to a sharp drop in value as a consequence of rapid adaptation to climate change. The analysis does not capture all the risks associated with the transition to a low-emission economy. A disorderly and abrupt adaptation to climate change may trigger increased uncertainty and weaken economic growth. This will also affect other industries and sectors than those included in the analysis. For example, government bonds or property exposures are not classified as climate sensitive in the analysis but will be sensitive to abrupt climate change adaptations and macroeconomic shocks.

* In 2020, EIOPA conducted a PACTA analysis of the securities investments of European insurers, see EIOPA report.

CHAPTER 4 SECURITIES MARKET

The financial markets quickly recovered after the market turbulence triggered by the onset of the Covid-19 pandemic in the spring of 2020. Stock markets in a number of countries have set new all-time highs, and risk premiums in the securities markets are lower than for many years. As a result of low interest rate levels and ample supply of liquidity, demand for relatively high-risk investments has increased, transaction volumes have been high, and prices of both traditional and less traditional financial instruments have increased. In recent years, Norwegian households have invested heavily in the securities market, both directly in shares and higher risk securities and indirectly through defined-contribution pension schemes. Compared with earlier, households increasingly carry the risk of declining values in the securities markets. This may create a greater need for financial consolidation among households during a future crisis.

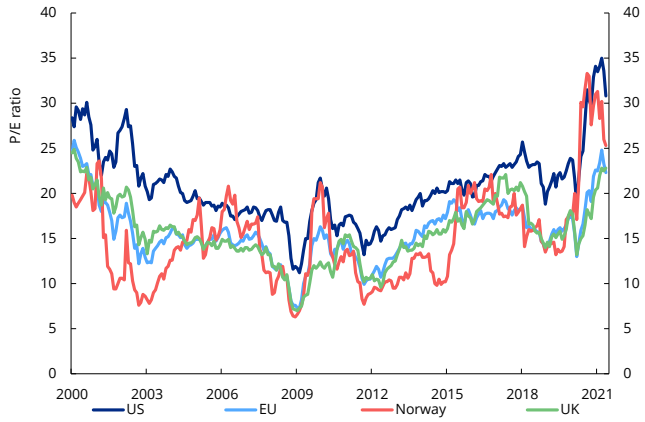
Only three stock exchanges in Europe raised more new share capital than Oslo Børs in the first quarter of 2021. Over the past year, a substantial proportion of the new listings in the Norwegian market have been carried out by relatively newly established companies on the Euronext Growth trading platform, which is an unregulated trading venue linked to Oslo Børs. There is considerable risk associated with investments in startups. Arrangers, the trading venue and other professional players therefore carry a great responsibility to ensure that relevant risks are adequately communicated to potential investors.

STRONG RISE IN SHARE PRICES

The international stock markets quickly recovered after the first sharp fall in March 2020, see further account in Chapter 1. Extensive monetary and fiscal policy measures implemented by the authorities have contributed to the upturn.

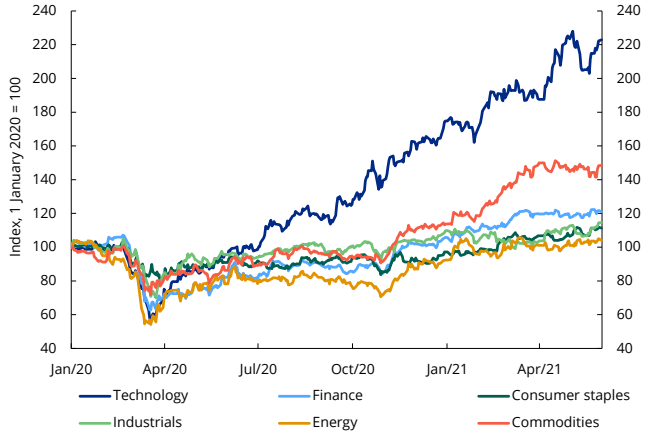
In the spring of 2021, the stock exchanges in the US, Europe and Norway continued to make new all-time highs. In several markets, particularly in the US, but also in Norway, valuations are now high relative to the companies' earnings (chart 4.1).

4.1 P/E ratio – selected stock markets



Monthly data. Based on earnings last 12 months. Source: Refinitiv

4.2 Total return Oslo Børs, selected sectors

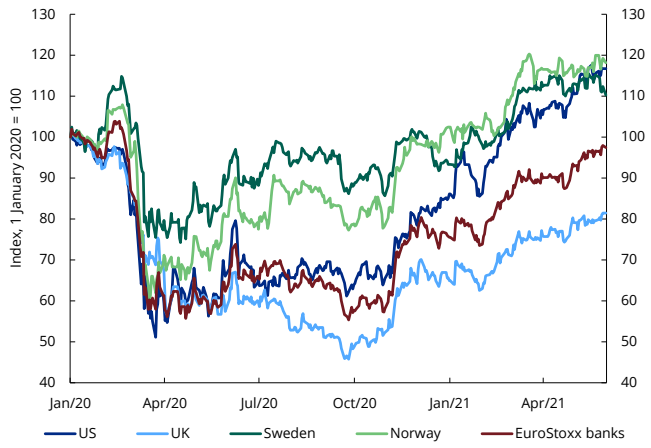


Source: Refinitiv

The technology sector is driving the upturn

Over the past year, the technology sector has experienced a particularly strong rise in share prices around the world. Prices of technology shares have also risen sharply in Norway (chart 4.2). The pandemic has caused increased demand for a number of digital services and technical equipment, and there have been

4.3 Developments in bank shares



Unless otherwise stated, FTSE indices are used. Source: Refinitiv

significant delays in microchip deliveries. The home entertainment market has also received a significant boost, although there was weaker than expected growth in the first quarter of 2021.

In the energy sector, earnings and share prices have shown a far weaker trend globally over the past year than the stock market in general. The reduced need for energy is partly attributable to lower economic activity and reduced human mobility as a result of the pandemic. However, the price of oil has risen since the autumn of 2020 and is now back at its pre-pandemic level.

Prices of financial shares showed a relatively weak trend through much of 2020 but have also increased considerably since November (chart 4.3). The most positive trend was seen in Norway, Sweden and the US. In Continental Europe, developments have been more mixed. Prices of bank shares in the UK have thus far increased moderately, which is probably related to Brexit.

In several countries, listed banks' ratio of the market value of equity to its book value (P/B ratio) is now considerably lower than in the years prior to the financial crisis. This could indicate that investors expect low earnings from the banks' core operations and/or fear large losses in their existing loan portfolios. See a further account in box 4.

INTEREST RATES AND LIQUIDITY

In March 2020, the outbreak of the Covid-19 pandemic triggered significant market turbulence and gave a rise in risk premiums on bonds. In the middle of the month, risk premiums were about the same as during the global financial crisis in the autumn of 2008. However, the markets rebounded relatively quickly, and risk premiums on bonds are now lower than for many years. The ECB's pandemic emergency purchase programme (PEPP), which includes purchases of bonds, and similar support programmes from other central banks have contributed to this.

Low key policy rates and extensive bond purchases by a number of central banks have boosted liquidity in the financial system and ensured that short-term money market rates remain stable at a low level. Yields on long-term government bonds were also low for most of last year but started to rise in the fourth quarter of 2020. There was a continued upward trend in long-term interest rates in the first months of 2021. The rise in interest rates may partly reflect higher inflation expectations after the introduction of strong support packages in the US and expectations of higher economic growth as a result of rising vaccination coverage. Partly owing to uncertainty about developments in interest rates and inflation rates, the US government bond market has been highly volatile.

Low interest rates and ample supply of liquidity have boosted demand for relatively high-risk investments, which in turn has given a rise in trading volume and higher prices on both traditional and less traditional securities. In terms of both number and value, IPOs of new companies have been record high in many markets thus far in 2021, e.g. in the US and Scandinavia, and significantly higher than in the previous record period in the months leading up to the dotcom crisis in 2000. There have been a high number of IPOs for special purpose acquisition companies (SPACs), particularly in the US. These companies issue securities to acquire or merge with other companies. There have been significant price fluctuations on cryptocurrencies, such as bitcoin and ethereum, so far this year. In Norway, there have been a large number of

new listings on Euronext Growth, and the proportion of trades carried out by retail investors has risen.

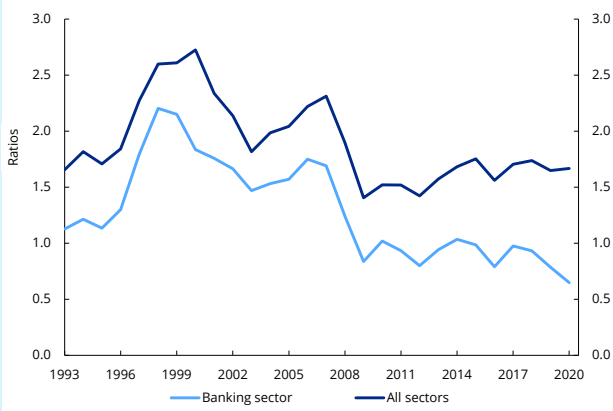
Box 4: Price-to-book ratio, required rate of return and return on equity in listed banks and non-financial firms

The price-to-book ratio (P/B ratio) measures the market value of a company's shares relative to the book value of its equity. A ratio below 1 may indicate that the company is considered to have limited future earnings power, while a ratio above 1 may be a sign that the company is considered to have good investment opportunities and growth potential. The P/B ratio is primarily influenced by developments in profitability (return on equity) and shareholders' required rates of return, which in turn are affected by developments in interest rates and risk premiums.

According to the IMF, analyses of developments in metrics based on stock market valuations, e.g. the P/B ratio, provide better information about problems in the banking sector than regulatory capital ratios.* It is pointed out that in the period prior to the global financial crisis, metrics such as the P/B ratio gave a better indication of banks' situation than developments in regulatory capital ratios. The ECB has pointed out that a P/B ratio below 1 suggests investor concern about the value of their shares and that this concern manifests itself in higher return requirements.

In an analysis, the BIS discusses whether the P/B ratio affects the size of banks' dividend payments. The results indicate that banks with a low P/B ratio have a propensity to pay out higher dividends than banks with a high P/B ratio. The hypothesis is that shareholders in banks with low P/B ratios believe that they can unlock some value from their investments through higher dividend payments. For the bank's management, increased dividend payments and a lower equity ratio will make it easier to achieve its return on equity target. The analysis points out that the incentive to increase dividend payments when profitability is relatively low provides good reason to have regulatory constraints on dividend payments.

4.A Price/book ratio – global average



Sources: Finanstilsynet and Refinitiv

In international listed banks, the ratio of market value to book value of equity is lower now than in the years prior to the international financial crisis (chart 4.A). For Norwegian banks, the decline is less pronounced than for banks in several other countries. Norwegian banks' profitability declined somewhat in 2020, but there are also indications that the required rate of return has been lowered as a result of the fall in the general interest rate level.

In the period 2016–2020, the P/B ratio was significantly lower than 1 in banks in several countries, see table 4.a. This could indicate that investors expect low earnings from the banks' core operations (loans and deposits) and fear potential large losses in the existing loan portfolio. For some time, there has been a significant decline in the P/B ratios of listed banks in the UK, US, Germany, France, Spain and Italy. For Norway, this represents a risk to financial stability. International turbulence combined with low profitability in the banking sector in a number of countries may spill over to the Norwegian economy, partly through higher risk premiums and declining

Table 4.a P/B ratios in selected markets

Price/book	All sectors 2016–2020	Banks 2016–2020	All sectors 1993–2020	Banks 1993–2020
UK	1.1	0.7	2.1	1.6
US	3.1	1.2	3.0	1.7
Sweden	2.1	1.4	2.1	1.5
Norway	1.7	1.0	1.7	1.1
Germany	1.7	0.4	1.8	0.9
France	1.7	0.6	1.9	1.0
Spain	1.5	0.7	1.9	1.7
Italy	1.1	0.5	1.5	1.1
Japan	1.3	0.5	1.5	1.0
Australia	1.9	1.5	2.2	1.9
Canada	1.7	1.6	2.0	1.8
Hong Kong (HK)	1.5	1.1	2.0	5.0
Korea	1.0	0.5	1.2	0.9
Switzerland	2.0	0.2	2.5	0.6
Global average	1.7	0.8	1.9	1.5
Global average excl. HK	1.7	0.8	1.9	1.3

Sources: Finanstilsynet and Refinitiv

Table 4.b P/B ratio, return on equity and nominal required rate of return, international banks*

Banks	1996–2000	2001–2005	2006–2010	2011–2015	2016–2020	1996–2020
P/B ratio	1.8	1.6	1.3	0.9	0.8	1.3
Return on equity	11.4	11.5	11.1	7.3	7.2	9.7
Nominal required rate of return	8.6	9.3	11.0	9.1	10.2	9.6
Risk premium	3.0	5.5	7.6	7.5	9.6	6.6
Government bond yield	5.6	3.8	3.4	1.7	0.6	3.0
Inflation	1.8	1.9	1.9	1.4	1.2	1.6
Real interest rate	3.8	1.9	1.5	0.3	-0.6	1.4

* Earnings per share (earnings/price (E/P)) is a measure of a company's current earnings relative to the market price of its shares. Earnings are the company's recorded profits after financial expenses and taxes over the past twelve months. The E/P ratio is used for various purposes. One of these is to estimate the long-term real return in the stock market, which in turn is used as an estimate of investors' average required real rate of return. Nominal required rates of return are calculated by summating E/P and realised inflation for each country and for each year. The risk premium is calculated as the difference between the nominal required rate of return and the yield on five-year government bonds. Sources: Finanstilsynet and Refinitiv

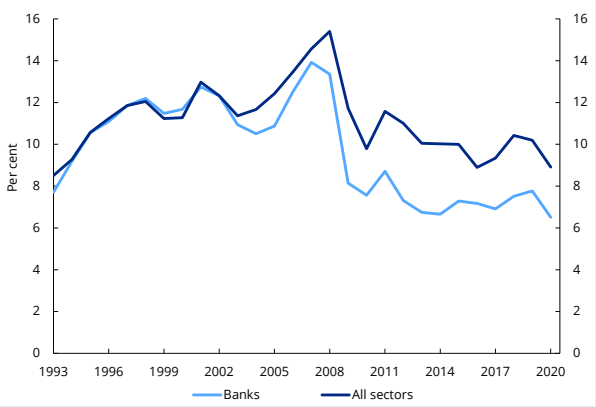
share, bond and property prices in international markets.

An analysis by the BIS (2018) concludes that the reduction in P/B ratios in the banking sector is due to factors other than regulatory reforms introduced after the international financial crisis.** According to the article, P/B ratios are primarily driven by developments in return on equity and non-performing loans and changes in intangible value created by loan and deposit relationships.

P/B ratios have also been reduced for non-financial listed companies, but not to the same extent as in the banking sector (chart 4.A). The average P/B ratio in the global banking sector was 1.8 in the five-year period 1996–2000 and 0.8 in the five-year period 2016–2020 (table 4.b).*** The decrease was relatively evenly distributed over time, see the five-year periods specified in the table. For non-financial firms, the P/B ratio was down from 2.4 to 1.7 (table 4.c).

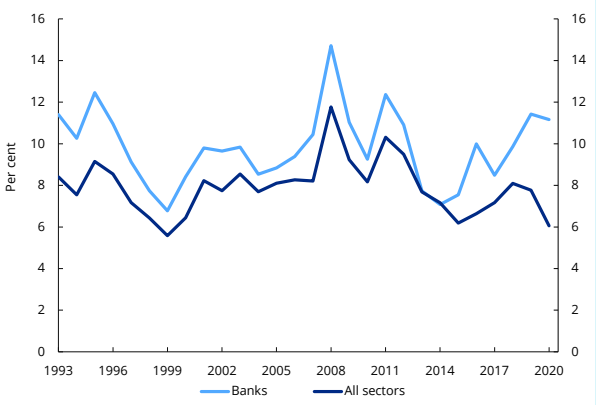
The widening difference in the average P/B ratio between non-financial firms and banks may be due to the fact that there has been a smaller decline in return on equity in non-financial firms than in banks (tables 4.b and 4.c and chart 4.B). Non-financial firms' average P/B ratio was higher, and in many cases considerably higher, than in listed banks in all countries during the last five-year period (table 4.a). The average P/B ratio for Norwegian non-financial firms during the last five-year period was roughly on a level with the years prior to the international financial crisis. For Norwegian banks, the P/B ratio declined from about 1.2 to 1.0. With the exception of a couple of years, the average estimated required rate of return for international banks was higher than for non-financial firms in

4.B Return on equity – global average



Sources: Finanstilsynet and Refinitiv

4.C Required rate of return – global average



Sources: Finanstilsynet and Refinitiv

the period 1993–2020 (tables 4.b and 4.c and chart 4.C), which suggests greater variations in required rates of return in recent years. This can probably be explained by very poor profit performance and serious problems in the banking sector in connection with the international financial crisis in 2008 and the government debt crisis in Europe towards the end of 2009, both of which had a severe impact on international banks.

For listed banks, the required rate of return has held up, while profitability has fallen markedly since the financial crisis (chart 4.C). Over the past ten years, the average required rate of return has been about 2 percentage points above return on equity. Higher required rates of return on bank shares than on shares in general are consistent with bank shares carrying higher risk than the overall market and with lower P/B ratios in the banking sector than in the stock market in general. An increasing difference in required rates of return may also be one reason why P/B ratios have contracted more in the banking sector than in the stock market in general.

Table 4.c P/B ratio, return on equity and nominal required rate of return, all sectors

All sectors	1996–2000	2001–2005	2006–2010	2011–2015	2016–2020	1996–2020
P/B ratio	2.4	2.1	1.9	1.6	1.7	1.9
Return on equity	11.6	12.2	13.3	10.8	9.6	11.5
Nominal required rate of return	6.8	8.1	9.1	8.2	7.1	7.9
Risk premium	1.2	4.2	5.7	6.5	6.6	4.8

Sources: Finanstilsynet and Refinitiv

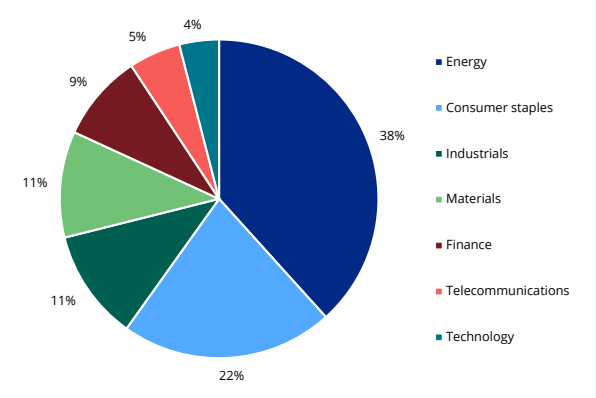
** BIS Quarterly Review, March 2018, The ABCs of bank PBRs: What drives bank price-to-book ratios? https://www.bis.org/publ/qtrpdf/r_qt1803h.htm. The analysis is based on global time series/panel data.
*** Adjusted for Hong Kong.

* IMF Working Paper (WP/19/180), Finding the bad apples in the barrel: using the market value of equity to signal banking sector vulnerabilities, Will Kerry, August 2019.

Box 5: Short selling in the Norwegian stock market

On the basis of concerns that extensive short selling of shares could exacerbate market turbulence in the spring of 2020, several countries introduced general prohibitions in mid-March 2020. The Norwegian market also saw a certain increase in short positions after the Covid-19 outbreak. However, Finanstilsynet concluded that a general prohibition against short selling was not necessary. Following decisions made by the the European Securities and Markets Authority

5.A Average weighted short sale ratio* by sector 2019–2020



* Net short position as a share of issued share capital
Source: Finanstilsynet

(ESMA) and the EFTA Surveillance Authority (ESA), the threshold for reporting transactions to the authorities was temporarily lowered. Finanstilsynet thus received more information about short positions in the Norwegian market. This requirement was lifted on 19 March 2021.

Finanstilsynet's short sale register includes data on short positions in listed shares. The register helps to ensure transparency, provides information to market participants and is part of Finanstilsynet's market surveillance. There is considerable interest in the short sale register, and more than 2 700 lookups were registered per trading day in 2020. Short positions are required to be disclosed if they constitute more than 0.2 per cent (0.1 per cent in the period 16 March 2020 through 19 March 2021) of share capital. However, the register only includes short positions in excess of 0.5 per cent of share capital. Finanstilsynet's report Survey of short sales in the Norwegian stock market (in Norwegian only) from 2021 discusses development trends.

Distribution of positions

At the end of 2020, there were 483 position holders in the short sale register. Most of these were from the US and the UK. On average, short positions were held for a brief period, and 10 per

5.B Short sale ratio compared with the OBX index 2019–2020*

*The short sale ratio for each share has been calculated by multiplying the percentage of short shares in the individual company by the ratio of the company's market value to the index's market value. The green line shows the trend in disclosed position, including positions from 0.1 per cent, cf. temporary reporting threshold in the period 16 March 2020–19 March 2021. Sources: Finanstilsynet and Oslo Børs

cent were held for only one day. The most shorted sectors were energy and consumer staples, particularly petroleum and seafood companies (chart 5.A). This may be due to the fact that earnings in such companies depend on the prices of oil and salmon, which have fluctuated widely in the past. In sectors with more stable earnings, in relative terms, such as real estate and telecommunications, short positions have represented a low proportion of issued share capital.

Development in short positions 2019–2020

The companies in the OBX index, which comprises the 25 most traded shares on Oslo Børs, account for about 65 per cent of the market capitalisation of Oslo Børs' three trading venues. These shares are the most shorted in terms of both number and market value. The largest aggregated short position in a single share on the OBX index in the period 2019–2020 was 13.3 per cent. In smaller companies, which are not included in the OBX index, the largest recorded total short position in a single share during this period was 14.1 per cent. In Novem-

ber 2017, the largest position in a single share was as high as 24.1 per cent.

Short selling can be used both to hedge against falling share prices and for speculation. This may indicate that short selling will pick up both during periods of market turbulence and in periods when share prices have risen considerably and the risk of a fall in prices is deemed to be high. Chart 5.B shows the proportion of shorted shares in the OBX index compared with developments in index values.

The short sale ratio rose somewhat through 2019 and at the beginning of 2020. After the sharp fall in share prices in March 2020, there was a further increase in short positions, although there was a lag before this increase occurred. There was a particularly steep rise in the short sale ratio for oil-related shares following the sharp fall in oil prices during this period. Throughout the summer, a large number of short positions were scaled back or closed, thus reducing the short sale ratio to a considerably lower level than before the fall in oil prices and the onset of the pandemic. The reduced short sale ratio may indicate that investors chose to realise their gains and that the vaccination rollout and the reopening of the economy made them feel more confident that the market would recover. The short sale ratio remained low throughout 2020 and was considerably lower at the end of the year than at 21February 2020, even though the OBX index was at roughly the same level.

MANY HOUSEHOLDS SAVE MORE DURING THE PANDEMIC

The containment measures introduced during the pandemic have had very different effects for households. A number of people who have not been furloughed or lost their jobs, have seen an improvement in their personal finances. There may be several reasons for this, but lower interest rates and restrictions on foreign travel and consumption of services are among the most obvious explanatory factors. Although there has been a significant increase in purchases of, for example, DIY products, electronic entertainment products and sports equipment, this does not fully compensate for the decline in purchases of services in the overall household sector. Households' financial savings rose from approximately NOK 27 billion in 2019 to NOK 167 billion in 2020. In several other countries, saving has increased more than in Norway, and Moody's estimates that globally, households' financial savings (net financial investments) were about USD 5 400 billion higher than normal at the end of 2020.

Developments in financial market values in 2020 were positive for key asset classes. Combined with higher financial savings, this has contributed to a substantial increase in the financial wealth of many households since the outbreak of the pandemic, Strong house price growth in many countries has also helped to raise housing wealth and given a large number of households greater financial flexibility, which may have heightened their risk appetite. Very low interest rates on bank deposits and on bonds with low credit risk may have had the same effect.

Households' share investments are on the increase

According to overviews from Euronext VPS, the number of private individuals owning shares listed on Oslo Børs increased by 24 per cent in 2020, to almost half a million people. In the first quarter of 2021, the number increased by 38 000. In the age group 18–29 years, the number of shareholders almost doubled, while the increase in the age group 30–39 years was 44 per cent. The value of personal customers' shareholdings was up 23 per cent in 2020, to approximately NOK 142 billion. This means that on average, each shareholder owns shares worth about NOK 300 000. On average, however, younger shareholders own less than older ones. Compared to previous years, investments are slightly more diversified, but as much as 45 per cent of personal shareholders own shares in only one company.

Most private individuals who have invested in the Norwegian market over the past year have traded on both Oslo Børs and Euronext Growth, but the trading volume on Oslo Børs has been considerably higher than on Euronext Growth. Shares in the largest companies on Oslo Børs still account for the predominant part of trading.

During the pandemic, there has been a sharp increase in the number of households participating in the listing of blank cheque companies known as SPACs (Special Purpose Acquisition Companies). In 2020, the majority of IPOs globally were in SPACs. The reason for the strong growth is that the listing process, especially in the US, is expensive and time-consuming. Using SPACs helps to reduce time and costs. In Norway, several companies are ready to be admitted to trading on Euronext Growth, but listing requires approval by Oslo Børs. Finanstilsynet is reviewing certain matters of principle relating to such listings, including how the AIF regulations come into consideration and the degree of investor protection, and has assumed that Oslo Børs will not admit SPACs to trading until the review has been completed.

SPACs give small-scale investors the opportunity to invest in startups at an early stage, which is otherwise often reserved for private equity funds targeting professional investors. However, the costs of such investments are often high. In addition, investors are given very little information and have limited opportunities to influence investments in SPACs.

Many SPACs also have trouble finding a suitable operating company to merge with and remain empty shells for an extended period of time. Supervisory authorities in a number of countries are therefore monitoring developments closely to ensure that the interests of all investors are safeguarded.

Over the past year, a substantial proportion of the listings in the Norwegian market have been carried out by relatively newly established companies on the Euronext Growth trading platform, which is an unregulated trading venue linked to Oslo Børs. While five new companies were listed on Oslo Børs' regulated markets in 2020, 49 new companies were listed for trading on Euronext Growth. This trend has continued in 2021. Norwegian retail investors have invested heavily in these companies in spite of their relatively short track record, little liquidity in the shares and high valuations relative to book values, earnings and sales. The number of private investors on Euronext Growth doubled in 2020 to about 60 000. There is considerable risk associated with investments in startups. Arrangers, the trading venue and other professional players therefore carry a great responsibility to ensure that relevant risks are communicated to potential investors. Investor protection is especially important for consumers, who do not have the same expertise as professional investors to assess investment risk.

A substantial proportion of the shares on Norwegian trading venues, particularly on Euronext Growth, have limited liquidity. If many investors want to disinvest at the same time, this may have a significant impact on the share price, which may trigger a self-reinforcing negative price spiral.

Households' share investments must be seen in connection with other capital assets, which include bank deposits, fixed-income funds, real estate and equity funds. In 2020, Norwegian households' net subscriptions in equity funds managed by Norwegian companies came to NOK 17 billion. Net subscriptions and an increase in the value of invested capital helped to raise households' total investments in equity funds by 17 per cent to NOK 190 billion (chart 4.4). In addition, there was a 27 per cent rise in investments in equity funds that are part of pension products, where the customer chooses the allocation, to NOK 157 billion.

Norwegian households' share exposure, both directly and through mutual funds, has more than doubled since 2015. The increase can be partly attributed to the transition from defined-benefit to defined-contribution schemes in the private sector, which may create expectations of higher returns on households' pension funds. At the same time, this requires good information about the risks associated with various

investment choices. When households increase their savings in high-risk assets and carry a larger share of the risk associated with pension savings themselves, they will be more strongly affected by declining share prices. As a result, greater financial consolidation may be required among households in a future crisis, resulting in heightened risk of financial instability.

Norwegian personal customers buy more index funds, but such funds still constitute a small proportion of pension savings

In the Norwegian mutual fund market, personal customers' new subscriptions in index funds increased from 10 per cent in 2015 to 31 per cent in 2020 (chart 4.5).

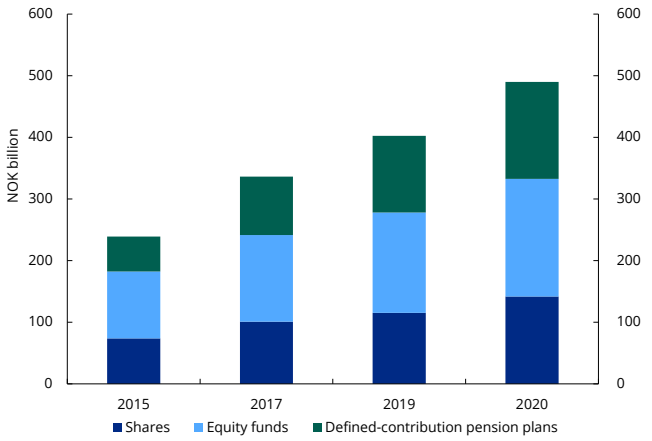
However, institutional investors' still place a significantly higher share in passive funds than personal customers. The proportion of index funds is particularly low for unit linked pension savings. These are long-term investments that are locked in until retirement age and thus cannot be taken out of the market other than in the form of a reweighting of shares and bonds or of sectors/countries. As a result, index funds could be particularly well suited for pension savings.

The share of index funds in personal customers' portfolios is low in spite of the fact that index funds have low costs and that the average return is at least as high after deducting costs as actively managed funds. One explanation may be that actively managed funds far exceed passively managed funds in providers' standardised allocation alternatives.

The search for yield heightens risk

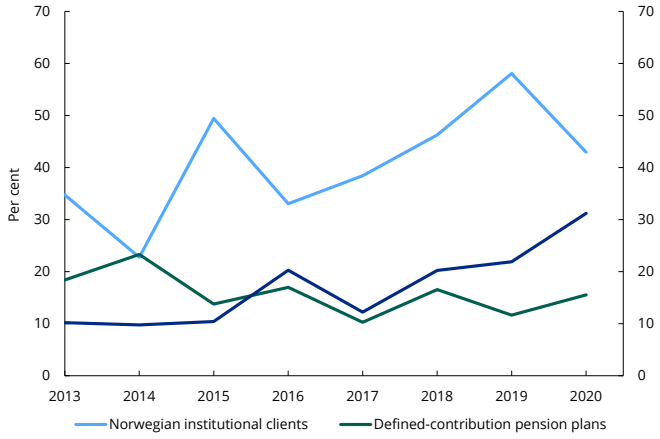
Extensive savings and low interest rates have probably pushed up demand for high-risk assets. Cryptocurrencies, precious metals, listed mutual funds with a very narrow investment universe, digital art, etc. have received a lot of attention over the past year. At times, rates have fluctuated widely, and personal customers who choose to invest in such assets need to have a realistic view of the risk involved and of their financial ability to withstand potential losses. The risk of fraud is higher than for investments in traditional assets

4.4 Norwegian personal customers' share exposure



Sources: Euronext/VPS, Norwegian Fund and Asset Management Association and Finanstilsynet

4.5 New subscriptions in index funds as a share of total new subscription for the relevant customer group



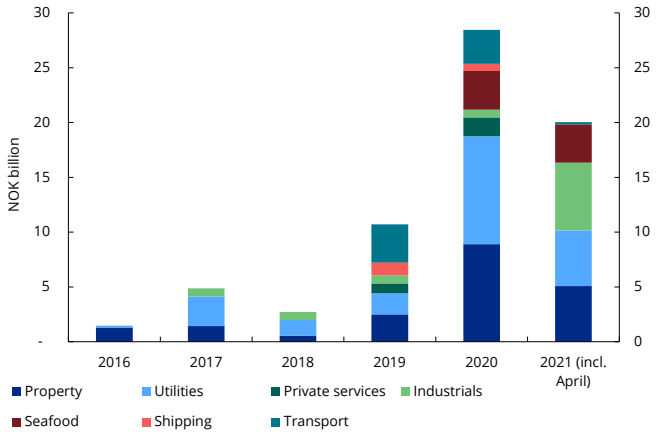
Sources: Norwegian Fund and Asset Management Association and Finanstilsynet

through established and licensed players. Finanstilsynet's registry includes all institutions that are supervised by or registered with Finanstilsynet.[21] Extra care should be taken if you receive investment recommendations from or are invited to make investments by institutions that are not listed in Finanstilsynet's registry.

CAPITAL RAISING AND IPO MARKET IN 2021

Share and bond issues vary considerably over time and are highly dependent on prevailing conditions in the secondary market. During economic downturns and

4.6 Issues of green bonds in the Norwegian bond market



Sources: Finanstilsynet and Stamdata

periods of extensive market turmoil, capital raisings will normally be limited or dry up, which was what happened during the financial crisis. During the market turbulence in the spring of 2020, the level of activity in the market fell sharply but picked up relatively quickly and was fairly high in the second half of the year.

In the first quarter of 2021, Oslo Børs recorded the fourth highest number of IPOs in Europe, measured by the amount of capital raised. At end- April 2021, limited companies had raised NOK 15.9 billion on Euronext Growth in connection with admissions to trading, while companies on Oslo Børs had raised NOK 0.8 billion.

During the first four months of 2021, NOK 37.3 billion was raised in the Norwegian stock market, which is considerably more than the NOK 7 billion raised in the corresponding period of 2020. There are significant differences between issue volumes on Oslo Børs and on Euronext Growth. While the companies admitted to trading on Euronext Growth represent only 6.6 per cent of Oslo Børs' total market capitalisation, these companies accounted for 68 per cent of the capital raised on all Oslo Børs marketplaces from January through April 2021. In the corresponding period of 2020, only 3.4 per cent of the capital was raised by such companies.

On the basis of the sharp increase in the number of companies listed on Euronext Growth, Finanstilsynet has initiated an inspection to assess whether the rules in the Securities Trading Act are complied with in connection with admission to trading on the multi-lateral trading facility. The inspection targets investment firms that assist the companies in connection with admissions to trading, the auditors who audit the accounts of the companies that are admitted, as well as Oslo Børs, which operates the Euronext Growth marketplace and functions as listing authority. Finanstilsynet's report will be published later in 2021.

Non-financial firms issued a total of NOK 38 billion in the Norwegian bond market in the first four months of 2021, which is an increase of 56 per cent compared with the corresponding period of 2020. Companies engaged in real estate, electricity supply and industrials remain the largest issuers in the Norwegian bond market.

Issuance of green bonds has increased considerably in recent years. Green bonds are normally so-called 'use-of-proceeds' bonds. This means that the capital raised by issuing bonds is earmarked for investments defined as sustainable or 'green'. In the Nordic market, close to all issuers of green bonds have used independent third-party reviews to verify their bonds. The reviews are made public, and the issuers' disclosure obligations are made public through stock exchange statements. The EU classification system for sustainable economic activities will form the basis for a European standard for green bonds and will have an impact on Norwegian companies' capital raising in this market, see Box 6 on the classification system.

In 2020, non-financial firms issued green bonds for close to NOK 30 billion, which was almost three times the amount registered in 2019. There appears to be a further increase in 2021 (chart 4.6). For several years, power generation and property companies have been the largest players in this market. These are well-established companies, and many of them are publicly owned and have a good credit rating. In 2021, companies within renewable energy, waste management and seafood have also issued green bonds. Some of

these companies are newly established and have a lower credit rating, and therefore issue high-yield bonds. Green bonds, as a share of total bonds issued by non-financial firms, increased from 2 per cent in 2016 to 21 per cent in 2020 and further to more than 30 per cent in the first four months of 2021.

Box 6: EU taxonomy for sustainable activities

Financial markets and financial institutions play a key role in the transition to a low-emission society by channelling private capital into sustainable projects. Lack of uniform information about the actual climate effects of various investment projects and enterprises' exposure to climate risk makes it more difficult to price climate risk correctly in the financial markets and thus to channel capital to the right projects. A number of international forums are therefore developing and harmonising criteria and reporting standards for sustainable activities.

The EU is in the process of establishing a classification system, or taxonomy, for sustainable activities. Among other things, the classification system will make it easier for investors to distinguish between green and other investment projects. The first technical criteria for defining sustainable activities were published in April 2021. The criteria, which will apply from 2022, include two of the six environmental objectives of the taxonomy (environmental objectives 1 and 2), i.e. climate change mitigation and climate change adaptation to avoid harm and losses as a result of climate change. The criteria underlying the first objective, entailing a gradual reduction in greenhouse gases, have received particular attention. The European Commission received more than 46 000 comments during the consultation on the criteria.

The taxonomy will not provide scope for national discretion in the implementation of the regulation.* Norwegian financial institutions and non-financial firms operating in European markets will have to comply with the taxonomy from 2022, when it enters into force in the EU. This includes entities issuing green bonds, banks offering green loans, and financial market participants offering green investment products. Entities that are subject to reporting requirements relating to non-financial aspects will be given far wider reporting responsibilities.

The taxonomy does not cover all business activities. The criteria apply to activities that are considered to substantially contribute towards climate change mitigation and adaptation in the EU. Activities that are of little economic significance in the EU are thus not covered. For some areas where there are major disagreements in the EU, decisions on the inclusion and adoption of criteria have been postponed. This applies, inter alia, to nuclear power. The criteria are not static and will be expanded to include more activities and adjusted to reflect technological developments. Currently, 70 activities are covered, most of which are related to industrial production and energy. Requirements related to CO_2 intensity are key to many of the activities.

Fishing, aquaculture and agriculture are thus far not included. The EU aims to present supplementary criteria later in 2021 for agriculture and some energy sectors. Oil extraction is excluded from the taxonomy regardless of CO_2 intensity, which means that oil-related activities cannot be characterised as green. Natural gas is not yet included in the taxonomy, but the EU signals that criteria for natural gas in connection with the phasing out of coal and oil will be included in supplementary provisions later in 2021. Production of hydrogen and capture, transport and storage of CO_2 are included as separate economic activities in the taxonomy. The taxonomy also opens up for green financing of parts of

Norwegian hydropower, other renewable energy production, shipping and real estate.

* On 30 October 2020, the Ministry of Finance circulated for public consultation a proposal from Finanstilsynet on the implementation of the Taxonomy Regulation in a new Act on sustainability. The Act is expected to be presented to the

CHAPTER 5 STRESS TEST OF NORWEGIAN BANKS

Finanstilsynet conducts annual stress tests to assess the impact of a severe economic downturn on Norwegian banks' profitability and financial soundness. The stress test for 2021 shows that a number of Norwegian banks will not fulfil the overall CET1 capital requirement during the stress period, even if the countercyclical capital buffer requirement were to be reduced to zero. In the stress scenario, losses on loans to firms and private individuals have the most adverse impact on banks' capital adequacy.

BACKGROUND FOR THE STRESS TEST OF CAPITAL ADEQUACY

In Finanstilsynet's stress test of capital adequacy, the effect of various adverse events on the banks' profits and capital adequacy is estimated. The results are used to clarify how well banks will fare through such a scenario and at the same time be able to provide loans to creditworthy firms and households. Economic imbalances and setbacks that may amplify negative demand and supply shocks are taken into account. Stress tests are not forecasts but illustrate the consequences of a strong but not unlikely economic setback. The Covid-19 pandemic is an example of sudden and unexpected changes. The long-term effects of the Covid-19 pandemic are uncertain, and its consequences for the financial system could still be serious.

Compared with non-financial firms, the banks have high debt to assets ratios. The banks also have a far lower ratio of profits to total assets. This places banks in a vulnerable position when earnings decline and equity is reduced. In the past, banks have been strongly affected during severe economic downturns. If the banks have to significantly tighten their lending standards during a crisis, it will also reinforce the contraction in economic activity.

Since March 2020, the Covid-19 pandemic and measures to prevent the spread of the infection have triggered a severe recession in both the Norwegian and the international economy. Massive fiscal support measures and monetary policy stimulus have dampened the downturn. Still, activity levels in a number of countries remain lower than prior to the pandemic. Many households have virtually been forced to increase their savings for lack of consumption opportunities. At the same time, some industries producing goods and services may experience capacity constraints once society is reopened as a result of downscaling and breaks in production lines during the shutdown. There is a high level of uncertainty surrounding future developments; see further account in chapter 1.

In the stress scenario, it is assumed that the reopening of society in the wake of the Covid-19 lockdown will lead to strong increases in both consumption and investment demand. Revived demand for goods and services is assumed to be only partially satisfied due to supply-side capacity constraints. The increase in demand therefore leads to rising wages and price inflation. In order to curb inflationary pressures, central banks raise key policy rates from the current very low levels. This gives a rise in market rates, higher risk premiums and repricing in the financial and property markets. In the stress scenario, higher interest rates, greater uncertainty among investors and financial market turmoil depress prices of shares, fixed-income securities and real estate. Despite the strong increase in demand after the reopening, this contributes to a weak trend in the real economy and delays in the international economic recovery in the wake of the pandemic. Key policy and market rates remain high during much of the projection period as price inflation is expected to be far above the central banks' inflation targets. International trade shows a weak trend parallel to a contraction in demand for commodities and traditional goods produced in Norway. A severe and protracted fall in oil prices results in a decline in revenues and activity levels in petroleum-related operations in Norway. The Norwegian economy enters a recession characterised by

Table 5.1 Developments in key international variables. Percentage growth in annual averages, unless otherwise stated.

		2020	2021	2022	2023	2024	2025
Foreign consumer prices (trade weighted)	Baseline	0.2	1.2	1.5	1.9	2.0	2.0
	Stress	0.2	2.8	4.5	4.7	4.8	3.6
Foreign 3-month money market rate (Euribor, level)	Baseline	-0.4	-0.5	-0.5	-0.5	-0.3	-0.2
	Stress	-0.4	2.4	4.6	4.4	4.2	3.5
Oil price in USD (level)	Baseline	41.8	65.2	62.0	58.8	56.8	55.6
	Stress	41.8	65.2	40.0	40.0	40.0	40.0
Export market indicator	Baseline	-9.0	9.2	10.1	5.4	5.0	2.0
	Stress	-9.0	1.6	-2.5	-1.5	0.0	0.0

Sources: Statistics Norway and Finanstilsynet

more sluggish activity in the real economy and a sharp rise in unemployment. The real economy starts to recover towards the end of the projection period. The probability of the stress scenario occurring is low, but the scenario is not unrealistic.

The assessments in this chapter are based on a baseline scenario and a stress scenario. The two scenarios describe possible development paths for the Norwegian economy from 2021 to 2025, but neither of the scenarios represents forecasts of future developments. The projections are made by using the macroeconometric model NAM-FT[1].

Fiscal policy is assumed to be the same in both scenarios, while Norges Bank's key policy rate is assumed to develop in line with the forecast in the Monetary Policy Report 1/21 in the baseline scenario and is model determined in the stress scenario. The purpose of the stress test is not to assess how fiscal and monetary policy measures should be designed in the event of a setback in the Norwegian economy, but to analyse the consequences of a serious setback for the financial system.

Even though the government's strong financial position gives Norway considerable room for manoeuvre in fiscal policy, the Norwegian economy may be subject to shocks that could be difficult to neutralise by fiscal policy measures. This is also the case for monetary policy, even though inflation targeting should be forward-looking and flexible in order to promote high and stable output and employment.

A key feature of the stress test that has a strong impact on banks' loan losses is a sharp fall in the collateral value of residential and commercial property and a higher default rate among borrowers with high debt. It will be difficult to compensate for this by providing a general stimulus to demand.

Finanstilsynet's extensive data for all Norwegian banks and mortgage companies enable analysis of both individual entities and the entire banking industry. The design of the stress tests seeks to capture the interaction between various risks present in the banks and in the economy as a whole. The stress test is based on the individual bank's financial statements and exposures at the end of 2020.

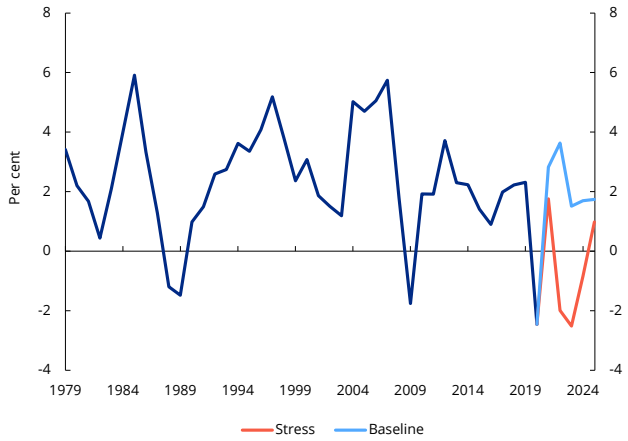
NORWEGIAN ECONOMY

BASELINE SCENARIO

The baseline scenario is based on the assumption that developments in the Norwegian economy are largely consistent with the forecasts in Statistics Norway's 'Economic Survey 2021/1' and Norges Bank's 'Monetary Policy Report 1/21' (table 5.1).

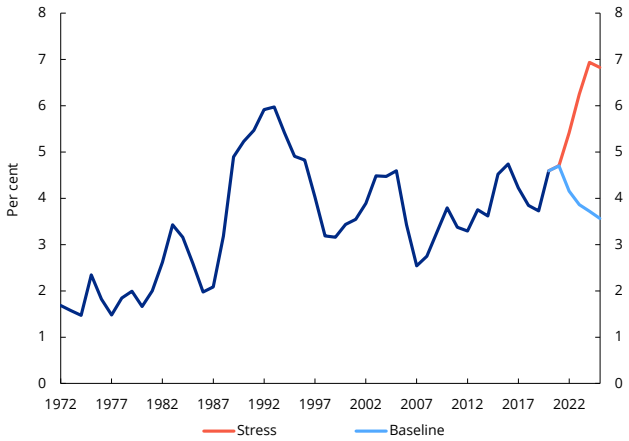
GDP for mainland Norway is back at pre-pandemic levels during 2021 and rises further through the projection period (chart 5.1). On the back of a strong

5.1 GDP for mainland Norway, year-over-year growth



Sources: Statistics Norway and Finanstilsynet

5.2 Unemployment (LFS)



Sources: Statistics Norway and Finanstilsynet

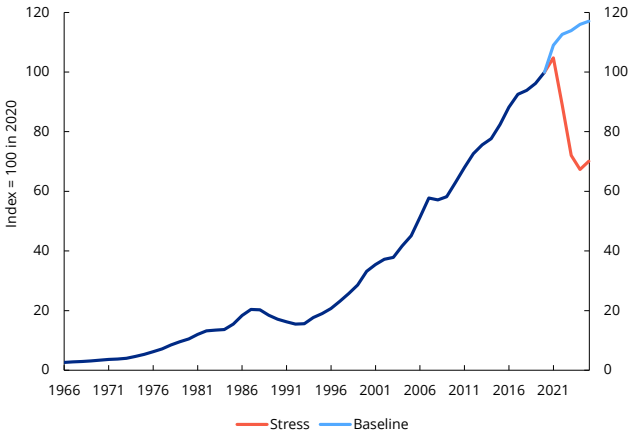
development in private consumption, housing investment and exports, there is an increase in mainland GDP. Unemployment (as measured in the labour force survey – LFS) reaches pre-pandemic levels towards the end of the projection period (chart 5.2). House prices rise throughout the period by a total of approximately 17 per cent (chart 5.3), and commercial property prices are up 13 per cent (chart 5.4).

The banks' average lending rate rises by close to 1 percentage point in the baseline scenario (chart 5.5). This contributes to increasing households' interest burden to just over 8 per cent in 2025 (chart 5.6). The increase in the interest burden is due to higher interest rates and rising household debt. Household credit growth is assumed to continue to exceed income growth, and the debt burden increases from 235 per cent in 2020 to 246 per cent in 2025. Banks' losses on loans remain low during the projection period in both the personal customer and corporate markets.

STRESS SCENARIO

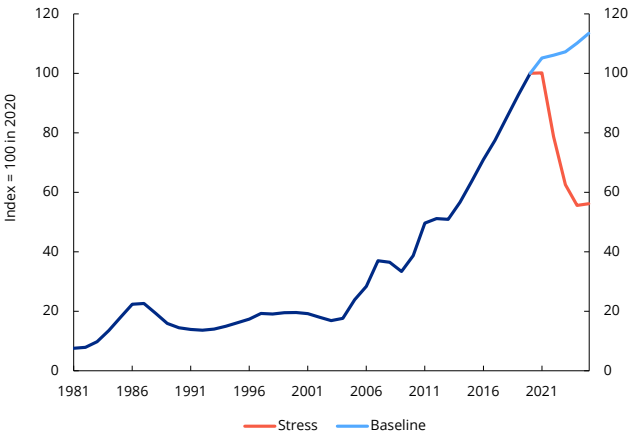
Capacity problems within manufacturing and strong growth in demand lead to higher inflationary pressure after the reopening of society both internationally and in Norway. Foreign inflation is assumed to rise from 0.2 per cent in 2020, reach 4.5 per cent already in 2022 and increase further to 4.8 per cent in 2024. While inflation subsides somewhat in 2025, it remains well above the central banks' inflation target. In response to the heightened inflation, central banks raise

5.3 House prices



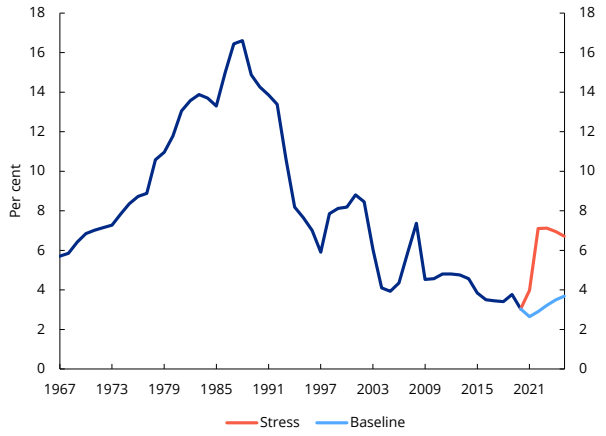
Sources: Statistics Norway and Finanstilsynet

5.4 Commercial property prices



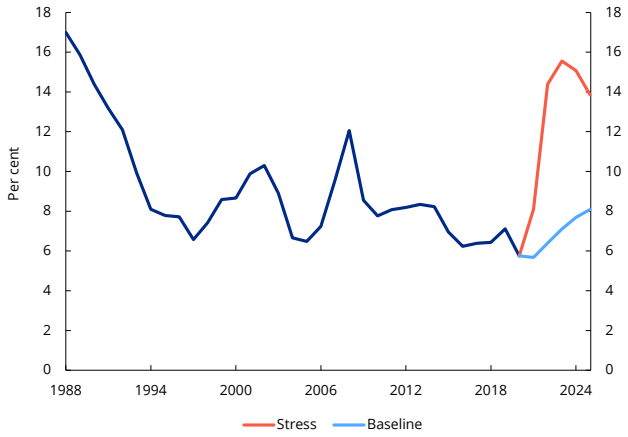
Sources: Dagens Næringsliv, OPAK, Entra and Finanstilsynet

5.5 Banks' average lending rate



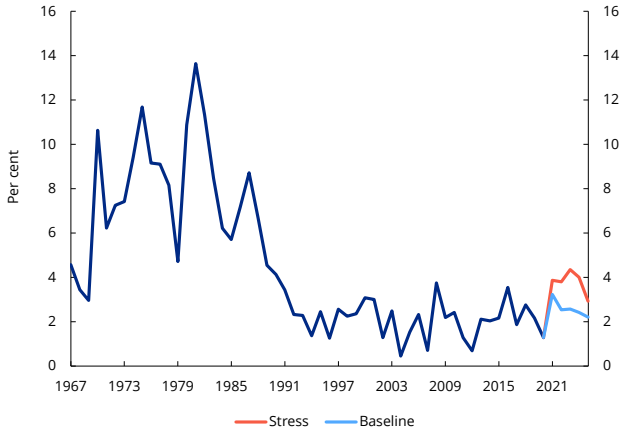
Sources: Statistics Norway and Finanstilsynet

5.6 Households' interest burden



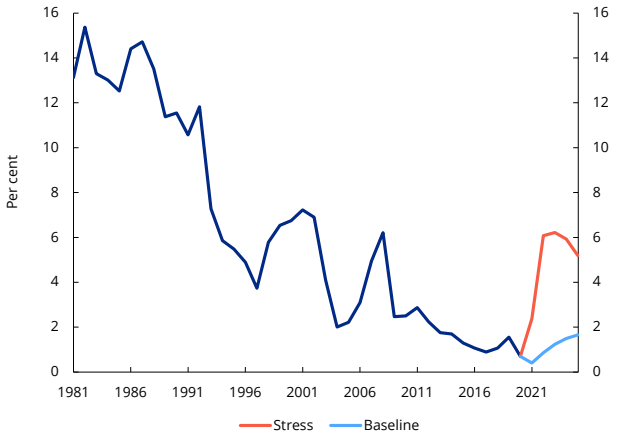
Sources: Statistics Norway and Finanstilsynet

5.7 Consumer price index in Norway, year-over-year growth



Sources: Statistics Norway and Finanstilsynet

5.8 Money market rate (3-month Nibor)



Sources: Statistics Norway and Finanstilsynet

their key policy rates. The rate hike and increased uncertainty surrounding economic developments lead to a sharp rise in market rates internationally (table 5.1). Inflation holds up until 2025, when there is a slight decline. Key policy rates and market rates thus remain high for a protracted period. In Norway, inflation increases from 1.3 per cent in 2020 to 4.0 per cent in 2024 (chart 5.7). During the same period, the Norwegian money market rate (3-month Nibor) rises from 0.7 to 6.2 per cent (chart 5.8).

The banks' average lending rate is up from 3.0 per cent in 2020 to 7.1 per cent in 2022 (chart 5.5). Such an interest rate increase has major consequences for Norwegian households due to their high level of debt and the fact that approximately 95 per cent of household debt carries floating interest rates. Households' interest burden rises from 5.7 per cent in 2020 to 15.6 per cent in 2023 (chart 5.6). This is higher than the interest burden during the financial crisis, but lower than the level during the banking crisis in the early 1990s. The interest burden declines to 13.9 per cent in 2025.

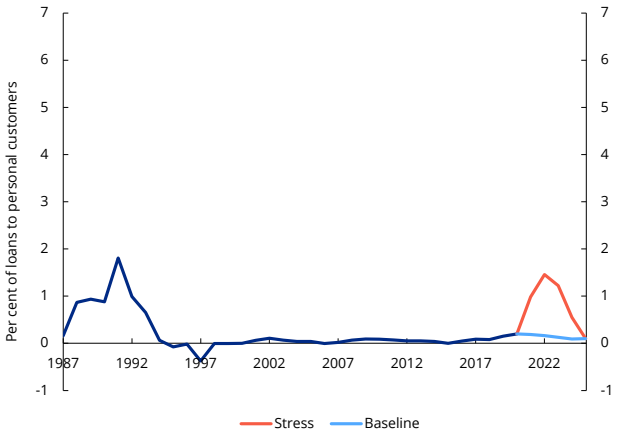
Income growth exceeds the increase in household debt during the last three years of the projection period, and the debt burden decreases by 3 percentage points in the stress scenario, to just over 232 per cent in 2025. Firms' interest burden increases from 7.6 per cent in 2020 to 18.0 per cent in 2022.

High debt levels, rising interest rates and weak income growth among households put a strong damper on private consumption, which is down by a total of 9 per cent from 2021 to 2024. This, along with a weak development in real investment and exports of traditional goods and services, weighs heavily on economic activity in Norway. GDP for mainland Norway declines by 5.3 per cent from 2021 to 2024 (chart 5.1). Unemployment (LFS) increases from 4.6 per cent in 2020 to 6.9 per cent in 2024 (chart 5.2).

The economic downturn in Norway results in a pronounced fall in prices of residential and commercial property. Measured as an annual average change, house prices decrease by 36 per cent and commercial property prices by 45 per cent from 2021 to 2024 (charts 5.3 and 5.4). From 1987 to 1992, house prices in Norway fell by 24 per cent in nominal terms (measured as an annual average change), while prices of office premises were down 40 per cent.[22] Measured from the quarter with the highest observation to the quarter with the lowest observation, house prices declined by 29 per cent from the first quarter of 1988 to the first quarter of 1993, and prices of office premises were down 43 per cent from the fourth quarter of 1986 to the fourth quarter of 1991. From 2021 to 2024, the Norwegian stock market declines by 41 per cent.

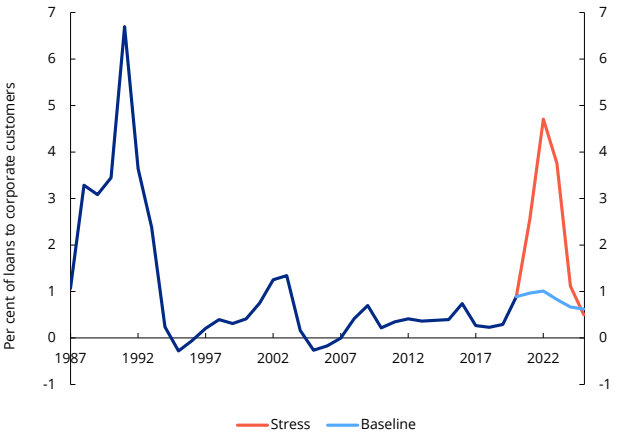
In the stress scenario, there is a rise in banks' losses on loans to both private individuals and firms, although losses increase the most and are higher in the corporate market (charts 5.9 and 5.10). Accumulated losses on corporate loans are estimated at 12.6 per cent of total lending throughout the projection period. For loans to private individuals, accumulated losses represent 4.3 per cent during this period. The losses in the stress scenario are high, but clearly lower than the banks' losses during the banking crisis in the early 1990s.

5.9 Banks' loan losses in the personal customer market



Source: Finanstilsynet

5.10 Banks' loan losses in the corporate market



Source: Finanstilsynet

OUTCOME OF THE STRESS TEST FOR NORWEGIAN BANKS

THE BANKS' RESULTS IN THE BASELINE SCENARIO

In the baseline scenario, the banks enjoy stable and high earnings over the next few years, with a moderate level of loan losses. Net interest income in per cent of average total assets (ATA) is assumed to increase by 0.1 percentage points. This is due to the fact that the deposit spread at the start of the period is extraordinarily low and is expected to widen parallel to the increase in the key policy rate. Seen in isolation, the notification period for interest rate increases on loans to personal customers leads to a modest reduction in net interest income. However, this is outweighed by

the positive impact of wider deposit spreads. Losses on corporate loans increase slightly in 2021 and 2022, whereafter there is a gradual reduction up to 2025. Loan losses in the personal customer market decline throughout the projection period.

Overall, these factors help to ensure stable and strong profitability in the banking sector. Seen in isolation, banks' capital adequacy is thus strengthened. On the other hand, debt growth is relatively high and contributes to an increase in banks' risk-weighted exposure. Much of this increase can be attributed to a higher a level of debt in non-financial firms, for which average risk weights are higher than on loans to households.

If the banks refrain from distributing dividends during this period, the largest banking groups' CET1 capital ratio increases from 18.7 per cent in 2020 to 21.4 per cent at the end of the period in the baseline scenario. If significant dividend payments are made, however, the banks' overall capital adequacy ratio declines from the current level. Small and medium-sized parent banks that are not part of a group generally have somewhat higher capital adequacy ratios at the beginning of the projection period than the large banks but follow roughly the same development path in the projections.

THE BANKS' RESULTS IN THE STRESS SCENARIO

Assumptions underlying the stress test

In a serious crisis, banks' results will be impaired by both reduced income and a sharp rise in loan losses. In a normal situation, loan losses largely reflect individual customers' special circumstances, while a sharp downturn will affect large parts of the economy. The results in the stress test must be seen in light of the fact that a number of firms experience weak earnings and a deteriorating financial position due to shutdowns and reduced demand during the Covid-19 pandemic, and that households' debt burden is historically high. Norwegian banks have exposures to practically all industries and a very large share of households.

In the stress scenario, there is a significant increase in banks' expenses as a result of rising interest rates on deposits and market funding. Parallel to this, the banks' interest income increases, but it is assumed that the rise in funding costs cannot be passed on in its entirety to borrowers. A relatively large proportion of non-financial firms are unable to cover aggregate interest expenses on bank loans, bond loans and accounts payable, etc. through current earnings, see account in chapter 1. Such firms will probably also be unable to pay instalments and increased interest rate expenses in the stress scenario. In spite of wider deposit spreads, banks' net interest income as a share of average total assets declines by 10 basis points. In addition, the notification period for interest rate increases on loans to personal customers contributes to reducing the interest margin during periods of rising interest rates. Lower economic activity is assumed to reduce banks' net commission and fee income by 20 per cent. Banks' administrative expenses are projected based on developments in general wage costs during the stress period.

Overall, Norwegian banks have a relatively limited direct exposure to equities, bonds and real estate. However, some banks have a greater exposure than others, which is reflected in this year's stress test. The fall in stock markets, higher credit risk premiums and lower property prices therefore provide a negative contribution to profits in 2022, but this is marginal compared with the effect of loan losses. Losses arising from operational risk are calculated as an annual percentage of average total assets, which over the stress period roughly corresponds to the aggregate level in the standardised approach for the stress test from the European Banking Authority (EBA)[23].

In the stress scenario, it is assumed that the banks do not pay dividends. Further assumptions are that no fresh equity is injected and that the banks make no other strategic adjustments. It is therefore assumed that the balance sheets of the individual banks reflect changes in the relevant customer segments in the overall banking sector. Any differences in the rates of

growth of individual banks may affect the banks' CET1 capital ratios during a stress period.

Box 7: Distribution of loan losses between the banks

The banks' total losses on loans to personal and corporate customers are modelled in Finanstilsynet's macro model NAM-FT. Banks' losses on loans to personal borrowers rise when households' interest burden rises and house prices decline. The effects on banks' losses are: i) stronger when households' interest rate burden is high than when it is low, and ii) stronger when there is a significant fall in house prices. Banks' losses on corporate loans rise with negative GDP growth, falling oil prices, an increase in firms' interest burden and a decline in commercial property prices. The effects on banks' losses are: i) stronger when firms' interest rate burden is high than when it is low, and ii) stronger when there is a significant fall in commercial property prices. In NAM-FT, loan losses are calculated as a percentage of total loan exposure for each of the years 2021–2025. Furthermore, banks' lending to personal and corporate customers is projected. The annual loss rate multiplied by the total loan exposure constitutes the banks' total loan losses in NOK.

Starting this year, Finanstilsynet's new bankruptcy and probability of default model SEMKO is used to estimate so-called probability of default (PD) for non-financial firms. SEMKO is calibrated with annual financial statements and other entity-specific information and is estimated for ten industry groups. Borrowers' PD and the banks' exposure at year-end 2020 form the basis for calculating banks' loss rate for non-financial firms. The method of distributing loan losses between the banks is described in more detail in Risk Outlook June 2020.

Stress test results for Norwegian banking groups

Finanstilsynet performs stress tests of all Norwegian banks. The discussion below focuses on 19 of the largest banking groups[24], representing just over 72 per cent of Norwegian banks' combined total assets at the end of 2020. Branches of foreign banking groups are not included in the sample. Developments for the other Norwegian banks and specialised consumer loan banks are discussed in separate sections.

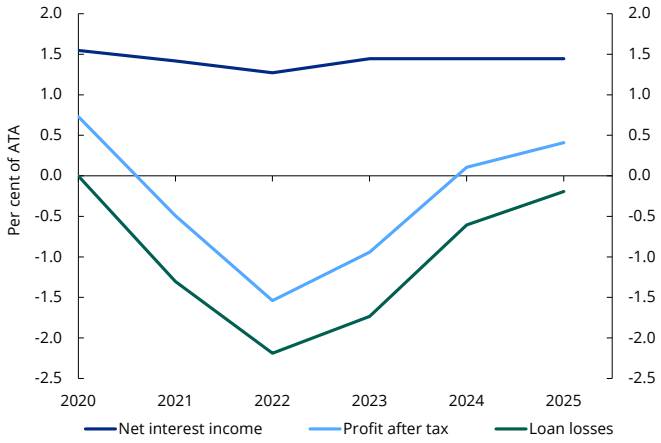
In the stress scenario, the banking groups' main source of income, net interest income[25], declines from 1.55 per cent of average total assets in 2020 to 1.27 per cent in 2022 and thereafter stabilises at 1.45 per cent. The decline can be attributed to the assumption that part of the increase in banks' funding costs cannot be passed on to customers with particularly weak debt servicing capacity. The notification period for raising lending rates also gives a reduction in net interest income, especially in the years when interest rates are rising strongly.

Owing to reduced net interest income and declining commission and fee income, earnings from core operations are reduced, whereby the banks' ability to absorb loan losses is impaired. As the financial situation of an increasing number of the banks' customers deteriorates during the stress period, loan losses increase so much that the banks record net losses and lower CET1 capital ratios.

Losses on corporate loans rise from 0.9 per cent of total lending to this segment in 2020 to nearly 5 per cent in 2022. In the personal customer market, which represents the banks' largest loan portfolio, losses increase from 0.2 per cent of total personal market loans in 2020 to 1.5 per cent in 2022. The banking groups' after-tax profits decline from 0.7 per cent of average total assets in 2020 to a net loss of 1.5 per cent in 2022 before gradually improving to an aggregate net profit of 0.4 per cent in the final year of the period (chart 5.11).

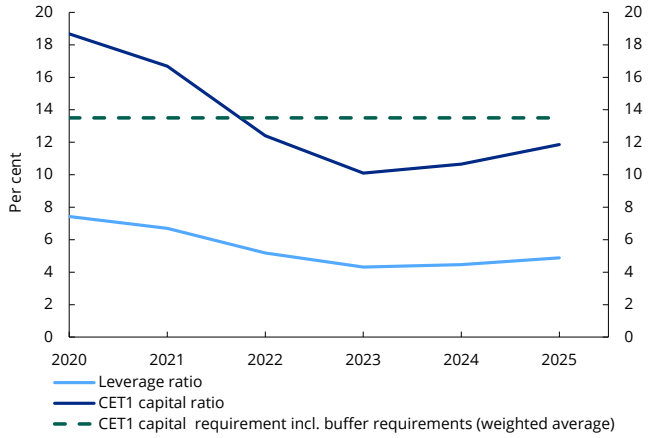
The banks' CET1 capital ratio decreases from 18.7 per cent at the start of the period to 10.1 per cent in 2023

5.11 Profits and main profit components. Norwegian banking groups – stress scenario



Source: Finanstilsynet

5.12 Developments in capital adequacy ratios. Norwegian banking groups – stress scenario

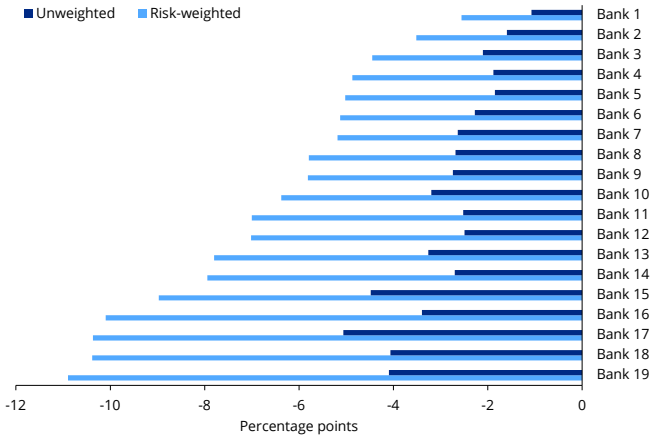


Source: Finanstilsynet

and thereafter increases to 11.9 per cent in 2025 (chart 5.12). Only a few of the banking groups maintain a level of CET1 capital that covers the aggregate capital requirement including buffer requirements[26] and Pillar 2 requirements. This is mainly due to negative profits, driven by sizeable loan losses. The decline in the CET1 capital ratio is reinforced by an increase in risk-weighted assets up to 2023 as a result of growth in lending to households and municipalities.

The stress test model does not capture portfolio migration in IRB banks. Thus, it does not take account of the fact that migration to higher risk classes as a result of economic developments in the stress scenario will increase risk weights and reduce capital adequacy ratios. The banking groups' leverage ratio[27] declines from 7.4 per cent in 2020 to 4.3 per cent in 2023 and increases to 4.9 per cent in 2025. Nine of the banking groups do not meet the leverage ratio requirement (including current buffer requirements) in the scenario.

5.13 Change in capital adequacy from 2020 to the minimum level. Norwegian banking groups – stress scenario



Source: Finanstilsynet

There is considerable variance in capital adequacy from one bank to the next. Chart 5.13 shows the change in the CET1 capital ratio from year-end 2020 to the lowest level in the stress period.

The banking groups that fare the worst are, on average, relatively poorly capitalised at the start of the period, have a relatively high proportion of loans to non-financial firms or high estimated credit risk on this portfolio. The level of net interest income is also of great significance.

OTHER NORWEGIAN BANKS

Other Norwegian credit institutions (89 institutions) mainly comprise small and medium-sized savings banks. These are stress tested at single entity level (parent bank). The macro scenarios, stress test methodology and assumptions are identical to those applied to the banking groups. In this year's stress test,

these banks' securities holdings and real estate investments are also included in the assessment in the same way as those of the banking groups.

Aggregate profits for small Norwegian banks decline steeply in the first three years of the stress scenario. Increased losses on loans to personal customers and non-financial firms, respectively, have a roughly similar effect on profits in spite of the fact that the corporate portfolio is significantly smaller than the personal customer portfolio. Losses on loans to non-financial firms are generally higher for the smaller banks than for the large banks as they carry higher risk in their corporate market portfolios.

Overall, small and medium-sized banks have a higher CET1 capital ratio than the large banks at the start of the stress period (19.2 per cent). In the stress scenario, this ratio declines to 11.7 per cent during the first three years, before rising again and ending at 12.9 per cent in 2025. However, there is considerable variance between the banks. In 2023, 58 of the 89 banks will not meet the overall capital requirements, including the buffer requirements and the Pillar 2 requirement. At the same time, the leverage ratios of 53 banks are estimated to be below the prevailing requirement of 5 per cent.

CONSUMER LOAN BANKS

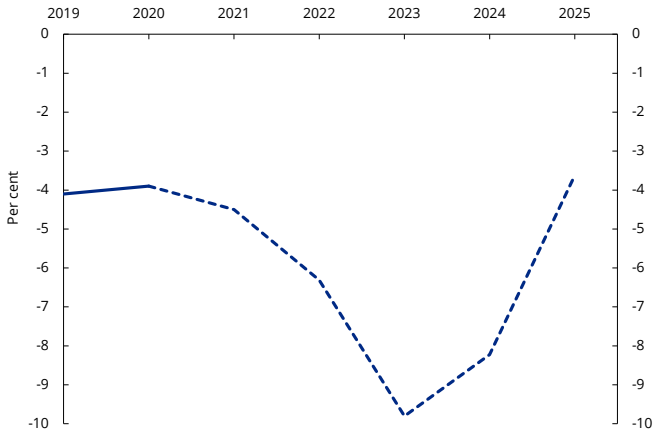
The consumer loan market is changing. Since 2019, there has been a sharp decline in lending growth. At the same time, the default rate in the banks' consumer loan portfolios has increased, as discussed in chapter 2. In a stressed situation, it could be difficult for banks to sell portfolios of non-performing loans at the same price or to the same extent as in the past. Rising house prices have traditionally provided scope for refinancing consumer loans, and a drop in house prices could reduce that opportunity. As a consequence, the banks may have to record losses on a larger proportion of non-performing loans. Analyses of loan losses in normal economic periods show that losses on consumer loans are between 10 and 20 times higher than on other loans to households, which primarily comprise residential mortgages. Hence, it is likely that losses on consumer loans would be very high in a stress period.

However, there is considerable uncertainty surrounding how the losses on consumer loans will develop during a serious crisis. Norway has not experienced a sharp and prolonged economic setback with high losses on loans to the personal customer market since the banking crisis in the 1990s. At the time, the share of consumer loans was far lower than today. On the basis of this uncertainty, Finanstilsynet has decided this year to restructure the stress test of the consumer loan banks in order to illustrate how large losses these banks are able to absorb while complying with the capital requirements.

Seven banks whose main business is consumer lending are included in Finanstilsynet's stress test. The assumptions of the 'reverse' stress test are largely concurrent with the general stress scenario for all banks, but there are two key differences. Consumer loan banks generate much higher net interest income than traditional banks, which makes them better able to cover loan losses through ongoing earnings. These banks' total net interest income was 8.3 per cent of average total assets in 2020. In the stress test, average net interest income decreases to 6.3 per cent in 2021 and remains virtually unchanged until 2025. A reduction in net interest income may reflect strong competition in the consumer loan market, see chapter 2, which provides less scope for raising lending rates in step with the overall rate increase. A generally higher deposit rate level at traditional banks, up from close to 0 at the start of the period, may also require consumer loan banks to raise their deposit rates to attract customer deposits.

There are also differences in the calculation of loan losses. Instead of projecting the loan losses using an estimated model, consumer loan banks' loan losses are set at the highest level possible without the banks collectively being in breach of the capital adequacy requirements. The volume of loan losses is therefore not based on actual historical correlations and developments in macroeconomic variables, but is a

5.14 Annual loan losses as a share of total loans Consumer loan banks



Source: Finanstilsynet

sensitivity analysis showing how large loan losses the banks are able to absorb before capital adequacy falls below the regulatory minimum and buffer requirements.

It is assumed that loan losses follow the same profile as in the general stress scenario, with a significant weakening in the first three years of the projection period before the situation improves somewhat towards the end of the stress period. As a group, the consumer loan banks will be able to meet the capital requirements if aggregate, accumulated losses over the five-year period stand at approximately 34 per cent of the banks' total loans at the start of the stress period. In comparison, 23 per cent of the loans in the consumer loan banks' portfolio were non-performing at end-March 2021. Annual loan losses as a share of total loans will reach a maximum level of 9.8 per cent in 2022 (chart 5.14). However, there are significant differences between the banks in this group, and a number of the consumer loan banks will have problems maintaining their capital adequacy level without receiving capital injections even if losses are considerably lower than 34 per cent.

OVERALL ASSESSMENT OF THE STRESS TEST RESULTS

For several years, Norwegian banks' regulatory capital adequacy ratios have increased and also rose in 2020, primarily because dividends were withheld in line with the authorities' recommendation. Banks' equity ratio (equity capital relative to total assets), which is a traditional measure of financial soundness, has risen, but is not significantly higher now than in the early 1990s. In the baseline scenario, banks' overall capital adequacy is expected to deteriorate somewhat over the next few years on the assumption of a 50 per cent payout ratio. If all profits are retained, banks' capital adequacy will increase.

In the stress scenario, there is a significant overall effect on the banks' capital adequacy. The majority of the banking groups will not fulfil the overall CET1 capital requirement during the stress period, even if the countercyclical capital buffer requirement were to be removed in its entirety. Higher losses on loans to non-financial firms and households constitute the main factor behind the banks' impaired financial strength, although a reduction in net interest income also has an impact.

During turbulent periods, it is important to avoid uncertainty about the banks' capitalisation in the capital markets. The banking industry overall must be well capitalised in order to have the capacity to provide loans to creditworthy customers and not further reinforce the negative economic trend. Significant uncertainty still attends future economic developments. Finanstilsynet stresses the importance of the banks taking this into account in their decisions on dividend payments and other distributions that could weaken their loss-absorbing capacity.

NOTES

[1] In addition to meeting interest and amortisation obligations, operating earnings must cover tax, dividends and self-financing of any new investments and increased liquidity needs. The debt servicing indicator should therefore be significantly higher than 1.
[2] In addition to covering net interest expenses and loan instalments, operating earnings must cover tax. Over time, operating earnings must also be at a level where a certain dividend can be paid to the owners. If the company plans to expand its operations, operating earnings must also usually cover a certain share of self-financed new investments. Any necessary improvement in liquidity will also often have to be partly financed by the company itself.
[3] See, among others, McGowan et.al., 'The Walking Dead Zombie Firms and Productivity Performance in OECD countries', OECD Economics Department Working Papers No. 1372.
[4] See Shekar Aiyar et.al. (2021): 'Covid-19: How will european banks fare?', IMF analysis no. 21/08. COVID-19: How Will European Banks Fare? (imf.org)
[5] See Caroline Roulet (2020): "Corporate Debt Stress Testing: A Global Analysis of Non-Financial Corporations". OECD Working Paper No. 46 2020.
[6] See https://www.bis.org/statistics/totcredit.htm?m=6%7C380%7C669.
[7] Profit is defined as profit after tax plus interest expenses. At the end of 2020, the debt servicing indicator was as follows for the 17 countries in the BIS sample (per cent): 1. France (72.4), 2. Canada (62.0), 3. Sweden (55.8), 4. Norway (51.5), 5. Portugal (47.9), 6. USA (46.5), 7. Netherlands (46.0), 8. Belgium (45.7), 9. Denmark (43.0) 10. South Korea (40.2), 11. Finland (39.1), 12. Spain (38.9), 13. Japan (37.8), 14. Italy (35.0), 15. UK (34.5), 16. Australia (34.0) and 17. Germany (25.1).
[8] See reference in footnote 6 for more international comparisons of non-financial firms.
[9] Loans where more than 90 days have passed since the due date/overdraft and other loans where it is unlikely that the counterparty will be able to meet its obligations ('unlikeliness to pay'), cf. Article 178 of the Capital Requirements Regulation. See also Finanstilsynet's Circular no. 4/2020 (in Norwegian only)
[10] https://www.esrb.europa.eu/pub/pdf/recommendations/esrb.recommendation201215_on_restriction_of_distributions_during_the_COVID-19_pandemic~2502cd1d1c.en.pdf
[11] https://www.regjeringen.no/en/aktuelt/banks-should-apply-caution-in-distributing-profits-in-the-coming-months/id2829325/
[12] Small and medium-sized enterprises are defined in the CRR as enterprises that employ fewer than 250 people and have an annual turnover below EUR 50 million.
[13] https://www.regjeringen.no/no/dokumenter/prop.-147-ls-20202021/id2843611/?ch=1 as well as Finanstilsynet's consultation document (both in Norwegian only).
[14] https://www.norges-bank.no/en/news-events/news-publications/Press-releases/2021/2021-02-01-sil/
[15] Norwegian consumer loan banks are defined as specialised banks where more than half of the loan portfolio consists of unsecured loans to personal customers. At end-March 2021, these banks were Bank Norwegian, Brabank, Eika Kredittbank, Instabank and Komplett Bank.
[16] https://www.fi.se/contentassets/7870cf60763d402baf4e6b4d86d3904f/bankbarometern-2021-1.pdf
[17] https://vff.no/historisk-statistikk (in Norwegian only)
[18] https://www.eiopa.europa.eu/content/eiopa-outlines-key-financial-stability-risks-and-vulnerabilities-insurance-and-pension
[19] Exposure is measured by the ratio of investments in commercial real estate (in the corporate and company portfolios) to equity (the difference between assets and liabilities in the Solvency II balance sheet).
[20] https://www.finansnorge.no/aktuelt/nyheter/2021/01/rekordstor-flytting-av-pensjonskapitalbevis--nodvendig-med-flytteplaner/ (in Norwegian only)
[21] Entities involved in cryptocurrencies that are included in the registry are only subject to AML/CFT inspections, not full inspections. Reference is also made to the following warning about the risks involved in virtual currencies.
[22] In real terms, the decline in house prices and commercial property prices in the stress scenario resembles developments during the banking crisis in the 1980s and 1990s. In the stress scenario, house prices deflated by the consumer price index fall by 43 per cent from 2021 to 2024, while there was a 39 per cent decline from 1987 to 1993. In real terms, there is a 53 per cent reduction in commercial property prices during the stress period (2020-2025), compared with 54 per cent from 1986 to 1992. Real prices are calculated here as annual average property prices divided by the annual average consumer price index.
[23] The EBA's stress test spans three years. In Finanstilsynet's model, a similar effect is distributed over five

years and therefore constitutes a weaker stress factor.
[24] DNB Bank (the banking group), SpareBank 1 SR, Sparebank 1 SMN, Sparebanken Vest, SpareBank 1 Østlandet, SpareBank 1 Nord-Norge, Sparebanken Sør, Sparebanken Møre, Sparebanken Sogn og Fjordane, Nordea Direct Bank, Sparebanken Øst, Sbanken, Storebrand Bank, Helgeland Sparebank, Landkreditt Bank, Sandnes Sparebank, Fana Sparebank, Totens Sparebank and Aurskog Sparebank.
[25] Total interest income less the sum of interest expenses in per cent of average total assets (ATA).
[26] The capital requirements are based on full CRD IV/CRR implementation and a fully phased-in systemic risk buffer. As a technical assumption, the countercyclical capital buffer is set at zero. The CET1 capital requirement, capital conservation buffer, systemic risk buffer, countercyclical capital buffer, buffer for systemically important institutions and the individually determined Pillar 2 requirements are assumed to remain unchanged throughout the period.
[27] Some of the central banks' liquidity measures will affect the leverage ratios of the largest banks. The stress test does not include such effects.

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