



**FINANSTILSYNET**

THE FINANCIAL SUPERVISORY  
AUTHORITY OF NORWAY

# RISK OUTLOOK

## DECEMBER 2020

## 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 DECEMBER 2020

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Cut-off date: 1 December 2020.

Data in the charts last updated on 30 November 2020.

# SUMMARY

Just like the rest of the world, Norway experienced an abrupt and sharp economic downturn when the Covid-19 pandemic triggered strict containment measures and extensive lockdowns in the spring. The Norwegian economy was also hit by low oil prices. Strong government measures helped to reduce financial market turmoil, curb the fall in demand and sustain household income. Lower contagion rates provided the basis for a gradual reopening of society through the summer and expectations of a faster normalisation of the economy than feared when the measures were introduced in March.

During the autumn, several countries have once again experienced a surge in the number of infected people. This has resulted in new lockdowns and other strict measures to slow the spread of the virus, especially in Europe.

Further developments in both the Norwegian and international economy are uncertain and will largely depend on the path of the contagion. In recent weeks, several vaccine manufacturers have announced that vaccines may soon be ready for approval. Access to vaccines will gradually provide a basis for lifting the comprehensive containment measures. Nevertheless, it may be long before economic activity returns to pre-pandemic levels. Some industries may also face lasting changes in demand.

Globally, there is less room for counteracting new economic shocks. High and rapidly increasing sovereign debt restricts the fiscal policy space of a number of countries, while very low key policy rates and the provision of significant liquidity from central banks provide less room for further monetary policy stimulus.

The debt burden of Norwegian households is at a very high level both historically and compared to other countries and constitutes a significant vulnerability for the Norwegian economy. The growth in household debt has slowed somewhat in recent years, but has

picked up since the summer. This year's residential mortgage lending survey shows that a large and increasing proportion of new mortgages is taken out by borrowers with high total debt relative to income. Several borrowers also have large mortgages relative to their property's market value. These factors make a number of households vulnerable to declining incomes, rising interest rates and falling house prices. House prices fell slightly in both March and April 2020, but have subsequently risen. In October, twelve-month growth was 7.1 per cent, which is clearly higher than in the preceding years. This trend must particularly be seen in light of the record-low interest rate level and fiscal policy measures to secure household incomes. As a result of low interest rates, increasing house prices and weaker growth in household income, households' total debt relative to income may grow further in the period ahead.

The Norwegian business sector is to varying degrees affected by the Covid-19 pandemic, the contention measures and the fall in oil prices. Extensive government measures have helped to keep up the level of economic activity in Norway and limited the decline in income for those parts of the business sector that have been most severely affected. Deferred payment of direct and indirect taxes and instalment payment deferrals on bank loans have improved many companies' liquidity situation. The banks' earnings have declined slightly, but are still strong. The fall in interest rates has contributed to narrowing the deposit spread, and loan losses have increased, but thus far only moderately.

International accounting standards require banks to assess the risk of future losses on all loans in their portfolios. Banks' assessments of portfolio credit quality, excluding oil-related exposures, are largely unchanged compared with the start of the year. As major parts of the business sector have experienced a significant decline in income, there is a risk that

potential losses may be underestimated in banks' loss allowances.

The banks' regulatory capital adequacy ratio is high and has risen over the past year. However, this increase can largely be attributed to regulatory changes that do not imply an actual improvement in the banks' financial soundness. Experience from previous crises has also shown that it may take time for the loan losses to be recognised in full in the banks' financial statements. The banks are exposed to industries that are now directly affected by the Covid-19 pandemic. Parts of the commercial real estate sector, which represents the banks' largest corporate exposure, may also be impacted. In addition, the banks are exposed to other industries, such as the oil industry, that may face lasting changes and thus represent a higher risk of losses. Loans to vulnerable households may also be at risk.

The banks must factor in the possibility of a significant rise in loan losses in the coming period. The great uncertainty indicates that the banks should maintain their equity base by retaining profits to ensure that they are well able to provide loans to creditworthy customers even in a situation with high loan losses.

Deposits account for 45 per cent of Norwegian banks' funding. The low interest rate level has resulted in a significant reduction in banks' deposit spreads. As money market rates are close to zero, the loss of income due to the narrow interest margin must be expected to persist, since it is difficult to offer customers negative deposit rates. The low interest rate level will also reduce current returns on banks' liquidity portfolios. Overall, the banks' main source of income, net interest income, is likely to be lower than in the past given the current interest rate level.

The banks have a high proportion of market funding. The market turmoil this spring triggered extraordinary liquidity measures from a number of central banks, including Norges Bank. According to Finanstilsynet, the regulations allow banks, if necessary, to draw on their liquidity reserves in a stressed market situation, but no Norwegian banks

have thus far needed to avail themselves of this opportunity. After rising throughout the first quarter, risk premiums on the banks' funding declined towards pre-pandemic levels during the second and third quarter.

The volume of consumer loans, which grew rapidly for many years, is now declining sharply. There could be several reasons for this. In addition to the economic setback, the introduction of debt registers is probably a contributing factor. An increasing number of loan applications from customers with weak debt servicing capacity are now rejected, as institutions have a better overview of the customer's finances. Parallel to this, the share of non-performing consumer loans is still on the rise. This must be viewed in light of the fact that it may take some time from the loans are taken out until an event of default is identified.

Norges Bank is one of several central banks that have lowered their key policy rate to 0. In consequence of the low interest rate level, investors and small-scale savers seek investments with higher expected returns, but also higher risk. This may lead to the build-up of financial imbalances, with the risk of a subsequent major correction.

A number of Norwegian banks, pension institutions and mutual funds use the derivatives markets to reduce interest rate and exchange rate risk related to funding and investments. The requirement for margin payments to minimise counterparty risk in derivative contracts resulted in significant liquidity challenges for several market participants after the abrupt and sharp depreciation of the Norwegian krone in March 2020. The need for rapid sales of securities may have contributed to reinforcing the impacts on the market.

Pension institutions' performance was severely affected by the fall in equity prices in the spring of 2020. Subsequent strong price increases gave a certain improvement in profits, but the return on the institutions' collective portfolios for the first three quarters of the year is nevertheless weaker than in the corresponding period of 2019. The decline in interest rates makes it challenging to achieve excess returns on guaranteed rate products. Pension institutions have

## SUMMARY

sizeable commercial property investments. Reduced demand for office space, hotel accommodation and to some degree shop premises weakens the current earnings of commercial property companies and may lead to lower property values.

As from 2021, 1.5 million Norwegians who have defined-contribution pensions will get an individual pension account. The aim is to give individuals a better overview of their pensions and to reduce total costs. The scheme may lead to intensified competition and lower prices in the defined-contribution pension market because employers, who will cover asset management costs for active defined-contribution schemes, are expected to be in a better negotiating position than individual holders of pension capital certificates. The introduction may result in extensive transfers of assets between different managers of pension products, and it is important that the institutions have a good infrastructure for handling such transfers without delay and with minimal operational risk. The Ministry of Finance has therefore established transitional rules allowing the transactions to take place over a period from 1 May to end-December 2021.

Overall, non-life insurers enjoy a sound level of profits in spite of the fact that some undertakings have experienced an increase in claims payments related to travel insurance this year. Favourable winter conditions and corona-related reductions in car travel and rush hour traffic have given a rise in profitability within motor vehicle insurance.

The Paris Agreement's aim to mitigate climate change requires a fundamental restructuring of global energy use. For financial institutions and investors, it is important to gain good insight into companies' exposure to transition risk. Finanstilsynet's survey of listed companies' sustainability reporting shows that Norwegian companies provide little information about the risk of changes in future profit levels as a result of the transition to a low emission society. Finanstilsynet will follow up companies' future sustainability reporting.

Internationally, a number of processes are underway to establish classification systems for green investment products and ensure that investors and lenders receive the necessary information. Finanstilsynet will contribute to ensuring that relevant EU legislation is implemented in Norwegian law and will follow up the institutions' adaptations to new regulations in this area. Strong growth in investments in green financial instruments has heightened the risk of overpricing and financial bubbles in this segment.

The Covid-19 pandemic has speeded up the ongoing digitalisation of society. This has several positive aspects, both in the short and long term, but also increases the vulnerability to outages and digital crime. Private individuals, companies and government authorities all risk that their assets or sensitive information are stolen or corrupted. The scale of digital attacks has increased both internationally and in Norway during the pandemic.

## CHAPTER 1 ECONOMIC DEVELOPMENTS AND RISK AREAS

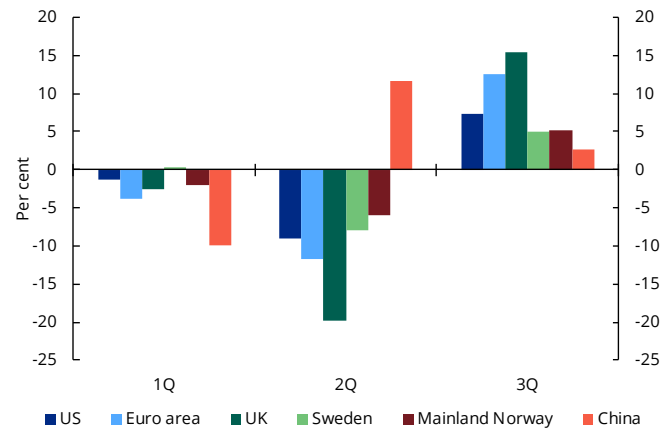
**When the Covid-19 pandemic hit Norway in February, the economy entered the deepest recession since World War II. Massive fiscal policy support measures, interest rate cuts and a gradual reopening of society contributed to a pick-up in activity through the summer. Nevertheless, there has been a sharp drop in earnings in vulnerable industries, and unemployment remains high. At the same time, house prices have increased significantly since the summer, and household credit growth has picked up in recent months. Great uncertainty attends future developments in the Norwegian and international economy.**

### INTERNATIONAL ECONOMY

#### The global economy is severely affected by the Covid-19 pandemic

There was a sharp contraction in global economic activity when the coronavirus spread throughout the world in February 2020. A number of countries shut down society to slow the spread of the virus. Lower infection rates in several countries led to a gradual reopening in the second and third quarter. Combined with strong economic measures implemented by governments, this contributed to a faster than expected rebound in activity, causing greater optimism over the global economy. During the autumn, however, the number of infected people has risen in large parts of the world. In a number of countries, particularly in Europe, the authorities have introduced new lockdowns and other strict measures to slow the spread of Covid-19. This has dampened economic growth. In its new assessment of the euro area, the IMF points out that unless there is a significant change in the infection curve over the next few months, there will be weaker growth prospects for the first quarter of 2021 than indicated in the forecasts presented in October. At the

**Chart 1.1 GDP in selected countries, quarterly growth in 2020**



Sources: Refinitiv and Statista

same time, several vaccine manufacturers have announced that effective vaccines may soon be ready for approval, which could gradually provide a basis for lifting the comprehensive containment measures. Nevertheless, significant uncertainty still attends future economic developments.

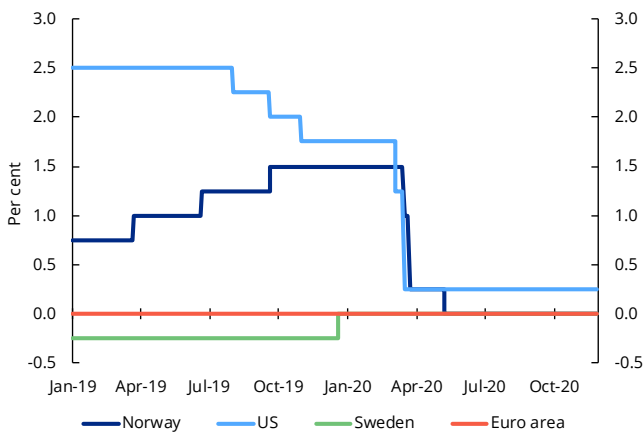
During the spring, the unemployment rate rose markedly in step with the fall in GDP. In several countries, retail trade still picked up relatively quickly in the wake of the gradual reopening. This must be seen in the light of government measures that have helped to sustain household income.

Industrial production has also increased, but is still below the level at the start of the year in most countries. The great uncertainty has resulted in a steep fall in corporate real investment.

#### Considerable cross-country differences

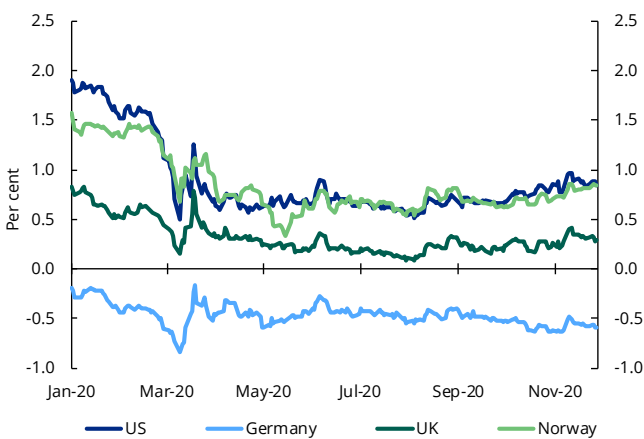
There are large differences between countries. In the second quarter, there was a steeper drop in output in the EU than in the US, though Europe showed the strongest recovery in the third quarter (chart 1.1). The UK experienced a particularly large decline in output in the second quarter as a result of the extensive spread of Covid-19, but also little progress in the Brexit negotiations with the EU. China was the only major country with an increase in GDP in the second quarter, and growth continued in the third quarter.

**Chart 1.2 Key policy rates**



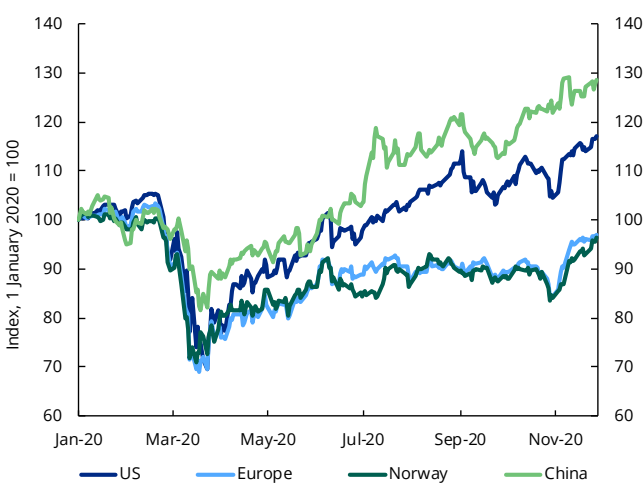
Source: Refinitiv

**Chart 1.3 10-year government bond yields**



Source: Refinitiv

**Chart 1.4 Shares, total return indices**



MSCI indices. Source: Refinitiv

GDP among Norway's main trading partners declined by around 10 per cent from the first to the second quarter, but rebounded strongly in the third quarter.

**International trade has recovered slightly**

After a sudden and sharp fall in international trade in March, the trend has reversed. Since June, there has been a gradual rise in trade. Increased demand for medical equipment and electronics as a result of the pandemic has contributed to increased exports from and imports to China. However, international trade is still not back at pre-pandemic levels.

**Record-low key policy rates and strong liquidity supply keep interest rates down**

Monetary policy is highly expansionary and is expected to remain so over the coming years. Central banks in a number of countries quickly lowered key policy rates in response to the economic downturn (chart 1.2). At the same time, other policy measures, including extraordinary loans to banks, have helped to keep short-term money market rates at a low level. Signals from central banks and market participants' expectations, as reflected in forward rates, indicate that interest rates will remain low for a long time.

Massive quantitative easing by central banks provided significant liquidity to the markets and pushed up prices of government bonds in a number of countries. This led to a marked decline in government bond yields, which have remained low for the past six months (chart 1.3). In November, there was once again a slight uplift in yields on bonds issued by, among others, the US, German and British central bank authorities.

**New stock market upturn**

The Covid-19 outbreak led to an immediate and sharp fall in stock markets (chart 1.4). Risk premiums rose, and expectations for companies' future earnings were lowered appreciably. However, the markets recovered relatively quickly, driven by a surge in the pricing of technology companies. Recently, positive vaccine news has also contributed to the rise. In both the US and China, share prices are now higher than at the start of



2020, though there are differences between the various sectors. Developments have been far weaker in Europe, particularly in the UK.

The rise in stock markets must be seen in the light of the somewhat brighter prospects for the global economy, especially as vaccination is expected to start as early as December in some countries. A very low interest rate level and massive support measures in many countries have also helped to keep up economic activity. See chapter 4 for a fuller account of the securities markets.

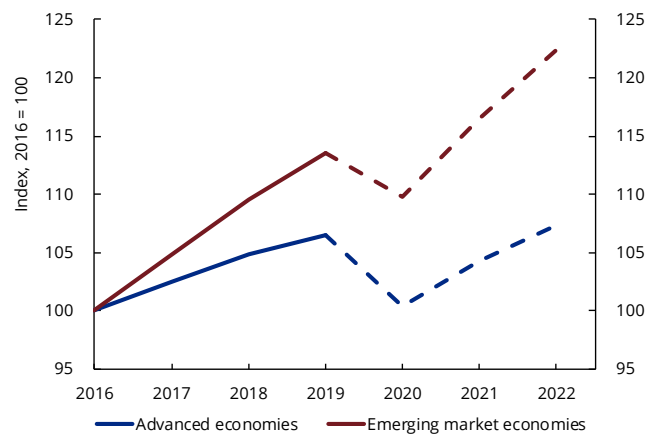
### Low oil prices

The significant decline in production and demand triggered by the pandemic resulted in falling prices of a range of commodities. There was a particularly large reduction in the price of oil, which was exacerbated in early March by the disagreement on production cuts between the OPEC countries and Russia. In April, agreement was reached between OPEC and a number of other countries to reduce production. This led to a slightly better balance in the oil market, and prices increased. After hovering around USD 40 per barrel over the preceding six months, oil prices rose slightly in mid-November. The price of aluminium has risen gradually since the summer and is now about 10 per cent higher than at the start of the year. However, the price of fresh salmon has fallen sharply and was 37 per cent lower at end-November than at year-end 2019.

### Future developments are highly uncertain

Both the OECD and the IMF stress that the global economic outlook remains highly uncertain. Economic developments are negatively affected by the resurgence of infections during the autumn and renewed lockdowns in a number of countries. This is to some degree counteracted by new economic measures introduced by the authorities. Prospects that the vaccination of vulnerable groups may be carried out during the first half of 2021 give reason to expect a quick rebound in economic activity. However, the pandemic and the lockdowns have had very different consequences for the various industries, and it is difficult to predict whether this will lead to lasting changes in economic activity. For example, structural

Chart 1.5 Developments in the global economy (GDP)



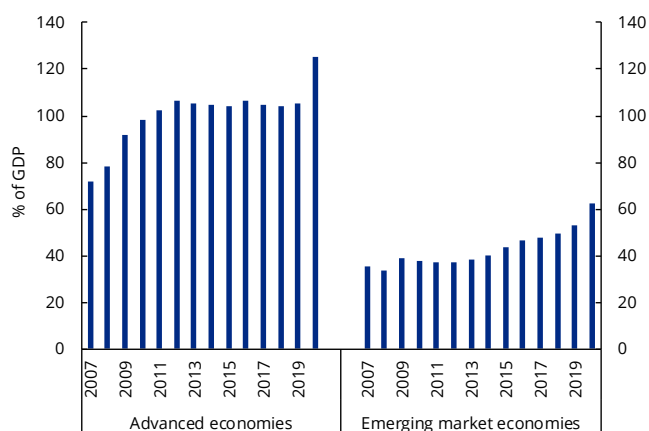
Sources: IMF and Refinitiv

unemployment may increase as a result of a wider gap between workers' qualifications and companies' needs.

In October, the IMF projected a 4.4 per cent contraction in global economic activity. This is somewhat less severe than previously estimated and is due the fact that output picked up slightly more than anticipated in June. However, infection figures have increased sharply since September, and many countries have reintroduced a partial lockdown of society. The IMF projects global growth at 5.2 per cent in 2021. In December, the OECD published new forecasts according to which global GDP is expected to fall slightly less in 2020 than in the IMF's projections, while the recovery in 2021 is expected to be weaker. The IMF does not expect output levels in advanced economies to reach the level at year-end 2019 until towards the end of 2021 (chart 1.5). The OECD assumes that the recovery will take even longer and also highlights the significant cross-country differences. While only China is expected to experience positive growth in the current year, forecasts suggest that output will not decline in any major countries in 2021. Particularly high growth is expected in emerging market economies in Asia.

As a result of the great uncertainty, both the OECD and the IMF have prepared alternative pathways for global economic growth. In the downside scenario, it is assumed that the pandemic will continue through

Chart 1.6 Public debt



Source: IMF

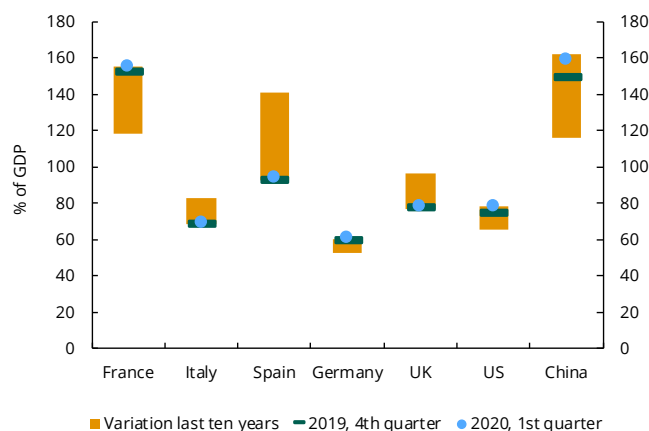
2020 and that the containment measures and extent of vaccination are not sufficient for the pandemic to subside in 2021. The global economy will then grow by just over 2 per cent in 2021, and output will not reach pre-pandemic levels during the projection period, which runs to 2025.

Even if the pandemic subsides, economic scars may cause slower growth. The sharp decline in 2020 has caused greater uncertainty and may have contributed to households becoming more cautious and firms cutting down on their investments. Structural changes caused or accelerated by the pandemic could lead to more bankruptcies and higher unemployment. While this is necessary in order to achieve renewed economic growth in the long term, the process may lead to a prolonged period of slower growth. Vulnerabilities built up over recent years, such as high debt in both the private and public sector in some countries, may contribute to reinforcing and prolonging the economic downturn. Trade restrictions and political tensions between countries, which were escalating before the pandemic hit, could also lead to lower-than-anticipated growth.

**The pandemic heightens the risk of financial instability.**

Despite a historically severe setback in the global economy, risk premiums and pricing in financial markets in most countries are largely the same as prior to the pandemic. The ECB and the IMF believe

Chart 1.7 Debt in non-financial firms



Sources: IMF and BIS

that an apparent disconnect between the real economy and stock markets represents a key risk factor. Significant liquidity supplies and fiscal policy support measures have helped to stabilise the markets, raise investor confidence and maintain credit supply. If the economic recovery fails to materialise, investors' optimism could turn into pessimism. This could lead to a stock market decline, high volatility and more restricted access to financing for non-financial firms. Insurers may also be adversely affected by portfolio losses, and banks' funding costs may increase.

**High and rapidly increasing public debt in many countries**

The economic downturn and extensive fiscal policy measures have resulted in substantial budget deficits in many countries. Several of the countries had large budget deficits and high debt levels even before the onset of the Covid-19 pandemic, as well as significant long-term challenges due to an aging population. The IMF projects a strong increase in public debt in 2020 (chart 1.6). This may call the sustainability of government finances in some countries into question.

**High debt in non-financial firms**

The stimulus measures implemented by a number of countries have helped to prevent bankruptcies in non-financial firms in the short term, but have led to an increase in the firms' debt burden. Non-financial firms in several countries already have a high debt level (chart 1.7).

Chart 1.8 GDP Mainland Norway, monthly figures



Sources: Statistics Norway and Refinitiv

High debt in a number of firms means that they may be severely affected by new or prolonged lockdowns, structural changes in the economy and reduced access to liquidity and capital. Defaults and bankruptcies may increase significantly in several industries. This could lead to difficulties for a banking sector that is already under pressure in a number of countries, particularly in Europe, where earnings have been weak and default rates high.

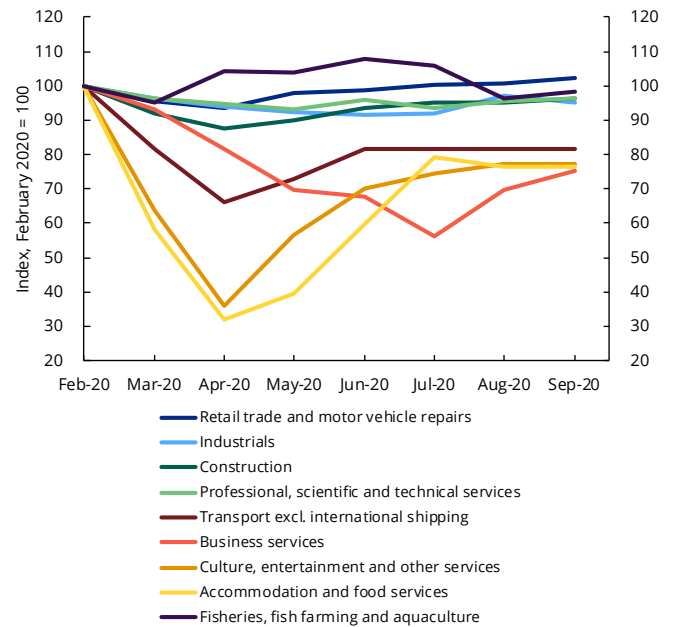
## NORWEGIAN ECONOMY

### Gradual recovery

Economic activity in Norway plunged in March and April 2020 as a result of rising infections and economic lockdowns (chart 1.8). The Norwegian economy was also hit by low oil prices. As a number of the restrictions were lifted, the level of activity picked up to some degree. Overall, mainland GDP has shown positive, but declining growth every month since June. However, there are large difference across industries (chart 1.9).

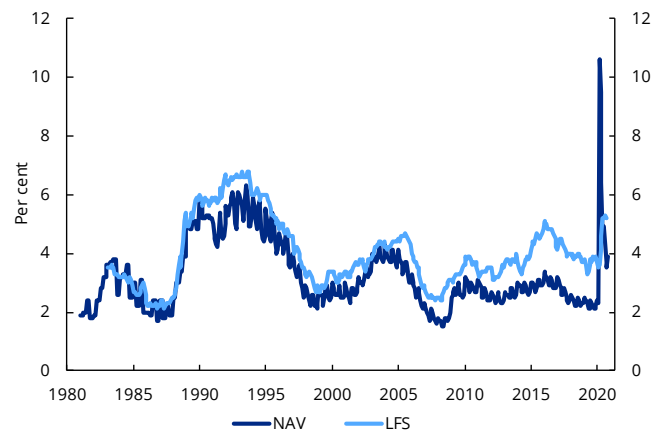
Forecasts for the Norwegian economy have improved somewhat since spring 2020. However, there is substantial uncertainty surrounding future economic developments, partly due to the increase in infections and new lockdowns throughout the autumn. Even if positive vaccine news is released, it could take a long time for output and employment to return to pre-crisis levels.

Chart 1.9 Gross output in selected industries\*



\* Constitutes about 40 per cent of mainland GDP.  
Source: Statistics Norway

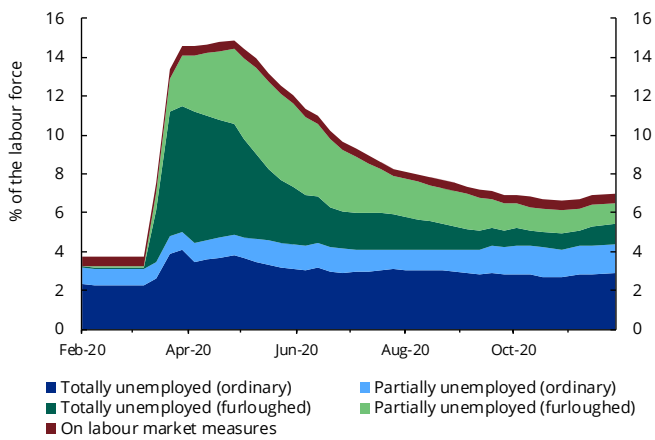
Chart 1.10 Unemployment in per cent of the labour force<sup>1</sup>



Sources: NAV, Statistics Norway and Refinitiv

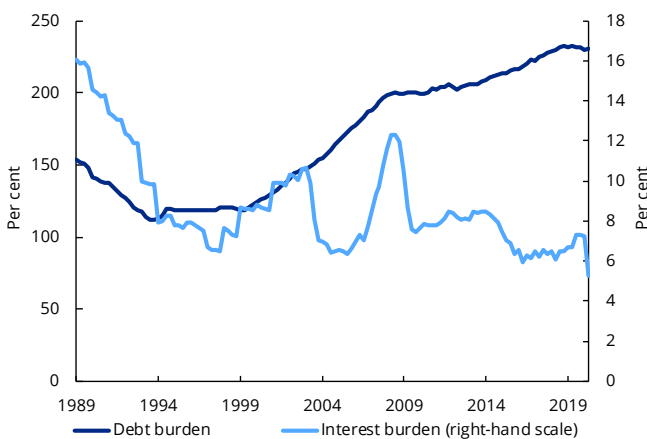
Unemployment registered by the Norwegian Labour and Welfare Administration (NAV) rose dramatically in the first few weeks after the March lockdown (chart 1.10). The increase was mainly driven by a large number of furloughs. Some of the furloughed employees have gradually returned to work (chart 1.11).

**Chart 1.11 Registered unemployment, groups**



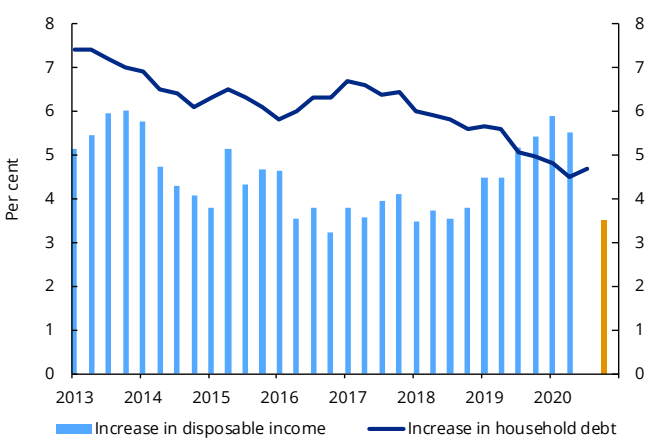
Sources: NAV and Finanstilsynet

**Chart 1.12 Households' debt burden and interest burden**



Sources: Statistics Norway and Finanstilsynet

**Chart 1.13 Twelve-month growth in households' debt and disposable income**



Quarterly data. The yellow column is Statistics Norway's forecast for 2020. Sources: Statistics Norway and Finanstilsynet

Powerful measures have been taken to curb the decline in output and employment and reduce the risk of long-term negative consequences for the economy. Norges Bank's key policy rate has remained unchanged at 0 per cent since May, and the central bank indicates that the policy rate will remain at the current level for quite some time. In addition, emergency fiscal policy measures have been introduced, aiming primarily to compensate for the loss of income in the private sector and prevent a rise in bankruptcies and job losses.

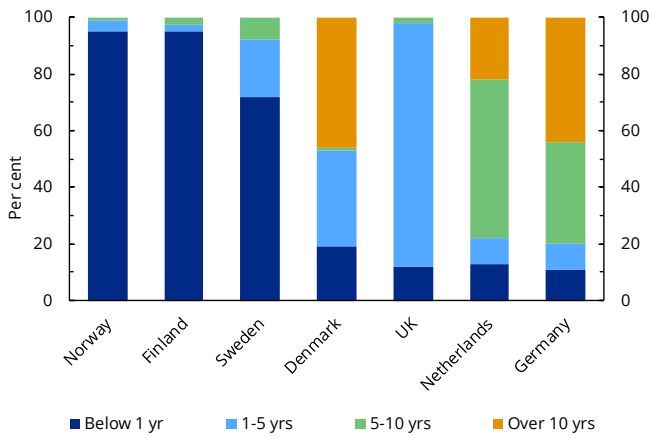
**High debt burden in a number of households**

A high household debt burden represents a particular vulnerability for financial stability in Norway. Total household debt is estimated to represent 123 per cent of GDP for mainland Norway and 231 per cent of households' disposable income in 2020 (chart 1.12). These are very high levels, both historically and in an international context. Whereas the debt burden has been somewhat reduced in many OECD countries after the financial crisis, it has risen for Norwegian households. At the same time, the share of households with a high debt-to-income ratio has increased markedly in recent years. This means that a higher percentage of households are more vulnerable to an increase in interest rates and/or income shortfalls than in the past.

The growth in households' domestic debt has slowed somewhat in recent years, but has picked up again over the past few months (chart 1.13). Owing to prospects of a prolonged low interest rate level and continued house price growth, there is a risk that households' debt burden will increase further in the period ahead.

Households' average interest burden, measured as interest expenses in per cent of disposable income before interest expenses, is at a historically low level. This is largely attributable to the low interest rate level, which, despite the increase in debt, has led to a decrease in households' interest expenses as a share of household income. Only a small proportion of Norwegian households' debt carries fixed interest rates (chart 1.14). This proportion has been low for

**Chart 1.14 Share of fixed-rate mortgages**



Sources: European Mortgage Foundation and Statistics Norway

several years and has not increased much after the interest rate decline, which means that rising interest rates will quickly result in higher household interest expenses.

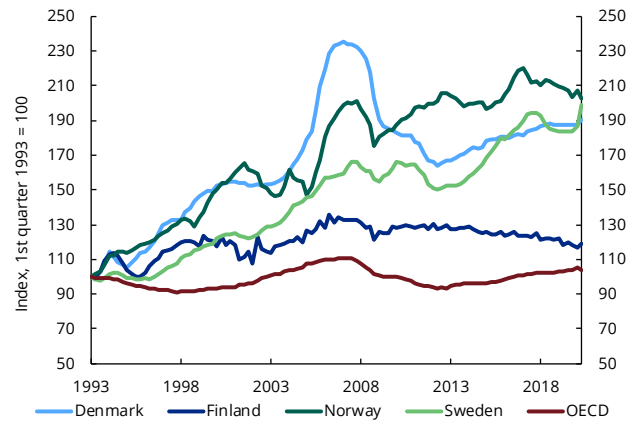
**House price growth has picked up**

Developments in house prices and household debt are closely interrelated. Higher house prices give a rise in housing wealth and provide scope for increased borrowing secured on residential property. In turn, greater access to credit enables borrowers to buy more expensive homes. Over time, this interdependence has contributed to strong growth in both debt and house prices. House prices in Norway have increased considerably over a long period of time and significantly more than disposable income per capita (chart 1.15).

House prices fell slightly in both March and April 2020. Parallel to this, strict restrictions put a damper on activity levels, a large number of employees were furloughed, and oil prices plunged. In the subsequent period, however, house prices have risen every month (chart 1.16). This price trend must particularly be seen in the light of the record-low interest rate level and fiscal policy measures to secure household incomes.

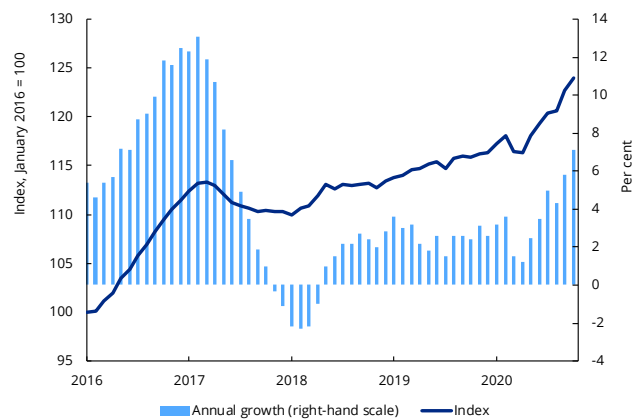
Finanstilsynet’s residential mortgage lending survey shows that a higher proportion of new instalment loans are granted to borrowers with a debt-to-income (DTI) ratio of around 5 (chart 1.17). Finanstilsynet also

**Chart 1.15 House prices deflated by disposable income per capita. Selected countries**



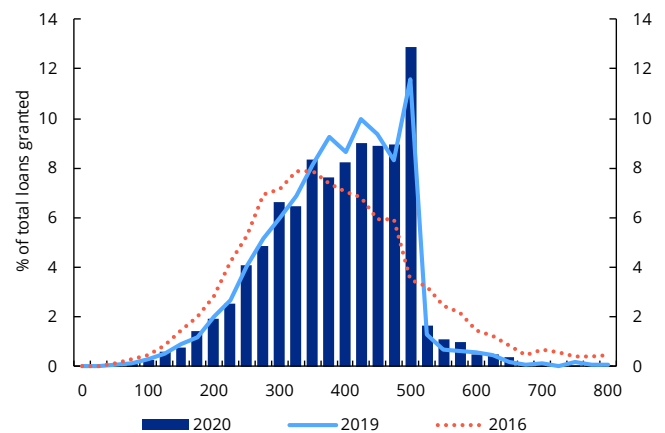
Source: OECD

**Chart 1.16 House prices**



Sources: Real Estate Norway, Finn.no, Eiendomsverdi and Refinitiv

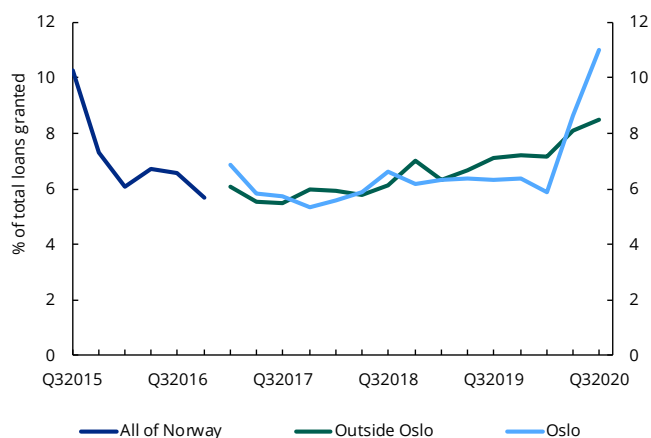
**Chart 1.17 New instalment loans according to DTI ratio**



The points on the x-axis represent the upper limit for the DTI ratio in 25 percentage point intervals.

Sources: Residential mortgage lending survey and Finanstilsynet

**Chart 1.18** Granted loans in breach of the requirements of the residential mortgage lending regulations<sup>2</sup>



Source: Finanstilsynet

obtains reports from 24 financial institutions and branches of foreign institutions which show an increase in the share of loans granted that do not meet the requirements of the residential mortgage lending regulations. The share of mortgages in Oslo that did not meet one or more of the requirements was 5.9 per cent in the first quarter of 2020. In the third quarter, this had increased to 11.5 per cent (chart 1.18). Failure to meet the requirement for maximum debt of five times income has become an increasingly dominant reason why residential mortgages in Oslo are non-compliant.

Outside Oslo, the share of mortgages that failed to meet one or more of the requirements of the regulations was 7.1 per cent in the first quarter of 2020. This had increased to 8.6 per cent in the third quarter. These loans are also primarily in breach of the requirement for a maximum debt-to-income ratio of five times income, although it is not as predominant relative to the requirements for debt servicing capacity and loan-to-value (LTV) ratio.

In October, house prices in Norway were 7.1 per cent higher than in the corresponding month in 2019. House prices in Oslo had increased by 9.5 per cent. Parallel to this, activity in the secondary market has picked up again. The number of residential properties sold during the first ten months of 2020 was higher than in the corresponding period in 2018 and 2019.

Both Norges Bank and Statistics Norway expect a continued rise in house prices.

### Commercial real estate

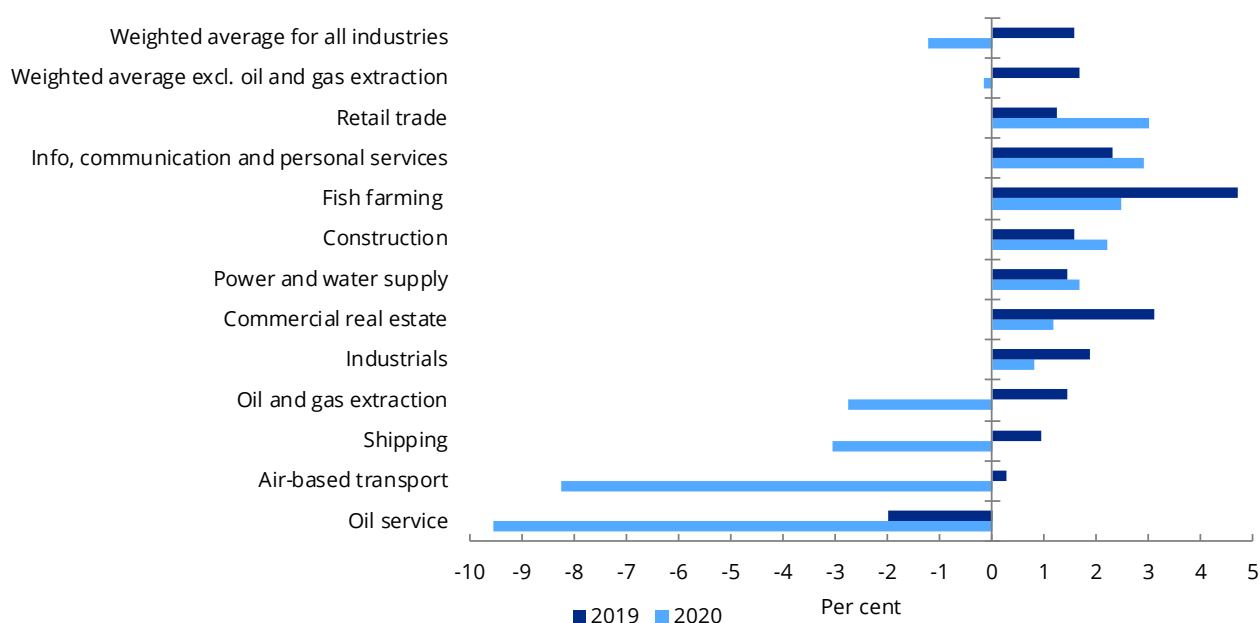
The demand for commercial real estate is closely linked to developments in the business sector. In Oslo, the average rent level in new commercial real estate contracts has fallen significantly, but there are large differences across segments. The steepest fall in rental prices is reported for small shop premises in central urban areas as a result of lower turnover. Within online shopping and at the major shopping centres, there has been a boost in turnover during the pandemic. The market for this type of commercial real estate has therefore not been adversely affected by the pandemic to date.

Reduced travel has resulted in a significant decline in turnover in the hotel industry. There has been a particularly large reduction for large city hotels, while smaller boutique hotels have fared relatively better. With respect to office space, the need for greater flexibility and adaptability as a result of the Covid-19 crisis and uncertain future prospects have given rise to new and more flexible contract types. Among other things, growth companies may need to accommodate their office space as the business expands, for example by combining their own permanent premises and reserve capacity in 'office hotels'. This may ensure more effective space utilisation for the companies, while rental companies may be left with a greater share of the risk of vacant premises and short-term leases.

Commercial property companies account for the largest share of banks' loans to non-financial firms, and this sector is thus very important for banks' earnings and financial soundness. Insurance undertakings are also heavily exposed to commercial real estate in their role as investors. See further account in chapters 2 and 3. Many commercial real estate loans are relatively large. Norges Bank has pointed out that large loan exposures may represent a disproportionate risk, both for the individual bank and for the economy as a whole. The reason for this is that losses on such



**Chart 1.19 Profit after tax in per cent of total assets. Three first quarters of 2019 and 2020. Norwegian non-financial firms excl. firms listed on Oslo Børs**



Sources: Refinitiv and Finanstilsynet

exposures may have a strong bearing on banks' portfolio returns and thus have a macroeconomic ripple effect whereby other customers also get reduced access to credit and/or increased interest rates.

### Rest of the business sector

Just like in other countries, parts of the Norwegian business sector have been hit hard by the Covid-19 pandemic. Extensive government support measures aimed at both businesses and households have so far helped to mitigate the negative effects. Moreover, there are signs that the tax authorities and many suppliers and creditors have so far been hesitant to issue bankruptcy petitions. At the end of April, the Storting (Norwegian parliament) passed a temporary Act on reconstruction to remedy financial distress caused by the outbreak of Covid-19. The Act entered into force on 11 May<sup>3</sup>. Partly due to these measures, there has been no marked increase in the number of bankruptcies thus far this year compared to previous years. However, the number of bankruptcy petitions may increase substantially during 2021.

There was a significant reduction in Norwegian listed non-financial firms' aggregate profits after tax for the first three quarters of 2020 compared with the corresponding period in 2019. Relative to total assets, profits declined from 1.6 per cent in 2019 to -1.2 per cent in 2020 (chart 1.19). The most pronounced reduction has been recorded within 'service', 'air-based transport' and 'shipping', where profits in per cent of total assets have declined from already weak levels in 2019. Some industries, including 'retail trade', have seen an improvement in profits compared with the first three quarters of last year. Industries with negative profits after tax accounted for almost 60 per cent of the total debt of the Norwegian non-financial firms listed on Oslo Børs at end-September 2020. Developments in the fourth quarter remain uncertain, but it is realistic to assume that some industries will be negatively affected by new lockdowns and stricter containment measures.

Hard-hit industries such as accommodation, food services, tourism, culture and entertainment and land-based transport are not included in chart 1.19 as they

are not represented by separate companies on Oslo Børs. While a large proportion of employed persons in Norway work within these industries, they have a small share of non-financial firms' total assets and liabilities. Gross output in these industries has fallen sharply since end-February.<sup>4</sup>

### Norwegian financial institutions are exposed to Climate change adaptation

The Paris Agreement's goal of keeping the global temperature rise below 2 degrees Celsius will require a fundamental restructuring of global energy use. Many countries have recently set more ambitious targets for cuts in greenhouse gas emissions. In September 2020, the European Commission proposed to raise the EU's ambition on reducing greenhouse gas emissions from 40 to at least 55 per cent below 1990 levels. In February 2020, the Norwegian government submitted an enhanced climate target under the Paris Agreement to reduce emissions by at least 50 per cent and by up to 55 per cent compared to 1990 levels.

Climate change causes new economic and financial uncertainty. There is uncertainty about the extent and speed of climate change, what climate policy measures will be implemented and the economic consequences of climate change and related measures. Uncertainty also attends technological developments, such as methods for carbon capture and storage and the development of and costs relating to renewable energy. For financial institutions and investors, it is important to gain greater insight into companies' exposure to transition risk. Although climate risk has received increased attention in recent years, Norwegian companies provide little information about the financial consequences of sustainability and climate risk.<sup>5</sup> Reported climate risk is generally not quantified and taken into account in the valuation of companies' assets and liabilities. Finanstilsynet will follow up companies' future sustainability reporting.

At the UN Climate Action Summit in autumn 2019, Norway joined an initiative by Switzerland, the Netherlands and the independent think tank 2° Investing Initiative (2DII) to bring financial institutions' portfolios in alignment with the goals of the

Paris Agreement. Financial institutions (insurers, pension funds, banks and investment firms) will be offered a tool developed by 2DII for analysis and climate risk management of their securities and lending portfolios. The initiative aims to achieve a coordinated analysis in a number of countries. The Ministry of Finance and the Ministry of Climate and Environment will give Norwegian financial institutions the opportunity to test the tool in early 2021. Finanstilsynet will assist in this process. See also a description of the IMF's analysis of climate risk for Norwegian banks in chapter 2.

In the spring of 2020, the Network for Greening the Financial System (NGFS), of which Finanstilsynet and Norges Bank are members, announced climate scenarios that can be used to analyse transition risk in financial institutions. The scenarios are not forecasts, but draw up pathways that financial institutions and supervisory authorities may use in their own scenario analyses and stress tests.<sup>6</sup>

### Cyber risk

The Covid-19 pandemic has helped to speed up the ongoing digitalisation of society, including processes related to how we work, act and pay. Over time, this may entail significant gains to society. However, increased digitalisation also leads to greater vulnerabilities associated with operational incidents and various forms of cyberattacks. Private individuals, businesses and public authorities all risk that their values and/or highly sensitive information fall into the wrong hands or are misused.

Remote working has increased sharply as a result of the pandemic. This challenges the security of companies' ICT solutions as new functions are performed from home, the scope of such work increases and the companies do not have sufficient control over the networks employees use when connecting from their home office.

Cyberattacks, such as hacker attacks, ransomware attacks and fraud campaigns, have increased in recent years in both number and severity. Such attacks may come from both private actors and foreign states and



can be very difficult to detect. Although financial sector firms are also experiencing an increase in unwanted activity, use of the Covid-19 pandemic as part of the attack has not in itself led to a particular increase in the number of security breaches.

The number of digital security incidents in Norwegian financial institutions has increased slightly from 2019 to 2020. At the same time, the reported incidents show that they have thus far had few consequences for the institutions. There has been a slight increase in so-called phishing aimed at obtaining payment information, but these attempts have rarely been aimed directly at banks.

With respect to losses resulting from payment card fraud and fraudulent account payments (online banks), the figures for the first half of 2020 appear to be somewhat lower than in the second half of 2019, which may indicate that both regulatory requirements and the banks' measures are functioning as intended.

The European Commission has proposed new digital operational resilience legislation (DORA). The proposal sets a number of requirements for enterprises' work on ICT security, as is also the case in Finanstilsynet's ICT Regulations.

## CHAPTER 2 BANKS

The Covid-19 pandemic has led to weaker results in Norwegian banks thus far in 2020. The results were particularly weak in the first quarter as a consequence of large impairment losses and improved in subsequent quarters. The decline in interest rates has given a reduction in banks' net interest income. As a group, Norwegian banks have nevertheless maintained a relatively healthy level of profits, and the banks' credit supply has not been curtailed. This must be seen in the light of the strong fiscal and monetary policy measures that have helped to dampen the pandemic's negative impact on the Norwegian economy. Partly due to regulatory changes, Norwegian banks' capital adequacy ratios were well above prevailing requirements at end-September 2020. The banks must factor in the possibility of a significant rise in loan losses in the coming period. The great uncertainty indicates that the banks should maintain their equity base by retaining profits to ensure that they are well able to provide loans to credit-worthy customers even in a situation with high loan losses.

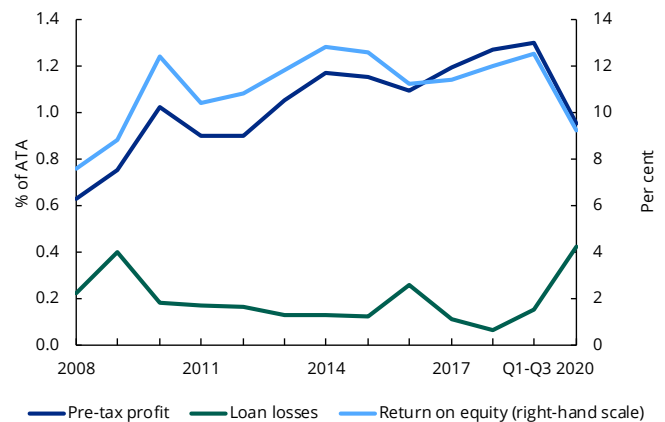
### BANKS' PROFITABILITY

Norwegian banks have enjoyed sound profitability in the period following the international financial crisis just over a decade ago. Overall, the banks' average return on equity in the period 2009-2019 was just over 11 per cent (chart 2.1). Low loan losses were a key factor behind the strong performance. At the same time, net interest income increased and operating expenses decreased relative to total assets.

### HIGHER LOAN LOSSES HAVE A NEGATIVE EFFECT ON PROFITS

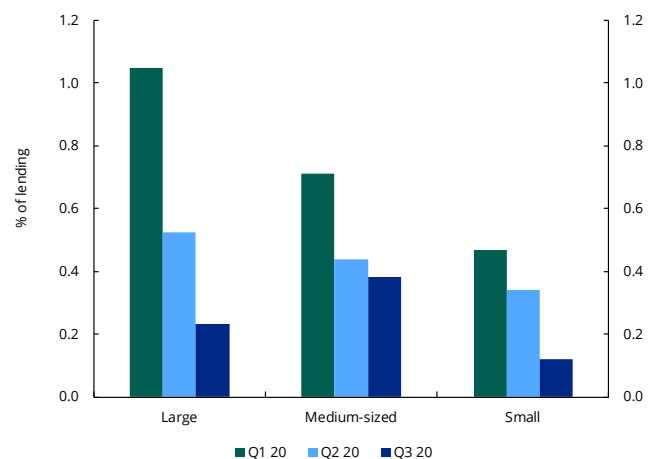
The banks have recorded sizeable loan losses thus far this year, mainly representing increased impairment losses on problem loans in the offshore industry. However, the sharp downturn in the Norwegian economy after the Covid-19 outbreak has also required an increase in impairment losses. Banks' loan losses

Chart 2.1 Banks' profitability



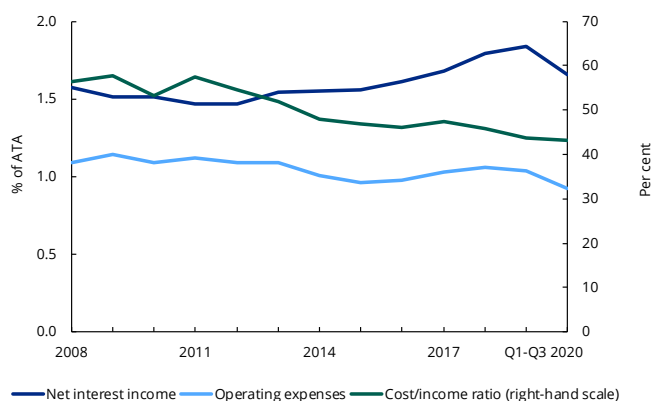
Source: Finanstilsynet

Chart 2.2 Loan losses per quarter in 2020, groups of banks



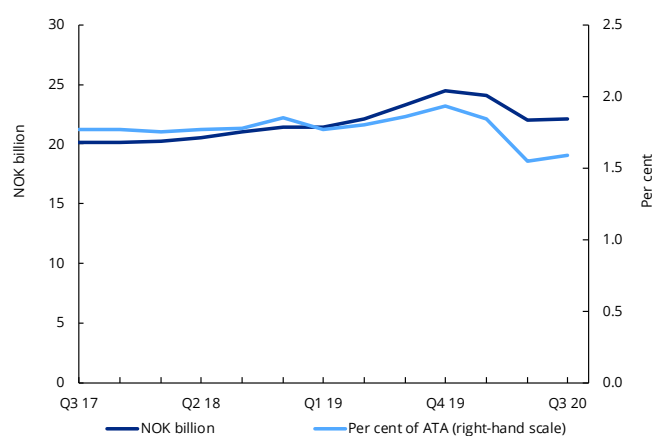
Source: Finanstilsynet

Chart 2.3 Banks' net interest income and operating expenses



Source: Finanstilsynet

Chart 2.4 Banks' net interest income per quarter



Source: Finanstilsynet

represented 0.6 per cent of total lending for the first three quarters of 2020, compared with 0.2 per cent a year earlier. The banks recorded particularly large impairment losses in the first quarter, while losses declined over the next two quarters (chart 2.2).

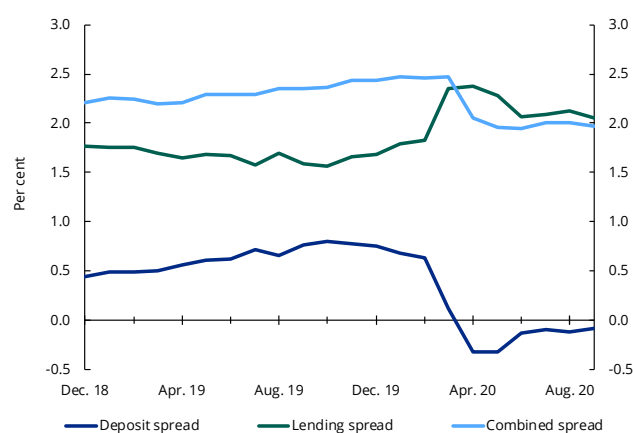
This is the highest loan loss level since 2002. At the same time, banks' income has shown a negative trend this year. After a protracted rise in net interest income, interest rate cuts in the first half of the year led to a significant reduction in banks' net interest income (chart 2.3).

### LOWER INTEREST RATES PUT PRESSURE ON THE BANKS' MAIN SOURCE OF INCOME

Norwegian banks' main source of income is net interest income, i.e. the difference between interest income and interest expenses. In recent years, net interest income has accounted for about three-quarters of the banks' total operating income. Net interest income as a share of total assets has expanded in recent years (chart 2.3). This trend was reversed in the first half of 2020 (chart 2.4). There was a particularly steep decline in the second quarter as the banks started to adapt to the lower key policy rate towards the end of the first quarter and in the second quarter.

In the spring of 2020, Norges Bank reduced its key policy rate on three occasions, from 1.5 per cent to zero, to mitigate the economic consequences of the pandemic outbreak. The money market rate decreased

Chart 2.5 Banks' interest spreads per month

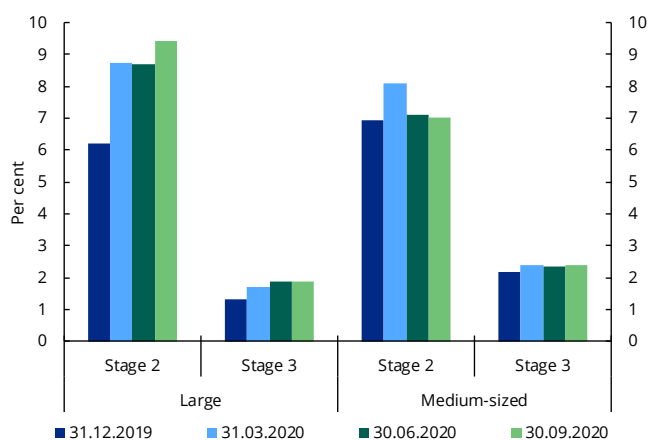


Source: Statistics Norway

in step with the rate cuts. In a normal situation, banks usually implement parallel interest rate adjustments on loans and deposits, whereby the spread between them remains relatively stable. Forceful economic policy measures created strong expectations of a rapid reduction in banks' lending rates. Banks' corporate exposures are generally priced at an agreed margin above a reference rate, usually Nibor, which means that short-term market rate fluctuations are not reflected in interest spreads as quickly as in the personal customer market. Owing to the two-month notification period for reductions in deposit rates, banks were unable to lower deposit rates parallel to lending rates. This led to a sharp contraction in the deposit spread in March and April (chart 2.5). The effects of several years of widening deposit spreads, which helped to raise net interest income, were thus reversed. At end-September, the deposit spread was still negative.

Deposits from customers account for 45 per cent of the banks' total funding. Low, even negative, margins on a large part of their deposit funding thus have a significant negative effect on banks' earnings. If money market rates remain close to zero for a protracted period, it will be difficult to achieve a material increase in the deposit spread, as it is problematic to offer customers negative deposit rates. Lower interest income on equity in consequence of the low interest rate level is another factor behind the reduction in banks' net interest income so far in 2020.

**Chart 2.6 Share of loans with heightened credit risk, groups of banks**



Source: Finanstilsynet

### **BANKS' LOSS ALLOWANCES SHOULD REFLECT EXPECTED LOSSES**

Norwegian banks have recorded low loan losses in the years following the international financial crisis, but have increased their loss allowances since the outbreak of the pandemic. Losses were particularly high in the first quarter, especially on exposures to oil-related industries. For the first three quarters of the year, banks' overall losses correspond to 0.6 per cent of lending volume (annualised), which is the highest level since 2002.

IFRS 9 replaced IAS 39 as the accounting standard for financial assets on 1 January 2018.<sup>7</sup> Under IFRS 9, institutions shall recognise an allowance for expected losses based on reasonable and supportable information available at the reporting date about past events, current conditions and forecasts of future conditions. Expected losses should be based on an unbiased and probability-weighted analysis of alternative outcomes. In the calculation of expected losses, financial assets should be placed in one of three stages. Stage 1 comprises healthy loans, and loss allowances are calculated on the basis of 12-month expected credit losses. Loans should be transferred to stage 2 when there has been a significant increase in credit risk since initial recognition. Credit-impaired loans should be transferred to stage 3. A loan is considered to be credit-impaired when one or more events that have a negative effect on estimated future cash flows

have occurred. With respect to stage 2 and stage 3 loans, loss allowances should be calculated on the basis of lifetime expected credit losses.

It is challenging to estimate expected credit losses. The outbreak of the Covid-19 pandemic has led to a sharp economic downturn and considerable uncertainty about economic developments both internationally and nationally. Government measures in Norway have so far helped to limit the negative impact in many industries, and expanded furloughing schemes have protected most wage earners from major financial problems. The duration of the pandemic and the scope of various government measures will affect future economic developments. Banks' projections must be unbiased and based on scenarios that reflect their best estimate of future macroeconomic trends based on externally available information.

During a boom or a moderate recession, loan losses are usually low. However, during a severe economic downturn, losses may be very high, and it is important that banks take this into account when calculating expected losses.

As there are prospects of significantly weaker economic developments than expected at the start of 2020, a natural consequence would be an increase in the proportion of loans deemed to be credit-impaired or to have heightened credit risk.

Figures for the major Norwegian banks<sup>8</sup> show that 8 per cent of loans were considered to be subject to a significant increase in credit risk at the beginning of 2020. At end-March, when there was particularly great uncertainty about the Covid-19 pandemic and its economic consequences, this share increased to 10 per cent. Stage 2 loans showed the highest increase. In the following two quarters there were only minor changes. The increase in stage 2 and stage 3 since the turn of the year stems largely from the large banks<sup>9</sup> (chart 2.6). Several of these have sizeable exposures to oil-related industries, see more detailed account below. On balance, the share of loans in medium-sized Norwegian banks considered to have increased credit risk is virtually unchanged since year-end 2019. Banks'

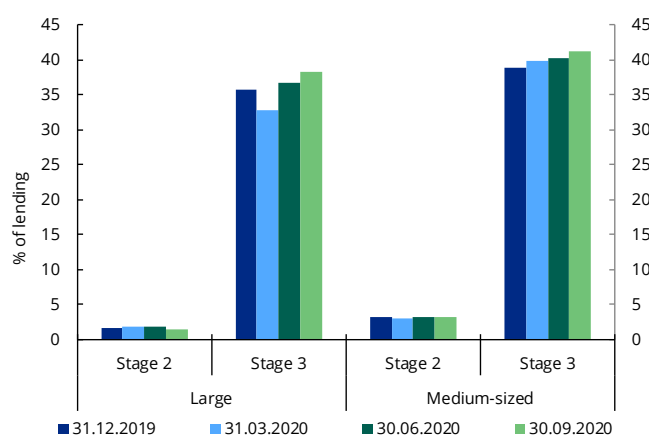
assessment of credit quality since the turn of the year is surprising in the light of the sharp financial downturn resulting from the Covid-19 crisis, during which large parts of the business sector have suffered substantial revenue losses. In this connection, reference is made to the accounting standard's requirements concerning banks' loss assessments. The loss allowance level for stage 3 loans has increased slightly through 2020 for both large and medium-sized banks (chart 2.7).

The banks recorded particularly large loss allowances for loans to oil-related industries, which must be viewed in the light of the fact that parts of these industries have long experienced weak profitability and overcapacity. The Covid-19 pandemic and lower oil prices have reinforced these challenges. Oil-related industries are also particularly susceptible to climate risk as a result of the transition to a low-emission society, see account in Box 1.

Finanstilsynet regularly monitors the four largest banks' exposure to customers in the offshore industry. At end-September 2020, the total offshore exposure of these banks was approximately NOK 54 billion, on a level with year-end 2019 and down NOK 22 billion since end-December 2016. This portfolio accounts for approximately 4 per cent of these banks' total corporate market exposure. Some NOK 42 billion of the exposure refers to the supply and seismic segments and approximately NOK 12 billion to the rig segment. Total loss allowances and write-offs in the portfolio came to NOK 16.4 billion at end-September 2020, which is NOK 5.7 billion higher than at the start of the year. Write-offs represented approximately NOK 5.1 billion of total losses. Of the remaining loss allowances of NOK 11.3 billion, NOK 0.9 billion referred to stage 2 loans and NOK 10.4 billion to stage 3 loans. This corresponded to 21 per cent of the total offshore portfolio of these four banks, which is an increase of 9 percentage points since the end of 2019.

In Finanstilsynet's opinion, there is still considerable downside risk to the banks' offshore portfolios. Thus far, there has been limited scrapping of ships in this industry, and a large number of vessels remain laid up,

**Chart 2.7 Loss allowances in per cent of stage 2 and stage 3 loans, groups of banks**



Source: Finanstilsynet

causing a significant supply surplus. New restructuring agreements have been entered into in 2020, and other restructuring processes are ongoing. As a result of recent restructuring, banks have made more extensive use of the option to convert outstanding loans to shares in the companies than in the past.

### Box 1: The IMF's analysis of climate risk for Norwegian banks

In November 2020, the IMF published an analysis of climate risk in Norwegian banks\*. The analysis was part of the IMF's review of the Norwegian financial system conducted in 2019-2020 (Financial System Stability Assessment, FSAP). In the report, the IMF points to the key role of the oil industry in the Norwegian economy and the risks facing Norway and Norwegian banks in the transition to a low-carbon economy. The analysis focuses on the implications of climate policy measures in the form of higher carbon taxes.

The calculations show that a sharp increase in carbon prices will reduce the debt servicing capacity of Norwegian firms with high carbon emissions. In the IMF's opinion, the debt servicing capacity, measured by the ratio of earnings

\*<https://www.imf.org/en/Publications/WP/Issues/2020/11/08/Climate-Related-Stress-Testing-Transition-Risks-in-Norway-49835>

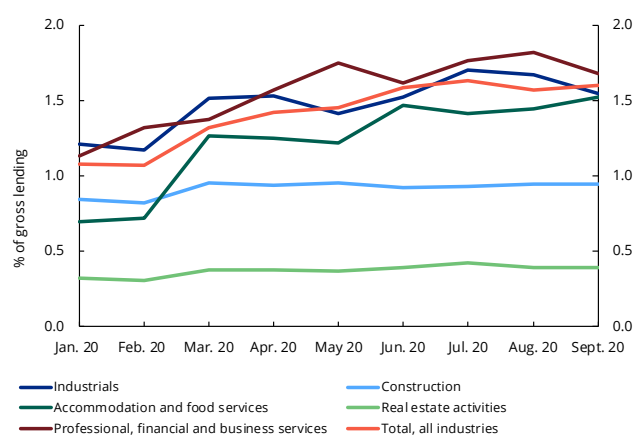
before taxes and interest expenses (EBIT) to interest expenses, will be reduced, especially for firms in the transportation, waste management and agriculture, fishing and forestry sectors. The IMF estimates that on average, about 4 per cent of banks' loans to non-financial corporations will be at risk if the carbon price rises to USD 150 per ton CO<sub>2</sub>-equivalent. The IMF defines loans at risk as loans to firms whose ratio of EBIT to interest expenses falls below 1. The calculations indicate that up to 16 per cent of loans from banks with a high proportion of loans to sectors at risk can be characterised as loans at risk.

A sharp increase in global carbon prices will reduce producer prices and demand for oil. This will weaken the profitability of the petroleum industry and result in increased bank losses. The IMF estimates that a carbon price of USD 75 or USD 150 per ton CO<sub>2</sub>-equivalent may reduce revenues in the petroleum industry by 26.5 and 38 per cent, respectively. The IMF further estimates that banks' loan losses could increase by 0.9 percentage points if the carbon price reaches USD 150 per ton CO<sub>2</sub>-equivalent, which is on par with the banks' loan losses in the fourth quarter of 2016 following the oil price fall in 2014.

In another calculation, the IMF refers to estimates of required reductions in international oil production if the Paris targets are to be achieved. With this as a starting point, financial effects are analysed in a scenario where Norwegian oil production falls by 45 per cent and the market capitalisation of oil companies listed on Oslo Børs is reduced by up to 50 per cent. The IMF assumes, based on historical correlations in the Norwegian stock market, that share prices in other industries will decline accordingly. The calculations indicate that the fall in share prices will have a direct negative impact on households' financial wealth of 11-12 per cent.

Financial wealth is expected to decline further as the value of securities held by insurers, pension funds and mutual funds (excluding money market funds) declines by approximately 5 per cent.

**Chart 2.8 Banks' loss allowances as a share of gross lending to individual industries**



Source: Finanstilsynet

There are significant differences in banks' loss allowances for loans to other industries. Accommodation and food services have experienced a sharp fall in demand as a result of the Covid-19 pandemic and associated government measures to contain the infection. As a share of gross lending, loss allowances for stage 2 and stage 3 loans for this industry have more than doubled since the turn of the year. However, the level is low, representing 1.5 per cent of gross lending at end-September 2020 (chart 2.8). The banks also have a significant exposure to commercial real estate, see account below. In the longer term, structural changes<sup>10</sup> in demand for commercial real estate may result in elevated credit risk for such loans. During the course of the Covid-19 pandemic, banks have increased their loss allowances for commercial real estate exposures, which nevertheless remain low as a share of gross lending compared with most other industries. For all industries combined, loss allowances for stage 2 and stage 3 loans had increased to 1.6 per cent of gross lending at end-September 2020, mainly driven by increased loss allowances for oil-related industries. Finanstilsynet expects the banks'



boards of directors to thoroughly assess the need for allowances in the light of the economic situation.

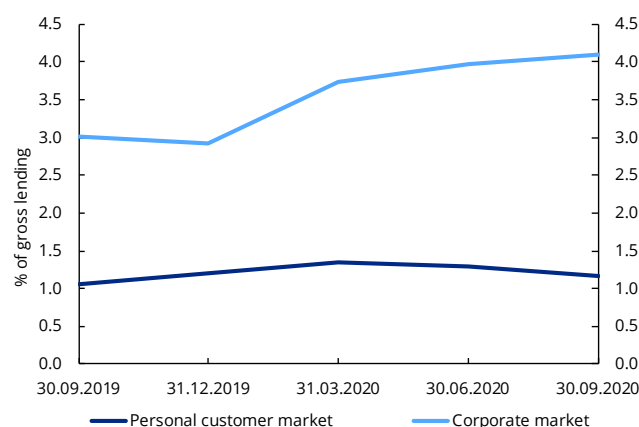
### HIGHER DEFAULT RATES IN BOTH THE PERSONAL CUSTOMER AND CORPORATE MARKETS

Norwegian banks have recorded a total nominal increase in non-performing loans to the personal customer market of 14 per cent during the past year. Non-performing loans represented 1.2 per cent of gross lending at end-September 2020 (chart 2.9). The overall increase in the personal customer market over the 12-month period can mainly be ascribed to a higher share of non-performing loans among consumer loan banks. In the corporate market, the volume of non-performing loans has increased by 44 per cent over the past year. Non-performing corporate loans represented 4.1 per cent of gross lending at end-September, up 1.1 percentage points from a year earlier. The increase primarily took place in the first quarter of 2020. The large and small banks accounted for the most pronounced increase of approximately 4.5 per cent of gross lending for both groups at the end of the third quarter. There was a more moderate increase to 2.5 per cent for the group of medium-sized banks.

In a number of countries, general arrangements for debt moratoria were introduced in connection with Covid-19, whereby loan repayments are deferred. In Norway, no such moratoria have been implemented, but banks have granted borrowers extensive interest and instalment payment deferrals.

Since the outbreak of the pandemic, Finanstilsynet has carried out a monthly survey of the loan portfolios of a selection of large banks. The survey has shown that the banks in the selection have granted moratoria on loan repayments to a number of customers after the outbreak of the pandemic. At end-September, 3.5 per cent of corporate loans were subject to moratoria, the majority of which for a period of up to six months. With respect to personal customer loans from ordinary banks (i.e. excl. consumer loan banks), payment moratoria had been granted for 8.4 per cent of loan volume, generally for a period of less than six months.

Chart 2.9 Non-performing exposures\*



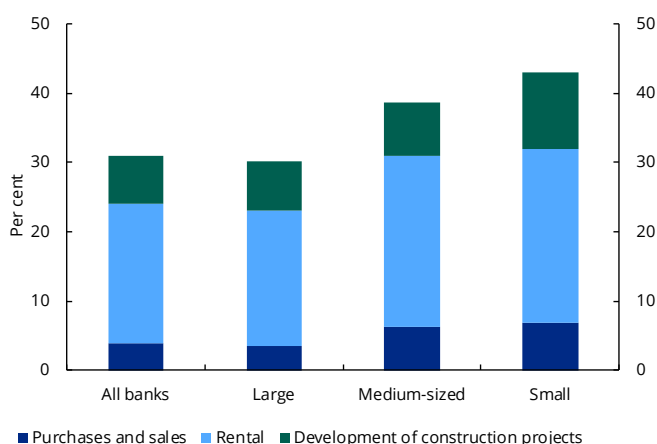
\*Exposures more than 90 days past due and other non-performing exposures. Source: Finanstilsynet

On 20 November 2020, the European Banking Authority, EBA, published aggregated figures for the use of moratoria and public guarantees.<sup>11</sup> There were wide differences between European countries. For the banks overall, moratoria on loan repayments had been granted for 9 per cent of corporate loans at end-June, which is significantly higher than in Norwegian banks. For loans to personal customers, this figure was 6 per cent, which is slightly lower than in Norwegian banks.

The rise in the share of loans subject to moratoria has not led to a corresponding increase in the proportion of loans recorded as forbore or non-performing by the banks. The main rule is that changes to the repayment schedule to relieve borrowers' financial problems are to be regarded as forbearance. Changes to the payment schedule for creditworthy customers affected by a short-term liquidity shortage as a result of the Covid-19 pandemic are not necessarily regarded as forbearance under the regulations. In March 2020, the EBA stated that changes to the payment schedule, including deferral of interest and instalment payments, for creditworthy customers affected by a short-term liquidity shortage as a result of the Covid-19 pandemic, must not necessarily lead to classification in default or forbore status.<sup>12</sup>

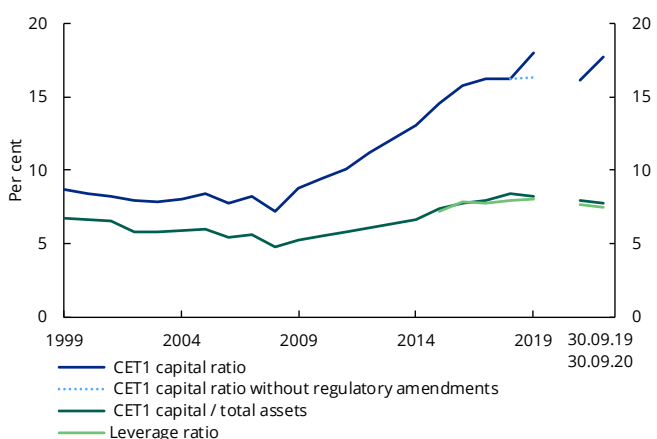
A request from the borrower for payment deferrals may be due to lasting payment problems. Just like EBA

**Chart 2.10 CRE loans as a share of total loans granted to non-financial corporations**



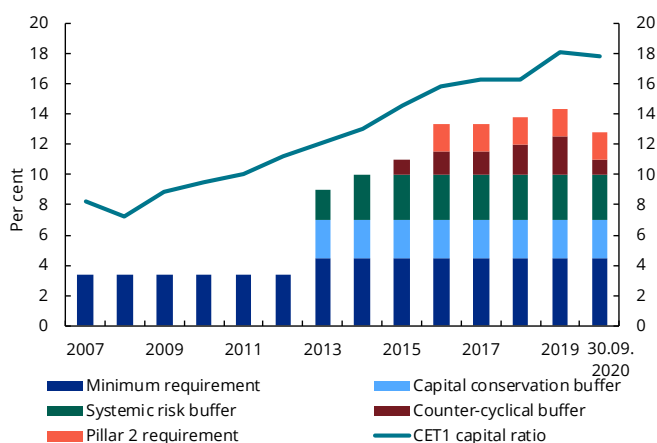
Source: Finanstilsynet

**Chart 2.11 Banks' capital ratios**



Source: Finanstilsynet

**Chart 2.12 CET1 capital and CET1 capital requirement for Norwegian banks\***



\* DNB Bank is also subject to a buffer requirement for systemically important banks. Source: Finanstilsynet

did in September 2020, Finanstilsynet emphasises that the banks must make thorough assessments of each borrower and classify loans in accordance with the regulations.<sup>13</sup> It is important that banks keep the credit risk in the portfolio under firm control and identify customers with payment problems at an early stage.

**BANKS' EXPOSURE TO REAL ESTATE-RELATED INDUSTRIES**

At year-end 2019, about 90 per cent of Norwegian banks' exposures to non-financial corporations (drawn loans, unutilised credit facilities and guarantees) were to industries that have been or are expected to be affected by the Covid-19 crisis, cf. account in Risk Outlook June 2020. Loans to commercial real estate<sup>14</sup> represent a large proportion of these loans of approximately 30 per cent. The small banks have the highest share of commercial real estate (CRE) loans granted (chart 2.10). At the same time, many of the banks' CRE loans are of considerable size.

**FINANCIAL SOUNDNESS**

**THE BANKS WERE WELL POSITIONED AT THE ONSET OF THE COVID-19 CRISIS**

The banks' financial soundness, measured by their CET1 capital ratios, has improved in recent years (chart 2.11). At-end September 2020, Norwegian banks' CET1 capital ratio was 17.8 per cent, compared with 16.2 per cent a year earlier. Risk-weighted capital adequacy ratios have increased, partly in consequence of lower risk weights resulting from more widespread use of internal measurement tools for credit risk (internal ratings based approach, IRB) and higher growth in lending to the personal customer market than to the corporate market over a protracted period. The incorporation of the European solvency framework into the EEA Agreement on 31 December 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 exposures to small and medium-sized enterprises. These two rule changes did not affect banks' actual financial soundness, but contributed to raising their measured CET1 capital ratio by 1.5 percentage points at the end of



2019. Since year-end 2019, the CET1 capital ratio has declined by 0.2 percentage points. The reduction can largely be explained by an increase in risk-weighted assets, partly due to the weaker krone exchange rate.

Norwegian banks meet current capital requirements by an ample margin. Despite a decline in the overall CET1 capital ratio thus far in 2020, the margin to the banks' capital requirement has increased further (chart 2.12)<sup>15</sup>. This is mainly due to the fact that the Ministry of Finance lowered the countercyclical capital buffer from 2.5 to 1.0 per cent in March to avoid that a tightening of banks' lending practices would amplify the downturn in the Norwegian economy. At end-September, most of the banks fulfilled the requirement by an ample margin.

The banks' leverage ratio was 7.4 per cent at end-September 2020, down 0.6 percentage points compared with year-end 2019. The reduction can largely be explained by an increase in banks' total assets in reflection of the weaker krone (higher NOK value of loans in foreign currency).

In order to better enable financial institutions to handle potential significant losses, European supervisory authorities place great emphasis on preserving the institutions' financial soundness. As part of this work, the European Systemic Risk Board (ESRB) issued a recommendation to the relevant authorities in the EEA on 8 June to request banks and insurance undertakings to refrain from making dividend payments and share buy-backs at least until 1 January 2021. This measure aims to promote financial stability, and the request should be directed to all affected institutions, regardless of their financial position.

The Ministry of Finance, which is the Norwegian macroprudential authority, notified the ESRB on 1 July this year that the Ministry will follow the recommendation. Other European supervisory authorities have also declared that they will follow the recommendation, including the European Central Bank (ECB) and the Financial Supervisory Authorities of Sweden, Finland and Denmark. The ESRB is expected to

consider whether the recommendation should be extended or possibly changed later this year.

### **Box 2: Upcoming changes to the capital adequacy framework**

In December 2019, the Ministry of Finance decided to increase the systemic risk buffer requirement and to introduce temporary floors for average risk weighting of residential and commercial mortgages.

The system risk buffer rate will be increased from 3 to 4.5 per cent from year-end 2020 for institutions using the advanced IRB approach, and from year-end 2022 for other institutions. For banks' international exposures, the systemic risk buffer rate set by the authorities in the relevant country shall be used as long as the requirement targets systemic risk in that country and applies to all banks. With respect to exposures in countries whose systemic risk buffer is designed differently, the rate should be 0 per cent.

The Ministry of Finance has also announced the introduction of new temporary floors of 20 and 35 per cent, respectively, for IRB banks' average risk weighting of residential and commercial mortgages. Most Norwegian banks are already at or above these levels, but risk weights may increase for some foreign banks if they are required to comply with the capital floors.

According to EU rules, the level of the systemic risk buffer and the floor requirements should be reviewed at least every two years.

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

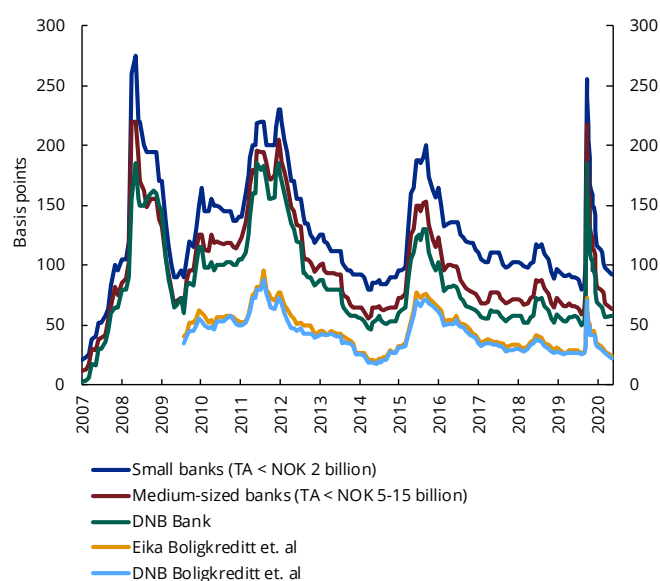
increased capital buffer requirements and minimum requirements for risk weighting of real estate loans. In addition, the so-called SME supporting factor will be continued, and the capital requirement for lending to certain infrastructure projects will be lowered.

In Norway, a binding leverage ratio requirement of 3 per cent was introduced in 2017 for most financial institutions, as well as a buffer requirement for banks. The revised Capital Requirements Regulation (CRR2) introduces a binding leverage ratio requirement of 3 per cent. Supervisory authorities may impose a higher requirement if they find that the requirement fails to cover entity-specific risk. The supervisory authorities may also communicate an expectation regarding the leverage ratio level.

CRR2 increases the SME supporting factor for loans to small and medium-sized enterprises, whereby the 23.81 per cent reduction in the capital requirements for credit risk on exposures to SMEs is extended from EUR 1.5 million to EUR 2.5 million of the exposure. Furthermore, the exposure amount exceeding this threshold will be subject to a 15 per cent reduction in capital requirements. A new 25 per cent reduction in capital requirements will also be introduced for investments in infrastructure projects that meet certain risk and predictability requirements for future cash flows.

A working group chaired by Finanstilsynet with representatives from the Ministry of Finance, Norges Bank and the Norwegian Banks' Guarantee Fund has prepared a proposal for the implementation of the banking package in Norwegian regulations. The Ministry of Finance has circulated the proposal for comment with the deadline for response set at 6 January 2021.

Chart 2.13 Risk premiums on senior and covered bonds



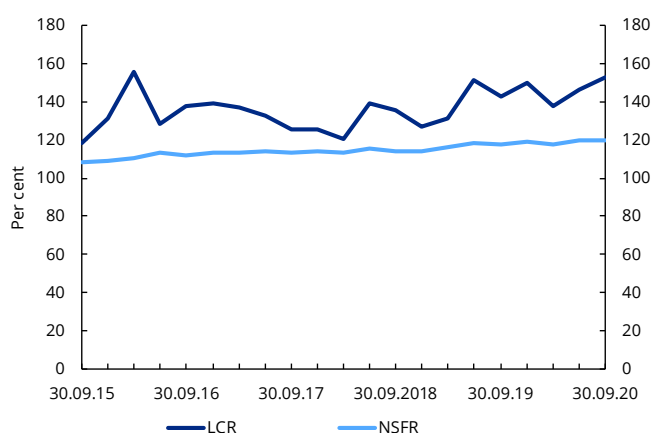
Source: DNB Markets

### BANKS HAVE AMPLE ACCESS TO FUNDING

In early March 2020, the risk premiums on credit institutions' bond funding increased to roughly the same level as during the global financial crisis in 2008. The highest levels were reached already during the week after the authorities implemented the first containment measures on 12 March (chart 2.13). In the subsequent weeks, there were few issuances, and access to new funding was limited.

Norges Bank introduced extraordinary liquidity measures on 12 March to stabilise the Norwegian money market. In addition, the government adopted an extensive package of measures to sustain non-financial corporations' liquidity and maintain households' purchasing power. In August, Norges Bank announced that the extraordinary liquidity measures for Norwegian banks would be retained for the rest of the year, but that the frequency and number of maturities would be reduced. As of September, Norges Bank will issue a fully allotted extraordinary F-loan with a three-month maturity each month at a premium that is 15 basis points higher than in similar auctions prior to September.

**Chart 2.14 Liquidity coverage ratio (LCR) and net stable funding ratio (NSFR)**



Source: Finanstilsynet

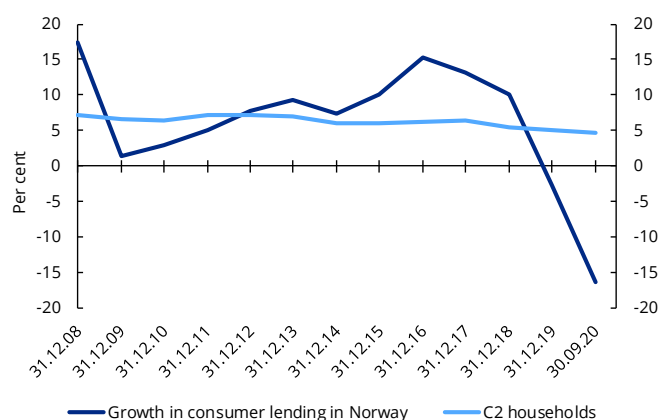
Norges Bank's measures have strengthened banks' access to liquidity during a period when it was challenging to obtain new market funding. At end-October, risk premiums on covered bonds had returned to the same level as before the increase in March, while risk premiums on senior bonds were still somewhat higher. Fewer banks participate in Norges Bank's auctions, and the outstanding volumes are lower than before. Financial markets are functioning more like normal, and banks obtain funding the usual way in the money and capital markets.

### **NORWEGIAN BANKS HAVE HAD NO NEED TO USE THE LIQUIDITY BUFFERS**

The Norwegian banks were well equipped to address the market turbulence in March, partly as a result of the liquidity coverage ratio (LCR) requirement. The purpose of this requirement is to ensure that banks have sufficient reserves to meet their obligations during periods of market turmoil. The LCR must correspond to minimum 100 per cent of the estimated net liquidity outflow during a 30-day stressed period. The requirement pertains to obligations in all currencies combined and to obligations in key individual currencies.

The liquidity reserve should comprise a portfolio of high-quality liquid assets that can be sold also during a period of stress. Eligible securities include sovereign bonds issued by states, covered bonds and other

**Chart 2.15 Twelve-month growth in the Norwegian market for consumer loans and domestic household debt (C2)**



Sources: Finanstilsynet and Statistics Norway (C2)

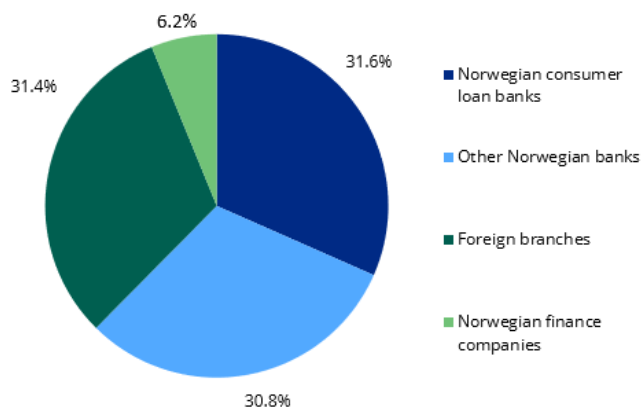
securities that have high credit ratings and are proven to be highly negotiable.

The liquidity regulations have increased banks' demand for liquid securities. The banks consequently had portfolios of liquid securities that fulfilled their liquidity needs at the start of the crisis in March.

Finanstilsynet has closely monitored the liquidity situation and announced on 13 March that institutions were permitted, during the period of stress, to use the liquidity reserve to cover their liquidity outflow. Few banks availed themselves of this option, but their holdings of liquid assets ensured the banks access to Norges Bank's extraordinary liquidity measures by pledging parts of their liquidity reserves.

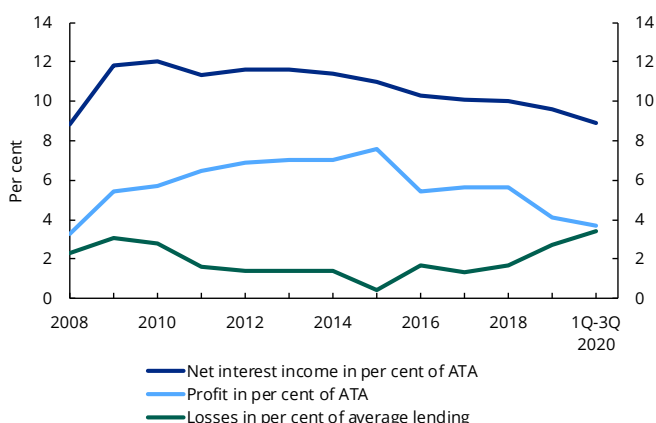
The monthly LCR reporting to Finanstilsynet and extraordinary liquidity reporting initiated in March and concluded in June show that none of the Norwegian banks have had significant liquidity challenges. The weighted average LCR for all banks under Norwegian supervision has not been lower than normal, and all the Norwegian banks satisfied the requirements, both overall and in significant currencies, at the end of the quarter. At end-September, the weighted average LCR for Norwegian banks was 144 per cent, which is higher than normal for the third quarter (chart 2.14).

**Chart 2.16 Distribution of consumer loans in Norway – 30 Sept. 2020**



Source: Finanstilsynet

**Chart 2.17 Profit trend, consumer lending\***



The figures refer to the institutions' total consumer loans, including Norwegian institutions' exposures abroad. Source: Finanstilsynet

In order to limit banks' refinancing risk, it is important that assets with long maturities, such as loans to households and firms, are backed by long-term funding. The banks have increased their net stable funding ratios (NSFR) over the past few years. At end-September 2020, the weighted average NSFR for Norwegian banks was 120 per cent (chart 2.14). This is the highest level since the reporting was introduced in 2014. The amended Capital Requirements Regulation and Directive (CRR 2/CRD 5), which were adopted by the European Parliament and Council in May 2019, include a binding minimum NSFR requirement of 100 per cent. The minimum requirement

becomes effective in the EU on 28 June 2021. Norwegian regulations are under preparation.

### CONSUMER LENDING DECLINING LENDING VOLUMES, BUT INCREASE IN NON-PERFORMING LOANS

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

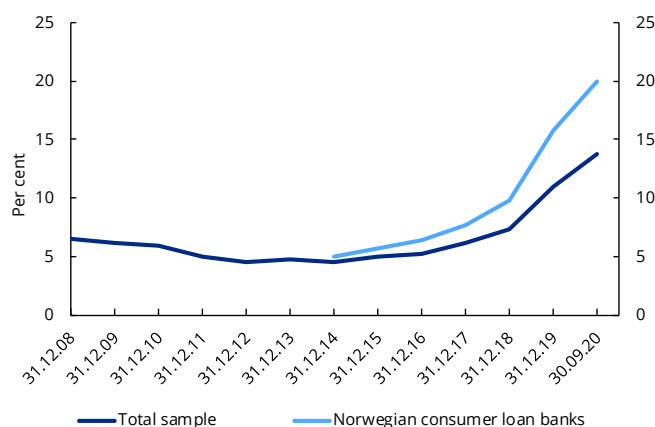
The 34 institutions included in Finanstilsynet's survey of the consumer loan market experienced a 16 per cent decline in lending during the twelve-month period up to end-September 2020 (chart 2.15). Adjusted for the sale of portfolios in the period 30 September 2019 to 30 September 2020, lending volume was down 13 per cent.

According to Finanstilsynet's survey at end-September 2020, Norwegian consumer loan banks<sup>16</sup> had provided approximately 32 per cent of consumer loans in Norway, roughly on a par with foreign branches and other Norwegian banks (chart 2.16).

Earnings in the consumer loan market have been reduced in recent years, but some of the institutions still record a healthy level of profits. Compared with previous years, lower net interest income and higher losses have resulted in lower profits for the institutions included in Finanstilsynet's survey (chart 2.17). Overall, loan losses came to 3.4 per cent of average lending (annualised) in the first three quarters of 2020. The loan losses of Norwegian consumer loan banks represented 4.8 per cent during the corresponding period. In comparison, aggregate loan losses for all banks came to 0.6 per cent (annualised).

There has been an increase in the volume of non-performing consumer loans among the institutions included in Finanstilsynet's survey, despite their sale of portfolios of non-performing loans (chart 2.18). At end-September 2020, non-performing loans represented 13.8 per cent. This includes non-performing

**Chart 2.18 Share of non-performing consumer loans more than 90 days past due**



The figures refer to the institutions' total consumer loans, including Norwegian institutions' exposures abroad. Source: Finanstilsynet

consumer loans granted by Norwegian institutions to customers abroad. Non-performing exposures were up 2.8 percentage points compared with year-end 2019. At end-September 2020, non-performing loans at Norwegian consumer loan banks represented 20.0 per cent, up 4.2 percentage points compared with year-end 2019. In comparison, 1.1 per cent of all Norwegian banks' total loans were non-performing on the same date.

Norwegian consumer loan banks' share of non-performing loans is high also in comparison with similar banks in other countries. In this connection, reference is made to the share of non-performing loans for Swedish consumer credit institutions (banks and mortgage companies with consumer loans as a business area) at end-September 2020, which was 13 per cent.<sup>17</sup>

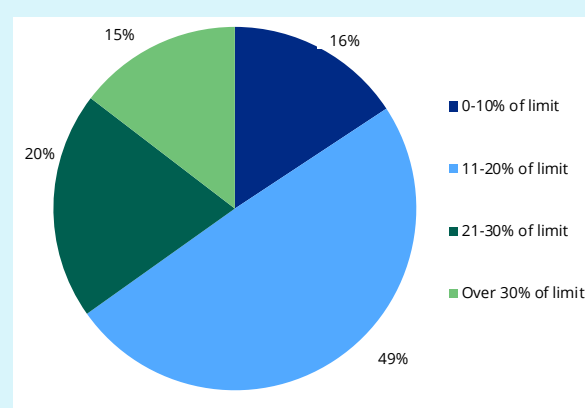
There is considerable uncertainty about the future path of the Covid-19 pandemic and its consequences for the Norwegian and international economy. Higher unemployment and loss of income could lead to even more borrowers being unable to service their consumer loans. In Finanstilsynet's assessment, there is a significant risk of a continued increase in the share of non-performing loans and rising losses.

In November 2020, Finanstilsynet published a report on developments in consumer debt<sup>18</sup>, with a thorough

description of the consumer loan market. Subjects covered in the report include institutions' compliance with the regulations on requirements for financial institutions' lending practices for consumer loans, developments in consumer debt for collection and debt registered in Gjeldsregisteret.

### Box 3: The loan guarantee scheme

**Chart 3.A Financial institutions according to their utilisation of the allocated limit**

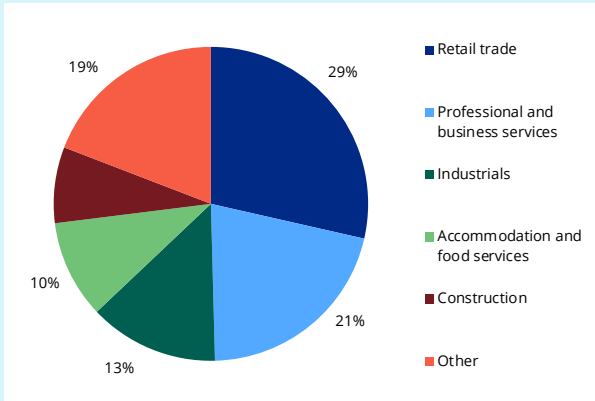


The industry 'professional and business services' includes other service industries. Sources: Finanstilsynet and GIEK as at 2 Oct. 2020

The loan guarantee scheme is one of several measures taken by the Norwegian government to help firms through the crisis that has arisen since the outbreak of the Covid-19 pandemic. The scheme enables banks and other financial institutions to provide loans to firms with a government guarantee covering 90 per cent of the loan amount. The scheme totals NOK 50 billion.

For the majority of financial institutions, 20 per cent or less of the allocated limit had been used as at 2 October (chart 3.A). NOK 9.7 billion, or 19.4 per cent, of the overall limit had been used. Firms within retail trade, professional and business services and industrials have made most extensive use of the scheme, closely followed by

**Chart 3.B Loan volume granted according to industry groups**



The industry 'professional and business services' includes other service industries. Sources: Finanstilsynet and GIEK as at 2 Oct. 2020

accommodation and food services and construction (chart 3.B). The industries that have made the greatest use of the scheme are also among the industries that have been hardest hit by the Covid-19 pandemic.



## CHAPTER 3 INSURANCE AND PENSIONS

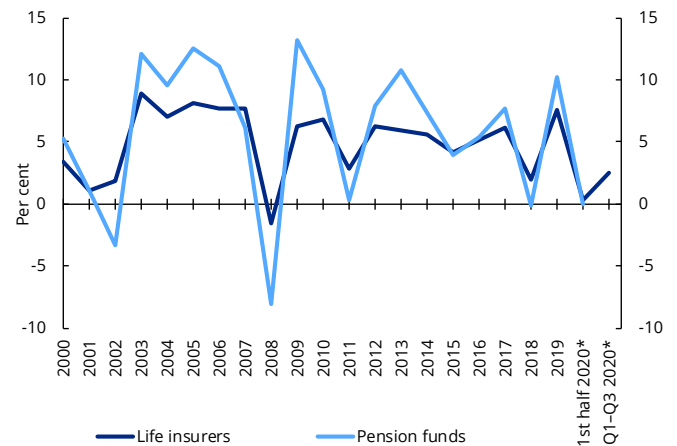
The Covid-19 pandemic has had a negative impact on the undertakings' profits thus far in 2020. Stock markets plunged in the first quarter. Although the markets largely recovered in the second and third quarter, the fall in share prices remains the main reason behind the lower investment income and weaker profits for life insurers and pension funds so far this year. The solvency ratios of life insurers and the largest pension funds have improved somewhat since the beginning of the year. However, without the transitional measure on technical provisions, the solvency ratios are lower than at year-end 2019. The low interest rate level presents challenges for pension institutions in the period ahead. Non-life insurers reported higher profits in the first three quarters of 2020 than in the corresponding period of 2019 when adjusting for Gjensidige's sale of Gjensidige Bank in 2019. This is mainly due to increased premiums and a higher technical result. The decline in stock markets in the first quarter of the year contributed to a significant weakening of financial results compared with 2019.

The Covid-19 crisis may lead to a protracted low interest rate level and renewed turbulence in financial markets, with falling share prices, higher risk premiums and a weaker krone. A severe downturn in the Norwegian economy may result in a fall in value of commercial real estate. This could have a negative effect on the profits and solvency position of pension institutions and non-life insurers.

### PROFITABILITY AND FINANCIAL SOUNDNESS

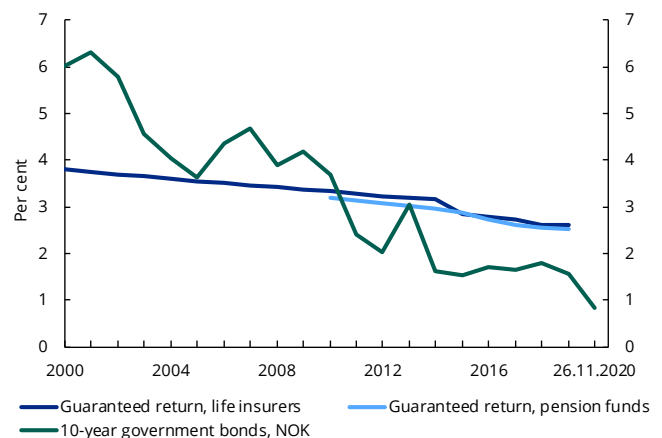
As a consequence of the decline in share prices in the spring, insurers and pension funds have shown a weaker performance thus far in 2020. The annualised adjusted return on the collective portfolios was 2.5 per cent for life insurers in the first three quarters of the

Chart 3.1 Adjusted return on pension institutions' collective portfolios



\*Annualised. The last observation is for the first half of 2020 for pension funds and for the first three quarters for life insurers. Source: Finanstilsynet

Chart 3.2 Developments in the 10-year government bond yield and average guaranteed rate of return

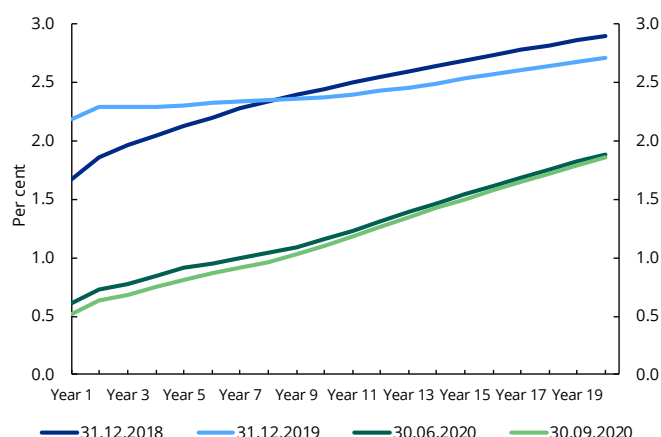


Sources: Finanstilsynet and Norges Bank

year and 0.0 per cent for pension funds in the first half of the year. This is significantly lower than in the corresponding periods of 2019 (chart 3.1). The stock market recovery helped to raise returns in the second and third quarter.

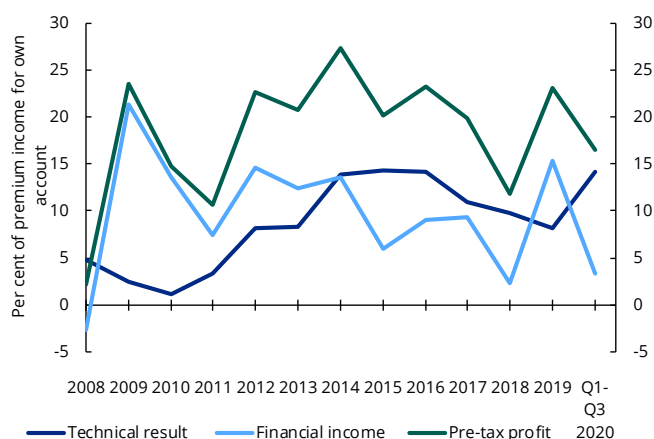
Thus far in 2020, the risk-free market rate, represented by the 10-year Norwegian government bond yield, has declined from an already low level and was 0.84 per cent as at 26 November 2020 (chart 3.2). This is markedly lower than insurers' and pension funds' guaranteed rates of return, which were 2.6 and 2.5 per

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



Source: EIOPA

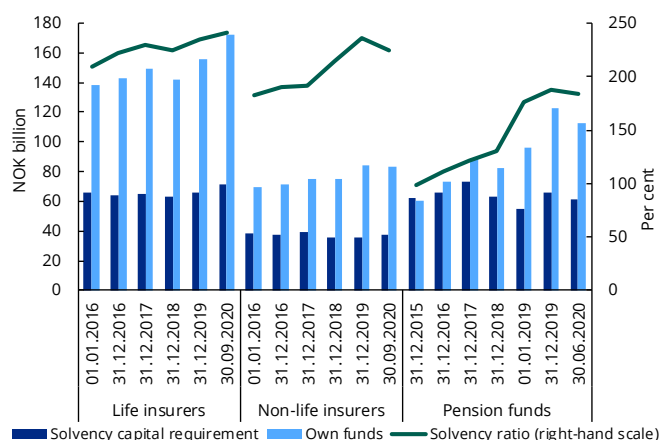
**Chart 3.4 Overall profits of non-life insurers as a percentage of premium income for own account\***



\* 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 billion. Source: Finanstilsynet

cent, respectively, at the end of 2019. 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 a large proportion of guaranteed products. Life insurers reported a book return on the collective portfolio of 3.9 per cent (annualised) in the first three quarters of 2020. The book return of pension funds was 2.4 per cent (annualised) in the first half of the year, which is lower than the average guaranteed rate of return at year-end 2019. The risk-free interest rate curve used as a discount rate under Solvency II has also fallen substantially in 2020 (chart 3.3).

**3.5 Solvency position of 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

The fall in share prices in the spring of 2020 has contributed to a marked reduction in non-life insurers' financial income in the first three quarters of 2020 (chart 3.4). However, a better technical result than in the year-earlier period ensured that non-life insurers achieved higher pre-tax profits in the first three quarters of the year than in the corresponding period of 2019 when the effect of Gjensidige's sale of Gjensidige Bank in 2019 is excluded.

When applying the transitional measure on technical provisions, life insurers' solvency ratio was 241 per cent as at 30 September 2020 (chart 3.5). Solvency II includes a transitional measure on technical provisions that partly offsets the 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 and that the weighting of the former regulations will be gradually reduced during the transitional period, which extends up to 2032. Without the transitional measure, the solvency ratio was 173 per cent, which is clearly lower than at year-end 2019, when it was 219 per cent. In a low interest rate environment, the transitional measure gains in importance (chart 3.6). For some undertakings, the transitional measure has a significant effect.

Pension funds' solvency ratios were 184 and 163 per cent, respectively, with and without the transitional



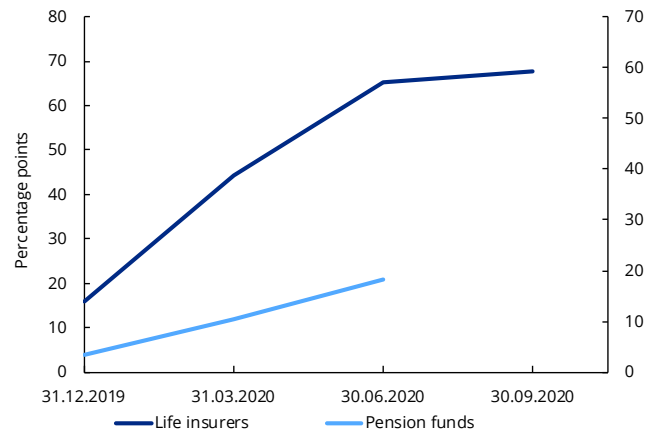
measure on technical provisions as at 30 June 2020. The pick-up in share prices in the second quarter had a positive impact on pension funds' own funds through the fluctuation reserves and interim profits. On the other hand, lower interest rates contributed to a reduction in Tier 1 own funds.

The nine largest pension funds also report their compliance with the solvency capital requirement as at 30 September. Overall, their solvency ratio widened from 195 per cent as at 30 June to 203 per cent at end-September. Without the transitional measure, the solvency ratio increased from 182 to 190 per cent during the same period. An increase in interim profits before allocations to policyholders and taxes of NOK 4.2 billion and a NOK 2.2 billion rise in fluctuation reserves were the main reasons behind the pension funds' improved solvency position in the third quarter. The solvency ratio of these pension funds was 4 percentage points higher than at the beginning of the year. Without the transitional measure, however, the solvency ratio was 6 percentage points lower than at 1 January.

The solvency ratio of non-life insurers was 224 per cent as at 30 September 2020, a slight reduction since year-end 2019. The largest non-life insurer, Gjensidige, made both ordinary and extraordinary dividend payments on 30 September. Without these payments, the insurers' total solvency ratio would have been higher at end-September 2020 than at end-December 2019, as Gjensidige did not plan any dividend distributions for 2019 in its 2019 annual report. For further information about the solvency of insurers and pension funds, see Finanstilsynet's solvency reports<sup>19</sup>.

The European Insurance and Occupational Pensions Authority (EIOPA) is planning to present its final review of the Solvency II framework for insurers in December 2020. Among other things, EIOPA is considering the introduction of a higher stress factor for interest rate risk calculations 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 capital requirement

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



Source: Finanstilsynet

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

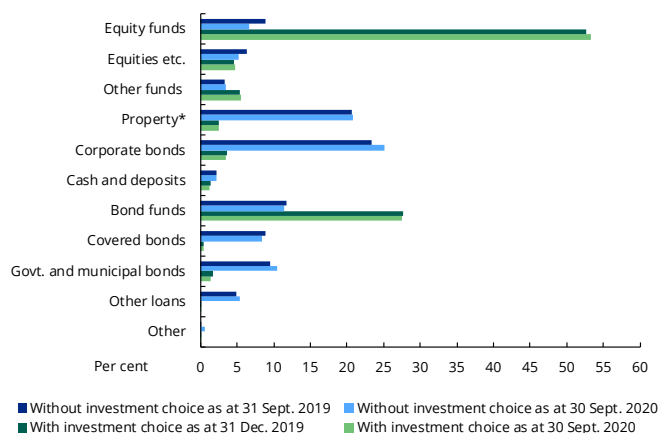
## INSURANCE AND PENSIONS

### The market turmoil has caused changes in life insurers' investments

Life insurers are exposed to market risk through their large holdings of securities. The risk depends on the composition of their securities portfolios, as well as price fluctuations and market liquidity. Due to a sharp decline in stock markets in the first quarter of 2020 and the fact that several undertakings chose to reduce their equity portfolios in the spring of 2020, the proportion of equities, including mutual funds, in their collective and company portfolios declined by 3 percentage points from year-end 2019 to end-September 2020 (chart 3.7). The stock markets have largely recovered, and several undertakings had increased their proportion of equities by the end of the third quarter.

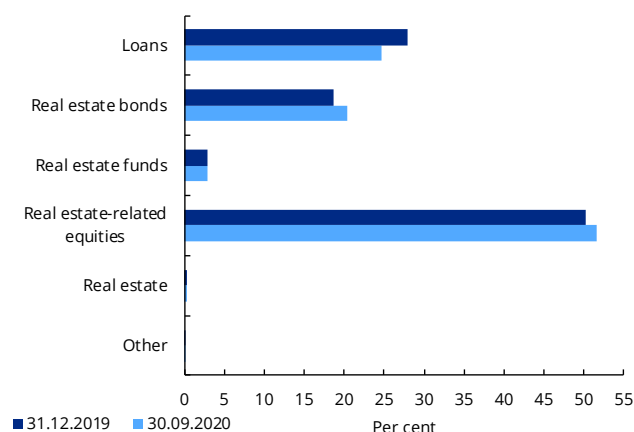
Life insurers' investments in bonds, including mutual funds, accounted for 55 per cent of the investments in their company and collective portfolios as at

**Chart 3.7 Life insurers' investments**



\*Real estate includes 'property' (asset category CIC 9), 'equity of real estate-related corporations' (CIC 32), 'real estate funds' (CIC 45), 'real estate exposure related to collateralised securities' (CIC 65) and 'mortgages' (84) and NACE codes F41 and L, which inter alia include real estate bonds. Source: Finanstilsynet

**Chart 3.8 Real estate investments in life insurers' collective and company portfolios**



Source: Finanstilsynet

30 September 2020, which is 2 percentage points higher than at the beginning of the year. Although the bonds to some extent provide stable interest income, the investments also become more vulnerable to interest rate changes. There is a significant duration gap between life insurers' assets and liabilities, which entails high interest rate sensitivity. At year-end 2019, the average duration of insurers' bond portfolios and insurance obligations (excluding unit linked contracts) was 5 and 14 years, respectively.

The commercial real estate market, especially hotels, tourism and parts of the retail and services sector, is affected by the Covid-19 crisis. Lower demand and a significant need for restructuring in this market may have major consequences for life insurers as investors. Property-related investments in life insurers' company and collective portfolios totalled NOK 281 billion, representing 21 per cent of investments as at 30 September 2020. Life insurers' investments in real estate-related equities accounted for 52 per cent of their real estate investments as at 30 September 2020 (chart 3.8). The investments in equities are primarily made through subsidiaries that own and operate commercial property. In addition, life insurers have investments in real estate bonds and real estate-related loans. Pension funds' real estate investments (excluding real estate bonds and loans) came to NOK 36 billion at end-June 2020, which corresponds to approximately 9 per cent of their total assets.

Through subsidiaries, the three largest life insurers manage more than 4.4 million square metres of commercial property, mainly commercial buildings (offices), hotels and shopping centres, worth more than NOK 143 billion. The largest commercial real estate (CRE) investments are within the segment 'office buildings etc.', which accounted for about 58 per cent of the major life insurers' total CRE investments at year-end 2019, followed by 'hotels' and 'shopping centres etc.', both at 15 per cent. The Covid-19 crisis affects these segments in somewhat different ways, see description in chapter 1.

The largest life insurers have properties located in the largest Norwegian cities and in Copenhagen, Stockholm and London. Several of the other life insurers also have substantial CRE investments through subsidiaries.

A number of life insurers wrote down the value of their properties in the first three quarters of 2020, but to a relatively moderate extent. However, a sharp economic downturn could trigger a significant fall in commercial property values.

Investments in real estate bonds amounted to NOK 57 billion and accounted for 20 per cent of life insurers' real estate investments as at 30 September 2020.

55 per cent of the investments are in Norwegian bonds and 25 per cent in Swedish bonds. Real estate-related loans amounted to NOK 69 billion and accounted for 25 per cent of real estate investments. 51 per cent of the loans (NOK 35 billion) are residential mortgages, and 19 per cent are loans to real estate subsidiaries.

### Future developments are highly uncertain

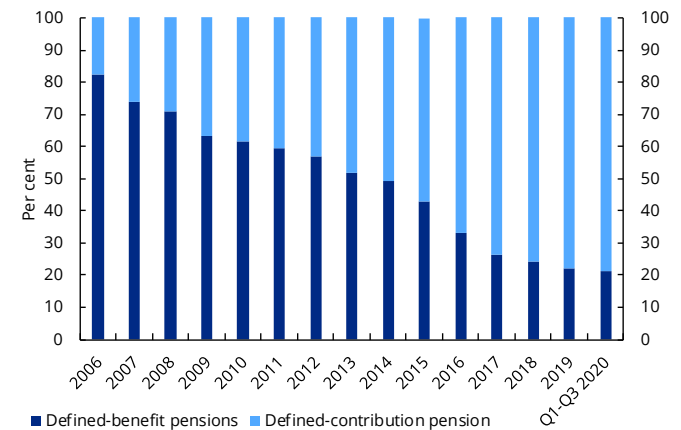
The future path of the Covid-19 pandemic and its consequences for the Norwegian and international economy affect the commercial real estate market, see account in chapter 1. Insurers will be affected by lower revenues and falling prices in this market. Renewed stock market turbulence and increased market volatility will have negative effects on the profit performance and solvency position of insurers and pension funds.

The current low interest rate level, which is projected to continue both in Norway and internationally, means that it will be more challenging for pension institutions to cover the guaranteed rate of return in defined-benefit schemes. The stock market decline and the sale of equities in the spring of 2020 have contributed to reducing life insurers' proportion of equities thus far this year. Increased investments in equities or other assets with higher expected returns involve heightened risk and thus greater need for buffer capital. The search for yield could mean that the undertakings' investment portfolios will include a higher share of alternative investments or unsecured loans of weaker credit quality in the future.

Pension institutions have mainly invested in investment grade bonds, but extensive downgrades of bonds will have a negative impact. 18 per cent of life insurers' investments in graded bonds were rated BBB as at 30 September 2020 which is the lowest investment grade credit rating. For pension funds, the share was 25 per cent as at 30 June.

Pension institutions typically manage risk inherent in fixed-income securities by setting maximum exposure

**Chart 3.9 Gross premiums written in private group defined-benefit and defined-contribution pension schemes**



Source: Finance Norway

limits per rating class, and a downgrade can lead to extensive sales of bonds, see further account in chapter 4.

Norwegian life insurers and pension funds use derivatives mainly to hedge equity and fixed-income investments abroad against currency risk. This exposes them to liquidity risk related to margin requirements in derivative contracts, which caused liquidity challenges in the spring of 2020, see chapter 4.

### CHANGES IN THE DEFINED-CONTRIBUTION PENSION MARKET

Over the last couple of decades, major changes have taken place in the private occupational pension market in Norway. A number of private sector enterprises have, partly due to high costs, replaced defined-benefit pension schemes with defined-contribution schemes. Defined-contribution pensions represented a rising share of gross premiums written in private group pensions schemes with life insurers, from 18 per cent in 2006 to 79 per cent in the first three quarters of 2020 (chart 3.9). Defined-contribution pensions represented 46 per cent of life insurers' insurance obligations in private group pension schemes at end-September 2020.

At year-end 2019, employees had total savings of approximately NOK 190 billion in defined-contribution

schemes with life insurers. In addition, accrued pension benefits from previous employers with defined-contribution schemes, so-called pension capital certificates, came to NOK 108 billion.<sup>20</sup> This constitutes 21 per cent of life insurers' insurance obligations. Most employees change jobs several times during their professional career. As an increasing number of firms have defined-contribution pension schemes, there will be a sharp increase in the number of pension capital certificates issued. At year-end 2019, approximately 1.9 million pension capital certificates had been issued.

When an employee leaves a firm that has a defined-contribution pension scheme, a pension capital certificate is issued, and the employee pays the administration costs and asset management costs him/herself. If an employee has several pension capital certificates, they should all be transferred to a single pension provider in order to reduce the total costs. Very few employees make such transfers today, which is one of the reasons why the individual pension account will be introduced as from 1 January 2021.

### **INDIVIDUAL PENSION ACCOUNT TO BE INTRODUCED ON 1 JANUARY 2021**

As from 1 January 2021, around 1.5 million employees with defined-contribution pensions will get an individual pension account. The individual pension account aims to give employees lower total costs and a better overview of their pensions. The scheme entails so-called passive consent, which means that the pension capital certificates are transferred to the current employer's active defined-contribution pension scheme unless the employee reserves the right to refuse this by 1 May 2021. When the certificates are transferred to a single account, the employer will pay the administration costs, both on the active defined-contribution scheme and on the total pension capital certificates. The asset management costs for all of the pension capital certificates will still be paid by the employee. The employee may also transfer pension capital certificates and active defined-contribution pensions to a pension provider of choice. In such case, the employee will pay the administration costs him/herself. However, asset management costs will be

covered by the employer in the form of a compensation calculated according to a standard method.

Several life insurers state that they are well prepared for the introduction of individual pension accounts for employees and that the necessary infrastructure is in place. As a result of the new scheme, it is expected that tens of billions of kroner will be transferred to employers' defined-contribution pension schemes. This means that assets must be realised, which could affect financial markets and employees' accrued pension benefits. This transfer process may also entail a risk of operational errors. The Ministry of Finance has therefore established transitional rules allowing the transactions to take place over a period from 1 May to end-December 2021.

### **Individual pension accounts could change the dynamics of the pension market**

The introduction of individual pension accounts may open the markets to new players and suppliers and lead to intensified competition and lower prices in the defined-contribution pension market. This will give consumers a better mutual fund offering. The cost of managing the pension capital certificates will be lowered to the price paid by employers, which will reduce life insurers' income. Lower margins on pension capital certificates must be taken into account in the undertakings' future profit estimates and thus also in solvency calculations.

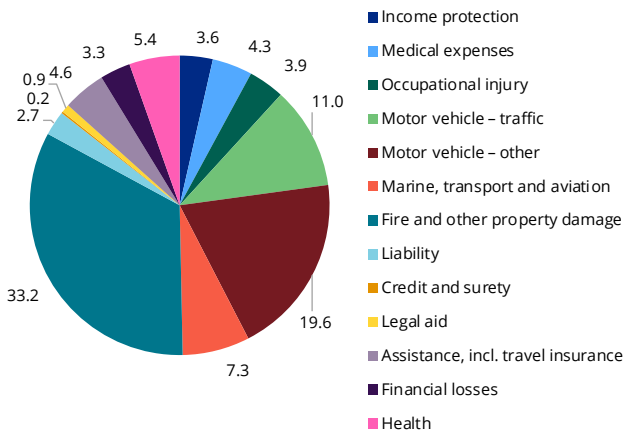
## **NON-LIFE INSURERS**

### **The Covid-19 pandemic has had a limited impact on non-life insurers, but may affect this market in the coming period**

The market turmoil in the spring of 2020 also affected non-life insurers' financial income. However, the stock market recovery, lower interest rates and narrower credit margins helped to ensure strong returns in the second and third quarter of the year.

The Covid-19 pandemic has had little effect on non-life insurers' insurance-related profits. In the major lines of business, which include motor vehicle insurance and insurance against fire and other property damage

**Chart 3.10 Non-life insurance by lines of business. Per cent of earned gross earned premiums. 2019**



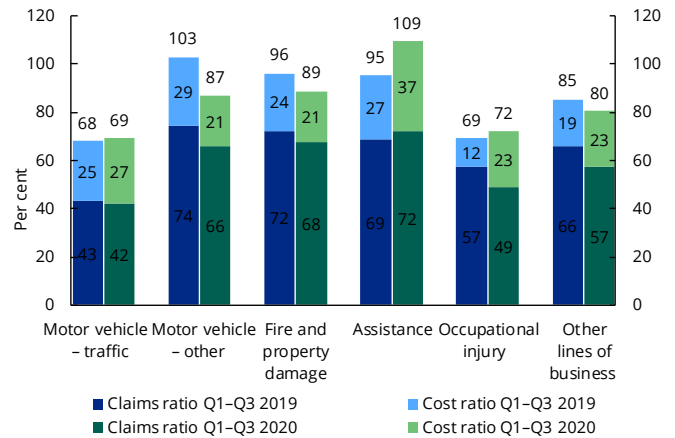
Source: Finanstilsynet

(chart 3.10), insurance-related operations were virtually unchanged or improved in the first three quarters of 2020 compared with the corresponding period last year. According to the undertakings, this is partly due to favourable weather conditions last winter and changing traffic patterns. Some smaller lines of business, such as assistance insurance, which includes travel insurance, showed weaker profits than in the first three quarters of 2019. According to Finance Norway, travel compensation is at a record-high level due to the many cancellations associated with the Covid-19 pandemic.<sup>21</sup>

On account of the Covid-19 crisis, it has become less attractive to offer certain types of non-life insurance, such as travel guarantees and occupational injury insurance. The branch of the Swedish insurer Nordic Guarantee has terminated its travel guarantee agreements with several Norwegian package tour operators as a result of the challenges in the tourism industry.<sup>22</sup> All package tour operators must provide an adequate travel guarantee in order to be a member of the Norwegian Travel Guarantee Fund. The Covid-19 crisis has made it less attractive for insurers to provide guarantees and could make it difficult for package tour organisers to find other guarantors and thus retain the right to offer package holidays.

In July, EIOPA published its advice on insurance against pandemic risk, stating that the authorities and

**Chart 3.11 Net combined ratio for selected lines of business, aggregated**



Source: Finanstilsynet

the insurance industry should look into options to work together to develop future insurance schemes addressing pandemic risk.<sup>23</sup>

### Occupational injury compensation includes illness caused by Covid-19

The regulations on occupational illness<sup>24</sup>, which set forth which injuries and illnesses can be equated with occupational injuries, were amended with effect from 1 March 2020 as a result of the Covid-19 pandemic. The new rules primarily encompass employees in the health care system and mean that Covid-19 with serious complications may give the right to occupational injury compensation. The calculation of premiums and estimated claims payment expenses within occupational injury insurance is challenging, as it can

take a long time from the premiums are paid until claims payments are made. In the 1990s, profitability was weak in this industry. During the 2000s, both premiums and claims payments per insured were markedly reduced, while profitability improved. This is partly due to the fact that a number of HS&E measures have helped to improve job safety parallel to a continued transition to jobs with a lower risk of injury. Profitability has been higher within occupational injury insurance than in most other lines of business within non-life insurance over the last couple of years (chart 3.11).

## CHAPTER 3 INSURANCE AND PENSIONS

Uncertainty attends the scope of future occupational injury compensation payments following severe Covid-19 illness. If the insurance result for occupational injury insurance shows that premiums are not in reasonable proportion to the risk, the undertakings should consider whether changes to the premiums are required. Based on the results achieved thus far this year, there is no clear evidence that the Covid-19 pandemic has resulted in any significant increase in occupational injury claims payments. However, it is too early to see the consequences. The level of premiums will always be uncertain when new products are launched or the existing coverage is extended to areas where no claims statistics are available.



## CHAPTER 4 SECURITIES MARKETS

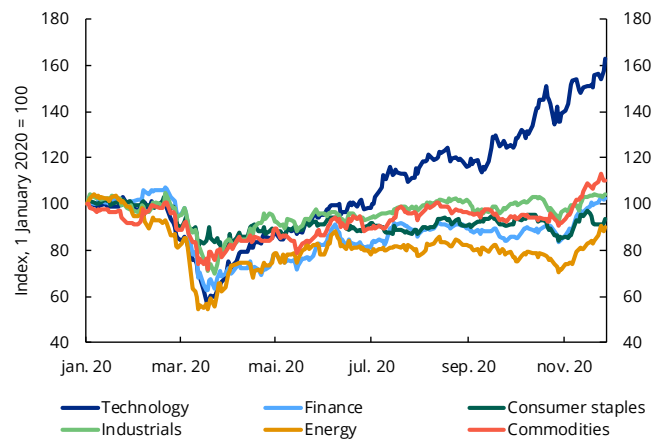
The Covid-19 pandemic, a sharp decline in economic activity and government containment measures and support schemes introduced over the last three quarters have had a strong impact on securities prices. This period has been characterised by significant market volatility, which was at its highest in the spring. Interest rates are record low, and significant monetary and fiscal stimulus has ensured strong market liquidity. Nevertheless, there is still considerable uncertainty in the markets. The low interest rate level may contribute to the build-up of financial imbalances.

### RECOVERY AFTER SHARP FALL IN EQUITY PRICES

The pandemic triggered a sharp fall in international stock markets in March, as described in chapter 1. Enterprises' current earnings were strongly reduced as a result of containment measures and shutdowns, and market participants' expectations concerning future economic growth were revised down significantly. However, the markets quickly recovered as growth expectations started picking up slightly. Massive government support measures helped to maintain enterprises' liquidity level and consumers' purchasing power, and the easing of the strictest shutdown measures enabled some of the most vulnerable industries to resume more normal operations.

Risk premiums in the bond market have been markedly reduced after peaking in March. Internationally, risk premiums are back at pre-crisis levels in some segments. In Norway, credit spreads have also narrowed, though there are large differences between companies and sectors. Both in Europe and the US, new unrest could lead to widespread downgrades of corporate bonds from investment grade (IG) to high yield (HY)<sup>25</sup>. If so, institutions that can invest solely in

Chart 4.1 Total return Oslo Børs, selected sectors



Source: Refinitiv

IG bonds may have to sell downgraded bonds. Such sales may contribute to a self-reinforcing negative price spiral.

### Selected sectors drive the stock market recovery

There have been large differences in equity prices for various sectors thus far in 2020. In many countries, the technology sector was the main contributor to the stock market upturn throughout the spring and summer. The major technology companies experienced a strong rise in equity prices even before the crisis occurred, and the pandemic has further lifted demand for digital services and new technological solutions. In many countries, the consumer goods sector has also received a significant boost, while parts of the services sector have shown a far weaker development thus far this year.

There has been a sharp drop in equity prices for companies in the energy sector (chart 4.1). A significant decline in air traffic and lower economic activity in general have resulted in a substantial reduction in the need for energy and markedly lower earnings expectations for this sector. In recent months, oil prices have hovered just above USD 40 per barrel, which is lower than over the past few years. At Oslo Børs, shipping, oil service and energy are the three weakest sectors, all experiencing a negative price development so far this year.

Chart 4.2 Development in bank shares



Unless otherwise stated, FTSE indices are used  
Source: Refinitiv

There has been a particularly steep decline for financial shares around the world, and the recent recovery in this sector has been sluggish (chart 4.2). Norwegian financial share prices also plummeted, but not as deeply as in the US and Europe.

### Low interest rates and ample liquidity

The central banks were quick to lower their key policy rates at the start of the crisis. Other monetary policy measures, including extraordinary loans to banks, have helped to keep short-term money market rates at a low level. Massive purchases of both government and corporate bonds (so-called quantitative easing) by, among others, the largest central banks led to a sharp decline in long-term interest rates and expectations of a protracted low interest rate environment.

Ample liquidity has probably reinforced market participants' search for yield and contributed to pushing up prices in several asset classes. For example, the stock market recovery took place parallel to a rise in the prices of apparently secure government bonds and gold.

Protracted low interest rates and ample liquidity may contribute to a further rise in risk exposure in financial markets. Continued accumulation of debt in the private and public sector poses a risk to financial stability, see account in chapter 1.

### Box 4: Do low interest rates give a boost to equity prices?\*

Earnings yield refers to companies' current earnings divided by the market value of their shares. This ratio is the inverse of the price/earnings ratio (P/E) and has certain similarities with dividend yield, but also includes retained profits.

Calculations of earnings yield can be used to estimate the long-term real stock market return, which is often used to estimate investors' real return requirement\*\*. In the long run, it can be assumed that market prices provide a reasonable reflection of earnings. In the short term, however, market prices may be affected by economic unrest, shares may be incorrectly priced over prolonged periods of time, and bubbles may build up and burst.

On average, the long-term earnings yield for 17 of the world's stock markets\*\*\* was estimated at 6.3 per cent. In November 2020, the average earnings yield was estimated at approximately 4.5 per cent. For several countries, including Norway, this indicates that corporate earnings are relatively low relative to share prices. The ratio of the companies' market value to earnings, i.e. the P/E ratio, was about 23 in November, compared with an average of 18 for the entire period. International stock markets were thus relatively highly priced in November compared with the average for the last 30 years. The rising stock market prices may reflect a reduction in the real return requirement, which in turn may be related to the decline in global real interest rates in recent years.

The difference between the historical earnings yield and the effective interest rate on government bonds is estimated at 2.6 percentage points. In November 2020, the difference was 4.6 percentage points. Although the earnings yield has



been reduced, the government bond yield has dropped even more. Investors may take this as a sign that equity investments are more profitable than previously compared with investments in government bonds, which may justify a higher proportion of equities in investors' securities portfolios.

It seems reasonable that the return requirement on equities is lowered as the risk-free interest rate decreases. Globally, the average nominal, effective government bond yield has been 3.7 per cent over the past 30 years. In November, it was 0 per cent. Seen in isolation, it is conceivable that this could lead to a corresponding reduction in the return requirement for equities. If so, the nominal return requirement would have been 4.6 per cent\*\*\*\*, which is approximately 2 percentage points\*\*\*\*\* below estimates. Seen in isolation, the decline in government bond yields thus indicates higher stock market prices than observed in November 2020. On the other hand, the risk premium on equities may have risen as a consequence of the major challenges and not least the significant uncertainty experienced by many industries due to the Covid-19 pandemic.

A fundamental assumption behind the calculations is that equity prices on average reflect underlying fundamental economic factors. It is difficult to know whether the expectations of market participants are unbiased, and it is not obvious that investors make correct assessments of the risks associated with future cash flows. In the current situation with ample liquidity supplies from central banks and various measures over government budgets, investors' return requirements may be too low.

\* The calculations in this box are Finanstilsynet's own.

\*\* Called real return as earnings and market prices are both in current currency. When calculating the ratio of the metrics, the inflation components are cancelled. See Jeremy Siegel; Stocks for the long run, McGraw-Hill Education, 2014, for a discussion of, among other things, (long-term) P/E as an estimate of the real return requirement in the stock market. A fundamental

assumption is that stock market prices are correct (in equilibrium) in the long term.

\*\*\* Australia, Canada, Denmark, France, Hong Kong, Italy, Japan, Korea, Netherlands, Norway, Spain, United Kingdom, Switzerland, Sweden, Taiwan, Germany and the United States. The calculations are based on data from Refinitiv and include country indices for the period from January 1990 to November 2020.

\*\*\*\* Nominal return requirement of 8.3 per cent (historical P/E of 6.3 per cent plus 2 percentage points for inflation) minus 3.7 per cent (reduced government bond yield).

\*\*\*\*\* Earnings yield of 4.5 per cent in November plus an add-on of 2 percentage points for inflation.

### Market uncertainty remains high

Securities markets are characterised by substantial uncertainty. The volatility in the stock and bond markets has been significantly reduced from the crisis levels in the spring, but stock market volatility in particular is still above the level under normal market conditions.

The markets are particularly sensitive to news related to the duration of the pandemic, such as infection rates, the development of vaccines and effective medicines, the degree of immunity after recovery and effective containment measures. Developments in these areas will be of great importance to how quickly the economy can return to normal. New support packages and economic stimulus, in addition to expectations thereof, also have a direct effect on the markets.

At the same time, there is greater political turmoil than before in many of the world's largest economies. In the autumn of 2020, the US presidential election and the political negotiations related to the US Covid relief packages had a major impact on price formation. So did the trade war between the United States and China, which could change the operating parameters for a number of sectors and individual enterprises. In Europe, the outcome of the Brexit negotiations could have major implications for expectations for growth and earnings in several sectors.

### FIRMS' CAPITAL RAISING IN 2020

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

periods of extensive market turmoil, capital raisings will normally be limited or dry up, which was what happened during the financial crisis. In 2020, the situation has been more complex. Activity in the primary market slowed down during the market turmoil in the spring, but picked up relatively quickly and was high in many submarkets in the autumn.

In the Norwegian stock market, capital totalling NOK 53.3 billion was raised during the first ten months of 2020, which was roughly on a par with the corresponding period of 2019. However, there are significant differences between the amount of capital raised on the regulated Oslo Børs marketplaces and the capital raised on the multilateral trading facility Euronext Growth. While the companies listed on Euronext Growth represent only 5 per cent of the total market value on Oslo Børs, these companies accounted for 35 per cent of the capital raised on all Oslo Børs marketplaces from January through October 2020. In the corresponding period of 2019, only 4.5 per cent of the capital was raised by such companies. 79 per cent of the capital raised by the companies on Euronext Growth in 2020 was raised by 36 companies admitted for trading. 94 per cent of the capital was raised during the period from July through October.

On the basis of the sharp increase in the number of companies listed on Euronext Growth, Finanstilsynet has found reason to remind the investment firms of their investor protection obligations. Investment firms shall give their clients good information about risk and ensure that the clients have the required knowledge and experience to understand the risks associated with the investment.<sup>26</sup>

On Oslo Børs, almost all capital is raised by established listed companies. In the energy sector, 71 per cent of the issues so far this year were completed by the end of February. Most of the issues of new shares have been undertaken by IT firms and solar power companies and other so-called green companies. Also pharmaceutical companies and companies involved in the development of a vaccine or treatment for Covid-19 have issued new shares.

NOK 94.7 billion was raised through the issuance of corporate bonds in the first ten months of 2020, which is an increase of 40 per cent compared with the corresponding period of 2019. Companies engaged in real estate, electricity supply and infrastructure are still the largest issuers in the bond market. The banking and financial sector issued a total of NOK 279 billion during the first ten months of 2020, up 22 per cent compared with the corresponding period of 2019. Covered bonds accounted for the greater part of the issues.

### STRONG GROWTH IN GREEN INVESTMENT PRODUCTS

There has been a significant increase in the offering of sustainable investment products, so-called ESG products<sup>27</sup>, in recent years. Total global issues of green bonds, which are a subgroup of ESG products, increased by more than 50 per cent from 2018 to 2019. At USD 250 billion, these issues represented 3.5 per cent of total global bond issues in 2019.<sup>28</sup>

For the first time since the introduction of green bonds, there was a decrease in issue volume in the first half of 2020. In consequence of the pandemic outbreak and market turmoil, private enterprises chose to postpone planned issues. In the third quarter of 2020, green bond issues were on a level with the third quarter of 2019.

An increasing number of private and public mutual funds and enterprises have included environmental requirements in their asset management mandates. Green investment products are actively marketed, and high returns on many green investment products during the pandemic may also have helped to increase demand for such products. Several analysts point to the risk of overpricing and bubble tendencies in the market.

The number of green investment products on offer is increasing sharply. The International Platform on Sustainable Finance (IPSF), of which Norway is one of the member states, refers to OECD estimates indicating that in order to meet the goals of the Paris

Agreement<sup>29</sup>, climate-related investments must increase to USD 6 900 billion annually by 2030. Internationally, there has been an increase in green government debt, municipal loans and loans issued by state enterprises. In September 2020, Sweden and Germany issued their first green government bonds. During the same month, the European Commission announced that it aims to finance 30 per cent of the EU's EUR 750 billion stimulus package by green bonds.

Traditional green bonds are classified based on how the funds are used, for example for investments in renewable energy. In 2020, a new type of bond, sustainability-linked bonds (SLBs), was launched. These bonds are classified as sustainable, but the criteria are not linked to the use of the funds, but to characteristics of the issuer's activities, such as targets for energy efficiency measures or reduced greenhouse gas emissions. In the loan agreement, the loan terms are dependent on whether the company meets the predefined targets. In June 2020, the International Capital Markets Association (ICMA) published principles for SLBs. The ECB later stated that from 1 January 2021, SLBs may be included in the ECB's bond purchasing programmes and be eligible as collateral for central bank loans. The first SLB issuances from September 2020 include a step-up in the coupon rate of 0.25-0.75 percentage points if the issuer fails to meet the quantified targets in the loan prospectuses. SLBs may be relevant for enterprises with activities that are not covered by classification systems for sustainable activities.

The markets for ESG products and green mutual funds and bonds are characterised by the lack of uniform standards and considerable variation in available information. It is therefore difficult for investors to compare the expected return and risk for different products, and it is uncertain how sustainable the products really are.

The Bank for International Settlements (BIS) has documented that several of the current green bond labelling schemes do not guarantee a reduction in greenhouse gas emissions. It points out that there is

little correlation between green-labelled bonds and reduced greenhouse gas emissions, and that enterprises that issue green bonds do not have particularly low greenhouse gas emissions.<sup>30</sup> Due to the lack of uniform standards for ESG classification of enterprises and green investment products, there are also significant variation in the classification of companies and products. The OECD has examined companies' ESG ratings by various rating providers and finds that there are often wide differences in ratings of the same company and generally a low degree of correlation between the ratings.<sup>31</sup> Internationally, a number of processes are underway to improve the classification systems for green investment products and the information provided to investors, see box 5 on the EU's Taxonomy Regulation.

In the Nordic market, close to all issuers have used independent third-party reviews to verify green bonds. The reviews are made public, and the issuers' disclosure obligations are made publicly available through stock exchange statements. Independent and professionally competent reviews ('second opinion') help to ensure transparency in the market, thus enabling investors to make informed decisions. The EU and ICMA both recommend that independent reviews be used when issuing green bonds and SLBs.<sup>32</sup>

#### **Box 5: Taxonomy Regulation**

In June 2020, the EU adopted the Taxonomy Regulation, which lays the basis for the further development of a system for the classification of sustainable economic activities and investment products. The classification system will, among other things, form the basis for a European standard for green bonds and a pan-European labelling scheme for green financial products aimed at consumers. In order to be defined as sustainable, an economic activity must meet at least one of six defined environmental objectives, and at the same time not do any significant harm to the other environmental objectives.

Detailed technical screening criteria will be drawn up for the relevant environmental objectives included in the Regulation. By the end of 2020, criteria that include climate change mitigation and adaptation will be presented. For the other environmental objectives, supplementary rules will be established by the end of 2021. The Taxonomy Regulation sets new requirements for information to be disclosed in companies' non-financial statements about their activities. The European Commission will, by 1 June 2021, specify the content and presentation of the information to be disclosed. On 31 October 2020, the Ministry of Finance circulated for public consultation a proposal from Finanstilsynet on the implementation in Norwegian law of the Taxonomy Regulation and the Regulation on sustainability-related disclosures in the financial services sector. The deadline for response was set at 8 January 2021.

The Taxonomy Regulation and the Disclosure Regulation introduce rules in an area that to a limited extent is regulated in Norwegian law. Better access to information and harmonised criteria will make it easier for investors to make informed decisions and compare investment products. However, the requirements are comprehensive and detailed and will lead to higher resource use for Norwegian enterprises. Norwegian labelling schemes for green financial products will probably have to be adjusted to be compliant with the new classification system.

### LIQUIDITY RISK IN THE DERIVATIVES MARKETS

Derivatives are used by a large number of financial market players and by a number of non-financial corporations. Derivatives can be used as hedging instruments to mitigate risk or to achieve a desired risk exposure. Norwegian financial institutions use the derivatives markets partly to reduce currency and interest rate risk that arises in connection with borrowing in foreign currency and to hedge the

currency risk associated with investments in international securities markets.

During the market turmoil in the spring of 2020, margin requirements for derivative contracts increased significantly, highlighting the liquidity risk arising when meeting the margin requirements for derivative positions. There was increased focus on the systemic effects of margin payments related to derivative contracts. Both in Norway and internationally, enterprises' need for liquidity to meet margin requirements may have contributed to amplifying market volatility.

### REDUCED COUNTERPARTY RISK IN DERIVATIVES MARKETS AFTER THE FINANCIAL CRISIS

The financial crisis revealed a high level of risk in the derivatives markets. It became clear that both the market participants themselves and the authorities lacked a complete overview of actual market risk. This was especially true for derivative contracts traded outside a formal stock exchange (OTC derivatives). This market, where most of the derivatives trading took place, was characterised by non-standardised bilateral contracts and little transparency. A small proportion of derivatives is traded on regulated marketplaces (exchange traded derivatives, ETDs). These are standardised products traded on established trading platforms and cleared through central counterparties. Information on positions and turnover in these standardised products was far better than for OTC products.

Since the financial crisis, several measures have been implemented to increase insight into the OTC derivatives markets and mitigate risk.<sup>33</sup> The EMIR Regulation<sup>34</sup> on OTC derivatives, key counterparties and trade repositories contains provisions on reporting of derivative transactions, requirements for clearing through central counterparties (CCPs) for certain types of derivatives and collateral requirements (margin requirements). Interest rate derivatives for a number of currencies, including NOK, as well as credit default derivatives, are currently subject to



the clearing requirement. Clearing through central counterparties requires collateral in the form of initial and variation margins, see box about CCPs. With respect to derivatives that are not cleared, the EMIR requires that the parties obtain variation margins, and there are stipulations on the types of collateral that can be used. Within the scope of these stipulations, the contract which is entered into between the counterparties (CSA contract) specifies the collateral and currency used for the variation margins. This will typically be cash or highly liquid bonds. A requirement for initial margins for non-cleared derivative contracts is scheduled to be introduced gradually from 2021. This requirement will only apply to enterprises that trade derivatives in excess of a specific volume.

Increased requirements for the payment of collateral, so-called margining, have helped to reduce counterparty risk. However, margin requirements may result in higher liquidity risk for enterprises that are required to provide collateral, especially in turbulent markets.

#### **Box 6: Central counterparties (CCPs)**

An increasing proportion of derivative contracts is cleared through central counterparties. Globally, this proportion increased from about 20 per cent in 2010 to just over 50 per cent in 2017.\* In the EEA, about 70 per cent of interest rate derivatives, which represent the largest volume of traded derivatives, were cleared centrally in 2019. The corresponding share for credit derivatives was just over 30 per cent, while it was 10 per cent for commodity derivatives. For FX derivatives and equity derivatives, only a marginal share of OTC transactions was cleared through CCPs.

There is broad agreement that CCPs have contributed to greater financial stability by reducing counterparty risk in derivatives trading. Compared with a system of bilateral clearing, the system of multilateral netting reduces exposures in the system, and clearing between players is

simplified. During the financial crisis, the CCPs continued to clear derivative contracts, even though activity in the bilateral markets stalled. Neither the CCPs nor members suffered losses in connection with the liquidation of Lehman Brothers. However, there are examples that non-payment of margins has required CCPs to raise capital from other clearing members to cover losses, including at Nasdaq Clearing AB in 2018.

The CCPs' ever more important place in the financial system means that they have become more systemically important. There is a high concentration of risk associated with clearing OTC derivatives. There are few and large CCPs, few and large member banks and high exposures between the member banks and the CCPs. LCH (formerly London Clearing House) cleared about 90 per cent of new interest rate derivatives at the start of 2020.\*\* ICE (Intercontinental Exchange) had a corresponding market share for credit derivatives. At the same time, the five largest member banks accounted for more than half of derivative contracts that were cleared centrally as a share of the total outstanding nominal amount. High concentration implies that the major systemically important banks and the dominant CCPs are closely interconnected.

There are no Norwegian CCPs. If a Norwegian counterparty is subject to the clearing obligation, the enterprise may become a direct member of a CCP as either a Direct Clearing Member (DCM) or a General Clearing Member (GCM). Alternatively, the enterprise may enter into an indirect clearing agreement with a GCM. The key CCPs for Norwegian enterprises are LCH for interest rate and credit derivatives, Nasdaq Clearing AB for commodity derivatives and SIX x-clear AG for equity derivatives. Relatively few Norwegian banks are clearing members, while there is a somewhat higher proportion of investment firms and non-financial counterparties.

**Margining of derivative contracts may increase liquidity risk**

CCPs use two types of margins, variation margins (determined on an ongoing basis following changes in the market value of derivative positions) and initial margins (taking into account potential changes in the value of the contract over a certain period of time). During turbulent periods, overall margin requirements will tend to increase. Large price fluctuations result in higher variation margin requirements. This was the case during the financial crisis and also during the market turmoil in the spring of 2020. In addition, initial margin requirements increase if the CCPs underestimated market volatility at the outset and adjust their margin requirements when market risk materialises.

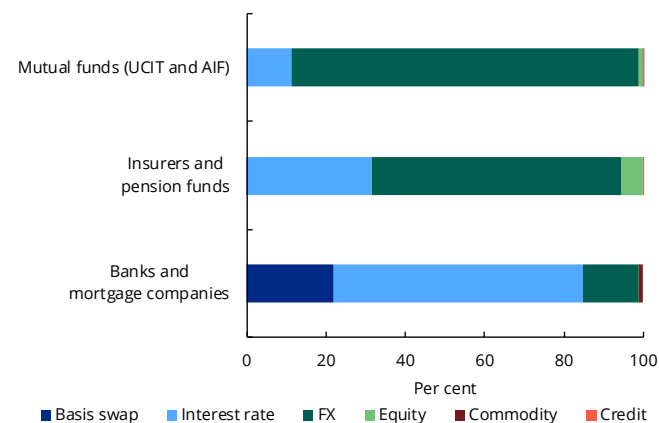
\*Clearing risks in OTC derivatives markets: the CCP bank nexus, BIS Quarterly Review, December 2018  
 \*\* See 'The CCP Bank nexus in the time of Covid-19', BIS Bulletin No 13, 2020

**NORWEGIAN FINANCIAL INSTITUTIONS HAVE LARGE DERIVATIVE POSITIONS**

Most Norwegian banks, mortgage companies and insurance undertaking enter into derivative positions primarily for balance sheet hedging purposes. Financial institutions also enter into derivative contracts with their customers (market making) and as part of proprietary trading. Several of the largest Norwegian financial institutions have derivative positions, in terms of notional value<sup>35</sup>, which exceed their total assets.

The institutions' use of derivatives varies greatly. Banks and mortgage companies typically use derivatives to mitigate interest rate and currency risks arising from the issuance of bonds. Norwegian banks' loans to households and businesses are primarily based on floating interest rates. A bank that finances these assets by issuing fixed-rate bonds will be exposed to changes in floating interest rates. By entering into an interest rate swap where a floating

**Chart 4.3 Notional outstanding amount of derivative contracts by category**



The institutions are grouped according to sector in the EMIR reporting. Source: EMIR reporting as at 30 September 2020

interest rate is paid and a fixed rate is received, the bank will reduce its exposure to interest rate changes.

The largest Norwegian banks and mortgage companies also obtain market funding in foreign currency. Since their assets are generally denominated in NOK, currency risk arises that may be mitigated or eliminated through the use of derivatives. Hedging of currency risk is also often combined with interest rate derivatives.

Measured by notional value, the derivative positions of banks and mortgage companies are dominated by interest rate swaps and basis swaps. According to the institutions' EMIR reporting, such swaps accounted for 63 and 22 per cent, respectively, of outstanding derivatives as at 30 September 2020 (chart 4.3). FX derivatives accounted for 14 per cent of the notional value of banks' and mortgage companies' derivative positions. The composition of Norwegian banks' and mortgage companies' derivative positions roughly equals that of similar institutions in the EEA, according to ESMA statistics.

Insurers and pension funds have liabilities in NOK, but place a portion of their assets in foreign stock and bond markets. The institutions use currency hedging contracts to reduce exchange rate risk. Pure FX derivatives accounted for 64 per cent of insurers'



outstanding derivative contracts as at 30 September 2020.

In addition, pension institutions have long-term obligations that may be difficult to cover in the Norwegian bond market. Some institutions therefore use interest rate derivatives to increase the duration of their assets. Interest rate derivatives represented 32 per cent of the total (notional) outstanding amount of outstanding contracts as at 30 September.

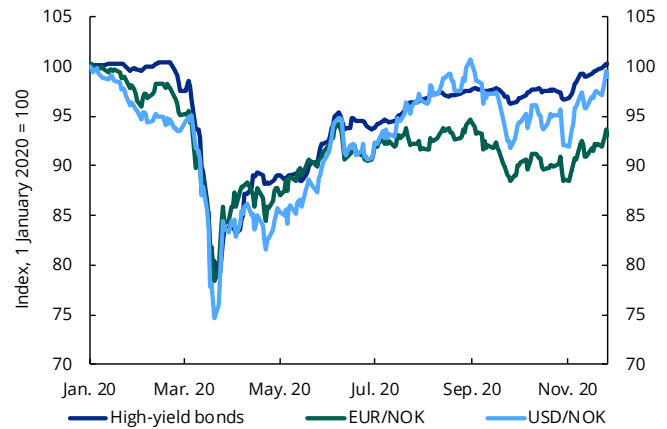
Just like insurers, Norwegian mutual fund providers place parts of their assets in foreign securities markets. In order to eliminate unwanted currency risk, the mutual funds enter into currency hedging contracts. FX derivatives accounted for 87 per cent of the notional outstanding amount of reported derivative contracts for mutual funds.

### THE MARKET TURMOIL HIGHLIGHTED LIQUIDITY RISK

The market turmoil in the spring of 2020 led to a sharp increase in margin requirements for derivatives. Both the initial margin requirements and variation margins rose significantly. It has been pointed out that CCPs base their market risk modelling on short time series, which rarely include periods of market turmoil. When volatility increases, CCPs are thus forced to adjust their initial margin requirements. As an example, TMX, the largest CCP in Canada, increased its initial margin requirements by 15 per cent in March after reassessing the risk situation. According to ESMA, initial margin requirements in European CCPs (EU28) increased by 29 per cent between 21 February and 20 March 2020.

Market volatility may rise if clearing members have to significantly increase their collateral, especially if they do not have sufficient liquid assets available and have to realise illiquid assets. The close links between CCPs and large systemically important banks mean that CCPs' decisions on margin requirements could have adverse systemic effects by reinforcing the pressure on members' liquidity during turbulent market condi-

**Chart 4.4 Developments in high-yield bonds\* and exchange rates**



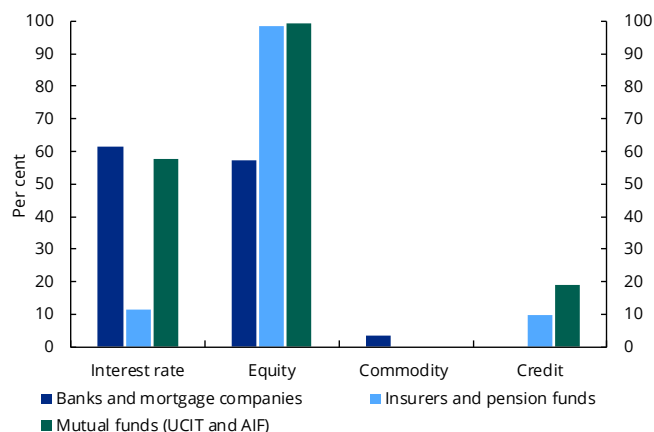
\* High-yield bond index for the US and the euro area (average).  
Source: Refinitiv

tions. From a macroprudential supervision perspective, CCPs' margin requirements should be high enough to address the counterparty risk associated with derivatives trading, while not having a procyclical effect. This implies that initial margin requirements must be so high at the outset that they need not be adjusted upward in the event of market turbulence. In addition, clearing members should have sufficient liquid assets to meet higher margin requirements even during periods of significant market turmoil.

The depreciation of the Norwegian krone in March coincided with a significant fall in equity and bond prices, particularly on high-yield bonds, both in Norway and internationally (charts 4.4 and 1.4). The market turmoil had a pronounced impact on Norwegian financial institutions' liquidity position.

The weakening of the krone led to a strong increase in margin requirements for FX hedging instruments for NOK. These OTC contracts are settled bilaterally and thus not affected by initial margin requirements. Margin requirements widened for insurers and mutual funds that had entered into currency hedging contracts. Margins are normally set in the form of cash or secure securities. In view of the increased uncertainty, there was a trend towards accepting only cash as collateral. In order to meet the margin requirements, Norwegian institutions sold bonds, which

**Chart 4.5 Share of cleared\* outstanding derivative contracts**



\*Cleared percentage of total notional amount.  
Source: EMIR reporting as at 30 September 2020

contributed to greater sales pressure in parts of the bond market and higher risk premiums.

At the same time, the fall in equity and bond prices implied that the value of currency-hedged investments fell below the value of the original currency hedges, making the institutions over-hedged against currency risk. In an effort to compensate for this, the institutions bought back foreign currency and sold Norwegian kroner. In the short term, this resulted in a further weakening of the krone.

During the first quarter of 2020, the notional value of insurers' FX derivatives declined by approximately 10 per cent. Some insurers took out short-term liquidity loans (repos) to finance the increased margin requirements.

The liquidity challenges of Norwegian mutual funds were exacerbated by the redemption of mutual fund units. In March 2020, mutual funds managed by Norwegian managers faced redemptions of almost NOK 50 billion, equivalent to 4 per cent of total assets in the funds at end-February 2020. Parts of the mutual fund assets are liquid assets such as equities, government bonds and bank deposits. However, during the market turmoil in the spring of 2020, several undertakings had to sell assets, including corporate bonds, in a market with reduced liquidity to provide adequate

collateral. This contributed to higher risk premiums in the bond markets.

### CONSIDERABLE VARIATION IN THE CLEARING OF NORWEGIAN DERIVATIVES

Most derivatives traded on a stock exchange are cleared through central counterparties, which means that a high proportion of equity derivatives is cleared (chart 4.5).

With respect to interest rate derivatives, which are subject to the clearing obligation, a relatively large proportion (62 per cent) is cleared for banks and mortgage companies. Residential mortgage companies are exempt from clearing, and the percentage of cleared contracts is therefore low. Based on the EMIR reporting, ten banks reported cleared interest rate derivatives, representing just under 70 per cent of total volume.

Mutual funds also have a high proportion of cleared interest rate derivatives. The majority of these contracts are exchange-traded interest rate derivatives (futures) and not OTC derivatives. Insurers and pension funds have a significantly lower share of cleared contracts (11 per cent). This may be due to the fact that pension funds are exempt from the clearing obligation and that several insurers' positions are not large enough to be encompassed by the clearing obligation.

#### Box 7: The ESRB's recommendation on margining of derivative contracts

In May 2020, the European Systemic Risk Board (ESRB) issued a recommendation on managing liquidity risk arising from margin requirements.\* The recommendation was issued on the basis of high levels of market volatility and subsequent increases in margin requirements in both centrally cleared and non-centrally cleared markets. The recommendation is aimed at competent authorities supervising central counterparties and enterprises trading in OTC derivatives. The objective is to avoid liquidity bottlenecks and

contagion effects among market participants in connection with the exchange of collateral. The ESRB is particularly concerned about the consequences of the Covid-19 pandemic and requirements for additional collateral as a result of built-in parameters in margin models, including rating models that trigger increased margin requirements in connection with downgrades.

\*[https://www.esrb.europa.eu/pub/pdf/recommendations/esrb\\_recommendation200608\\_on\\_liquidity\\_risks\\_arising\\_from\\_margin\\_calls~41c70f16b2.en.pdf?17da572cd7cae5ab20ae79f8786a19a7](https://www.esrb.europa.eu/pub/pdf/recommendations/esrb_recommendation200608_on_liquidity_risks_arising_from_margin_calls~41c70f16b2.en.pdf?17da572cd7cae5ab20ae79f8786a19a7)

## NOTES

<sup>1</sup> In Norway, unemployment is generally measured in two ways. NAV publishes statistics of the number of people who have registered as unemployed with them. The Labour Force Survey (LFS) is a survey corresponding to the international Labour Force Surveys. In the LFS, furloughed employees are not defined as unemployed until they have been furloughed for three months. The unemployment figures from NAV are normally lower than the LFS figures, partly because persons who are not entitled to unemployment benefits are less prone to register with NAV.

<sup>2</sup> From the second quarter of 2015 through 2016, there was a 10 per cent national flexibility quota throughout Norway. Since 1 January 2017, the flexibility quota has been 8 per cent in Oslo and 10 per cent in the rest of the country. In the second and third quarter of 2020, the flexibility quotas were temporarily expanded to 20 per cent.

<sup>3</sup> <https://www2.deloitte.com/no/no/pages/legal/articles/ny-midlertidig-lov-for-a-forhindre-unodvendige-konkurser.html.html#> (in Norwegian only)

<sup>4</sup> A more detailed analysis of the business sector will be published on Finanstilsynet's website in mid-December 2020.

<sup>5</sup> See <https://www.finanstilsynet.no/en/news-archive/news/2020/survey-of-listed-companies-sustainability-reporting/>

<sup>6</sup> See [https://www.ngfs.net/sites/default/files/medias/documents/820184\\_ngfs\\_scenarios\\_final\\_version\\_v6.pdf](https://www.ngfs.net/sites/default/files/medias/documents/820184_ngfs_scenarios_final_version_v6.pdf). See also a description of the NGFS scenarios in [https://static.norges-bank.no/contentassets/b3eb84932f954041899b357b19a5259c/fs\\_financial-stability-2020.pdf?v=11/11/2020142239&ft=.pdf](https://static.norges-bank.no/contentassets/b3eb84932f954041899b357b19a5259c/fs_financial-stability-2020.pdf?v=11/11/2020142239&ft=.pdf)

<sup>7</sup> Norwegian banks issuing listed instruments have been required to comply with IFRS 9 as from 1 January 2018, while the standard became effective as from 1 January 2020 for other Norwegian banks.

<sup>8</sup> Banks that complied with IFRS 9 as from 2018. The sample covers close to 90 per cent of total loans from Norwegian banks.

<sup>9</sup> Large banks: DNB Bank and the six major regional savings banks. Medium-sized banks: Other banks with total assets in excess of NOK 10 billion.

<sup>10</sup> Including lower demand and restructuring needs as a result of the Covid-19 pandemic.

<sup>11</sup> <https://eba.europa.eu/banks-report-significant-use-covid-19-moratoria-and-public-guarantees>

<sup>12</sup> <https://eba.europa.eu/eba-provides-clarity-banks-consumers-application-prudential-framework-light-covid-19-measures>

<sup>13</sup> <https://eba.europa.eu/eba-phases-out-its-guidelines-legislative-and-non-legislative-loan-repayments-moratoria>

<sup>14</sup> Including commercial real estate rental, purchases and sales, as well as the development of construction projects.

<sup>15</sup> The Pillar 2 requirements are entity-specific, and the level in the chart is set at the average requirement for the seven largest Norwegian banks at end-September 2020. The formal decisions about Pillar 2 requirements were introduced in 2016. However, since 2018 Finanstilsynet has assessed the capital targets set by the various banks and clarified its expectations regarding the expected level of CET1 capital.

<sup>16</sup> Bank Norwegian, Brabank, Easybank, Eika Kreditbank, Instabank and Komplet Bank. Brabank and Easybank merged on 1 October 2020.

<sup>17</sup> <https://www.fi.se/contentassets/cee66da9cef94bb581601870db3ff404/bankbarometern-26-juni-2020.pdf>  
<https://www.fi.se/contentassets/ed24e65bc14a450cb7c38d315a14a6c4/bankbarometern-12-november-2020.pdf> (in Swedish only)

<sup>18</sup> <https://www.finanstilsynet.no/nyhetsarkiv/nyheter/2020/lavere-volum-og-hoyre-mislighold-i-forbrukslansmarkedet/> (in Norwegian only)

<sup>19</sup> <https://www.finanstilsynet.no/publikasjoner-og-analyser/soliditetsrapporter-for-finansforetak/> (in Norwegian only)

<sup>20</sup> Figures from Finance Norway: <https://www.finansnorge.no/statistikk/livsforsikringg/sstatistikk-og-nokkeltall-for-livsforsikring-og-pensjon-2019/privat-tjenestepensjon---innskuddsordninger/> (in Norwegian only)

<sup>21</sup> <https://www.finansnorge.no/aktuelt/nyheter/2020/08/koronaepidemien-forer-reiseerstatningene-til-vars/> (in Norwegian only)

<sup>22</sup> <https://reisegarantifondet.no/nordic-guarantee-kansellerer-alle-utstedte-reisegarantier/> (in Norwegian only)

<sup>23</sup> [https://www.eiopa.europa.eu/content/insurance-against-pandemic-risk-eiopa-identifies-options-shared-resilience-solutions\\_en](https://www.eiopa.europa.eu/content/insurance-against-pandemic-risk-eiopa-identifies-options-shared-resilience-solutions_en)

<sup>24</sup> <https://lovdata.no/dokument/LTI/forskrift/2020-04-07-726> (in Norwegian only)

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<sup>25</sup> The usual practice is that bonds with a credit rating below BBB from Standard and Poor's or below Baa3 from Moody's are classified as high-yield (HY) bonds. The remainder are investment grade (IG).

<sup>26</sup> See

<https://www.finanstilsynet.no/contentassets/a35c093abadd47fea035b3cb48d164cd/investeringer-pa-merkur-market-29-oktober-2020.pdf> (in Norwegian only)

<sup>27</sup> ESG stands for Environmental, Social and Governance.

<sup>28</sup> Ehlers, Mojon, Packer, 'Green bonds and carbon emissions: exploring the case for a rating system at the firm level', BIS Quarterly Review, 2020.

<sup>29</sup> One of the aims of the 2015 Paris Agreement is 'making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development'.

<sup>30</sup> The green swan: central banking and financial stability in the age of climate change, BIS 2020

<sup>31</sup> Boffo, R., and R. Patalano (2020), 'ESG Investing: Practices, Progress and Challenges', OECD Paris,

[www.oecd.org/finance/ESG-Investing-Practices-Progress-Challenges.pdf](http://www.oecd.org/finance/ESG-Investing-Practices-Progress-Challenges.pdf)

<sup>32</sup> See 'Usability Guide for EU Green Bond Standard', March 2020 and 'Sustainability-Linked Bond Principles, Voluntary Process Guidelines', June 2020.

<sup>33</sup> The G-20 countries committed to taking such measures in 2009. The Basel Committee on Banking Supervision (BCBS) and the International Organisation of Securities Commissions (IOSCO) have designed international standards for the exchange of bilateral margins in derivatives trading.

<sup>34</sup> European Market Regulation. The EMIR Regulation has been implemented in Norwegian law and entered into effect on 1 July 2017.

See <https://www.finanstilsynet.no/tema/emir/> (in Norwegian only)

<sup>35</sup> A derivative's notional value is the value of the underlying asset. This value may be used to calculate payments on the instrument or the amount sold/received at the end of the contract period.

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