FINANSTILSYNET
THE FINANCIAL SUPERVISORY
AUTHORITY OF NORWAY

RISK OUTLOOK
2016

Risk Outlook 2016

Since 1994 Finanstilsynet has systematically analysed and assessed potential stability problems in the Norwegian financial market against the background of developments in the Norwegian and international economy. This is a necessary supplement to Finanstilsynet's ongoing supervision of individual institutions. Much of the assessment of individual institutions' profitability, financial strength and risk needs to be carried out in light of the general state of the financial market. As from 2003 Finanstilsynet has given its view of the state of the financial market in a separate report. The report summarises financial institutions' results for the previous year, and assesses risks facing banks and other institutions in the Norwegian financial market and potential sources of future stability problems in the Norwegian financial system. Finanstilsynet publishes the report *Risk Outlook* in the spring and *Financial Trends* in the autumn.

RISK OUTLOOK 2016

Cut-off date 7 June 2016.

SUMMARY

The oil price fall is making its mark on the Norwegian economy. Activity levels in the oil sector have fallen sharply, and there is substantial overcapacity in oil-related industries. Large parts of the offshore fleet are laid up, and many companies are making workforce reductions. However, ripple effects to the wider Norwegian economy have thus far been limited. Expansionary fiscal policy, low interest rates and a weaker krone exchange rate are helping to maintain activity levels in other parts of the economy. The oil price fall has mainly affected regions with a large element of oil-related industries.

International economic developments still reflect large uncertainty, and episodes of market turbulence have been in evidence. The decline in the oil price has done little to stimulate global activity. Growth has slowed in China, and is moderate in the US. Many EU countries continue to show high levels of public and private debt, slow growth and high unemployment. The flow of refugees to Europe and the UK's EU referendum are contributing to the economic uncertainty. Low prices of oil and other commodities are depleting financial buffers and have led to a sharp economic downturn in many commodity-producing countries such as Russia and Brazil.

International financial markets are marked by extraordinary monetary policy measures in the form of key rates close to or below zero and quantitative easing designed to stimulate demand for goods and services, and interest rates are expected to remain very low for a long time. Low interest rates and central banks' purchases of securities are providing strong impetus to borrowing in the public and private sector alike and to increased risk taking in the securities and real estate markets. This compounds the risk of financial imbalances.

Households' debt burden and house prices are at historically high levels. Many households are heavily indebted relative to income and their financial buffers are small. Growth in household debt and house prices has continued to outstrip growth in incomes. However, there are wide regional differences in the housing market, with a fall in prices in Stavanger and very rapid price growth in Oslo. The growth in credit and house prices has helped to maintain activity levels in the Norwegian economy. Low borrowing costs and expectations of a protracted low interest rate are an important contributory factor. Despite a weaker trend and increased uncertainty in the Norwegian economy, there is a risk that the rapid growth in house prices and household debt could last for a period. Such an outturn would heighten the risk of a subsequent sudden, sharp decline in house prices and economic setback.

Consumer loans represent a small share of households' overall debt, but this debt is growing strongly, and the market is characterised by very active marketing by banks and finance companies. Consumer loans carry high interest, and poor servicing capacity can impose heavy burdens on many individuals. Losses on such loans could rise substantially in a downturn. Banks' reputation may also be impaired. Banks should acknowledge a particular responsibility for safeguarding their customers' long-term interests when offering such loans.

Commercial properties providing stable rental income are attractive investment objects. The decline in direct return (rental income relative to price) is driven by low interest rates and lower risk premiums on this type of investment. The market for commercial property is highly cyclically sensitive.

Norwegian banks are heavily exposed to residential and commercial property. In the event of a sharp fall in the property markets, banks will suffer substantial losses, both direct losses on loans secured on property and indirect losses as a result of economic ripple effects to large parts of the Norwegian economy.

Banks have returned good profits in the years following the financial crisis. Non-performance and loan losses remain at a low level, and banks have not seen a need to increase their loss provisions to an appreciable degree. There is substantial overcapacity at many offshore companies, and it is highly uncertain whether laid-up vessels will ever resume activity. Banks' collateral values are substantially reduced, and history provides little basis for the valuation of current collaterals. There is a risk that historical loss and default figures understate true loss potentials.

The volume of loans from Norwegian banks to borrowers on repayment relief has risen of late. This was also seen during the banking crisis in Norway and after the international financial crisis. Forbearance has in general taken the form of reduced instalment payments or longer maturity periods. Even where borrowers are still able to pay interest on their debt, and the debt is therefore not classified as non-performing, banks must none the less evaluate the risk of loss on these loans and make the necessary loss provisions. It is important that banks provision sufficiently for loss on risky exposures, both on individual exposures and exposure groups.

Norwegian banks have increased their equity capital following the international financial crisis, mainly by means

of profit retention. While the common equity tier 1 capital ratio has risen substantially in the period, the leverage ratio has risen by a smaller margin. The latter is still no higher than it was in the mid-1990s. This is because total assets have grown faster than risk weighted assets.

Norwegian banks obtain a large share of their funding in the wholesale market. Much of it is denominated in foreign currency and has a maturity below three months. Risk premiums on banks' funding rose through 2015 and up to the start of 2016, but have fallen somewhat of late. Norwegian banks are vulnerable to turbulence in international money and capital markets. It is therefore imperative for banks to maintain sufficient liquid reserves and to fund their long-term assets on a long-term basis.

About 20 per cent of the banking groups' funding consists of covered bonds. This share rose substantially in the years following the financial crisis, but has now stabilised. Banks gained access to long-term funding on relatively favourable terms in a turbulent period. However, covered bond issuance has concurrently reduced the volume of unencumbered assets, which could impair liquidity in the banking system in turbulent times when the need for encumbrance is greatest.

Liquidity reserve requirements (LCR) on the banks and favourable treatment of covered bonds under the Solvency II regime for life insurers have led to increased demand for covered bonds. The banks have large holdings of covered bonds issued by other banks. Cross-ownership in the banking sector heightens systemic risk. Large holdings of covered bonds in life insurers' portfolios increase the interconnectedness between banks and insurers. This heightens the risk that problems in the banking sector will be passed on to the insurance sector and vice versa.

Access to relatively favourably priced covered bonds has contributed to longer-term bank funding, but may also have intensified growth in household credit and in house prices, rendering banks and the Norwegian economy more vulnerable to a setback in the housing market. It is important that banks' asset encumbrance be kept to a prudent level ahead.

There is considerable uncertainty regarding the likely path of the international economy and the consequences for the Norwegian economy of low international growth and low oil prices. With a basis in that uncertainty, a theme chapter in this report considers two possible scenarios for the Norwegian economy in the period 2016-2020. One scenario is relatively favourable while the other (the stress scenario) incorporates several years of low and/or negative GDP growth and a strong increase in unemployment. In the stress scenario house prices fall substantially and households' and firms' interest burden increases. Credit growth comes to a halt, but debt remains at a high level. Banks' problem loans rise sharply, losses on loans to firms in particular rise steeply, and capital adequacy declines. A substantial share of the largest banking groups will not meet the requirements on common equity tier 1 capital at the end of 2020 in this stress scenario. This scenario does not represent an anticipated outturn, but neither is it improbable.

Life insurers and pension funds face major challenges in coming years. Low interest rates make it difficult to achieve sufficient return on contracts offering an annual guaranteed rate of return. Rising longevity compels pension institutions to make extra provision for increased liabilities. Pension institutions have already provisioned for about 90 per cent of the overall requirement for increased longevity provisions. What remains of the need for increased provisioning refers primarily to the paid-up policy portfolio.

Under Solvency II insurance liabilities are measured at market value. The current low interest rate level entails significantly increased liabilities compared with the rules in force up to 31 December 2015. The new regime brings substantially higher capital charges which more adequately reflect the risk involved. Life insurers are allowed a period of 16 years in which to adapt to the new rules, implying a gradual escalation of technical provisions to the point where, by the end of the escalation period, they match the insurance liabilities' market value.

Solvency II does not apply to pension funds, which will be subject to the capital requirements under Solvency I until further notice. In Finanstilsynet's view the Solvency II requirements provide a better picture of pension funds' actual financial position than the current solvency framework. Finanstilsynet has therefore recommended that pension funds be subject to a capital requirement based in stress test I, which is a simplified version of the requirement under Solvency II.

CHAPTER 1 ECONOMIC TRENDS AND MARKETS

Growth in the international economy remains weak, and is slowing in the emerging economies in particular. In some countries GDP is contracting. For the industrialised countries as a whole the relatively weak upturn is expected to continue over the next two years or so, but with wide differences between the countries. For the Norwegian economy forecasts indicate low growth in the current year, but an upturn from 2017 onwards. Oil-related industries are hard hit by the low oil price, with a marked fall in activity levels and impaired profits. However, the ripple effects to the wider economy have thus far been limited. This has increased the regional differences. Expansionary fiscal policy, low interest rates and a weakened krone exchange rate are helping to maintain activity levels. At the same time growth in household debt and house prices continues to outstrip growth in household incomes. Commercial property prices have risen while office rental prices have levelled out or fallen.

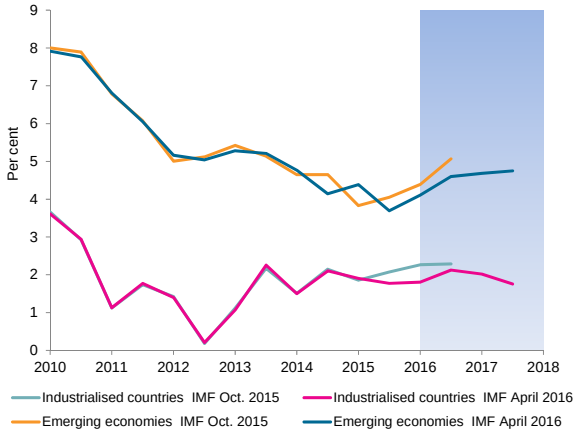
INTERNATIONAL ECONOMY

Global growth in 2015 is put at just over 3 per cent. The growth rate among emerging economies was about twice as high as in the industrialised countries, but subsided in 2015. Hence the relatively weak trend in the international economy appears to be continuing, and most countries have problems in bringing growth up to previous levels. The IMF, World Bank and OECD have revised down their forecasts for the world economy in 2016 and 2017 by a further margin in the past half-year (chart 1.1). Weaker growth is expected in emerging economies such as China, Russia and Brazil. Many developing countries are hard hit by falling commodity prices.

The IMF expects growth in the world economy to remain weak in 2016, but somewhat higher growth is anticipated in 2017. Emerging economies and developing countries are expected to account for the bulk of the upturn, but growth rates are likely to be significantly lower than previously. This is ascribed to weaker growth in oil-exporting countries, and in countries that are large exporters of other commodities, and to lower growth in China.

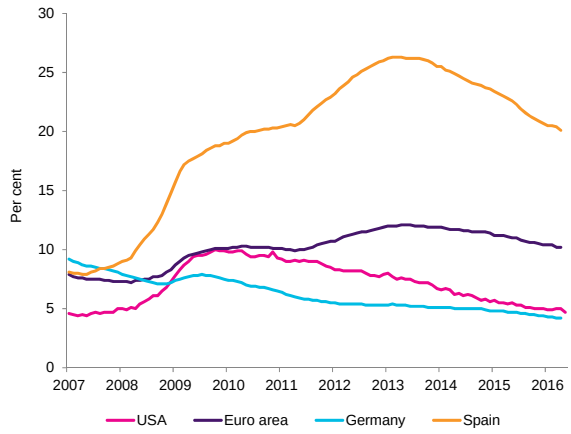
In the US growth slowed towards the end of 2015 and slowed further in the first quarter of 2016. This was due above all to reduced exports, but weak domestic demand also contributed. However, employment rose and unemployment declined (chart 1.2). The IMF expects growth to pick up gradually ahead as a result of lower gearing among firms, more expansionary fiscal policy and an improved housing market. A strong US dollar, lower global

1.1 GDP growth for industrialised countries and emerging economies, and forecasts given at various times



Sources: IMFs World Economic Outlook, October 2015 and April 2016

1.2 Unemployment in selected countries



Source: Thomson Reuters Datastream

demand and a weaker trend in the oil and supplier industry are however expected to make a negative contribution (table 1.1).

Growth in the euro area subsided gradually through 2015, but picked up somewhat in the first quarter of 2016. There are wide differences between countries. In Germany the vigorous upswing in output in 2014 was replaced by moderate growth through 2015. In the first quarter of 2016 growth quickened considerably. In France and Italy growth was modest in 2015 and, in these countries too, growth is somewhat higher thus far in 2016. Among the previous crisis countries in the euro area Spain, and above all Ireland, showed a high growth in 2015, while output continued to fall in Greece. This development continued in the first quarter of 2016. After falling for three years, GDP in Finland edged up in 2015 and into 2016. The growth picture in the euro area is reflected in the labour market. Overall unemployment has fallen by just over one percentage point

Table 1.1 Key macroeconomic variables. Forecasts for 2015 and 2016

	USA			Euro area			China		
	2015	2016	2017	2015	2016	2017	2015	2016	2017
GDP	2,4	2,4	2,5	1,6	1,5	1,6	6,9	6,5	6,2
Inflation	0,1	0,8	1,5	0,0	0,4	1,1	1,4	1,8	2,0
Unemployment	5,3	4,9	4,8	10,9	10,3	9,9	4,1	4,1	4,1

Source: IMF, World Economic Outlook, April 2016

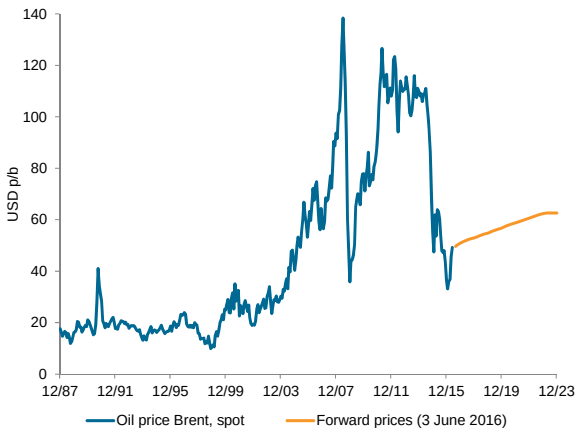
over the past year, but it remains high (chart 1.2). In Germany unemployment has fallen substantially since 2009.Recent years have also seen a sharp decline in unemployment in Spain. The IMF expects continued moderate growth in the euro area ahead (table 1.1). The weak trend in international demand is expected to be offset by lower energy prices, somewhat expansionary fiscal policy and low interest rates. Growth prospects in the euro area are weakened by high private and public debt, low investments and high unemployment.

Growth has been considerably higher in the EU countries outside the euro area. This growth looks set to continue although the differences have narrowed. Growth in the UK slowed in 2015 and into 2016, but forecasts none the less point to somewhat higher growth than in the euro area in the next two years or so. Sweden has seen a positive trend since summer 2013, and this is expected to continue. Forecasts show a broad-based upturn in both 2016 and 2017.

In China growth subsided through 2015 and into the first quarter of 2016. This should be viewed in light of the ongoing structural shift in the economy from investment-driven to consumption-driven growth. Property sector investments and lower activity levels in manufacturing both pulled down growth. Towards year-end and into 2016 exports also plunged, but in March a new upturn ensued. The increase in private consumption has not sufficed to maintain recent years' high GDP growth. The structural realignment of the economy and very high domestic indebtedness has increased financial market volatility and triggered stimulatory measures from the government. Uncertainty has increased, and forecasts are revised down somewhat. The IMF anticipates receding – but still high – growth.Russland er inne i en tung økonomisk periode.

Russia is in a taxing period for the economy. Sanctions and the oil price fall are hitting hard, and the national currency, the rouble, has depreciated steeply, bringing high inflation and decline in purchasing power and demand. GDP contracted markedly in 2015, and growth prospects are bleak. The IMF foresees a further decline in GDP in 2016. Brazil is in the throes of a steep economic decline. The country is severely affected by low commodity prices and high real interest rates. GDP dropped 3.8 per cent in 2015, and a similar fall is expected in 2016. India, on the other hand, has benefited from lower oil and food prices, which have contributed to lower inflation, enabled interest rate reductions and improved real household incomes. The outlook is bright, and the IMF expects GDP growth of about 7.5 per cent in both 2016 and 2017.

1.I Price of crude oil



Sources: Thomson Reuters Datastream and CME Group

OIL MARKET

The oil price fell by 67 per cent between the end of the first half of 2014 and the end of 2015.[1] This price fall can be viewed in light of changes in both supply and demand. Increased production of American shale oil and OPEC's maintenance of production quotas contributed to a high supply, whereas weaker economic growth in Europe and China brought lower demand. Between the turn of the year and the start of June 2016 the oil price rose 32 per cent to USD 48 per barrel (see chart 1.I). The World Bank explains this rise in terms of oil production disturbances in Iraq and

[1] The price fall was 77 per cent from 19 June 2014 to 20 January 2016.

Nigeria, a decline in oil production in the US, a weaker dollar and increased demand for oil.

Overall global demand for oil rose by 1.8 million barrels per day (2 per cent) in 2015, while supply rose by 2.7 million barrels per day. The growth in the net supply has brought increased inventories – particularly in North America, Europe and the Pacific Ocean Area – which are close to record levels. However, inventory increases declined markedly in March this year. Overall demand for oil is estimated by the World Bank to rise by 1.2 million barrels per day in 2016. The World Bank expects reduced production at high-cost, short-lived fields to contribute to a better balance between supply and demand for oil. The World Bank stresses that the path of oil production is a matter of great uncertainty. The price upturn in recent months has improved cash flows for production companies, a number of which have also locked in high selling prices for future production. Although a number of production companies can probably still cut costs through efficiency gains, the World Bank believes the potential for efficiency gains to be largely exhausted.

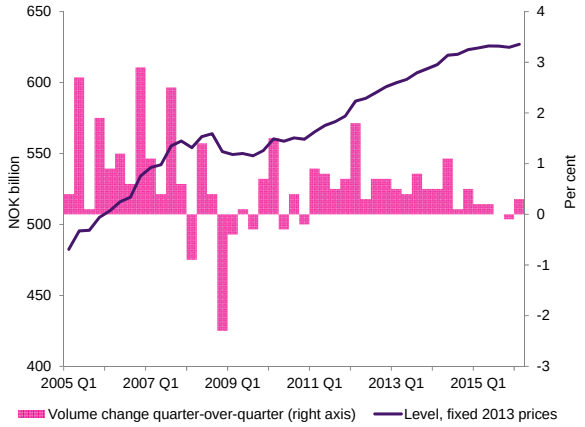
According to the World Bank's forecasts from April, the oil price (measured as an average of differing oil qualities and over the year) will be USD 41 per barrel in 2016, rising to USD 50 and 53 per barrel in 2017 and 2018 respectively. At the start of June the forward price of a barrel of oil (Brent) for delivery in 2017 and 2018 (annual average) was USD 52.1 and 54.0 respectively.

NORWEGIAN ECONOMY

Growth in the Norwegian economy in 2015 was the weakest since the financial crisis brought a weaker level of activity in 2009. The second half of 2015 saw a slight downturn in the economy, whereas GDP growth for Mainland Norway recovered moderately in the first quarter of 2016 (chart 1.3). The majority of the growth was however due to higher electricity output. When that is excluded, GDP for Mainland Norway rose by a mere 0.1 per cent in the first quarter.

The weak growth is driven primarily by reduced demand from the petroleum sector. Oil investments started to fall towards the end of 2013, and investments have fallen by almost a third over the past 2½ years. The decline, which at base was due to high costs, was heavily intensified by the fall in the oil price as from the summer of 2014. The oil price has also had a negative effect on mainland investments in the shape of a substantial investment decline in the supplier industry.

1.3 GDP, Mainland Norway



Source: Statistics Norway

While activity in the oil sector and the supplier industry has plummeted, ripple effects to other parts of the Norwegian economy are thus far limited. The depreciation of the Norwegian krone has enabled a substantial improvement in costs for segments exposed to foreign competition. Low interest rates are fuelling property prices and debt growth in the household sector, and the overall effect is to hold up levels of consumption and housing investment. Expansionary fiscal policy has also stimulated the economy. The government's revised national budget incorporates an overall contribution to increased demand for goods and services corresponding to 1.1 per cent of value creation in the mainland economy in the current year.

Despite rising somewhat in recent months, the oil price remains low, which will curb growth in the Norwegian economy. Statistics Norway, Norges Bank and the Ministry of Finance all project a continuation of the slump in 2016 (table 1.2). All three institutions expect growth to pick up again as from 2017, but at a moderate rate.

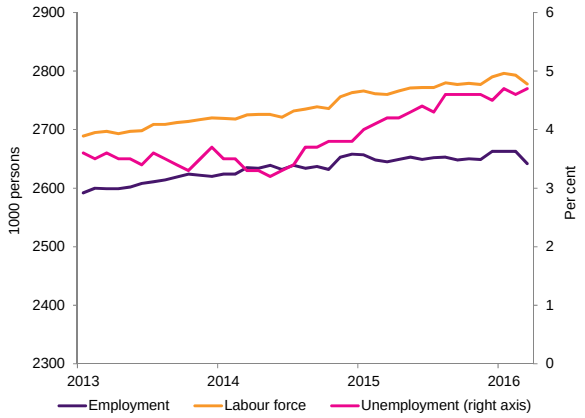
The two-tiered economy is reflected in Norges Bank's regional network. Although aggregate output edged up slightly in the past three months, sectoral figures show wide differences. While services to households and traditional manufacturing industry show the highest growth, oil suppliers report the steepest fall in output. The negative regional trend has also spread to other industries, and the construction industry in southern and western Norway is hit by a decline in housing construction. The decline is compounded by an increased office vacancy rate which has contributed to lower activity in commercial building starts and rehabilitation. Service industries have seen weak growth in recent months, and demand from households has outstripped demand from industry. The impression of a two-tiered economy is confirmed by the Confederation of Norwegian Enterprise (NHO). NHO-affiliated firms report a

Tabell 1.2 Key macroeconomic variables for the Norwegian economy. Forecasts 2016-2017. Percentage change from previous year except as otherwise stated

	2015	2016			2017		
	Accounts*	Statistics Norway	Norges Bank	Ministry of Finance	Statistics Norway	Norges Bank	Ministry of Finance
Private consumption	2,0	1,3	1,6	1,0	2,2	2,2	1,7
Gross fixed investment, Mainland Norway	-3,0	1,2	-1,4	0,3	1,6	3,7	4,9
Housing investments	1,6	6,1	5,9	4,2	2,5	2,4	3,4
Traditional exports**	4,8	0,4	2,3	3,1	4,4	3,7	4,2
GDP Mainland Norway	1,0	0,9	0,8	1,0	2,1	1,8	1,7
Unemployment rate – Labour Force Survey***	4,4	4,7	4,6	4,7	4,5	4,4	4,6
Annual pay	2,8	2,6	2,6	2,4	2,7	2,8	2,8
House prices	6,1	4,4	–	–	5,9	–	–

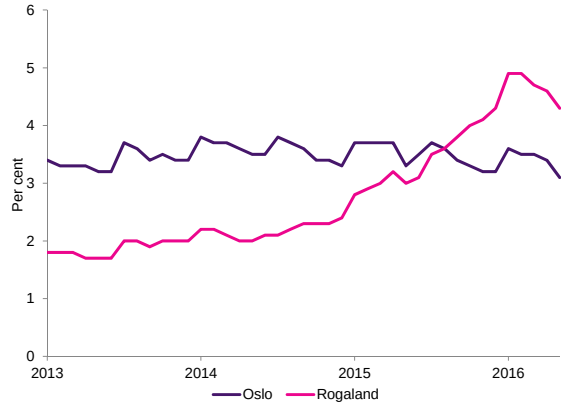
* Preliminary figures. ** Norges Bank: exports from Mainland Norway. *** Level in per cent.Sources: Statistics Norway, Norges Bank and Ministry of Finance

1.4 Unemployment, labour force and employment



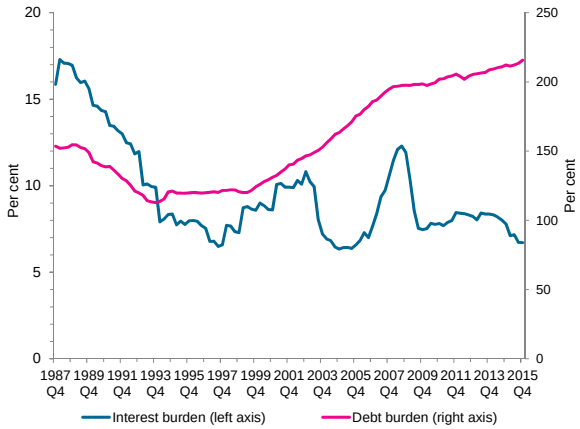
Source: Statistics Norway

1.5 Registered unemployment in Rogaland and Oslo



Source: Norwegian Labour and Welfare Administration (NAV)

1.6 Household debt and interest burden

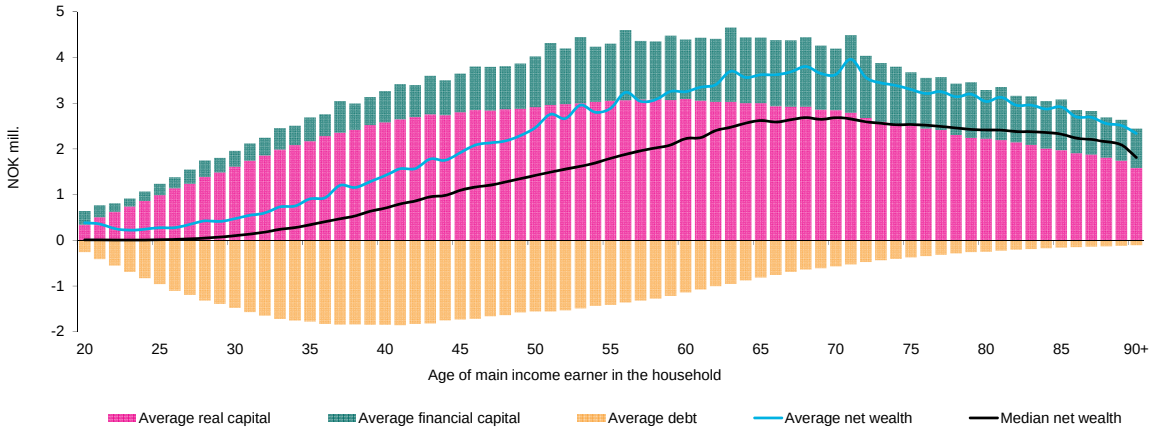


Sources: Statistics Norway and Finanstilsynet

steadily weaker market situation, and most NHO segments view prospects ahead as negative. This is especially true of firms in petroleum-related activity and information and communication businesses. At the same time, greater optimism is in evidence in the tourist and seafood industries.

Business investments in Mainland Norway have declined over the past three years. The decline slowed towards the end of 2015, and investments rose in the first quarter of 2016. There are significant differences between industries, and the negative trend in oil-related industries has contributed to a marked fall in manufacturing investments. However, in the first quarter of 2016 investment activity picked up in a number of manufacturing segments. According to Statistics Norway's investment census the rise

1.7 Household wealth and debt, 2014



Source: Statistics Norway

in manufacturing investments is expected to continue in the current year due to growth in export-oriented business. This impression is confirmed by Norges Bank's regional network which expects moderate growth in the level of investment in the next twelve months. An expected decline in investment among oil suppliers is to some extent offset by a weak increase in other sectors. The local government and hospital sector is planning for a fairly marked increase in the level of investment.

The surveys by Norges Bank and the NHO show that profits in the corporate sector fell over the course of 2015. This is confirmed by accounts for listed companies showing that profits in 2015 were the lowest since 2002. The operating margin fell sharply in the second half-year. About half of the listed companies recorded a deficit in the fourth quarter of 2015.

The cyclical downturn has brought increased unemployment (chart 1.4). There are however wide regional differences. According to the Norwegian Labour and Welfare Administration unemployment is now highest in Rogaland where the jobless figure for May was 45 per cent higher than in the same month of 2015 (chart 1.5), and in the Agder counties. Elsewhere in the country unemployment has remained low, and has fallen in south-eastern Norway and in the northernmost counties.

Higher unemployment and lower income growth have contributed to lower growth in private consumption in the past year. Consumption was nevertheless a positive driver for growth in the Norwegian economy in 2015. The first quarter of 2016 saw a moderate increase in private consumption, and growth was lower than in the preceding quarter. The interest rate fall and continued high growth in house prices have helped to maintain consumption.

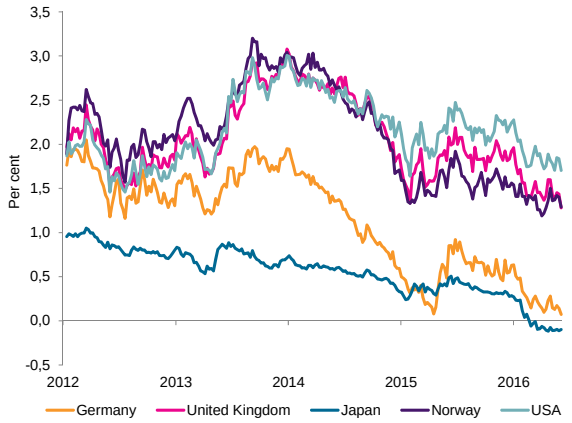
Somewhat lower wage growth and rising unemployment are expected to dampen growth in private consumption in 2016.

Households' debt burden (debt as a share of disposable income) is unprecedentedly high (chart 1.6). Household debt has risen faster than incomes for about 20 years. This continued in 2015 and into the first quarter of 2016. At the same time the decline in interest rates since 2008 has diminished the interest burden (interest payments as a share of disposable income). The high, and rising, debt level renders households even more vulnerable to an interest rate hike or loss of income. In aggregate, households' financial assets exceed their debt. However, about a third of these assets are illiquid pension rights. Figures for households' income account also show wide differences in debt, interest expenses, income and wealth between different income and age groups. The younger age groups in particular have the highest debt burden, and also the lowest financial buffers (chart 1.7). There are also wide differences within each age group.

SECURITIES AND FOREIGN EXCHANGE MARKETS

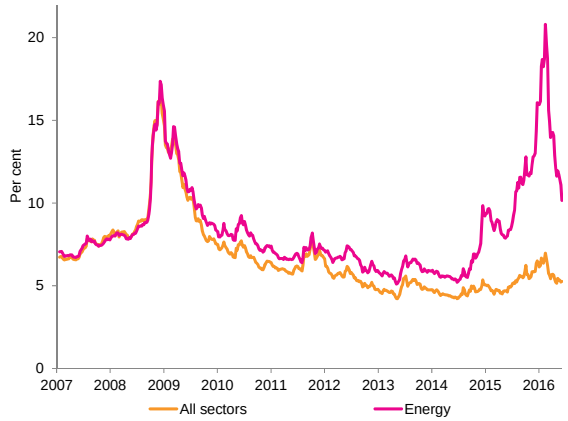
Turbulence marked the securities markets through 2015 and at the start of 2016. In January and February of the current year risk premiums increased substantially in the most risk exposed fixed income markets, and many market prices fell. Increased uncertainty regarding global growth prospects, in particular the development in China, along with falling inflationary expectations in many economies, contributed to the turbulence. Low commodity prices are depleting financial buffers in commodity-producing countries. The IMF points out that the market turbulence may also be due to impaired confidence in government authorities' ability to steer the economies in a positive direction in the years ahead.

1.8 Ten-year government bond yields



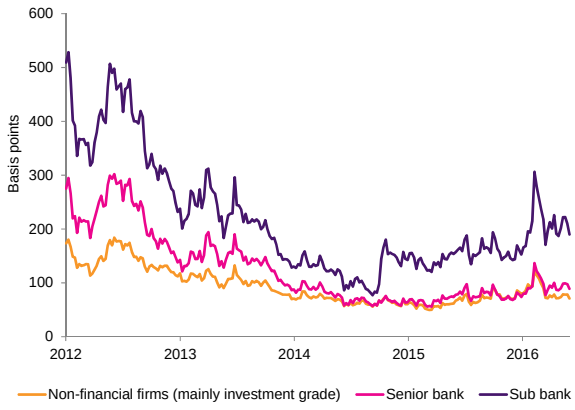
Source: Thomson Reuters Datastream

1.9 Yield on US high-yield bonds



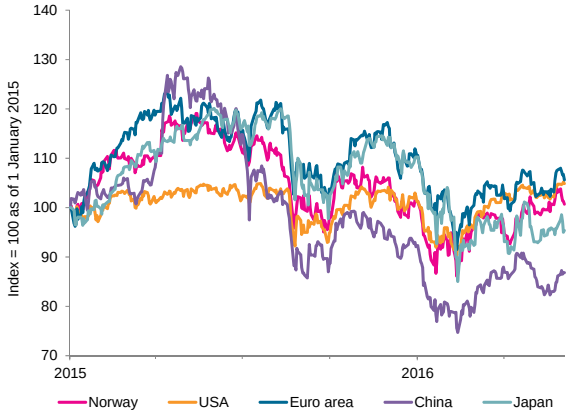
Source: Thomson Reuters Datastream

1.10 CDS prices for European bonds



Source: Thomson Reuters Datastream

1.11 Return on shares, MSCI indices



Source: Thomson Reuters Datastream

The US Federal Reserve raised the key policy rate in December, as expected. Since New Year market expectations of further rate increases in the US have been dampened. A further reduction in the interest rate level is expected in a number of other countries. Weaker growth and inflation prospects have strengthened belief in a protracted expansionary monetary policy. Several central banks have lowered their key rates in the current year, including those in the euro area, Japan, Sweden and Norway.

Long-term government bond rates in the US, Germany, Japan and the UK have fallen substantially thus far in 2016. The fall can be viewed in connection with the rising demand for presumptively safe government bonds due to increased risk aversion and with expectations of more expansionary monetary policy in a number of countries. Norwegian government bond rates have also fallen (chart 1.8). The share of government debt in the euro area with a negative effective interest rate rose according to the IMF from 33 per cent in December 2015 to 43 per cent in February 2016.

Risk premiums in the credit market rose through 2015 and relatively strongly at the start of 2016, especially for companies with a low credit rating. In the US market for high-yield bonds, interest rates in the energy sector rose sharply up to February this year, peaking at 20 per cent (chart 1.9). In the corresponding Norwegian market, rates have shown the same trend. Other parts of the high-yield bond market also showed rate increases, but far weaker than in the case of the oil-price-exposed parts of the market.

The increase in risk premiums brought higher funding costs for segments of the corporate market. Falling inflation, especially in the euro area, has contributed to a stronger increase in real interest rates than in nominal rates. The risk premiums were partially reversed towards the end of the first quarter of the current year. While the search for yield

prompted by low interest rates has probably pushed down risk premiums, market perceptions of increased uncertainty may have worked in the opposite direction.

Risk premiums also rose for banks, and CDS prices on bank debt picked up through 2015 and especially during the market turbulence early in 2016 (chart 1.10). Risk premiums have subsequently fallen back somewhat.

Equity markets plunged in connection with the market turbulence at the start of 2016 (chart 1.11). This fall has now largely reversed. The oil price rise and prospects of very expansionary monetary policy for a long period have supported equity prices in a number of countries. The return on shares quoted on Oslo Børs was barely positive in 2015. After the share price fall at the start of 2016 most indices at Oslo Børs have risen, most strongly in the case of the energy index.

Market turbulence in autumn 2015 and at the start of 2016 led to a sharp rise in volatility in international equity markets. This was most marked in the Chinese market, but volatility also rose substantially in the Japanese and European markets. Implicit volatility, which is a measure of expected future volatility, is at a normal level at the start of June.

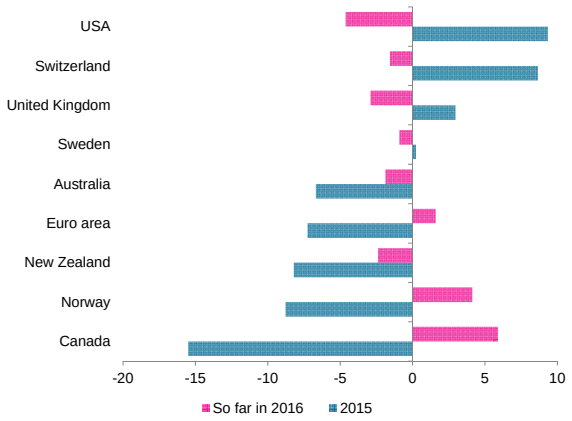
The US dollar appreciated against most currencies over the course of 2015. The Norwegian krone, the euro and the currencies of a number of commodity-producing countries depreciated (chart 1.12). Falling prices of oil and other commodities, weaker growth prospects for the euro area and prospects of higher interest rates in the US explain some of the exchange rate movements. The trend has partially reversed in 2016. This may be related to the oil price rise and the postponement of the expected interest rate increases in the US. There has been high correlation between changes in the oil price and changes in the krone exchange rate against the US dollar since the oil price fall started in 2014. Measured in terms of the import-weighted exchange rate, the Norwegian krone is about 15 per cent weaker than in summer 2014 when the oil price fall started.

SELECTED MARKETS

CREDIT MARKET

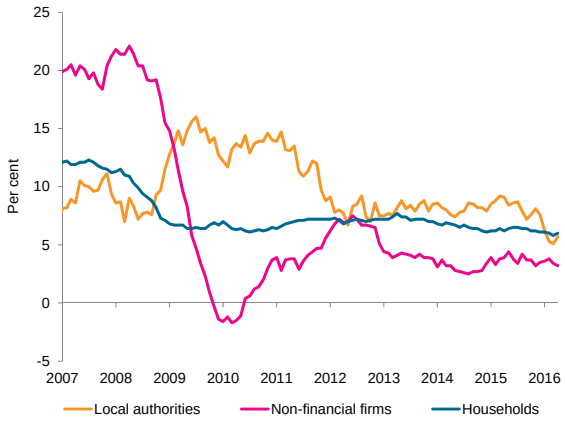
Overall credit growth (C3) has abated. Twelve-month growth declined from just over 7 per cent at the start of 2015 to just under 4 per cent in March 2016. Growth in debt from foreign sources to the oil and shipping industries has been markedly negative in recent months. Growth in overall credit to Mainland Norway also subsided slightly in the past year, and was 4.6 per cent in March 2016. At the start of 2015, twelve-month growth was 6.5 per cent.

1.12 Effective exchange rates*



*Expresses relative value against a trade-weighted basket of other currenciesSource: Bank of England

1.13 Growth in domestic credit to households, non-financial firms and local authorities (C2)

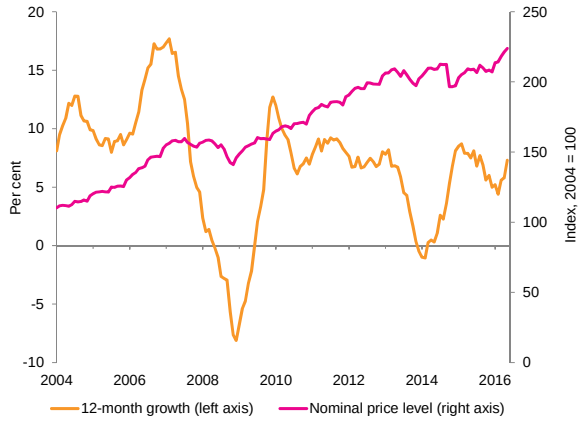


Source: Statistics Norway

The rate of growth in non-financial private sector debt to domestic credit sources (C2) slowed somewhat in the past year (chart 1.13). Twelve-month growth in household credit has hovered around 6 per cent in recent months. Home mortgage loan rates have fallen, and low interest rates are stimulating growth in credit and house prices. Growth in non-financial firms' gross debt to domestic sources has been relatively low in the past three years. Growth in local authorities' gross debt to domestic sources was high up to the turn of 2016, but has now abated.

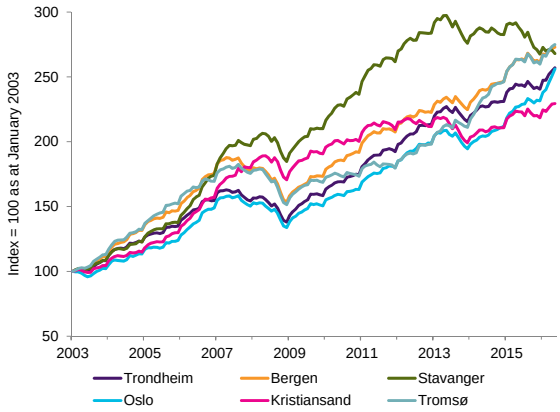
The issue volume in the Norwegian bond market in 2015 was below amounts falling due, thereby reducing the outstanding bond debt. This may be due to a marked increase in risk premiums and generally poorer liquidity in the high-yield bond segment. Activity was lower in all segments apart from municipal bonds and financial bonds.

1.14 Prices of existing homes, 12-month growth



Sources: Eiendom Norge, Eiendomsverdi and Finn.no

1.15 Regional prices of existing homes



Sources: Eiendom Norge, Eiendomsverdi and Finn.no

Table 1.3 Growth in prices of existing homes in per cent, May 2016, non-seasonally adjusted prices

Area	May 2016	So far 2016	12-month growth	From end-2008
Oslo	2,2	10,6	12,8	91,5
Bergen	0,4	4,5	3,7	77,9
Trondheim	1,1	6,9	5,6	86,2
Stavanger	-1,0	0,2	-7,0	45,0
Kristiansand	0,2	5,0	2,8	34,4
Tromsø	0,6	5,8	4,4	81,5
Norway	1,1	7,9	7,3	71,4

Sources: Eiendom Norge, Eiendomsverdi and Finn.no

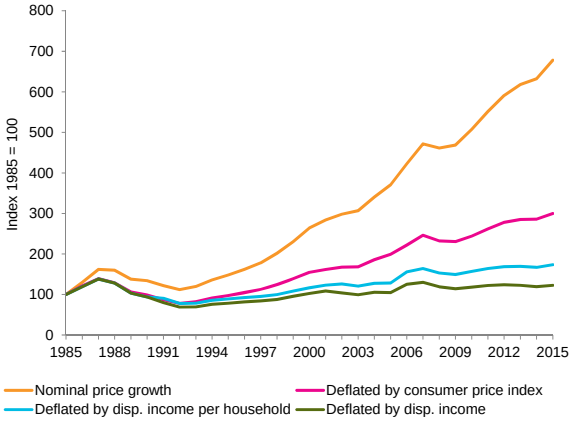
1.16 Number of homes sold per year and so far in 2016

*Januar through May.Sources: Eiendomsverdi, Eiendom Norge and Finn.no

1.17 Housing starts and growth in number of households

*January through April. Source: Statistics Norway

1.18 Trend in house prices, various deflators



Source: Statistics Norway

Over the course of the first five months of 2016 the issue volume in the Norwegian bond market was somewhat lower than in the same period of 2015. Market participants expect continued low activity for corporate bonds in general, in particular in the high-yield segment.

HOUSING MARKET

House prices rose substantially through 2015, in particular in the first half-year. Thus far in 2016 price growth has been strong, and prices of existing homes are at a historically high level. At the end of May prices of existing homes were 7.9 per cent higher than at the start of the year, and twelve-month growth was 7.3 per cent (chart 1.14 and table 1.3).

Regional differences became clearer through 2015, and more so into 2016. Price growth has been particularly strong in Oslo, and weaker in Stavanger and elsewhere in southwest Norway where businesses connected to the oil sector account for a significant share of overall economic activity. Twelve-month growth in house prices in Stavanger has been negative since July 2015. Thus far in 2016 house prices in all major towns have risen (chart 1.16 and table 1.3). Both supply and demand factors are behind the regional differences in the housing market.

Turnover in terms of number of dwellings sold was record high in 2015 (chart 1.16). In the period from January to May 2016 turnover was somewhat lower than for the corresponding period of 2015. This applies to all regions.

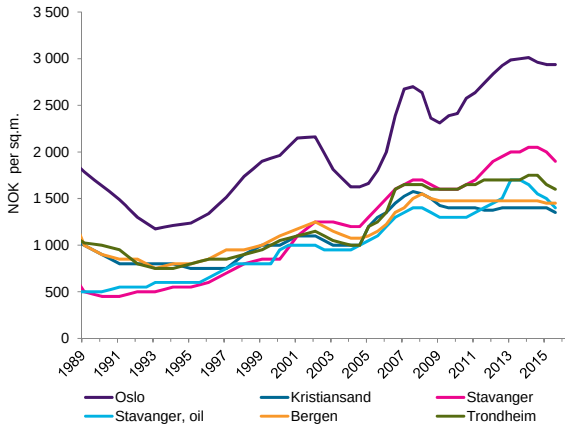
The turnover rate of existing dwellings was relatively low on a national basis in 2015. However, there were major regional differences in selling periods, ranging from 18 days in Oslo to more than 50 days in Stavanger and Kristiansand. In the first five months of 2016 the average selling period in Oslo fell compared with the same period of 2015, while it rose in Stavanger and Kristiansand.

The supply of existing dwellings on a national basis was lower in 2015 than in the previous year, above all in the Oslo area, whereas the Stavanger region showed an increased supply. This picture continued into 2016.

Sales of new dwellings picked up markedly in 2015. This is also reflected in housing starts. According to figures from Statistics Norway, housing starts were higher in 2015 than in 2014 (chart 1.17). This trend continued in the first four months of 2016. In recent years house completions have fallen short of the growth in the number of households. For 2015 construction activity appears to a larger degree to have kept pace with the volume of new households at the national level (chart 1.17).

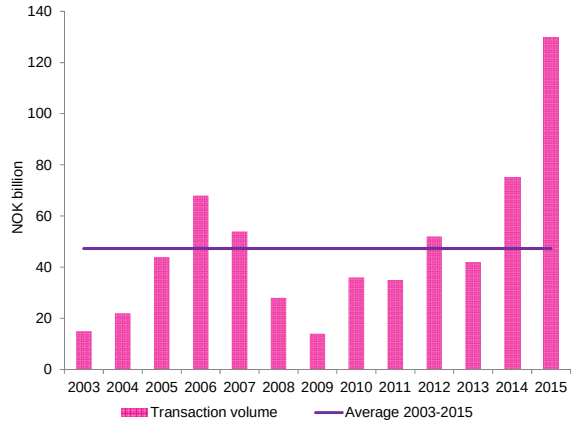
House prices are at unprecedented high levels in both nominal and real terms (chart 1.18). Several factors

1.19 Office rental prices in the largest towns



Sources: Dagens Næringsliv and OPAK

1.20 Transaction volume - commercial property



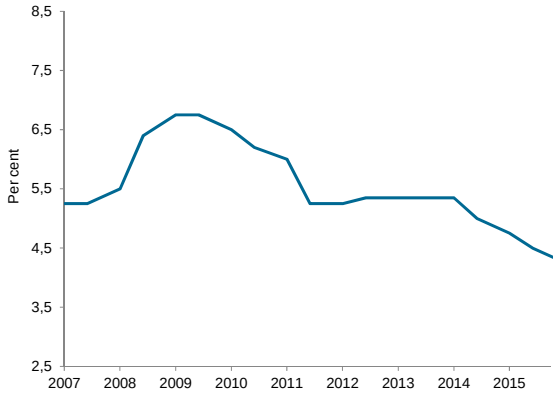
Source: DNB Næringsmegling

underlie the high house price growth over the past 25 years. Unemployment has been low and households' income growth has been strong. Favourable property taxation encourages households to invest in dwellings, and in recent years the low interest rate has contributed strongly to the upturn. In addition, increased immigration along with more and more urbanisation combined with a short supply of available dwellings is pulling in the direction of higher house prices in larger population centres. Substantial regional differences in house prices have arisen of late. In regions of high unemployment and lower income growth, prices are pushed down whereas in the Oslo area the stage is set for a protracted upturn.

COMMERCIAL PROPERTY

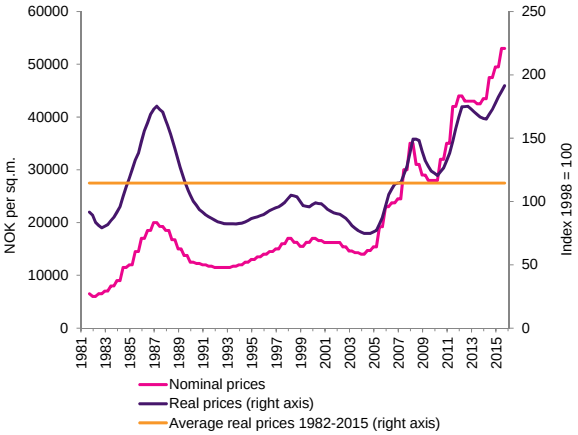
In the first half of 2016 office rental prices in most large towns were unchanged, or somewhat lower than in 2015. In Stavanger rental prices dropped markedly, in particular in the areas dominated by oil-related activity. In Oslo rental

1.21 Yield on office property in Oslo, central location, high standard



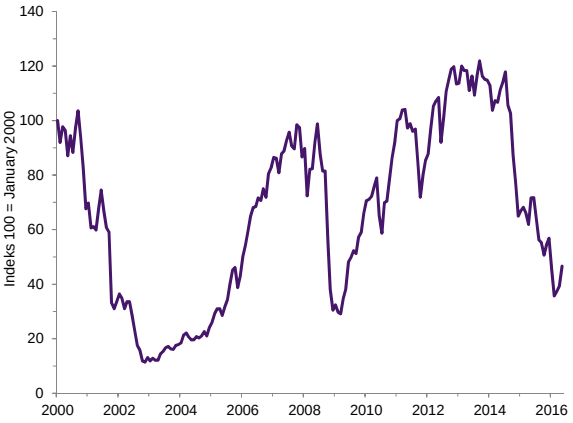
Sources: Dagens Næringsliv and OPAK

1.22 Real price (GDP deflator) and nominal price of commercial property in Oslo, central location, high standard



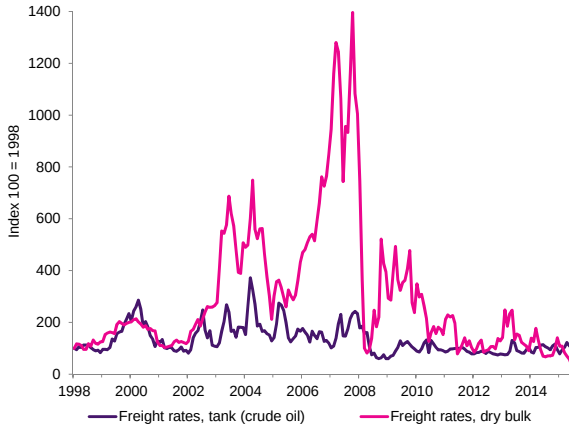
Sources: OPAK, Statistics Norway andFinanstilsynet

1.23 Oil service index, Oslo Børs



Source: Thomson Reuters Datastream

1.24 Freight rates, traditional shipping



Source: Thomson Reuters Datastream

prices were unchanged in the first half of 2016, having fallen somewhat in the second half of 2015 (chart 1.19).

According to DNB Næringsmegling (a commercial property broker), the office vacancy rate in Oslo, Asker and Bærum fell from 9 per cent in the third quarter of 2015 to 8.7 per cent at the end of the first quarter of 2016. A low level of building starts along with conversion of commercial premises to dwellings and asylum reception centres can explain some of this development. However, vacancy rates are still at a high level in historical terms. DNB Næringsmegling expects vacancy rates to edge back gradually in 2017 and 2018.

A number of factors influence rental prices in Oslo. Subletting is reported to be growing. Sublets are often offered at a discount, pushing down rental prices. A relatively low volume of new premises is expected in 2016 and 2017. This, together with increased conversion of commercial property to residential property is expected to dampen vacancy rates and the fall in rental prices ahead. DNB Næringsmegling expects rental prices in most segments on Oslo to pick up from 2017 onwards, but least strongly in areas with an economic structure closely tied to the oil sector.

The turnover of commercial properties rose substantially through 2015. The value of property transactions above NOK 50 million rose from about NOK 75 billion in 2014 to NOK 130 billion in 2015 (chart 1.20). A number of forces have driven this development. Lower lending rates have made it more attractive to invest in commercial property carrying low risk (secure rental income). In addition, there is greater breadth on the demand side, and foreign investors in particular have become more prominent. According to figures from DNB Næringsmegling, foreign investors accounted for about 35 per cent of the overall transaction value in 2015.

Low financing costs and heavy demand for upmarket property pushed the yield on office buildings in central locations with long rental contracts in the Oslo area down towards 4–4.25 per cent at the end of 2015 (chart 1.21). In the past two years the decline in yield for office properties of a normal standard and location has according to DNB Næringsmegling been somewhat lower than for upmarket property. The yield on office property of the normal standard in Oslo was just over 6 per cent at the end of 2015. The estimated price of office property in central locations in Oslo rose markedly in 2015 (chart 1.22). The price of commercial property deflated by GDP also rose substantially through 2015 (chart 1.22).

SHIPPING AND OFFSHORE MARKETS

The oil price fall and the need for readjustments in the oil sector are dampening activity in the petroleum sector worldwide. The outlook in the rig and offshore vessel segment is highly uncertain. Rates for deepwater rigs have fallen substantially in the past year, and capacity utilisation of the rig fleet is low. According to Maritime.no's register of laid-up vessels, 35 out of 120 rigs in Northern Europe are either laid up or without a contract in May 2016. This is a weak upturn since autumn 2015. Overcapacity is also substantial in the market for supply ships, and a number of vessels have been laid up. Figures from Maritime showed that 102 offshore vessels connected to Norwegian shipping companies were laid up at the end of May. This was an increase of 73 vessels since May 2015. Reduced profits in the sector have brought a marked fall in companies' market capitalisation. The oil service index at Oslo Børs has fallen by more than 60 per cent since summer 2014 (chart 1.23).

Traditional shipping has for several years been marked by low capacity utilisation, low freight rates and weak profits. Tanker market freight rates rose somewhat in 2015 (chart 1.24). Alongside increased demand resulting from a low oil price and stockbuilding, weak fleet growth served to maintain freight rates in 2015. In 2016 an increase in market tonnage is expected, along with somewhat weaker demand since much of the freight shipped in 2015 was related to stockbuilding.

The market for dry bulk was weak in 2015, due largely to lower demand from China for coal and metal, and a large volume of new tonnage. Freight rates were on a weak trend through 2015 (chart 1.24). Low freight rates and weak earnings over a long period have led to the breaking up of a number of older ships, thereby reducing surplus capacity to some extent. This trend is expected to continue in 2016. Freight rates ahead will also be affected by the demand from emerging economies.

RISK FACTORS

The international risk picture has deteriorated in the past half-year. Poorer growth prospects and an increased danger of deflation in many countries, along with episodes of market turbulence, are affecting the international economy. Increased macroeconomic uncertainty and prospects of protracted low interest rates are reflected in the financial markets. The search for yield contributes in isolation to low risk premiums and higher asset prices. At the same time uncertainty is growing, which in itself contributes to higher risk premiums. In such a situation there is a danger of market turbulence, which could lead to higher interest rates for businesses and a further weakening of economic growth.

For several years emerging economies, in particular China, have been the drivers of the international economy. The economic upturn has been largely credit driven, and the level of debt in China is at a historically high level. Increased uncertainty regarding the path of the Chinese economy is a matter of concern to market actors and governments who fear contagion via capital outflow and changes in commodity prices and exchange rates.

Low prices of oil and other commodities is depleting financial buffers in many commodity-producing countries, which must reduce public consumption and investment. Several countries, including Russia and Brazil, are seeing a significant fall in output. The risk of a further slowdown in emerging economies has risen.

The vigorous appreciation of the US dollar combined with lower growth among important trading partners brought a substantial growth slowdown in the US towards the end of 2015 and into 2016. Business investments have also subsided. At the same time the Federal Reserve ended quantitative easing and raised its key rate in December. Lower growth impulses from the US economy ahead represent a risk factor for the world economy. US monetary policy ahead also contributes to the uncertainty.

The decline in the oil price has provided impetus to overall global activity. This is particularly true of developments in the EU. However, many EU countries are still showing very high public and private debt, slow growth and high unemployment which dampen domestic demand. A protracted slump in the EU cannot be ruled out. Substantial uncertainty surrounds the ripple effects of the refugee flows to Europe and the UK's future relation to the EU.

The negative international trend has made for greater uncertainty regarding the Norwegian economy. The effect of the marked oil price fall has fed into the economy, contributing to a two-pronged development. Oil-related activity is hard-hit, but contagion to the rest of the economy is thus far limited. The substantial krone depreciation has

fuelled an upturn in traditional exports and tourism. However, a weaker trend internationally may dampen optimism in these sectors, and the negative ripple effects may prove substantial should the oil price remain low and the realignment of the economy takes a long time.

Increased unemployment has contributed to reduced wage growth, and depreciation of the krone has led to higher inflation. These factors in combination dampen households' purchasing power, and consumption has turned out weaker than would otherwise have been the case. According to Finance Norway's expectations barometer, Norwegian households are more uncertain of the outturn for their own finances ahead. Households' adjustment to bad times is a major uncertain factor in the Norwegian economy. Households are already in a vulnerable position. Indebtedness has risen more than incomes for a long time, and the debt burden is unprecedentedly high. Many households already have a debt that is three to five times higher than their income, and they may face problems in servicing their debt in the event of an income reduction.

At the same time the interest rate fall and expectations of very low interest rates for a long period have caused credit growth to continue to outstrip growth in household incomes. House prices are also at a historically high level, and in some regions price growth remains considerable. This is particularly true of Oslo. There is a risk of a further build-up of the imbalances in the housing and credit markets. This will increase the height of fall further ahead. Household wealth will weaken with a fall in house prices, bringing lower private consumption and housing investment. A sharp fall in house prices will hit large sections of the Norwegian economy and impair corporate profits. The upshot will be a greater risk of bank losses and of financial instability.

CHAPTER 2 BANKS

Reduced domestic economic growth and lower activity in oil-related industries did not have a substantial negative impact on banks' financial statements for 2015. Low loan losses, a positive revenue trend and continued cost efficiency gains meant that banks' net profits remained high. Profit growth slowed in the first quarter of 2016, partly as a result of increased loan losses. Banks obtain much of their funding in international wholesale markets, rendering them vulnerable to international financial turbulence. Risk premiums on securities funding rose markedly through 2015 and at the start of the current year, but have subsided somewhat in recent months. Several years of sound profits have improved solvency positions through profit retention. The phasing in of higher capital requirements, which started in 2013, will be completed in the current year, and moderate dividend payouts will be required again in 2016. The challenges to oil-related industries, and the ripple effects to the wider economy, increase the risk of loan losses. Higher loan losses, and increased pressure on net interest revenues, partly as a result of the low interest rate level, will impair profits in the banking industry ahead.

PROFITABILITY

Norwegian banks have recorded sound profits in the years since the international financial crisis. Several years of favourable development in the domestic economy have contributed to increased business volumes, at the same time as credit losses have been low. The banks have carried out extensive rationalisation measures, in part a result of technological progress made in the financial industry. Cost levels have thereby fallen steadily over several years. Recent years' good results have yielded higher return on equity, at the same time as banks' equity capital has risen substantially in the period. Despite reduced economic growth domestically, and the problems in oil-related industries, the banks collectively achieved a return on capital in 2015 that was on a par with the previous year. In the first quarter of 2016, lower positive value changes on financial instruments, and a slight increase in loan losses, led to substantially lower return on capital (chart 2.2).

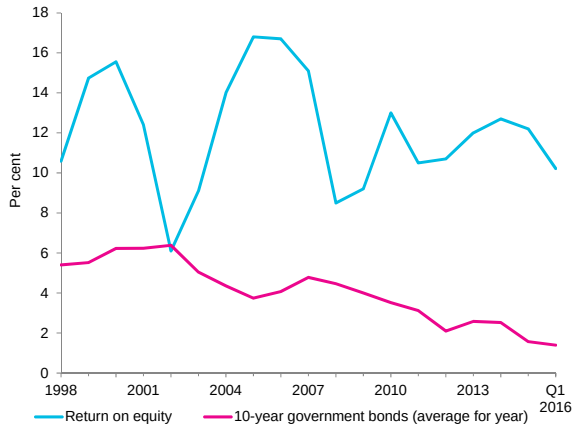
Norwegian banks' activity is largely concentrated on lending and deposit services. This is reflected in the distribution of banks' operating revenues for 2015 (chart 2.3), where net interest revenues (interest revenues less interest expenses) are the dominant revenue item. Net interest revenues' share of banks operating revenues has risen slightly in recent years.

Norwegian banks' profitability is highly sensitive to the trend in net interest revenues. After a long period of strong

2.1 Loan losses and pre-tax profit/loss

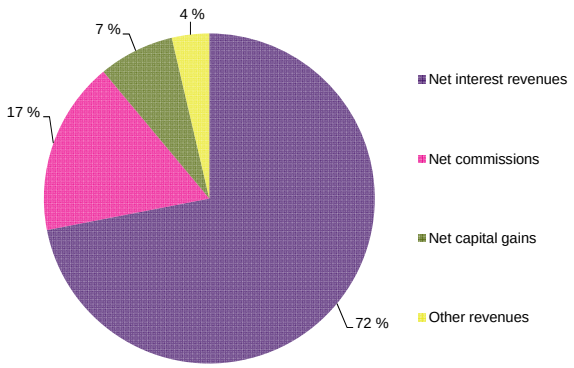
Source: Finanstilsynet

2.2 Return on equity



Sources: Finanstilsynet and Norges Bank (government bond yield)

2.3 Share of total operating revenue



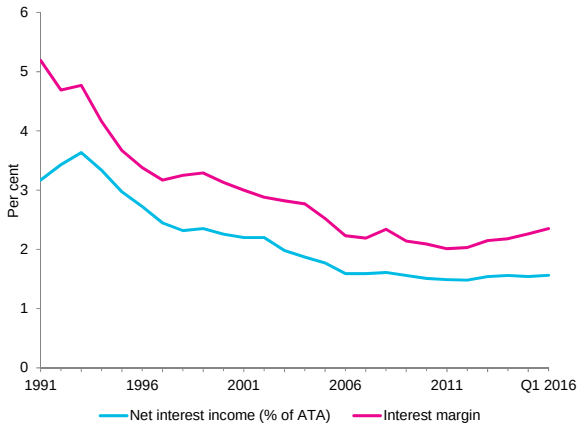
Source: Finanstilsynet

decline in net interest margins, margins levelled out in the period to 2010 (chart 2.4). The decline was in part a result of more transparent pricing of banks' products, whereby costs that were previously incorporated in lending and deposit rates were separated out as charges and commissions. In recent years the total net interest margin and net interest revenues relative to total assets have been relatively stable.

Since the end of 2013 average lending rates have fallen considerably (chart 2.5) – a result both of falling market interest rates and reduced risk premiums on securities funding along with strong competition between banks. Home mortgage rates are at a historically low level, and the average rate on loans to corporate customers is now also extremely low. Rates that banks offered depositors were higher than the money market rate in the period 2012-2015. In the past year deposit rates have fallen more than both the lending rate and the money market rate, which has improved banks deposit margin (the difference between the money market rate and the deposit rate) somewhat. Because interest rates on many types of deposit account are now close to zero, banks may find that lowering their deposit rates further presents a challenge. Should market interest rates decline in the period ahead, banks' deposit margin could come under increased pressure.

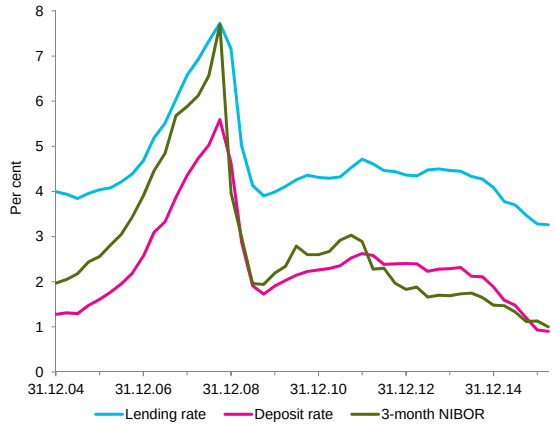
Many years of substantial lending growth led to rising interest revenues among banks (chart 2.6). The volume growth was also strong enough to compensate for falling lending rates between 2011 and the end of 2014. In the ensuing quarters the interest rate decline caused banks' nominal interest revenues to edge down, despite continued lending growth. An important reason for banks' good results in recent years is that nominal interest expenses have fallen substantially, a reduction that started as early as 2012. Between 2012 and 2015 annual interest expenses fell by 30 per cent. The main reason for the fall in banks' funding costs in the period was a substantial decline in risk premiums on bond funding (chart 2.21). The decline in risk premiums applied in Norwegian and international securities markets alike. Concurrently the general level of interest rates fell. Bond funding raised in a period of high risk premiums has, as debt has fallen due, been refinanced at lower risk premiums, resulting in reduced funding. Risk premiums rose sharply in the second half of 2015, and early in 2016, both on senior bonds and covered bonds. Since bond debt makes up almost a third of the banks' overall funding, the cost of such funding is important for banks' overall funding cost. Higher equity capital among banks has positive effects on funding costs by reducing the need for other funding, at the same time as purchasers of bond debt will expect somewhat lower risk premium once a bank' financial position has improved.

2.4 Net interest income and interest margin



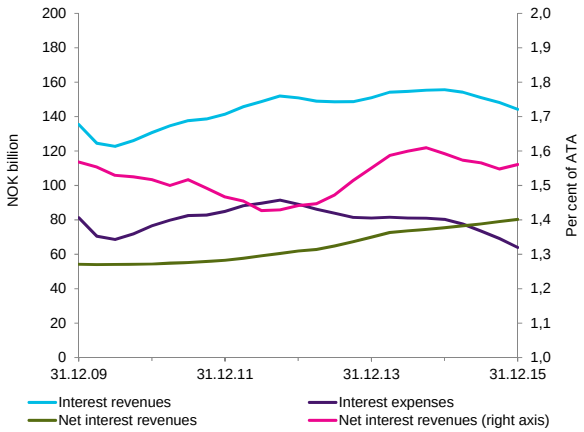
Source: Finanstilsynet

2.5 Lending and deposit rates



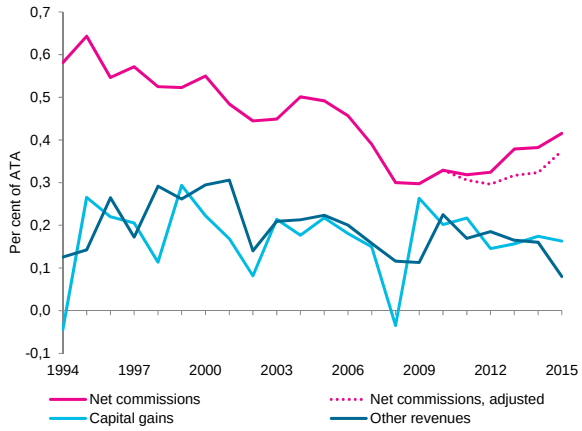
Sources: Finanstilsynet and Oslo Børs

2.6 Revenue and expense flows, 12-month



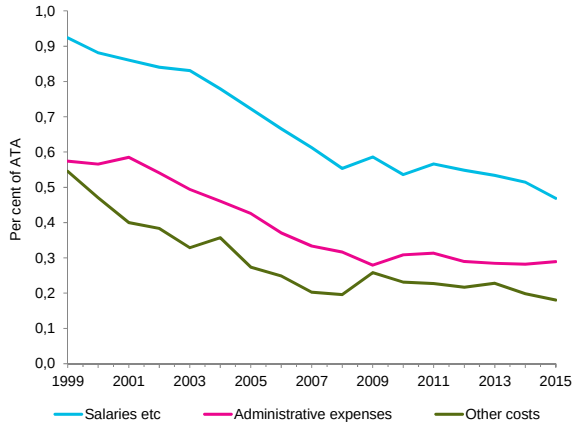
Source: Finanstilsynet

2.7 Other operating revenues



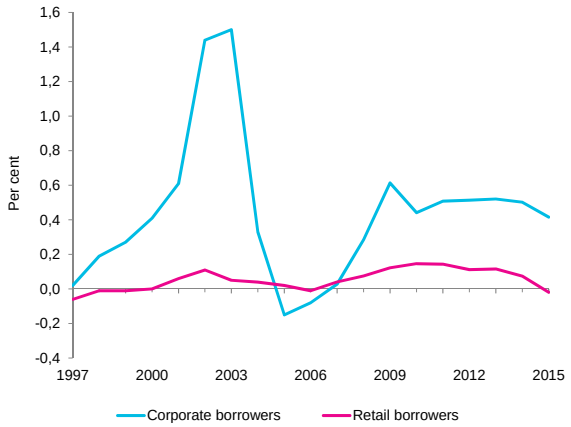
Source: Finanstilsynet

2.8 Operating expenses



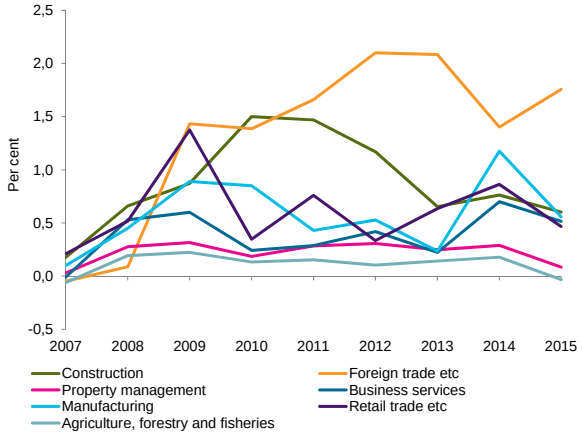
Source: Finanstilsynet

2.9 Losses on loans to corporate and retail borrowers



Source: Finanstilsynet

2.10 Loan losses by sector*



*Individually assessed losses.Source: Finanstilsynet

Commission revenues rose substantially as from 2012 (chart 2.7). The main reason for this was that banks that have transferred loans to group-owned covered-bond-issuing entities largely recognise revenues from these loans as commission revenues. When this is adjusted for, there was only a moderate increase in net commissions in recent years. Banks own substantial holdings of interest-bearing securities, but hold equities to a lesser degree. Since securities markets are liable to be volatile, banks' profits are at times heavily impacted by price fluctuations.

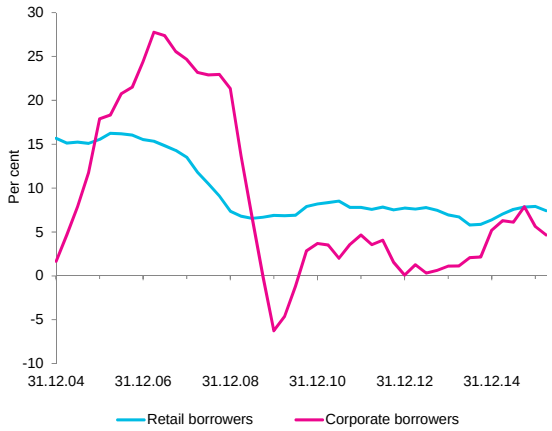
Total operating revenues relative to total assets have fallen considerably over several decades. Thanks to streamlining, banks have maintained sound earnings on ordinary operations so that total operating expenses have fallen at approximately the same rate as operating revenues. Wage and pension costs etc., account for about half of the banks' total operating expenses (chart 2.8). Wage costs in the industry in recent years have to some extent been offset by downstaffing. In the past three years the banks' workforce has been reduced by about 6 per cent. Efficiency gains, including through use of new technology, have contributed. Mergers in the savings bank sector in recent years, mainly between small banks, have also contributed to workforce reductions in the industry.

A small number of small banks have suffered considerable loan losses in recent years. For Norwegian banks as a group, however, loan losses have been low for a number of years, which is an important explanation for the good profits recorded in the industry. Again in 2015, overall loan losses were moderate. In the first quarter of 2016 losses increased somewhat to a level corresponding to 0.3 per cent of outstanding loans (annualised). Some medium-sized banks reported a loss level considerably higher than the average for banks. Credit losses on domestic business loans measured 0.4 per cent of the overall volume of loans in 2015, a slight decline from the previous year (chart 2.9). Lower economic growth may entail increasing credit risk, although it may take a while before loan losses materialise

in banks' financial statements. The low interest rate level is impacting positively on borrowers' debt serving capacity. Banks' overall losses on loans to retail borrowers were close to zero in 2015, mainly thanks to the effects of portfolio disposals. When this is adjusted for, losses were at the same level as in 2014.

The main reason behind the decline in losses on business loans is lower losses on loans to the property management segment, which account for about 40 per cent of total outstanding loans to domestic business customers. After showing relative stability in recent years, losses on loans to property management declined to 0.1 per cent in 2105. As regards the largest segments it was, as in preceding years, foreign trade etc., which showed the highest losses in 2015, rising to 1.8 per cent. This is mainly down to increased losses at the large banks, which account for virtually all exposure to this industry.

2.11 Growth in lending to retail and corporate borrowers



Source: Finanstilsynet

Conversion of Nordea Bank Norway to branch status

Nordea Bank Norway (NBN) is Norway's second largest bank and is designated as a systemically important institution. NBN is a subsidiary of the Swedish bank Nordea Bank AB. Nordea Bank AB is designated as a global systemically important bank (GSIB), and its subsidiaries are systemically important in seven countries (Sweden, Denmark, Finland, Norway, Estonia, Latvia and Lithuania). The Nordea Group's total assets at the end of 2015 came to EUR 647 billion, corresponding to about NOK 6,200 billion.

Nordea Bank AB applied in spring 2016 to convert its subsidiaries in Norway, Denmark and Finland to branches. Residential mortgage companies and finance companies will be retained as subsidiaries in the respective countries. Conversion to branch status entails that business currently operated within a Norwegian legal entity will form a part of the Swedish legal entity.

The conversion applications will be considered by the respective countries' authorities. The Swedish FSA granted Nordea Bank AB permission to convert the Nordea Group in May 2016. Finanstilsynet aims to present its recommendation on the application to convert Nordea Bank Norway to the Ministry of Finance in autumn 2016.

Table 2.1 shows the share of the market for loans and deposits that is serviced by NBN and branches of foreign banks respectively.

Table 2.1 Market shares at 31 December 2015

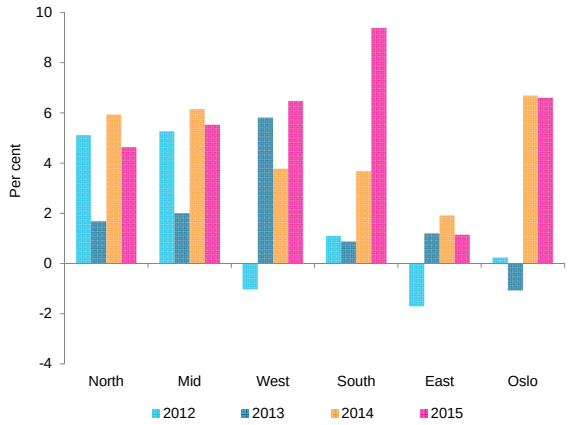
	Loans		Deposits	
	Non-financial firms	House-holds	Non-financial firms	House-holds
Nordea Bank Norway	14,1%	5,9%	14,4%	7,7%
Foreign branches in Norway (NUFs)	21,9%	9,6%	15,8%	8,9%
Total Nordea Bank Norway + NUFs	36,0%	15,6%	30,2%	16,7%

Source: Finanstilsynet

Conversion of NBN to branch status may, if it goes ahead, result in a market share for branches in the Norwegian market of about 36 per cent of all lending to non-financial firms and about 16 per cent of loans to households. In the deposit market the market share will be just over 30 per cent in the corporate market and just under 17 per cent in the household market.

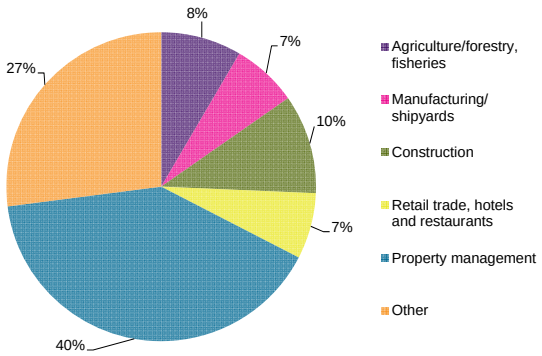
In the event of conversion, Swedish authorities will take over responsibility for supervision of Nordea's banking operation in Norway and will establish capital and liquidity requirements for the business. Some nationally determined rules (general-good provisions) will continue to be enforced by Norwegian authorities.

2.12 Growth in lending to firms by region



Source: Finanstilsynet

2.13 Lending to domestic firms



Source: Finanstilsynet

CREDIT RISK

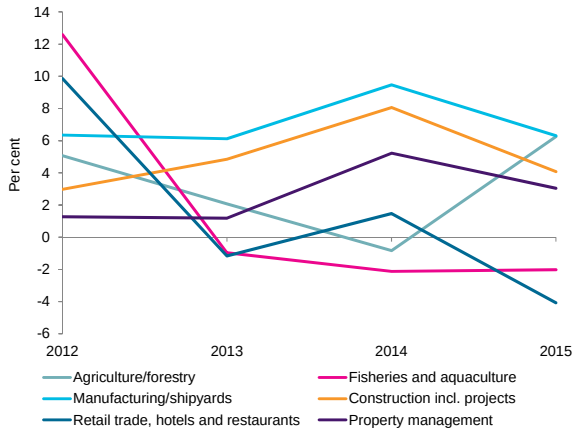
Loans to customers account for about three quarters of Norwegian banks' aggregate total assets. Credit risk developments are thus crucial for banks' profitability and soundness. This illustrated by the fact that an increase in loss levels of a mere 10 basis points relative to loan volume will reduce overall return on equity for the banks collectively by almost one percentage point. See the discussion of particular risk factors for the most important borrower sectors and industries in Chapter 1.

Growth in lending by Norwegian banks has been high for several years, and was at the end of the first quarter of 2016 close to 6 per cent. Part of this growth is explained by a weaker krone exchange rate which entails an increase in the krone value of a loan denominated in foreign currency. Growth in lending to retail customers by banks in Norway has been particularly high. Total growth to retail customers from banks in Norway (including loans from foreign branches) topped 7 per cent (chart 2.11). Growth in lending to domestic firms fell in the final quarter to just under 5 per cent.

Considerable variation has been seen in lending growth to companies in the various regions in recent years, with particularly low growth in south-eastern Norway apart from Oslo (chart 2.12). 2015 saw a marked increase in the growth rate for loans to companies in western Norway and southern Norway,[2] while growth in the remaining regions fell. Part of the reason for the increase in western and southern Norway may be that the challenges facing oil-related industries have made it difficult to obtain funding

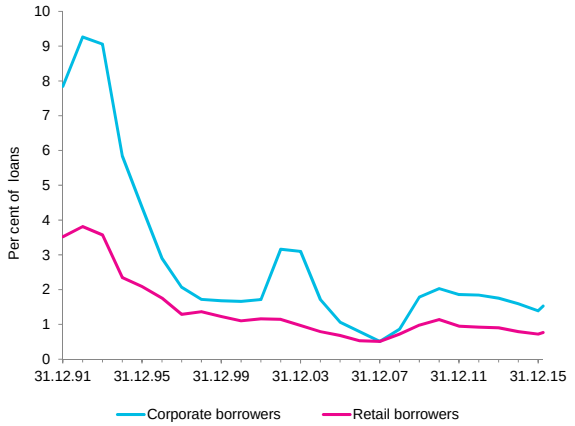
[2] Western Norway: Rogaland, Hordaland, Sogn og Fjordane. Southern Norway: Telemark, Aust-Agder, Vest-Agder.

2.14 Growth in lending to domestic sectors



Source: Finanstilsynet

2.15 Non-performing loans*



*The definition of non-performance was changed as from 31.12.2009 to include exposures more than 30 days past due date/overdraft date. The previous limit was 90 days. The figures are for banks in Norway.Source: Finanstilsynet

from non-bank sources. Little issue activity has been seen in the case of bonds in the high-risk segment in the past year. Liquidity pressures among vulnerable businesses may also be a factor contributing to the increased growth in credit to businesses in these two regions. Customers in the segment 'property development and operation' account for 40 per cent of Norwegian banks' loans to domestic corporate clients (chart 2.13). Loans to this segment increased by 3 per cent in 2015 (chart 2.14).

Recent years' low loan losses are also reflected in the volume of non-performing exposures in the banks. Total non-performance among Norwegian banks corresponded to 0.9 per cent of the loan volume at the end of 2015. If other problem exposures are included, total problem loans came to 1.2 per cent. The lower rate of growth in the Norwegian economy had not brought an increase in non-performing volume at the end of 2015. As chart 2.15 shows, there was a slight increase in non-performance in the first quarter of 2016, but non-performance was still at a low level both for corporate and retail borrowers.

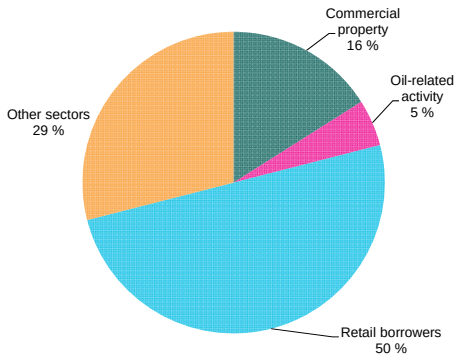
Lower growth in the Norwegian economy, and economic challenges in specific segments or regions will have consequences for banks' need to write down loans. It is crucial for a correct assessment of risk that banks' risk classification systems capture a negative development among customers and in customers' markets at an early stage. The systems must capture increased risk before it translates into non-performance since it can take a while for impaired customer finances to come to the surface as non-performance.

The banks must have a conservative and updated assessment of the value of any collateral furnished by customers for their borrowings. This has become particularly clear in the offshore industry in recent quarters. A number of actors in the industry are seeing both a strong impairment in earnings and marked declines in the value of vessels without assignments. In a bid to reduce losses on exposures to customers in dire financial straits, banks often renegotiate existing loan agreements. Forbearance is only to a limited extent included in the formal non-performance data reported by the banks.

Survey of five Norwegian banks' exposure to supply and rig companies

Most Norwegian banks have only modest, or no, direct exposure to the oil industry; see chart I for exposures for the 16 largest banks. See also Theme II in Financial Trends 2015 for a discussion of the significance of oil dependence for financial stability.

2.I Loans to important borrower groups



Source: Finanstilsynet

In the second quarter of 2016 Finanstilsynet conducted a thematic survey related to the offshore/supply sector for five Norwegian banks. Overall exposure to supply and rig companies as at 31 March 2016 was NOK 90 billion (measured by exposure at default, EAD) corresponding to 6 per cent of the banks' overall exposure to the corporate market. The exposure breaks down to NOK 25 billion to the rig segment and NOK 65 billion to the supply segment. At the end of 2015, overall exposure came to NOK 97 billion.

Individually assessed write-downs increased by NOK 330 million in the first quarter, totalling NOK 1,040 at quarter-end. In the case of exposures subject to individually assessed write-down, the write down ratio was 26 per cent.

At the end of the first quarter of 2016 no individually assessed write-downs had been made on loans to rig companies. Collectively assessed write-downs were increased by NOK 315 million in the first quarter to a total of NOK 825 million. Collectively assessed write-downs make up 0.91 per cent of overall exposures to supply and rig companies.

If the weak oil price persists over a long period, a further deterioration in conditions in the rig and supply segment must be expected. When contracts fall due, it is highly probable that vessels/rigs will not be assigned to new contracts or will be assigned at far lower rates. Furthermore, some companies face sizeable payments of bond debt in coming years. A substantial portion of offshore clients are expected to be unable to service bank debt in accordance with the original loan agreement. Banks are therefore negotiating loan restructuring with a number of companies. Restructuring is usually done with a basis in overall debt and involves many parties. Consensus solutions have to be reached by many banks and bondholders. The

outcome of the various restructuring processes is difficult to predict, including their effect on the banks' need to make write-downs. Those restructuring processes that have reached completion entail the borrower being granted changed terms of payment, including a longer maturity, deferment of payment or reduced instalments. Based on the restructuring and refinancing processes now being negotiated, the volume of forbearance is expected to increase significantly ahead. Finanstilsynet expects all exposures on which banks have granted forbearance due to the borrower's liquidity problems to be subject to loss assessment on an individual basis.

Based on the size of banks' write-downs at the end of the first quarter of 2016, the ongoing comprehensive restructuring and refinancing processes, and assuming that prospects for the supply and rig segments will be weak in the short and medium term, Finanstilsynet anticipates an increase in banks' write-downs. This applies both to individually and collectively assessed write-downs.

CONSUMER LOANS AND DEBT COLLECTION

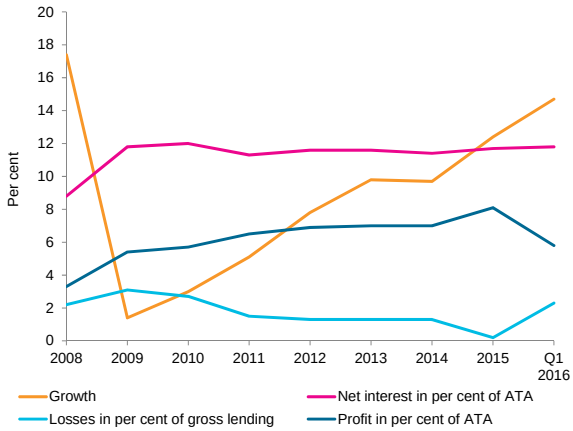
Norwegian households' borrowings are largely secured on residential property, while some are loans secured on recreational property and vehicles etc., along with study loans. Consumer loans are offered in the form of various products including both card-based loans and other uncollateralised consumer loans. The effective interest rate varies widely depending on the amount involved and the repayment period, but is consistently high.

The volume of uncollateralised consumer borrowing is relatively small, at about 3 per cent of households' overall borrowings at the end of 2015.

Although consumer loans make up a small proportion of households overall borrowings, they may inflict heavy burdens on individuals. It is important that lenders do not underestimate the risk of loss. An increase in unemployment and consequent consolidation among households can be expected to be accompanied by increased non-performance and losses on consumer loans. For banks and finance companies, heavy involvement in consumer financing also involves a reputational risk.

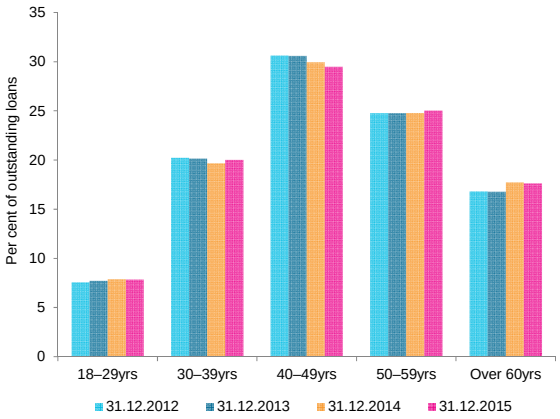
Consumer loans are marketed very actively, which may contribute to vulnerable groups taking out loans that they subsequently have problems servicing. It is important for the borrower to receive good, neutral information on costs and other aspects of a credit agreement. To contribute to this, the Consumer Ombudsman has proposed new regulations on the marketing of credit. The proposal entails inter alia a ban on having to sign a credit agreement as a

2.16 Consumer lending at a selection of entities



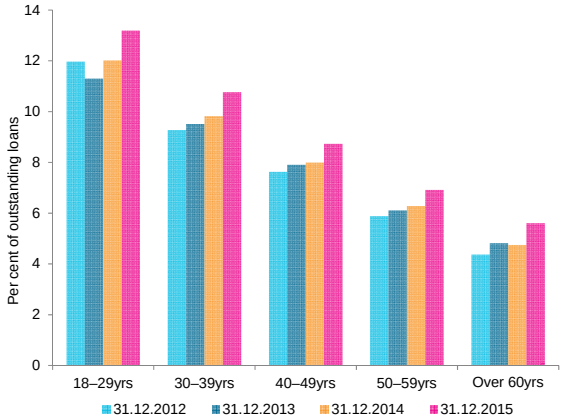
Source: Finanstilsynet

2.17 Consumer loans by age group



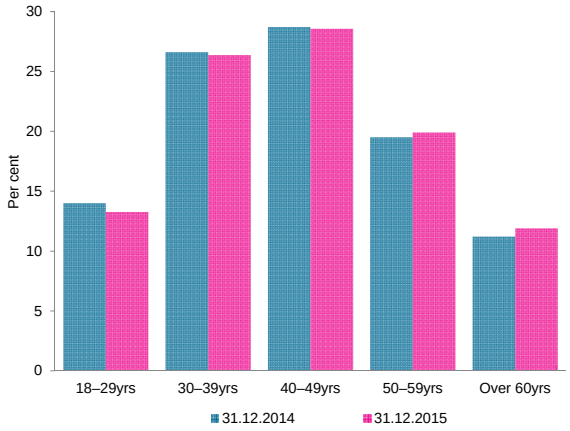
Source: Finanstilsynet

2.18 Non-performance (30 days) in each age group



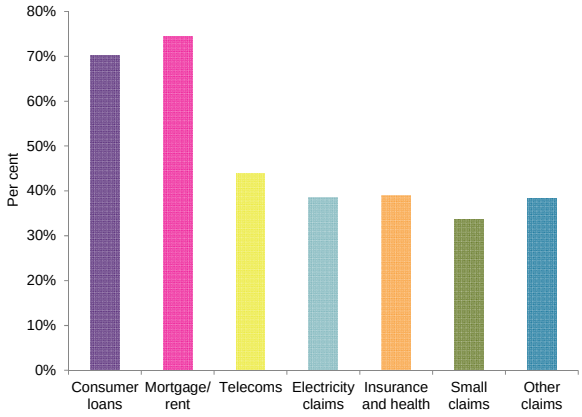
Source: Finanstilsynet

2.19 Debt collection, consumer loans by age group



Source: Finanstilsynet

2.20 Debt collections in process for more than 18 months as of 31.12.2015, by claim type



Source: Finanstilsynet

condition for achieving better terms on other purchase agreements, and a ban on using the speed of the lender's response and the ready availability of the money as a marketing ploy. The proposal is under consideration at the Ministry of Children and Equality.

Finanstilsynet established in circular 10/2016 tighter guidelines for invoicing credit cards. This was in response to firms' inadequate implementation of previous guidelines. The new guidelines for invoicing credit card debt require inter alia the amount field on the customer's bill to show the overall credit outstanding. Further, the credit limit must not be increased unless the customer so requests.

Finanstilsynet regularly maps the business of a selection of entities engaged in consumer finance. The selection comprises 22 entities (twelve banks and ten finance companies), and covers the majority of the Norwegian market. Consumer loans to Norwegian customers in this selection totalled NOK 83 billion at the end of the first quarter of 2016.

Sound profits over a long period have made consumer lending a focal area for a number of established firms, and the segment is attractive to new providers. Growth in recent years has been higher than in lending in general to retail borrowers. At the end of the first quarter of 2016 twelve-month growth at the surveyed firms was 14.7 per cent which was a clear increase on the previous year (chart 2.16). A considerable share of the growth has taken place in other Nordic countries. When this is adjusted for, growth last year was 10.7 per cent.

Net interest income on consumer loans has since 2009 been well above 10 per cent of average total assets (ATA), showing that these companies factor in the high risk posed by consumer loans.

Profit in the first quarter of 2016 was somewhat weaker than the previous year measured in relation to ATA. This was due to an increase in credit losses. The profit in 2015 was affected by the recognition of an earlier loss on the sale of a foreign portfolio.

Little consumer lending goes to the under-30s. The share of consumer loans to this group was just under 8 per cent, and has been relatively stable in recent years (chart 2.17). Borrowers in the age group 40-49 accounted for the largest share of consumer loans at close to 30 per cent. Altogether 55 per cent of consumer loans have gone to borrowers between the age of 40 and 60.

Non-performance related to consumer loans is higher than for other loans granted by banks and finance companies. Non-performance is highest among the under-30s, and declines with increasing age (chart 2.18). In 2015 the non-performance rate rose for all age groups. There are, however, wide differences between the various entities.

Finanstilsynet conducted in January 2016 a survey of 13 of the largest debt collection agencies to gain a better overview of debt recovery cases broken down by type of claim and age group. The firms participating in the survey held an aggregate market share of just over 80 per cent.

Of debt collection cases in process at the end of 2015, 9 per cent related to consumer loans compared with 11 per cent at the end of the previous year. Mortgage debt recovery accounted for a mere 1 per cent. As in previous years, the bulk of debt collection business in process comprised minor claims related to postal order sales and parking fines et al. A small reduction was noted in debt recovery cases related to consumer loans for the age groups 18-29, 30-39 and 40-49, whereas an increase was reported for older age groups (chart 2.19).

Full recovery of mortgage debt/unpaid rent and consumer loans, and thus closure of such claims, may appear more difficult to achieve than in the case of other debt. Chart 2.20 shows that just over 70 per cent of claims have been in process for more than 18 months for both these categories.

Although debt collection agencies are receiving more claims for recovery, the data reported to Finanstilsynet also show a strong increase in the number of completed cases. In many debt recovery cases payment is made at an early stage of the recovery process. 36 per cent of cases completed in 2015 were closed before dispatch of a demand for payment. The fact that payment is remitted after dispatch of a reminder/debt collection notice indicates that in a large number of cases the borrower does not have a serious payment problem.

LIQUIDITY RISK

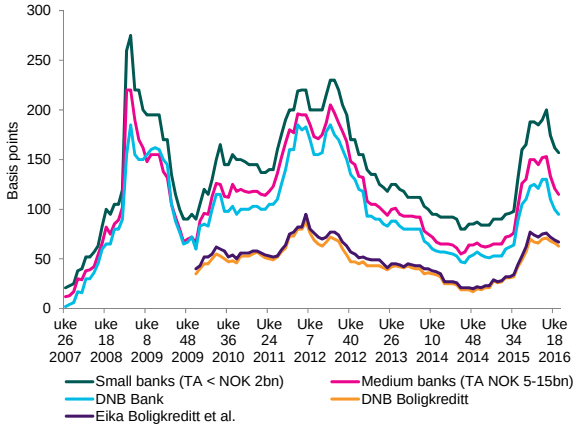
Liquidity risk is the risk that a bank will be unable to honour its obligations when they fall due. In periods of market turbulence it may be difficult to meet current funding needs by way of the market, even at an interest rate level involving a considerable liquidity or credit risk premium. Long-term funding and a high proportion of liquid assets make banks more robust to market turbulence.

THE SITUATION IN MONEY AND CAPITAL MARKETS

Conditions in the money and capital markets were marked by some turbulence in 2015. At the start of the year the markets were affected by the unresolved situation in Greece, while at year-end the turbulence was related to factors such as the situation in China. Risk premiums internationally, on senior bonds and covered bonds alike, rose through 2015. Norwegian banks generally had ample access to funding, although Norwegian banks too experienced a tighter funding market and increased risk premiums in 2015. Risk premiums continued to increase at the start of 2016 but subsided in the spring, particularly in the case of senior bonds (chart 2.21). Uncertainty regarding the path of the international economy, particularly in China, and regarding the oil price could affect the markets ahead. The uncertainty resulting from the UK decision of 23 June to exit the EU may also affect the markets.

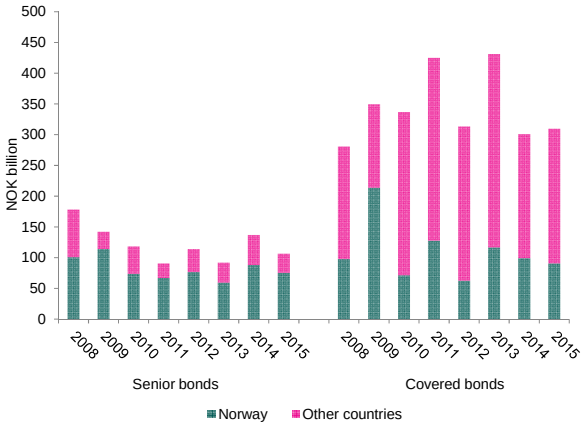
Norwegian banks' and mortgage companies' bond issuance was at about the same level in 2015 as in 2014. Covered bonds were issued in a far larger volume than senior bonds. Despite a decline in covered bonds issued abroad, the bulk of covered bond issues still take place in the international capital market (chart 2.22). At the end of 2015 Norwegian banks and mortgage companies had outstanding bond debt in excess of NOK 1,500 billion. Almost 70 per cent of this comprised covered bonds. The bulk of outstanding senior bonds and covered bonds mature between 2017 and 2022 (chart 2.23).

2.21 DNB Markets' indicative premiums for senior bonds and covered bonds against three-month NIBOR, 5-year. Weekly observations. Up to and incl. week 22/2016



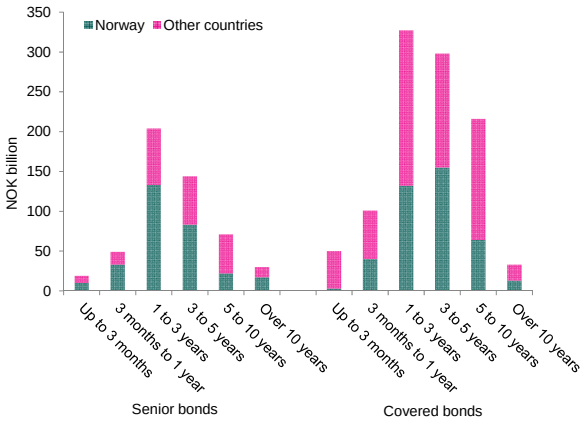
Source: DNB Markets

2.22 Bond issues per year



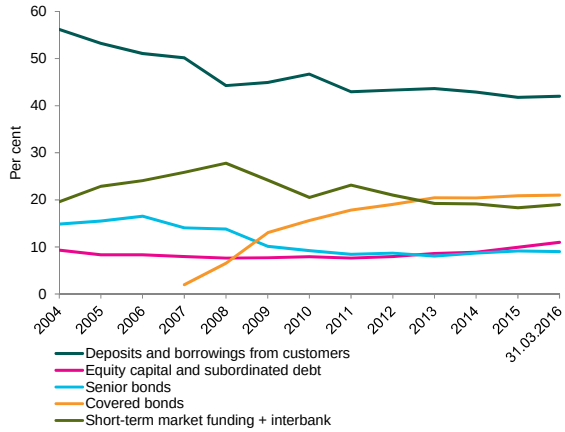
Source: Statistics Norway

2.23 Bond maturities



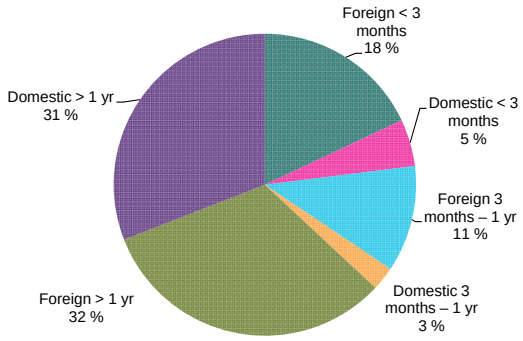
Source: Finanstilsynet

2.24 Funding sources, banks and covered-bond-issuing entities. Per cent of total funding



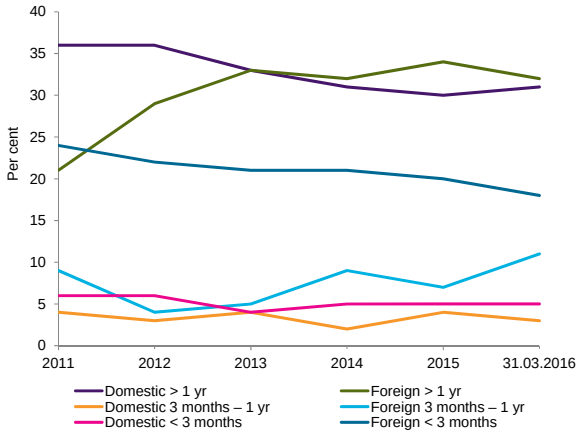
Source: Finanstilsynet

2.25 Market funding, banks and covered-bond-issuing entities at 31.03.2016



Source: Finanstilsynet

2.26 Market funding, banks and covered-bond-issuing entities by maturity and source



Source: Finanstilsynet

FUNDING OF BANKS' OPERATIONS

Banks' funding consists mainly of customer deposits and borrowings in the money and bond markets. Customer deposits have proven to be a stable funding source for Norwegian banks, also in periods of market turbulence. During the financial crisis in 2008 there was little deposit withdrawal. This was to some extent due to the Norwegian deposit guarantee which guarantees deposits up to NOK 2 million per customer per bank. Customer deposits as a share of total funding has remained stable at just over 40 per cent in recent years (chart 2.24). Banks' market funding rose markedly as from 2007 when banks were permitted to issue covered bonds through mortgage companies. In recent years market funding relative to total funding has been stable at just below 50 per cent.

Banks' market funding consists of senior bonds, covered bonds and short-term funding including interbank debt. Covered bonds have acquired steadily greater significance as a funding source for the banks. Development of regulatory frameworks such as CRD IV and Solvency II have further increased interest in covered bonds in recent years, and more and more banks have established their own covered-bond-issuing entities. At the end of the first quarter of 2016 covered bonds accounted for 43 per cent of banks' market funding, the same as at the end of 2015, but three percentage points higher than at the end of the first quarter of last year. The proportion of short-term market funding edged up as from year-end to 39 per cent, while the proportion of senior bonds edged down to 18 per cent at the end of the first quarter of 2016. Compared with last year's first quarter the proportion of short-term market funding was reduced by 4 percentage points, while the proportion of senior bonds rose slightly. Disregarding funding from foreign parent banks, the proportion of short-term market funding, including interbank debt, was reduced to 32 per cent while the proportion of covered bonds rose to 47 per cent.

A substantial share of Norwegian banks' market funding consists of borrowings from abroad. It is mainly the largest banks that utilise this option since size and credit rating are important for access to funding from foreign sources. Foreign sources accounted for more than 60 per cent of total market funding at the end of the first quarter of 2016. A substantial portion of this is short-term funding (below three months) in the money markets, but the share fell over the past year (chart 2.25). A high proportion of short-term market funding renders banks vulnerable to market turbulence.

Despite a substantial proportion of short-term funding, funding with a maturity above one year remains the largest element of market funding, and the share has risen somewhat in the past year.

STABLE FUNDING

Various indicators are used to assess banks' liquidity risk. Liquidity indicator 1 is used to monitor banks' liquidity risk and shows banks' funding with a maturity above 1 year as a share of illiquid assets. Funding includes customer deposits, bond issues, debt to credit institutions, subordinated loan capital and equity capital. Illiquid assets consist mainly of loans to customers and credit institutions, and encumbered securities. Although the liquidity indicator fell somewhat from 2014 to 2015, it has risen for all groups since 2009 (chart 2.27).

The Net Stable Funding Ratio (NSFR) is reported to the authorities under CRD IV / CRR and measures banks' available stable funding relative to necessary stable funding. Until a closer definition of the NSFR is available from the EU the indicator is calculated on the basis of the Basel Committee's final recommendations from October 2014. The NSFR has risen for all groups of banks over the past year (chart 2.28). The large banks' NSFR is consistently lower than that of the medium-sized and smaller banks. This is partly because the largest banks have a larger proportion of market funding than the medium-sized and smaller banks, and because a substantial portion of this funding is short term. In December the EBA put forward a proposal for further provisions regarding calibration and introduction of the NSFR across the EU.

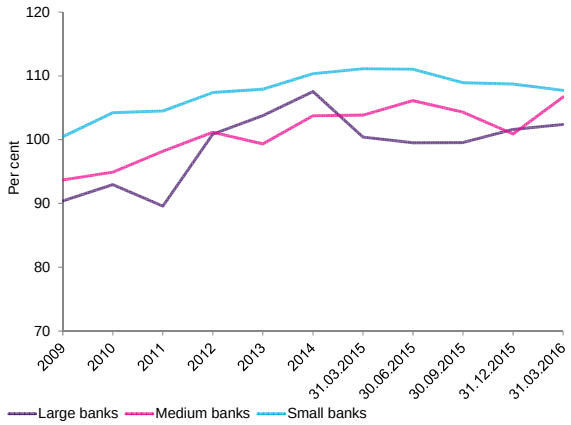
LIQUIDITY RESERVE

It is important for banks to maintain sufficient liquidity buffers to withstand a period of limited access to liquid funds. The new liquidity buffer requirement in CRD IV, the Liquidity Coverage Ratio (LCR), sets requirements for the size of banks' liquid assets as a ratio of net liquidity outflow 30 days ahead in time, given a stressed situation. The minimum required LCR applies solely to all currencies together (at the total level), but the entity must assure that it maintains a sufficient portion of liquid assets in significant currencies[3] to meet its obligations in those currencies.

The Ministry of Finance adopted on 25 November 2015 rules implementing the requirements on liquidity reserves for Norwegian banks, mortgage companies and financial holding companies in groups that are not insurance groups. The rules entered into force on 31 December 2015. As of 31 December 2015 and 31 March 2016 the minimum requirement on liquidity reserves for banks was 70 per cent. Systemically important entities had a minimum requirement of 100 per cent. For mortgage companies a minimum requirement of 70 per cent applies as from 30 June 2016. See chapter 4 for further details of the body of rules governing liquidity reserves.

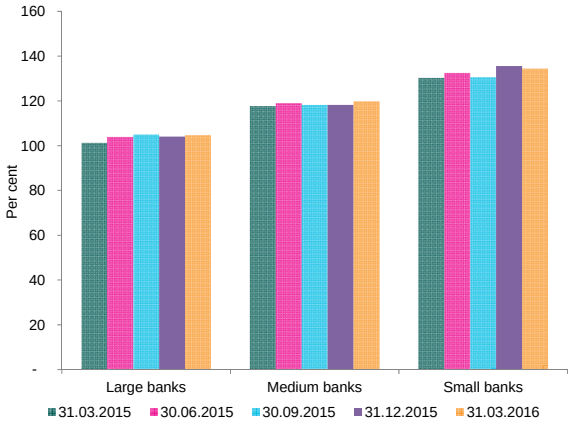
[3] Debt in a currency which represents more than 5 per cent of the institution's total debt.

2.27 Liquidity indicator 1, Norwegian banks



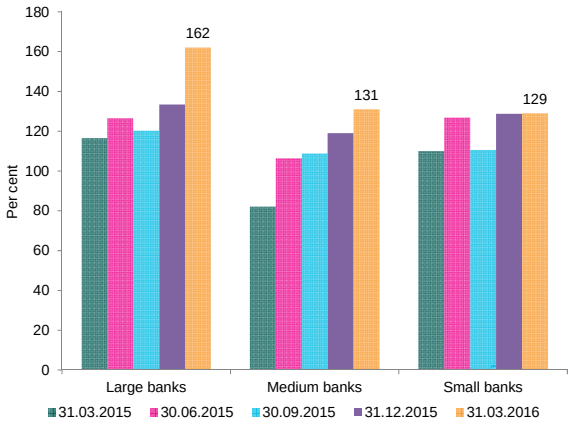
Source: Finanstilsynet

2.28 Total NSFR, weighted average



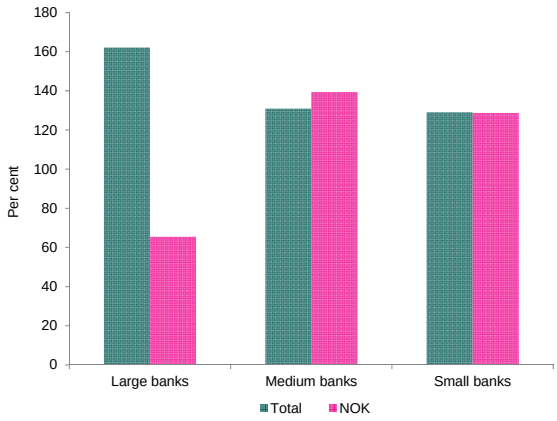
Source: Finanstilsynet

2.29 Total LCR, weighted average



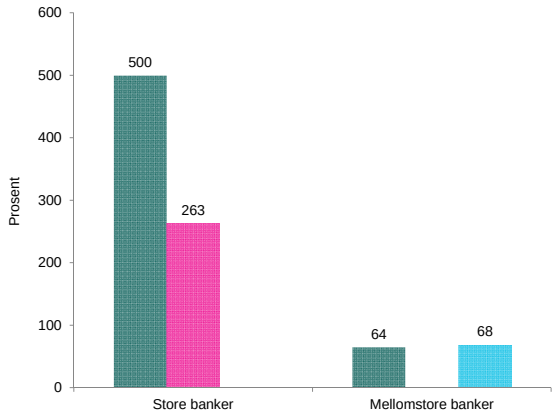
Source: Finanstilsynet

2.30 Total LCR and LCR in NOK, weighted average, at 31.03.2016



Source: Finanstilsynet

2.31 LCR in significant currencies other than NOK, as at 31.03.16

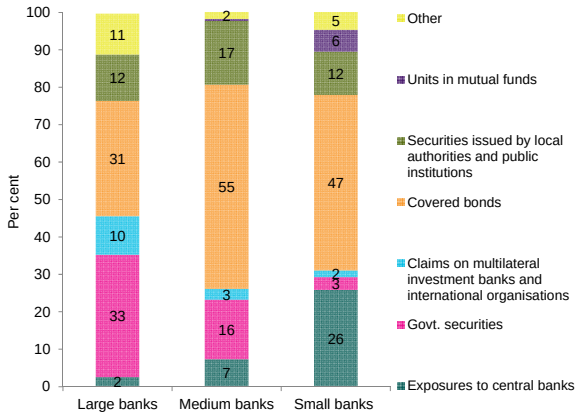


Source: Finanstilsynet

Total LCR (total liquid assets over total net outflows) for banks (bank groups) overall was 158 per cent at the end of the first quarter of 2016, an increase from 132 per cent at the end of 2015 and from 114 per cent at the end of the first quarter of last year. All bank groups have shown an increase in their LCR in the past year (chart 2.29). Of a total of 125 banks, just 22 had an LCR below 100 per cent at the end of the first quarter of 2016.

The LCR in Norwegian kroner (total liquid assets in Norwegian kroner over total net outflows in Norwegian kroner) is markedly lower than the total LCR (chart 2.30). The NOK-LCR was 77 per cent of the banks as a whole at the end of the first quarter of 2016, an increase from 66 per cent at the end of 2015, and from 54 per cent at the end of the first quarter of last year. The large banks hold sizeable liquidity reserves in significant currencies other than Norwegian kroner which pushes up the total LCR (chart 2.31).

2.II Distribution of liquid assets (weighted, before cap*) in LCR at 31.12.2015



*Constraints on the composition of the liquidity reserve – i.e. a minimum of 60 per cent level 1 assets and a maximum of 70 per cent level 1 covered bonds – are not taken into account.Source: Finanstilsynet

Composition of the LCR

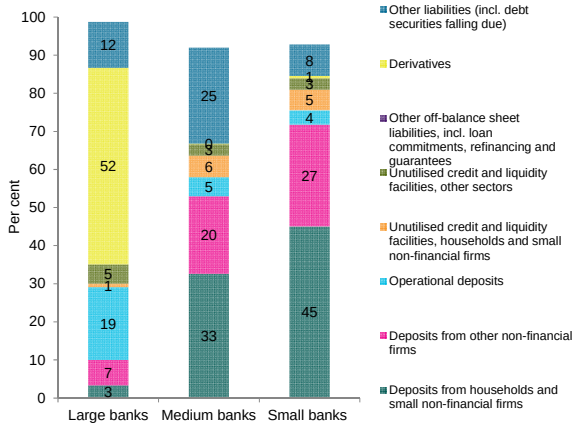
More than 80 per cent of Norwegian banks' overall liquidity reserve consists of the most liquid assets, i.e. level 1 assets. The bulk of this comprises government securities and covered bonds. The remainder of Norwegian banks' overall liquidity reserve comprises assets with good liquidity and credit quality, i.e. level 2A and 2B assets. Norwegian banks' level 2A assets are mainly covered bonds, but also securities with a risk weight of 20 per cent, such as bonds issued by Norwegian local authorities. Norwegian banks have little in the way of level 2B assets such as shares, residential mortgage backed securities (RMBS) or asset backed securities (ABS)[4] in their liquidity reserve.

For the large banks, government securities are the main component of the liquidity reserve, closely followed by covered bonds. For the medium-sized and small banks, covered bonds are the clearly largest component, while for small banks deposits in Norges Bank also account for a substantial portion of the liquidity reserve (chart 2.II).

Deposits make up a large proportion of outflows in a stressed situation, especially for the medium-sized and small banks. The large banks also have a large proportion of deposits, especially operational deposits, but derivative payments account for the largest share with more than half of total outflows (chart 2.III). This is partly because the large banks obtain their funding abroad and enter derivative contracts to hedge these borrowings. Outflows and their composition may vary widely from month-to-month. Large

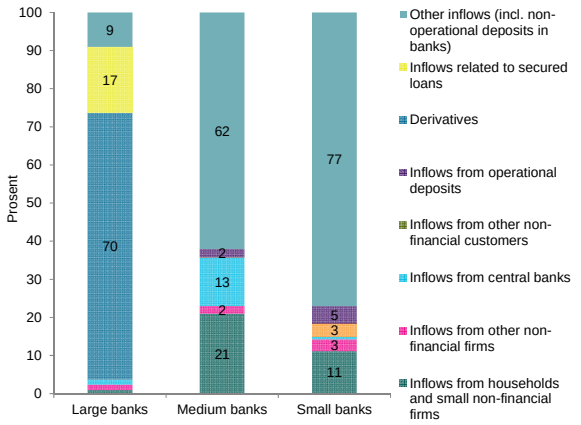
[4] Residential mortgage backed securities and asset backed securities

2.III Distribution of outflows in the LCR, at 31.12.2015



Source: Finanstilsynet

2.IV Distribution of inflows (before cap*) in the LCR, at 31.12.2015

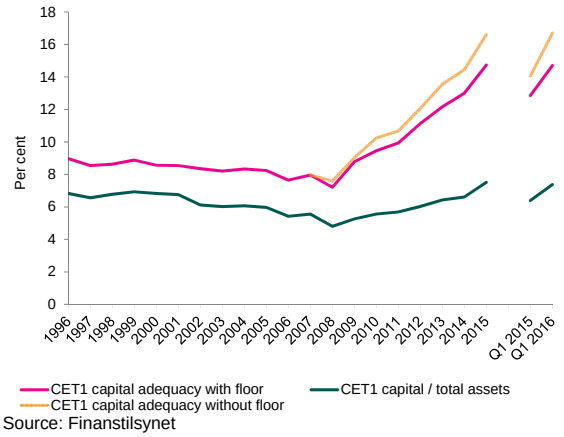


*The constraint on inflows (that inflows cannot make up more than 75 per cent of outflows) is not taken into account.Source: Finanstilsynet

fluctuations relate to securities debt reaching security, among other factors.

Derivatives business also impacts on inflows to the banks. At the end of 2015, derivatives accounted for as much as 70 per cent of total inflows in a stressed situation for the large banks. For medium-sized and small banks, 'Other inflows' made up the bulk of the LCR inflows (2.IV.). The category 'Other inflows' includes deposits in and other banks and inflows from new financing. As in the case of outflows, inflows and their composition are liable to vary widely from one month to the next.

2.32 CET1 capital adequacy CET1 capital as a share of total assets at Norwegian banks/banking groups



Source: Finanstilsynet

RISK RELATED TO COVERED BONDS

Covered bonds are regarded as a secure and stable source of finance, and the emergence of this product has been positive for Norwegian banks. The increasing significance of covered bonds both as a source of finance and as part of banks' liquidity reserve may however pose a risk. A large holding of covered bonds in banks' liquidity reserve may result in higher concentration risk and systemic risk.

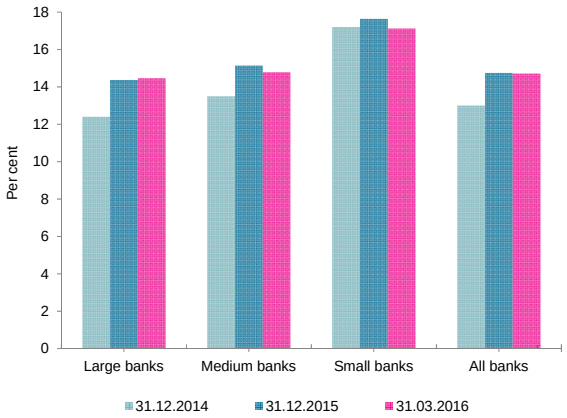
The close interconnectedness that arises between actors that hold one another's covered bonds increases the risk that problems at one actor will spread to others. The fact that all banks maintain large holdings of covered bonds could also create problems in a situation in which all actors are in need of liquidity and wish to sell covered bonds.

Increased issuance of covered bonds reduces the average quality of banks' remaining assets since a large proportion of the most secure home mortgage loans[5] are transferred to mortgage companies for inclusion in the cover pool.

This leads to increased risk for the banks' unsecured investors, and reduces the potential for new transfers and issues in a situation in which there is a need for such. Since covered bond issues are secured on home mortgages, the housing market will be an important risk factor. Increased demand for covered bonds from investors could incentivise high lending growth, which could bring an already pressured housing market under further pressure, and heighten downside risk in the event of a house price fall. A house price fall will reduce the value of the cover pool and banks will need to replenish the cover pool in order to remain compliant with the asset coverage requirement[6] in

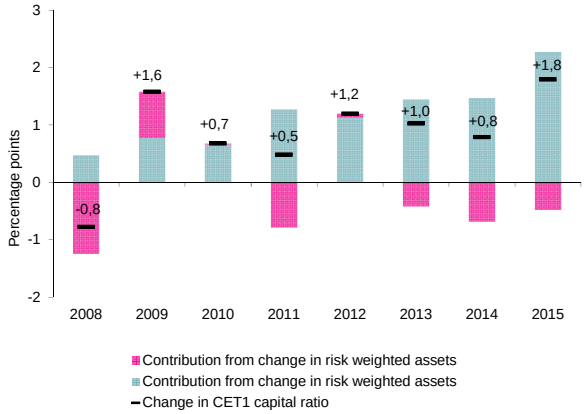
[5] Mortgages with the lowest loan-to-value ratio.
[6] The value of the cover pool shall at all times exceed the value of bonds

2.33 CET1 capital adequacy at Norwegian banks / banking groups



Source: Finanstilsynet

2.34 Changes in CET1 capital adequacy at all banks / banking groups (decomposed)



Source: Finanstilsynet

respect of the outstanding covered bonds. A house price fall may make investors more sceptical of covered bonds as an investment medium, which could make it more expensive for banks to utilise covered bonds as a source of finance.

FINANCIAL SOUNDNESS

The capital adequacy framework is designed to ensure the financial soundness of the banks and of the financial system as a whole. Good financial positions put banks in a position to meet unexpected losses and to provide credit to creditworthy customers in harder times.

Banks' own funds are divided into common equity tier 1 (CET1) capital, tier 1 capital and supplementary capital. Common equity tier 1 capital consists of contributed and accumulated equity capital. Tier 1 capital consists of common equity tier 1 capital and hybrid capital. Both hybrid capital and supplementary capital are subject to limits in terms of covering bank deficits, such that this capital has lower quality than common equity tier 1 capital.

Common equity tier 1 capital adequacy is the central risk weighted indicator of financial soundness. The leverage ratio is also central to an assessment of banks' financial soundness.

CAPITAL ADEQUACY

Banks strengthened their capital adequacy through 2015. For banks altogether, average CET1 capital adequacy rose from 13.0 per cent to 14.7 per cent in 2015 (chart 2.32). At the end of the first quarter of 2016, banks' CET1 capital adequacy showed no change from the turn of the year.

with a preferential claim over the cover pool; see section 11-11 first subsection of the new Financial Institutions Act.

CET1 capital measured 7.5 per cent of the total assets for all banks at the end of 2015, which is 0.9 percentage points higher than at the same point of 2014. The figure was on a par with 1995, which is the year showing the highest measured percentage in the period 1992-2015. The ratio was stable at the end of the first quarter of 2016.

The Pillar 1 requirement for CET1 capital adequacy for Norwegian banks and finance companies, including buffers, is 11 per cent of risk-weighted assets. The buffer requirements consist of a capital conservation buffer (2.5 per cent), a systemic risk buffer (3 per cent) and a countercyclical buffer (1 per cent). DNB ASA, Nordea Bank Norway ASA and Kommunalbanken AS are in addition subject to buffer requirements for systemically important institutions (1 per cent), resulting in a total minimum requirement of 12 per cent for these institutions. The minimum requirements for tier 1 capital adequacy and total capital adequacy are respectively 1.5 and 3.5 percentage points over the CET1 requirement.

The countercyclical buffer rises to 1.5 per cent as from 30 June 2016, and buffer requirements for systemically important institutions rise to 2 per cent as from 1 July 2016. This brings the minimum CET1 requirement to 13.5 per cent for systemically important institutions and to 11.5 per cent for other institutions. Pillar 2 requirements are additional, and cover the risks not covered or only partially covered by the Pillar 1 requirements.

All banks met current minimum requirements for CET1 capital adequacy, including buffer requirements, at the end of the first quarter of 2016. CET1 capital adequacy, measured as a weighted average, for the large banks was 14.5 per cent at the end of the first quarter of 2016. For the medium-sized and smaller banks the figures were, respectively, 14.8 and 17.1 per cent (chart 2.33).

BANKS' ADJUSTMENT TO INCREASED CAPITAL REQUIREMENTS

Banks have adapted to higher capital requirements by building up CET1 capital. Good earnings and moderate dividend payouts have contributed. In addition, some of the build-up of CET1 capital has been achieved through stock issues. Banks have increased their CET1 capital each year since 2009 (chart 2.34).

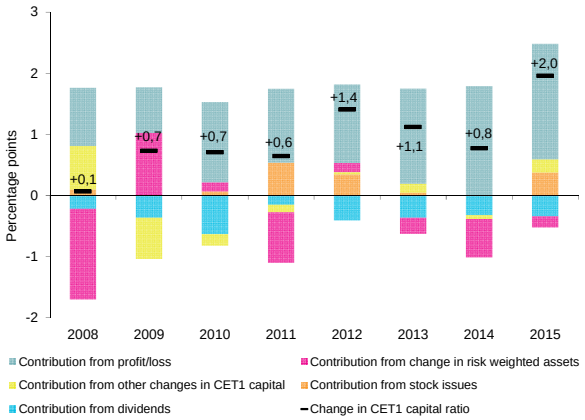
Chart 2.35 shows changes in the six largest IRB[7] banks'[8] CET1 capital adequacy in the period 2008-2015. In that period the six banks' CET1 capital adequacy rose from 6.2 to 14.4 per cent. Virtually the entire change is ascribable to increased CET1 capital, with profit retention being the main contributor. Risk weighted assets are virtually unchanged despite the 31 per cent increase in banks' exposure in this period.

Banks' exposures to corporates increased by 17 per cent in the above period, whereas risk weighted assets attributable to corporates fell by 29 per cent. The reduction in corporate risk weighted assets can be explained by the fact that over the course of the period banks were permitted to compute risk weights for a larger proportion of their corporate portfolios using the advanced IRB approach. The reduction in risk weighted assets is larger than the reduction in effect when permission was granted, and this is being followed up on by Finanstilsynet. The increase of 148 per cent in risk weighted assets for home mortgages is due to the 68 per cent increase in lending volume in the period, combined with an increase in risk weights resulting from an increase in the LGD for residential exposures to 20 per cent at the start of 2014 and further tightening of the home mortgage loan models as from the first quarter of 2015.

A growing share of bank lending is secured on residential property, and the capital charge on mortgages accounts for a steadily higher share of the overall capital charge. Chart 2.36 shows changes in the composition of the six banks' exposure from 2008 to 2015, while chart 2.37 shows changes in the composition of banks' capital requirements in the same period. Corporate exposures' share of overall capital requirements fell by about 20 percentage points in the period, while corporate exposures' share of the total exposure volume declined by a mere 5 percentage points. The Basel I floor's share has increased, helping to maintain risk weighted assets. The floor's increased share is related to the reduction in risk weighted assets attributable to corporates.

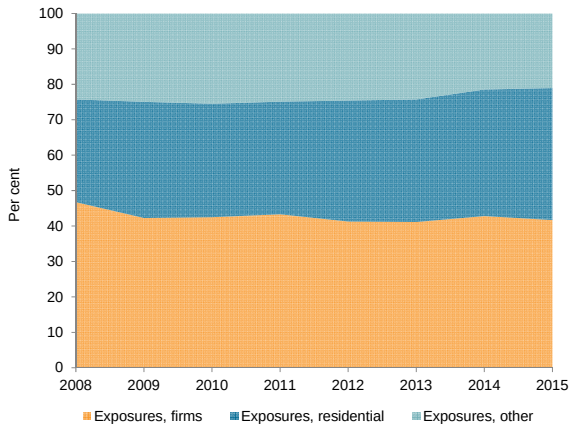
[7] IRB = internal models used to measure the capital charge for credit risk. Utilised by 11 banks that the end of 2015.
[8] The six largest IRB banks in the period 2008-2015 are: DNB Bank, Nordea, Sparebank1 SR-Bank, Sparebanken Vest, Sparebank1 Midt-Norge and Sparebank1 Nord-Norge.

2.35 Changes in CET1 capital adequacy at the six largest IRB banks (decomposed)



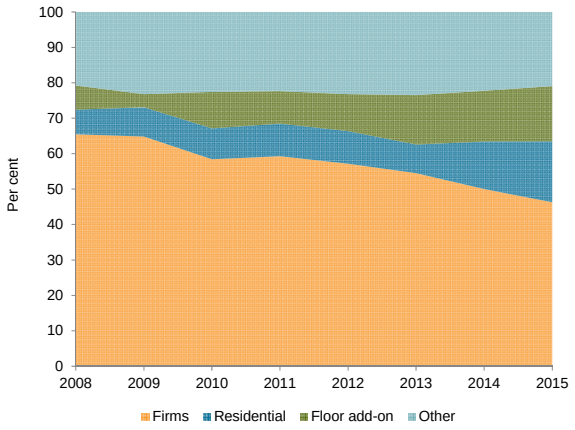
Source: Finanstilsynet

2.36 Exposure composition



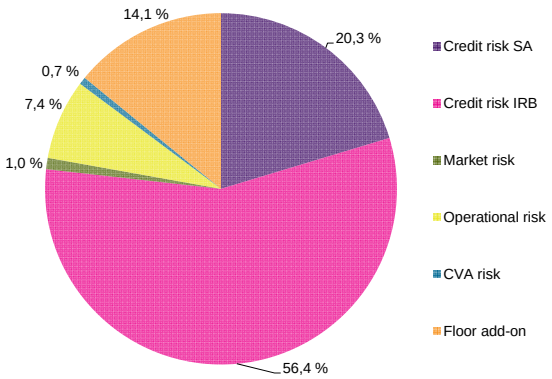
Source: Finanstilsynet

2.37 Composition of risk weighted assets



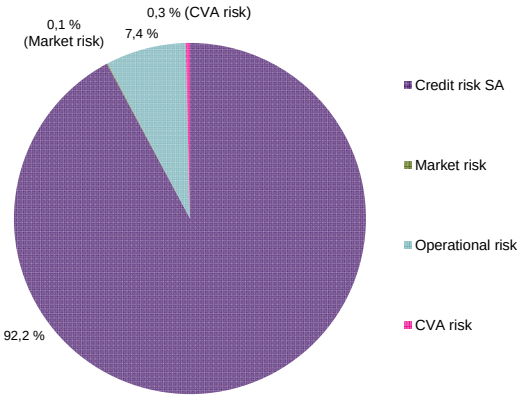
Source: Finanstilsynet

2.38 Risk factors behind risk weighted assets, IRB banks (per cent of total capital requirement), at 31.12.2015



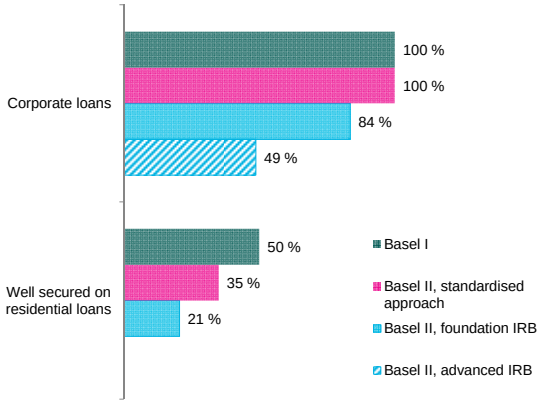
Source: Finanstilsynet

2.39 Risk factors behind risk weighted assets, standardised-approach banks (per cent of total capital requirement)



Source: Finanstilsynet

2.40 Average risk weights at Norwegian banks / banking groups, at 31.12.2015



Source: Finanstilsynet

BANKS' RISK

Banks are exposed to several types of risk, of which the largest risk factor is credit risk. Risk weighted assets for credit risk are computed using the standardised approach or internal models. For banks using internal models, risk weighted assets for credit risk accounted for about 77 per cent of aggregate risk weighted assets at the end of 2015 (chart 2.38). For other banks, using the standardised approach to compute credit risk, the figure was 92 per cent (chart 2.39). When the floor add-on for IRB banks is added, credit risk accounts for roughly equal portions of the two groups' aggregate risk weighted assets. The banks' aggregate risk weighted assets are also intended to cover market risk, operational risk and the risk of impaired creditworthiness of derivative contract counterparties (CVA)[9].

The floor, which was introduced in Norway and other European countries upon the transition to Basel II in 2008 aims to counteract imprudent reduction in risk weighted assets. This requirement entails that risk weighted assets under Basel II cannot be lower than 80 per cent of risk weighted assets under Basel I. The floor is retained in the capital adequacy regime (which is tailored to the EU Capital Requirements Directive and Regulation – CRD IV / CRR). At the end of 2015 eight of eleven IRB banks had risk weighted assets below 80 per cent of risk weighted assets under Basel I. The floor requirement is binding on these institutions.

IRB MODELS

The average risk weight for mortgages among Norwegian IRB banks was 21 per cent at the end of 2015 (chart 2.40). At the end of 2014 this risk weight was 16 per cent. The increase is due to the increase to 20 per cent in the LGD floor and to Finanstilsynet's tightening measures in IRB models for mortgages, which became effective as from the first quarter of 2015. New requirements were set for prudent estimates of probability of default (PD) and loss given default (LGD). For banks applying the standardised approach, the risk weight for well secured mortgages is 35 per cent. Chart 2.41 shows that mortgages and exposures to corporates account for approximately equal portions of total credit exposures for Norwegian IRB portfolios, but that exposures to corporates represent the clearly largest portion of risk weighted assets.

LEVERAGE RATIO

One of the underlying reasons for the financial crisis in 2008 was a high level of debt finance among credit institutions, concurrent with an apparently sound risk weighted capital ratio[10]. Hence, the Basel III framework assigns the leverage ratio greater importance in the evaluation of institutions'

[9] CVA - Credit Valuation Adjustment.
[10] See inter alia the Basel III leverage ratio framework and disclosure requirements.

financial soundness. The leverage ratio measures tier 1 capital in terms of a measure of exposure that includes non-risk-weighted assets on and off the balance sheet. A minimum requirement, if any, for this ratio is designed to limit the danger of an imprudent fall in risk weighted assets. A number of countries, including the US and Switzerland[11] have already adopted a minimum leverage ratio requirement. The EU Commission aims to introduce a minimum requirement for its member countries as from 2018.

Finanstilsynet recommended earlier in 2016 that the introduction of a minimum leverage ratio requirement should be deferred pending adoption of EU rules in this area. Finanstilsynet concurrently recommended that a requirement introduced before adoption of the EU framework should be of 6 per cent. For mortgage companies it recommends a requirement of 3 per cent on the basis that their business model diverges from that of other credit institutions. Only two Norwegian banks had a leverage ratio below 6 per cent at the end of 2015. No Norwegian bank at the end of 2015 was bound by the Basel Committee's recommended minimum leverage ratio requirement of 3 per cent. One mortgage company was below 3 per cent.

For all banks collectively the leverage ratio was 7.1 per cent at the end of 2015, an increase of just under 1 percentage point from the end of 2014. This increase is due to recapitalisation through profit retention, and occurred despite substantial growth in the overall exposure measure. The larger Norwegian banks have a consistently lower leverage ratio than the other banks (chart 2.42). Chart 2.43 also shows that there are substantial differences between banks' risk weighted assets relative to total assets. CET1 capital adequacy varies widely for a given leverage ratio. Many smaller banks in particular have a moderate leverage ratio but at the same time a high CET1 ratio. The reason is that these banks' business model is largely based on residential mortgages attracting relatively low risk weights.

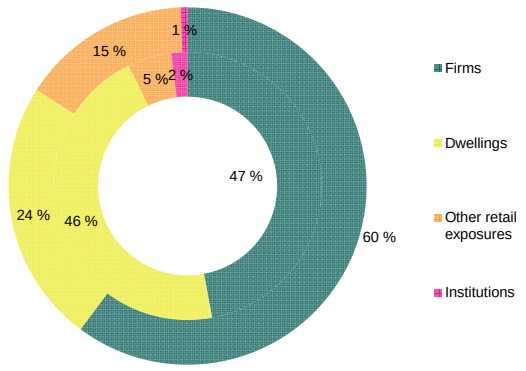
Norwegian banks are consistently somewhat sounder financially than other European banks measured in terms of leverage ratio.

For larger European banks (tier 1 capital above NOK 30 billion) the leverage ratio stands at 4.7 per cent, and for smaller European banks (tier 1 capital below NOK 30 billion) it stands at 5.3 per cent.[12]

[11] The Federal Reserve has introduced a leverage ratio requirement of 4 per cent for all institutions as from 1 January 2015, but the exposure measure utilised only includes on-balance sheet items. As from 1 January 2018 a leverage ratio requirement of 3 per cent is to be introduced for all institutions in which on-balance sheet exposures will also feature in the exposure measure. In 2019 Switzerland will have phased in a leverage ratio requirement of 5 per cent for its global systemically important banks.

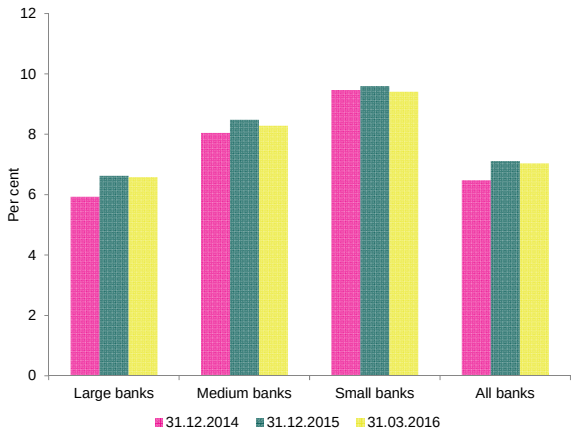
[12] CRR / CRD IV – Basel III monitoring exercise.

2.41 Credit exposure (inner circle) and capital requirements (outer circle) for IRB portfolios in Norway, at 31.12.2015



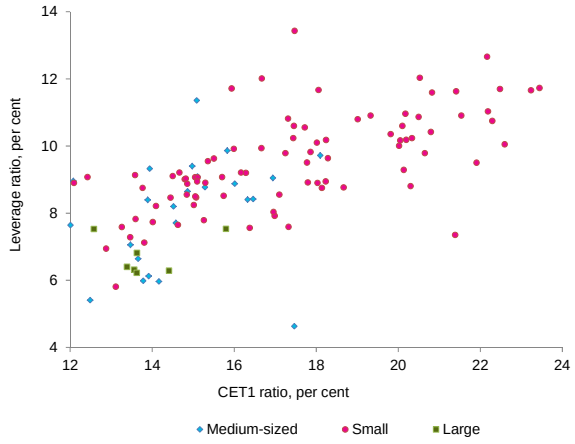
Source: Finanstilsynet

2.42 Leverage ratio at Norwegian banks*



* The calculations are done at the highest consolidation level. A minority of banks have a CET1 ratio above 24 per cent, and are not included in the diagram. Source: Finanstilsynet

2.43 Leverage ratio and CET1 capital adequacy at Norwegian banks



Source: Finanstilsynet

CHAPTER 3 INSURANCE AND PENSIONS

Developments in the securities markets have a large bearing on the current earnings of life insurers and pension funds alike. The level of risk-free interest rates also impacts on life insurers' obligations. Long-term interest rates have fallen over a long period. Long-term government bond rates and swap rates showed a further fall through 2015 and into the first quarter of 2016. A high proportion of European and Japanese government bond yields are now negative. Risk premiums in fixed income markets increased in 2015, in particular in the case of debt with a poor credit rating. The value of Norwegian and European equities rose moderately last year, while US share prices fell slightly.

For pension providers (life insurers and pension funds) the interest rate fall brings reduced interest revenues. Over the course of the past 10 years the yield on German, US and Norwegian long-term government bonds fell by about 3 percentage points. Depending on the composition of corporate investments, firms' interest revenues are gradually reduced as older bonds are replaced by new bonds providing lower yield. This trend will continue ahead, unless long-term rates pick up substantially.

Solvency II became effective on 1 January 2016. Under Solvency II, insurance liabilities are discounted by the risk-free interest rate in effect at any time, and are measured at market value. The new framework has posed a particular challenge as its introduction coincides with a period of historically low interest rates, pushing up the value of insurance liabilities. Many European life insurers would have found it difficult to meet the prudential requirements of Solvency II without adjustments to the regime. A number of adjustments were consequently introduced, along with transitional arrangements. For Norwegian life insurers the most important of these is a general transitional measure on technical provisions, enabling a gradual phase-in of the Solvency II value of insurance liabilities over a period of 16 years.

Solvency II is not applicable to European Institutions for Occupational Retirement Provision (IORPs) or pension funds. So far no agreement has been reached on a new solvency framework for IORPs, and is unlikely to be for some years yet. Pension funds will be subject to the Solvency I requirement until a new solvency framework for occupational pensions is adopted. In Finanstilsynet's view the capital requirements under Solvency II provide a better picture of pension funds' real financial position than does the current solvency regime. Finanstilsynet has accordingly recommended that pension funds be subject to a capital requirement based on Finanstilsynet's stress test I, which is a simplified version of Solvency II.

3.1 10-year government bond yield and guaranteed return at life insurers

*Annualised in first quarter 2016.Sources: Finanstilsynet and Norges Bank

PENSION PROVIDERS' RETURN AND FINANCIAL REVENUES

Investments in the collective portfolio represent, respectively, 75 and 87 per cent of life insurers' and pension funds' aggregate total assets, and the return on those investments is important in assuring policyholders' their guaranteed benefits. In a situation of protracted very low interest rates, achieving the rate of return at least on a par with the guaranteed rate poses a challenge. At the end of 2015 the average guaranteed rate was about 3.15 per cent, and for paid-up policies somewhat higher. Book return remains higher than the annual guaranteed interest rate for the majority of life insurers (chart 3.1). This is due inter alia to realised bond gains. In addition, life insurers still hold a substantial portion of bonds with an interest rate higher than the current market rate. Book return for life insurers as a whole was 4.2 per cent in 2015. For pension funds the figure was 4.1 per cent. In the first quarter of 2016 the ten-year Norwegian government bond yield fell further, and book return in the first quarter (annualised) was also somewhat weaker than in 2015.

Adjusted return, which also includes unrealised financial revenues, at life insurers was on a par with book return (chart 3.2), and lower than in the same period of 2014. This is mainly because the equity market performed better in 2014 than in 2015. The decline in share values brought a significantly weaker return in the first quarter of 2016 than in the same period of 2015. For pension funds, adjusted return in 2015 was 4 per cent. This, too, was lower than in 2014.

More than 60 per cent of the investments in the collective portfolio are bonds, and fixed income revenues accordingly represent a significant portion of life insurers' overall financial revenues. However, recent years' interest rate fall has brought lower fixed income revenues (chart 3.3). Whereas such revenues accounted for 2.7-2.9 per cent of average total assets (ATA) in the period 2008-2012, the share gradually declined to 1.9 per cent in 2015. The same trend is noted for pension funds (chart 3.4).

Value changes in life insurers' equity portfolio vary widely over time and considerably more than in the case of other profit items. Pension funds' higher equity component has entailed even larger value changes in terms of total assets than in the case of life insurers.

OVERALL PROFIT TO POLICYHOLDERS AND FIRMS

Life insurers reported a pre-tax profit of NOK 8.2 billion in 2015 (0.7 per cent of ATA), (chart 3.5), representing some improvement on 2014. Policyholder surplus amounted to NOK 19.8 billion, while increased provisioning for rising longevity came to NOK 7.4 billion. The main reason behind the increase in surplus to policyholders is that KLP (Norway's largest life insurer) has strengthened its premium reserve with the addition of reserves freed up pursuant to new regulation of disability benefits under the National Insurance and new disability tariffs for public sector pension schemes (see further account in chapter 4). In the first quarter of 2016 life insurers' pre-tax profit was somewhat weaker than in the first quarter of the previous year, at 0.2 per cent of ATA (annualised).

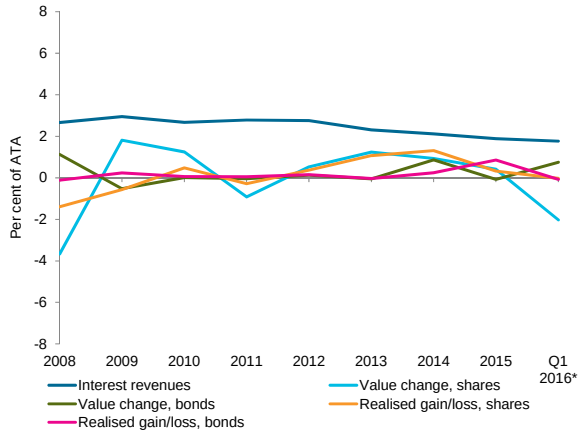
Pension funds recorded a pre-tax profit of NOK 3 billion (1.1 per cent of ATA) in 2015, an improvement on 2014 (chart 3.6).

Finanstilsynet established in March 2013 new minimum requirements for pension providers' mortality tariffs (K2013), effective as from 1 January 2014. The increased provisioning required under K2013 totalled about NOK 41 billion at the end of 2013. Pension providers were given the option of an escalation plan lasting up to seven years, and a concurrent requirement was that pension providers should fund a minimum of 20 per cent of the increased provisioning out of equity. After the provisioning undertaken in 2015, life insurers' residual need for technical provisions is just under NOK 6 billion, the bulk of which refers to paid-up policies. Public sector pension schemes have completed the process of increasing their technical provisions. For pension funds the increased provisioning required under K2013 was about NOK 11.5 billion, breaking down to NOK 8.5 billion for private pension funds and NOK 3 billion for municipal pension funds. Municipal pension funds have in all essentials completed the provisioning process, while private

3.2 Adjusted return on capital at life insurers and pension funds

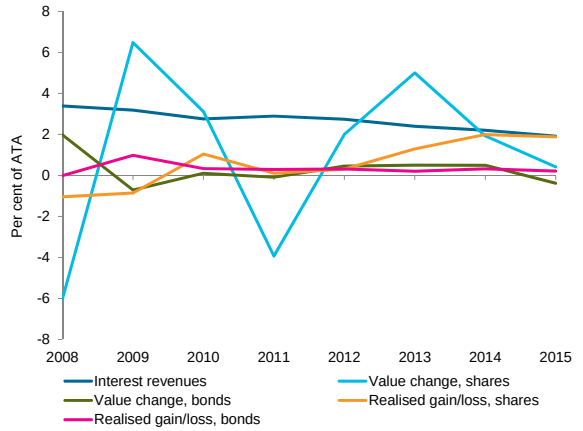
*Annualised.Source: Finanstilsynet

3.3 Financial revenues – life insurers



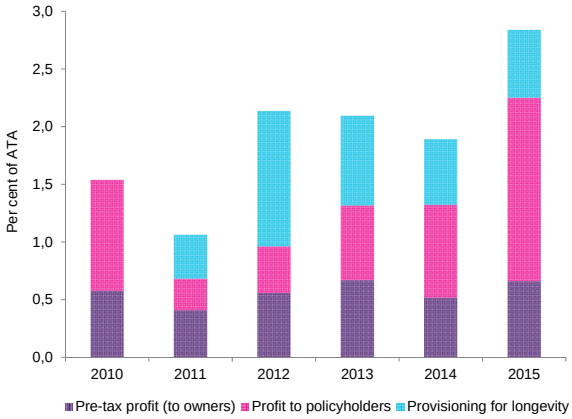
*Annualised.Source: Finanstilsynet

3.4 Financial revenues – pension funds



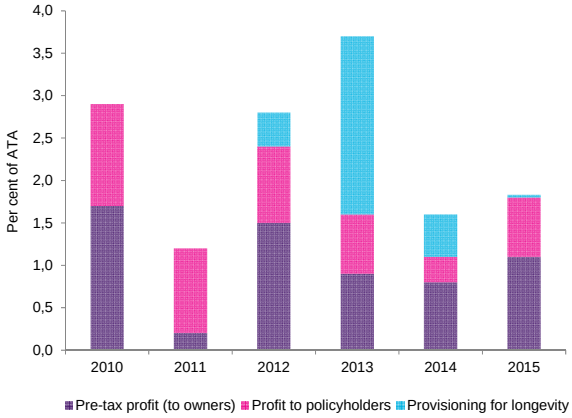
Source: Finanstilsynet

3.5 Life insurers' profits before allocation of surplus and provisioning for longevity



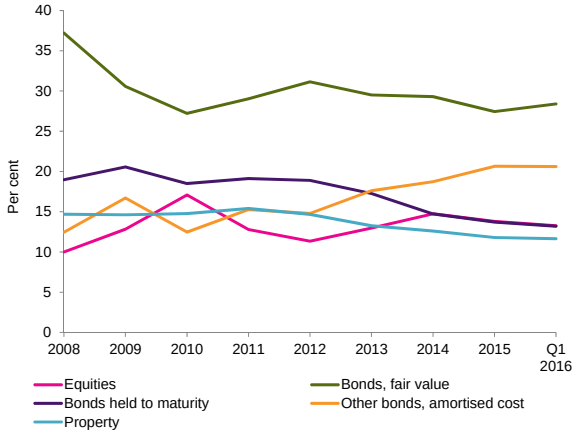
Source: Finanstilsynet

3.6 Pension funds' profits before allocation of surplus and provisioning for longevity



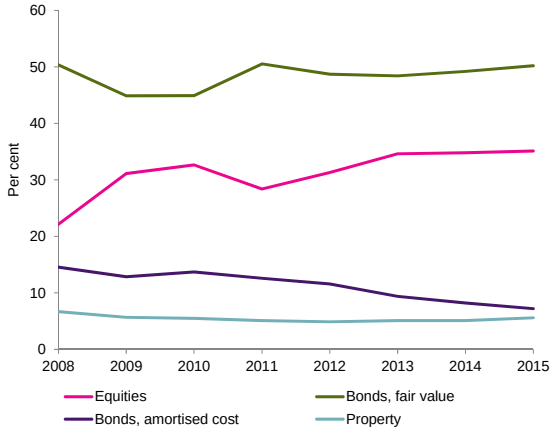
Source: Finanstilsynet

3.7 Investments in the collective portfolio, life insurers



Source: Finanstilsynet

3.8 Investments in the collective portfolio, pension funds



Source: Finanstilsynet

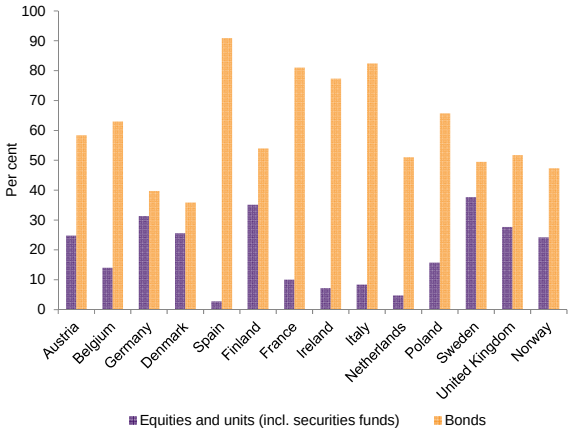
pension funds had a residual shortfall in provisioning of about NOK 0.5 billion at the end of 2015.

PENSION PROVIDERS' INVESTMENTS

Investing in securities that provide sufficiently high return at moderate risk poses a growing challenge given the low level of interest rates. While more risky securities, such as high-risk bonds and equities, normally entail higher expected return the downside is considerably larger than in the case of low-risk securities. Much attention is focused internationally on pension providers' search for yield. However, increased capital requirements under Solvency II incentivise pension providers to invest funds in more secure assets. This is not least true for providers with limited buffer capital. For Norwegian pension providers holding a significant proportion of liabilities with a guaranteed annual rate of return, and for whom the duration gap between liabilities and assets is relatively large, secure investments that carry low risk and provide a stable return are of major significance. Pension funds have substantially higher risk-bearing capacity (buffer capital) than do life insurers, and are thus able to tolerate higher return risk. The difference in risk-bearing capacity is reflected in the composition of pension providers' investments.

In total, fixed income securities accounted for just over 60 per cent of life insurers' investments in the collective portfolio (chart 3.7). Bonds measured at amortised cost, including bonds held to maturity, provide a stable and predictable return during the term of the paper because the accounting value is not affected by interest rate changes. Pension funds' bond holding, which accounts for just under 60 per cent of the collective portfolio, is recognised in the main at fair value. Pension funds hold a larger proportion of high-yield bonds than life insurers.

3.9 Investments in equities* and bonds in selected European countries (exc. unit linked portfolios, life insurance



*In this chart equities and units include all securities funds, and the figures for Norway therefore diverge from figures used elsewhere in this chapter.Source: EIOPA

3.10 Bonds distributed on rating classes at life insurers

Source: Finanstilsynet

Shares and equity funds made up about 14 per cent of life insurers' collective portfolio at the end of 2015. Unlisted shares, including active-owner funds and hedge funds, accounted for close to 30 per cent of the equities portfolio, and the proportion of foreign shares was just over 80 per cent. Pension funds' share component was 35 per cent at the end of 2015, and the proportion has risen in recent years (chart 3.8).

The composition of investments varies between pension providers in various European countries (chart 3.9). The proportion of bonds (excluding bond funds) is considerably higher in countries such as Spain, France and Italy than in the Scandinavian countries. The figures from EIOPA include shares (and units) in all types of securities funds, including bond funds.

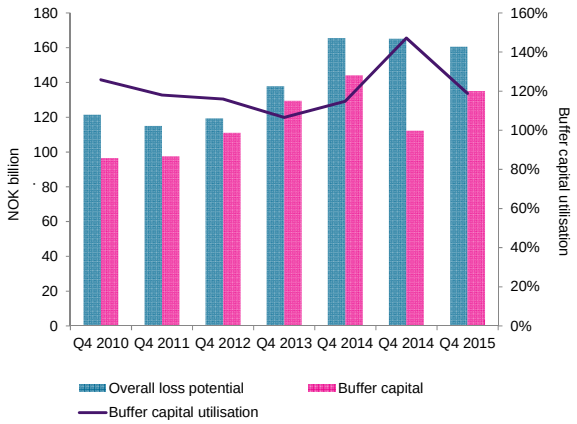
Pension providers are substantial investors in the Norwegian bond market, and an important source of finance for, among others, banks. The capital requirements under Solvency II may prompt providers to steer their investments in the direction of bonds carrying lower capital charges. They may also be motivated to invest in bonds providing a higher return, but where credit risk is also higher. Non-credit rated bonds account for 30 per cent of providers' overall bond portfolio. The proportion fell somewhat in the past year (chart 3.10). A considerable proportion of bonds issued in Norway are not credit rated. This applies inter alia to bonds issued by municipalities and the majority of Norwegian banks. Under regulations supplementing the provisions of the Solvency II regulations, which became effective on 1 January 2016, municipal bonds in Norway are to be assigned to one risk category higher than government bonds. Life insurers' proportion of bonds with the highest credit rating has declined somewhat in recent years.

LIFE INSURERS' FINANCIAL SOUNDNESS

Under Solvency II liabilities are measured at the value that another insurer would be assumed to require in order to take over the liabilities (market value). Life insurers are required to hold capital needed to cover market risk (including a lower interest rate level), insurance risk, counterparty risk and operational risk. Potential loss is calculated using standardised stress tests or – provided that a number of criteria are met and that the supervisory authority has given its permission – the insurers' own internal models.

Up to the end of 2015 insurers and pension funds reported two stress tests to Finanstilsynet on a quarterly basis (small pension funds, i.e. the majority, report half-yearly). For insurers this reporting regime has been replaced by Solvency II reporting as from 2016 whereas it remains in effect for pension funds (see separate account). In one of the stress tests (stress test I), methodology and assumptions are aligned with Solvency II and based on fair value of assets and liabilities. This stress test calculates the potential loss on all relevant risks related to available capital (buffer capital). Buffer capital is capital available to cover losses in a situation where the insurer is wound up, and includes all equity capital and any subordinated debt, along with buffer funds such as supplementary provisions, fluctuation reserves and risk equalisation reserves. Buffer capital utilisation above 100 per cent indicates that the company's overall loss potential was higher than its buffer capital. At the end of 2015 buffer capital utilisation among life insurers as a whole exceeded 100 per cent (chart 3.11), and was for some insurers considerably higher.

3.11 Buffer capital utilisation at life insurers, stress test I



Source: Finanstilsynet

3.12 Discount rate Solvency I (maximum guaranteed rate of return) and 10-year swap rate

Sources: Finanstilsynet and Bloomberg

Given the current low interest rate level, the value of liabilities is higher than under the previous regime for contracts carrying a guaranteed rate of return; see chart 3.12 showing the divergence between the discount rate used under the previous solvency framework (the maximum guaranteed rate of return) and under Solvency II (the swap rate). Higher liabilities result in lower value of capital. The stress tests show that the capital requirements under Solvency II pose a particular challenge for insurers with a large proportion of paid-up policies, and for other private defined benefit pensions providing a guaranteed return. The transitional measures available to Norwegian companies are not reflected in the stress test (see the account of transitional measures below).

Under Solvency II the value of the insurance liabilities is established by discounting future cash flows using a risk-free interest rate curve. This curve is calculated with a basis in swap rates in a sufficiently liquid market, with a deduction made for the assumed credit risk premium. In the case of liabilities in Norwegian kroner the market yield for maturities of up to 10 years is employed. For longer maturities where a liquid fixed income market is not considered to exist, the interest rate curve is computed using an extrapolation method to obtain an ultimate (one-year) forward rate (UFR), which is set at 4.2 per cent with a maturity of 60 years for most currencies, including the Norwegian krone. EIOPA published in April 2016 a consultation document containing proposals for calculating and updating the UFR. The proposals may entail a reduction of the UFR with effect from 30 June 2017. Such a reduction will result in a lower interest rate curve for all maturities above 10 years, which will impair the solvency position of Norwegian life insurers. The immediate effect will however be dampened by the transitional measure on technical provisions; see the account below.

SOLVENCY II – CALCULATION OF TECHNICAL PROVISIONS AND TRANSITIONAL MEASURE

Under the Solvency II framework, which entered into force on 1 January 2016, technical provisions (the value of the insurance liabilities) are in the main calculated as the sum of a best estimate and a risk margin. A best estimate is calculated as expected future cash flows arising from the liabilities, discounted using an interest rate curve that reflects a risk-free market interest rate.

Impact assessments have shown that many European life insurers would not meet the requirements of Solvency II without transitional measures. On this basis several permanent measures and transitional arrangements have been established in the legislation. The most important of these is a general transitional measure on technical provisions whereby any increase in the value of insurance liabilities upon the transition to Solvency II can be phased in gradually over a period of 16 years.

Eight Norwegian life insurers have applied for and been granted permission to apply the transitional measure on their technical provisions. Finanstilsynet has received preliminary calculations of solvency positions as at 1 January 2016 with and without the effect of the transitional measure. The calculations showed that all eight insurers would have met the solvency capital requirement without applying the transitional measure on their technical provisions, but in some cases by a small margin. For two of the eight insurers the transitional measure had no effect, since overall provisions under the Solvency II framework were lower than overall provisions calculated under the previous solvency framework.

Life insurers' financial position has weakened due to the interest rate decline in the first quarter of 2016.

Silver Pensjonsforsikring applied in July 2015 for temporary dispensation from the new capital requirements (Solvency II). Silver wished to operate under lower capital requirements corresponding to those of the Occupational Retirement Provision Directive, which currently apply to pension funds (Solvency I). Finanstilsynet recommended that Silver should not receive dispensation from the Solvency II requirements on the ground that in light of the current return prospects Silver's ability to honour its commitments as they fall due is highly uncertain. Current solvency requirements are not risk based, and thus do not give sufficient assurance that agreed pension amounts can be disbursed in the future.

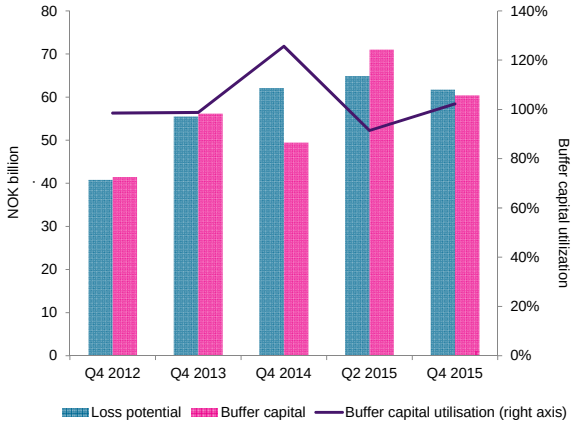
In its decision of 20 November 2015 the Ministry of Finance endorsed Finanstilsynet's assessment, and considers there is a strong need to strengthen the company's capital base, in keeping with the new Solvency II requirements. The Ministry did not grant Silver dispensation to apply the capital requirements based on the rules of the Occupational Retirement Provision Directive. Silver was however granted a one-year dispensation (expiring on 1 January 2017) from the Solvency II requirements, on condition that it meets the requirement on solvency margin capital (Solvency I) and capital adequacy in the dispensation period, and that it meets the requirements regarding policyholder assets in effect at any time.

PENSION FUNDS FINANCIAL SOUNDNESS

The interest rate level is a central risk factor for pension funds too. Stress tests based on Solvency II (stress test I) for pension funds, which is the same stress test as that for life insurers, described above, showed a buffer capital utilisation for all pension funds combined of 102 per cent at the end of 2015, compared with 126 per cent one year previously (chart 3.13). Several pension funds had a buffer capital utilisation significantly higher than 100 per cent. Private pension funds with a large proportion of paid-up policies are particularly affected by low interest rates since an increase in the value of liabilities cannot be compensated for by higher premiums. The proportion of paid-up policies at pension funds will increase ahead in step with the phasing out of defined benefit pension schemes. At the end of 2015 four pension funds had exclusively paid-up policies in their portfolio. At ten pension funds, paid-up policies accounted for more than 40 per cent of the liabilities.

Up to the end of 2015 pension funds were subject to the same requirements as those applying to life insurers. Solvency II has not however been made applicable to pension funds. The latter will continue to report their stress tests based on the valuation principles of Solvency II.

3.13 Buffer capital utilisation at pension funds, stress test I



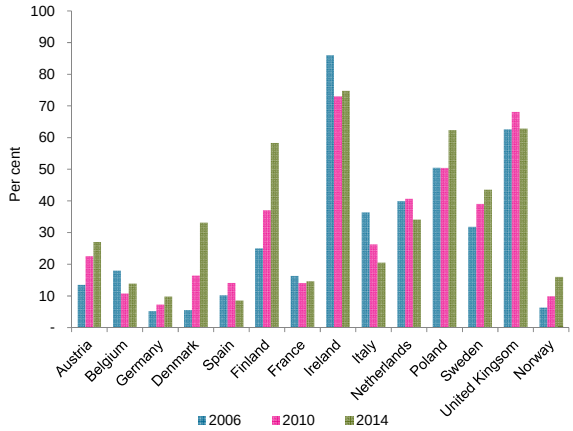
Source: Finanstilsynet

NEW CAPITAL REQUIREMENTS PROPOSED FOR PENSION FUNDS

Current rate of return prospects suggest that the solvency regime for pension funds should be strengthened and made more risk sensitive to secure a higher level of preparedness to meet pension payments in the future. Any new capital requirements based on the European IORP regulatory framework appear to be a matter for further into the future than previously assumed. In Finanstilsynet's view the capital requirements under Solvency II provide a better picture of pension funds' real financial position than does the solvency regime under which they currently operate. Solvency II is a wide-ranging and in some respects complex body of rules, and Finanstilsynet has accordingly recommended that pension funds be subject to a simplified version of Solvency II based on Finanstilsynet's stress test. The Ministry of Finance has asked Finanstilsynet to draw up a consultation document and draft regulations.

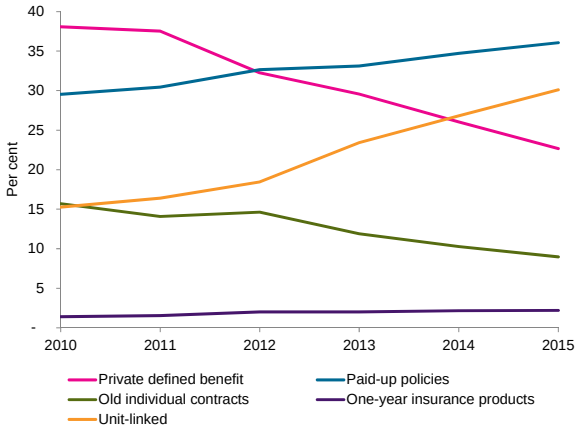
In Finanstilsynet's assessment the current monitoring of stress test reports is sufficient to ensure financial soundness pending implementation of a new solvency requirement, but could be combined with possible imposition of capital requirement add-ons with a basis in the Financial Supervision Act. Under current rules, the board of directors of a pension fund is under obligation to consider taking measures should stress tests show that the pension fund will no longer meet applicable solvency requirements. Finanstilsynet has recommended amending the Asset Management Regulations such that the board of directors of a pension fund would also be duty bound to consider taking measures if risk analyses based on fair value give cause to believe that the pension fund's future financial position will be vulnerable. Finanstilsynet has already signalled to pension funds with an expected weak financial position ahead (reflected through high buffer capital utilisation in the stress test based on fair value) that it expects the boards of directors concerned to consider taking measures.

3.14 Proportion of insurance contract liabilities at life insurers offering unit-linked, selected European countries



Source: EIOPA

3.15 Insurance contract liabilities, private collective pensions



Source: Finanstilsynet

EU STRESS TEST FOR OCCUPATIONAL PENSIONS

EIOPA, the European Insurance and Occupational Pensions Authority, conducted in 2015 a stress test of European pension providers operating under the Occupational Retirement Provision Directive (IORP) with a view to identify risk and vulnerability in the pensions sector and consequences for financial stability.

Seventeen countries with an occupational pensions sector of some scale took part in the stress test. The objective was to cover the least 50 per cent of the national markets. Norway was represented in the stress test by the seven largest pension funds. The stress test, which focused on defined benefit pension schemes, included two scenarios of negative events in securities markets, and one scenario of increased longevity. The stress tests were based on two methods for determining the composition of the balance sheet and its valuation, one in accordance with the applicable national balance sheet, and one with a contemplated harmonised European framework (common methodology). Where the latter was concerned, calculations were to be made both with and without sponsor support/guarantee schemes and/or benefit reductions.

The results, which were published in January 2016, show a significant undercoverage on the part of many European pension providers, even before balance sheets are exposed to negative shocks. However, the stress test reveals wide national differences in valuation methods between the participating countries. With use of a common methodology the stress test showed undercoverage at the aggregated European level in the two markets scenarios and the longevity scenario, given no sponsor support or benefit reductions. EIOPA concluded that European pension providers are more vulnerable to a negative market development than to increased longevity under both valuation methods. EIOPA sees a need for further analyses, inter alia to assess how sponsors' behaviour may be affected by a negative market trend, and what consequences this could have for financial stability.

The Norwegian pension funds that participated showed in aggregate better results from the stress test than the average of participating European pension funds, regardless of methodology or stress scenario. The pension funds showed an overall overcoverage before stress under a common methodology, and lower undercoverage after the stress scenarios than the average.

The results show that European pension providers are vulnerable to a low interest rate level. A risk-based solvency regime will reflect this vulnerability to a greater degree.

CHANGE IN THE PENSIONS MARKET – TRANSITION TO DEFINED CONTRIBUTION PENSIONS AT LIFE INSURANCE PROVIDERS

The high costs of defined benefit pension schemes, both for insurers and firms, have contributed to strong growth in unit-linked defined contribution pensions (chart 3.15). Virtually all new subscription to pension products is to defined contribution pensions, and a strong increase is also noted in conversions of defined benefit to defined contribution schemes. This trend is also in evidence in many other European countries.

Unit-linked pension schemes as a share of overall insurance liabilities varies widely across Europe, from below 10 per cent in Germany to close to 80 per cent in Ireland (chart 3.14). Norway is among the European countries with the lowest proportion of unit-linked products, although this share has risen considerably in recent years.

While the change in liabilities is relatively slow, gross premiums written give a clearer picture of the large increase in defined contribution pensions in recent years (chart 3.16). In 2014 premiums due were for the first time higher for defined contribution pension products than for defined benefit pensions. By 2015 the share had risen to 57 per cent. Paid-up policies are part of the private collective pensions category. Hence the change is also influenced by the issuance of paid-up policies for existing contracts when defined benefit schemes are closed. Paid-up policies do not allow payment of new premiums. Liabilities under paid-up policies have increased by more than NOK 100 billion in the past six years (chart 3.17).

The transition from defined benefit pensions to unit-linked defined contribution pensions entails that the rate-of-return risk passes from the insurer to the policyholder. This requires the policyholder to a greater degree to take a position on his or her own future pension, and a number of choices are involved in investment and risk strategy. In defined contribution schemes, longevity risk is also borne by the policyholder, who has terminable benefits i.e. benefits are limited to a certain number of years after reaching retirement age. Finanstilsynet is concerned that the suppliers of unit-linked products should ensure that the policyholder receives sufficient information and advice to enable the individual to make an informed choice with regard to his or her own future pension. The composition of investments in a unit-linked portfolio diverges significantly from that in guaranteed products, inter alia with an equity component close to 60 per cent on average. While this paves the way for higher expected return, it also entails a larger risk of loss or fall in the value of the investments.

UNIT LINKED PAID-UP POLICIES

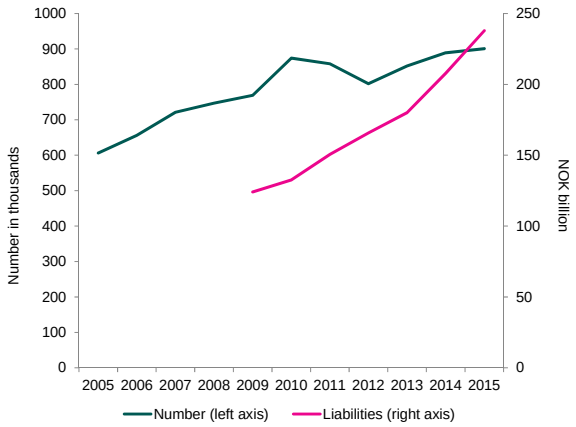
Pension providers were permitted to offer unit linked paid-up policies as from 1 September 2014. This enables a paid-up policyholder to convert a paid-up policy with guaranteed return into a unit-linked paid-up policy. The Ministry of Finance has decided that paid-up policies must be fully provisioned for increased life expectancy before conversion to unit linked. In contrast to defined contribution pensions, unit linked paid-up policies are life-long. Hence some of the longevity risk is still borne by the insurer. At the end of the first quarter of 2016 two life insurers offer this product, only one of which, Storebrand, does so on an active basis. At the end of 2015 insurance liabilities related to unit-linked paid-up policies amounted to just under NOK 5 billion.

A comprehensive body of rules has been adopted on information and advice to be provided before an agreement to convert a paid-up policy is entered into. Finanstilsynet conducted in 2015 an off-site inspection of Storebrand Livsforsikring's compliance with the information requirements to be met when inviting subscription to unit-

3.16 Gross premium written in private collective pensions, life insurers

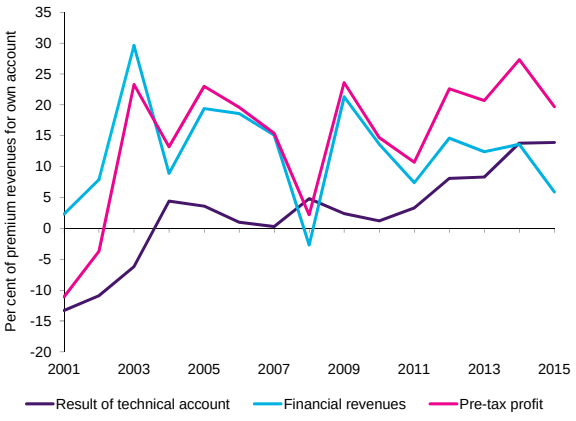
Source: Finance Norway

3.17 Paid-up policies at life insurers - insurance contract liabilities and number



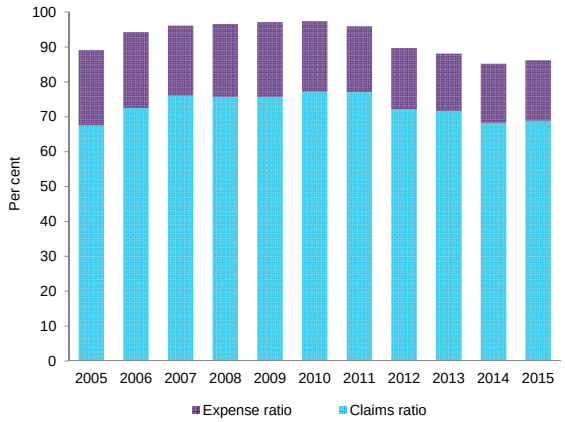
Source: Finance Norway

3.18 Results of non-life insurers



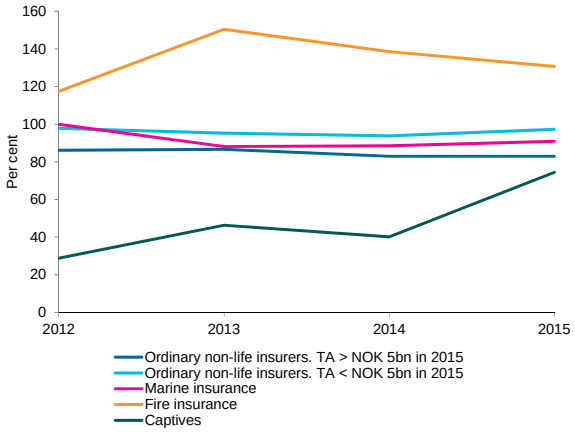
Source: Finanstilsynet

3.19 Claims ratio and expense ratio (combined ratio)



Source: Finanstilsynet

3.20 Combined ratio at groups of non-life insurers



Source: Finanstilsynet

linked paid-up policies. The inspection was based on customer documentation of agreements to convert paid-up policies entered into in the period November 2014 to January 2015, and on the basis for Storebrand Livsforsikring's recommendations with regard to conversion. The information requirements of the Defined Benefit Pensions Act with regulations are designed to ensure that a paid-up policyholder makes his decision to convert on an objective and well-informed basis. In Finanstilsynet's view Storebrand Livsforsikring's forecasts of expected disbursement from unit-linked paid-up policies in the period from the fourth quarter of 2014 to the first quarter of 2015 were based on unreasonably high rate-of-return assumptions. Storebrand has subsequently revised its return assumptions.

NON-LIFE INSURANCE

Norwegian life insurers (exc. captives) reported a pre-tax profit of NOK 7.7 billion in 2015, a decline of NOK 2.3 billion (chart 3.18). The decline is due to reduced financial revenues from 2014 to 2015, which are ascribable to a low interest rate level and a weaker stock market trend. Norwegian non-life insurers have seen good technical results in recent years. Between 2014 and 2015, however, results from technical operations declined somewhat. The result for the first quarter of 2016 still reflected low financial revenues, whereas technical operations improved compared with the first quarter of 2015.

The combined ratio, which shows the sum of claim payments and operating expenses relative to premium revenues, is an indicator expressing the profitability of insurance business. With a combined ratio below 100 per cent, overall claim payments and expenses are lower than premium revenues, indicating that insurance operations have been profitable. In 2014 the combined ratio for non-life insurers as a whole was 86.2 per cent, which is somewhat weaker than the previous year (chart 3.19). Both the claims ratio and the cost ratio have weakened somewhat compared with the previous year. The combined ratio showed some improvement in the first quarter of 2016 compared with the same period of 2015.

Chart 3.20 shows the combined ratio for various groups of non-life insurers in the Norwegian market. Mutual fire insurers and captives diverge considerably from the other groups in terms of profit level and profit fluctuations, mainly due to differences in relative cost level. Mutual fire insurers and captives account for just 3.7 per cent of the Norwegian non-life insurance market.[13] Changes in the claims ratio are the main contributor to fluctuations in the combined ratio, whereas the cost ratio shows greater stability.

Norwegian non-life insurers are in aggregate financially sound. Buffer capital utilisation in a stress test based on the requirements of Solvency II was 50 per cent at the end of 2015, roughly on a par with 2014. The level of buffer capital utilisation varies widely from one insurer to the next, and some insurers face challenges in terms of financial soundness. The stress test represented a simplification of the requirements under Solvency II and was based on fair value of assets and liabilities. The results of the stress test indicate that the transition to new capital requirements does not pose a major challenge for non-life insurers.

Solvency II is in all essentials a fully harmonised body of rules but, for some issues, special assessments at the national level have been called for. For Norwegian non-life insurers this applies inter alia to the treatment of their contributions to the Norwegian Natural Perils Pool. An issue has been whether these contributions can count towards insurers' own funds, or whether they are to be regarded as a liability with a potentially risk-mitigating effect in the

[13] Measured by gross premiums written

calculation of the solvency capital requirement. In February 2016 amendments were adopted to regulations on instructions for the Norwegian Natural Perils Pool that pave the way for non-life insurers' natural perils contributions to count towards own funds under Solvency II. This accords with the treatment of the Norwegian Natural Perils Pool in the stress test.

CHAPTER 4 REGULATION

Several new pieces of legislation entered into force at the turn of 2016. A new Financial Institutions Act – replacing the Savings Banks Act, the Commercial Banks Act, the previous Financial Institutions Act and parts of the Insurance Act – came into force on 1 January 2016, and Solvency II was introduced for insurance companies. New liquidity requirements applied to credit institutions as from 31 December 2015.

In April 2016 the Government presented a bill to the Storting on EEA adjustment to the legislation governing the EU's supervisory authorities. The Storting's approval will pave the way for the incorporation of a number of EU legislative acts in the EEA Agreement. Although legislative acts in this area have yet to be included in the EEA Agreement, Norwegian authorities have attached importance to developing Norwegian legislation in line with developments in the EU. EU legislation in several key areas has accordingly already been implemented, or is in the process of being taken into account, in Norwegian legislation. The Banking Law Commission is drawing up new rules for crisis resolution, and a publicly appointed commission (Securities Law Commission) has been asked to propose amendments to the Securities Trading Act in keeping with EU legislation in this area.

THE EU'S FINANCIAL SUPERVISORY SYSTEM

Reference is made to an account of the EU's financial supervisory authorities in Risk Outlook 2015 and Financial Trends 2015. In the aftermath of the international financial crisis in 2008 the EU resolved to strengthen the financial sector's supervisory structure. In January 2011 the new European financial supervisory system was established, with an overarching macroprudential oversight body, the ESRB, and the following sectoral supervisory bodies: EBA (banking), ESMA (securities) and EIOPA (insurance and pensions). The Regulations that established these new financial supervisory bodies are EEA-relevant.

In some cases the EU's supervisory authorities can adopt decisions that are binding on the member states or directly binding on market participants in the member states. This involves a transfer of authority to a supranational body which has been challenging to conform to constitutional requirements in the EEA/EFTA countries. In October 2014 political agreement was reached on the principles for EEA adjustments. Thereafter the EFTA countries together with the EU have worked to reach agreement on the concrete adjustments that need to be made with a view to incorporating the Regulations on supervision in the EEA Agreement.

Based on the agreement reached in October 2014, EEA committee decisions have been drafted including concrete adjustments to enable EU legislation establishing the EU's financial supervisory system and certain other relevant and precedent-setting legislative acts to be incorporated in the EEA Agreement. In April 2016 the Government submitted a proposition (prop. 100S (2015-2016)) to the Storting containing the concrete proposals for adjustments, and in May draft provisions to implement the anticipated new EEA rules were presented. The proposition entails that the EEA/EFTA states' national supervisory authorities will participate as non-voting members in the work of the EU's three supervisory authorities. It also entails that the three EU supervisory authorities can make recommendations and other non-binding decisions with regard to authorities and private market participants in the EEA/EFTA states (a one-pillar model), whereas it is EFTA's surveillance body, based on recommendations from the EU supervisory authority concerned, that will adopt any binding decisions addressed to authorities and market participants in the EEA/EFTA states (a two-pillar model). The proposed transfer of authority is such that it must be approved by a three-quarters majority of the Storting, in accordance with Article 115 of the Norwegian Constitution. The same processes for approval are ongoing in Iceland and in Lichtenstein. In the EU the solution will be approved by member states through consideration by the European Council.

Subsequent to the establishment of the European financial supervisory system, the EU has adopted about 180 EEA-relevant legislative acts in the financial markets area. The majority of these new legislative acts contain provisions building on the EU supervisory Regulations and/or the ESRB Regulation, and incorporation in the EEA Agreement has therefore been in abeyance pending clarification of EEA adjustment to the EU's financial supervisory system. Approval by the Storting of the proposed drafts of EEA committee decisions will also pave the way for inclusion of other EEA-relevant EU legislative acts in the financial markets area in the EEA Agreement.

RULES FOR BANKS ETC

CAPITAL REQUIREMENTS – PILLAR 1

Norway's capital adequacy framework is adapted to the EU's Capital Requirements Directive (CRD IV) and Regulation (CRR). New capital adequacy requirements were incorporated in law in 2013 with specific rules for phasing in new buffer requirements. The buffer requirements will be fully phased in as from 1 July 2016.

The law requires banks, mortgage companies and finance companies to hold at minimum common equity tier 1 capital, tier 1 capital and own funds of respectively 4.5, 6 and 8 per cent of risk weighted assets. In addition, these entities must maintain a capital conservation buffer of 1 per

Table 4.1 Minimum and buffer requirements on CET1 capital adequacy, core capital adequacy and total capital adequacy (figures in per cent) for banks and finance companies

	July 2015		July 2016	
	Systemically important institutions	Other institutions	Systemically important institutions	Other institutions
CET1 capital ratio	12,0	11,0	13,5	11,5
Core capital ratio	13,5	12,5	15,0	13,0
Total capital adequacy	15,5	14,5	17,0	15,0

cent, a systemic risk buffer of 3 per cent and a countercyclical buffer between 0 and 2.5 per cent. Systemically important institutions shall as from 1 July 2015 have in place an additional buffer of 1 per cent and as from 1 July 2016 a buffer of 2 per cent. The buffer requirements must be met out of common equity tier 1 capital.

The requirement of a countercyclical buffer is set by the Ministry of Finance each quarter. The Ministry set a countercyclical buffer requirement of 1 per cent, effective as from 30 June 2015, for the first time in December 2013. In June 2015 it was decided to increase the countercyclical buffer requirement to 1.5 per cent as from 30 June 2016. The Norwegian buffer rate is to be applied to risk weighted assets in their entirety. Finanstilsynet has on commission from the Ministry of Finance proposed rules to enable countercyclical capital buffer requirements set by other EEA countries' authorities to be utilised in the calculation of a countercyclical capital buffer for Norwegian institutions' activity in the country concerned (reciprocity). The proposal entails recognition of all countercyclical buffer rates that are set, either in EEA countries or third countries. This also applies to rates above 2.5 per cent, where reciprocity under the Capital Requirements Directive is voluntary. Further, Finanstilsynet proposes that the countercyclical buffer rate in effect at any time for exposures in Norway, of 1.5 per cent as from 30 June 2016, should be applied to exposures in countries that have not established a buffer rate. The Ministry of Finance circulated the proposal for comment on 12 April 2016 with the deadline for response set at 10 June 2016.

The Ministry of Finance is required to decide each year which financial institutions are to be deemed systemically important in Norway. In June 2014 it was decided that DNB ASA, Nordea Bank Norway ASA and Kommunalbanken AS should be regarded as systemically important institutions which are required by law to meet a separate buffer requirement. Finanstilsynet gives advice each year, under regulations on the identification of systemically important financial institutions, to the Ministry of Finance on which financial institutions should be considered to be systemically important in Norway, and in April 2016 recommended that the same institutions that were designated as systemically important in May 2014 should continue to be so regarded.

Table 4.1 shows the overall requirements for capital under Pillar 1 for, respectively, systemically important institutions and other banks, mortgage companies and finance companies.

In financial groups consisting of both banks and insurers, the calculation of consolidated capital adequacy ratios was revised as from 1 January 2016 with the introduction of Solvency II for insurers. See the account of the rules governing financial groupings later in this chapter. In this connection a need has been identified for changes to the rules governing calculation of the Basel I floor for banks utilising internal models and holding capital interests in insurance companies, and Finanstilsynet forwarded on 25 May 2016 to the Ministry of Finance a consultation document and a draft version of regulations to amend the calculation of the Basel I floor.

The EU Commission has established a number of technical standards with their basis in the CRD IV Directive or the CRR Regulation. Finanstilsynet states in a circular that it expects institutions to abide by these standards and that it will base its supervisory follow-up on them.

THE BASEL COMMITTEE'S WORK ON RULE REVISION

The Basel Committee has in recent years proposed changes several parts of the standard on calculating capital adequacy ratios, inter alia with a view to reducing observed variations in banks' risk weighted assets that are due to factors other than differences in risk. In 2014 and 2015 proposals were made to revise the capital adequacy standards for credit risk, market risk and operational risk along with reference to possible changes to the floor which sets a lower limit for the capital requirement where internal models are used. Changes in the Basel Committee's standards could have a bearing on a future capital adequacy regime in the EU and Norway.

Proposal for changes in the standardised approach for credit risk

The Basel Committee published on 15 December 2015 its second consultation document proposing changes to the standardised approach. In its first consultation document in 2014 (see the account in Risk Outlook 2015), the Basel Committee proposed replacing external rating with pre-defined risk drivers. However, the proposal met much resistance. In the second consultation document, external rating is relaunched, but with a requirement that bank should make a special assessment of the counterparty. Exposure to other banks where external rating is lacking should be classified in one of three categories and receive a risk weight between 50 and 150 per cent depending on classification, but with a risk weight of 20 per cent instead of 50 per cent for exposures with an original maturity of three months or less. A risk weight of 85 per cent is proposed for SMBs and 100 per cent for other entities. For home mortgage loans a risk weight grading of 25 to 100 per cent as proposed depending on the loan-to-value ratio. For loans secured on commercial property a risk weight of 60 per cent may be applied provided the loan-to-value ratio does not exceed 60 per cent and repayment is essentially independent of return arising from the property. Where repayment is in all essentials dependent on return arising from the property, the lowest risk weight is 80 per cent. Norges Bank and Finanstilsynet released a joint consultative statement on the Basel Committee's proposal in March 2016.

Revision of the framework for IRB models

In March 2016 the Basel Committee presented a consultation document proposing changes to the framework for the use of internal models. The proposal aims to reduce the complexity of the rules, improve comparability between banks and reduce variation in capital requirements for credit risk. The Basel Committee proposes removing the opportunity to use internal models to compute capital requirements for exposures to sovereigns, financial institutions, special purpose vehicles and very large corporates and for equity capital positions. Further, a floor is proposed for model parameters as well as stricter requirements on parameter estimation. The consultation continues to 24 June 2016.

Revised framework for market risk

In the period since the financial crisis the Basel Committee has considered several changes to the rules governing the calculation of capital charges for market risk. The Basel Committee published on 14 January 2016 a revised framework after the completion of two rounds of consultation in 2013 and 2014 along with a number of impact studies. The new framework introduces a revised standardised approach that is more risk sensitive along with more stringent requirements on internal models. Moreover, the boundary between the banking book and trading book is revised in order to reduce arbitrage opportunities that may brought about by moving financial instruments so as to achieve as low a capital charge as possible. The framework takes effect on 1 January 2019.

Proposal for a new approach to calculating operational risk

The Basel Committee produced its first proposal for a new standardised approach for the calculation of capital charges for operational risk in autumn 2014. A revised proposal was circulated for comment on 4 March 2016. The Basel Committee now plans to remove the opportunity to use internal models in the calculation of capital charges (Advanced Measurement Approach, AMA). The proposal entails that all existing measurement approaches are to be replaced by a single new approach (Standardised Measurement Approach, SMA). The SMA builds on a pre-defined indicator based on the banks' accounting data. For the largest banks an additional proposal is to include internal loss history in the calculation. The consultation continues to 3 June 2016.

Interest rate risk in the banking book

Interest rate risk in the banking portfolio is not covered under Pillar 1, but is taken into account in Pillar 2. The Basel Committee published in June 2015 a proposal for a revised standard for dealing with credit risk. The proposal presented two alternatives: either to consider interest rate risk under Pillar 1 or to consider it under Pillar 2 based on the methodology proposed under Pillar 1 but taking account of differences between countries in terms of in market workings and risk management practices. The final framework was published by the Basel Committee on 21 April 2016. The standard sets the stage for interest rate risk in the banking book to continue to be considered under Pillar 2, but with greater guidance on how interest rate risk is to be treated, an updated standardised approach which the banks can utilise on a voluntary basis, and increased requirements for disclosure. The revised standard is expected to become effective by 2018.

Leverage ratio

Based on the experiences from the financial crisis, the Basel Committee proposed to introduce the leverage ratio as a capital metric to supplement risk-based capital requirements. The ambition has been to introduce a leverage ratio requirement as from 2018, and in the period 2014-2017 to carry out an impact study and make a closer assessment of the design of the requirement. The Basel Committee's proposal for a definition of the leverage ratio was presented in 2014. In a press release dated 11 January 2016 the Basel Committee stated that the leverage ratio should stand at about 3 per cent, but higher for global systemically important institutions. The Basel Committee

published on 6 April 2016 a consultation document[14] proposing changes to the exposure measure (denominator). The main changes relate to measurement of derivative exposures, the treatment of provisions, conversion factors for off-balance sheet items, along with further requirements for global systemically important institutions. The consultation continues to 6 July 2016. The final design and calibration of leverage ratio requirement will also depend on the impact study to be conducted by the Basel Committee.

Pillar 3 – disclosure requirements

The Basel Committee published on 11 March 2016 a proposal for new disclosure requirements under Pillar 3. The proposal includes inter alia new requirements for disclosure of key figures, disclosure of calculation of risk weights using the standardised approach and more information on valuation. An adjustment to the disclosure requirements is also proposed in light of changes in other frameworks described above. The consultation continues to 10 June 2016.

CAPITAL REQUIREMENTS – PILLAR 2

The CRD IV Directive sets requirements for institutions' own assessment of risk and capital need (ICAAP - Internal Capital Adequacy Assessment Process) and requirements on the supervisory authorities' review (SREP – Supervisory Review and Evaluation Process). The Directive also permits supervisory authorities to require adjustments to the business concerned or to capital over and above the minimum requirements (Pillar 2 requirements). The Directive requirements are implemented in Norwegian legislation (the new Financial Institutions Act and the Securities Trading Act).

The EBA published in December 2014 a recommendation designed to harmonise supervisory authorities' practices. Finanstilsynet informed the EBA of its intention to comply. This was followed up in circular 9/2015 in which Finanstilsynet presented its new approach to the assessment of risk and capital needs.

An increased focus on Pillar 2 requirements on the part of financial institutions, analysts and investors has prompted discussion of several issues related to Pillar 2 in international fora. These include questions of whether the Pillar 2 requirement should be disclosed and whether the Pillar 2 requirement influences the timing of automatic restrictions on, respectively, dividend payouts, interest payments on hybrid capital and bonus payments. According to the Directive, restrictions take effect when institutions breach minimum requirements plus buffer requirements, but the wording is not clear on whether the Pillar 2 requirement is to be considered a part of the minimum requirement.

In December 2015 the EBA published a statement pointing out that Pillar 2 requirements should in the EBA's assessment be regarded as a part of the minimum capital requirement. This has significance for the timing of automatic restrictions on dividend, interest on hybrid capital and bonus payments. In light of the Directive's lack of clarity on whether Pillar 2 is to be regarded as a part of the minimum requirement, the EBA asked the Commission to consider clarifying the text to remove all doubt. The EU Commission is looking into necessary clarifications of the Directive. Pending such clarifications, the EBA urged the various countries' authorities to enforce the framework in keeping with the assessments in the EBA statement. The authorities were concurrently urged to consider introducing rules requiring disclosure of Pillar 2 requirements.

The Ministry of Finance stated by letter of 17 March 2016 to Finanstilsynet that Pillar 2 requirements should be imposed in the form of individual administrative decisions and that these decisions should be made public. The Ministry of Finance emphasises at the same time that under Norwegian law Pillar 2 requirements will not influence the timing of automatic restrictions on dividend payments etc. The Ministry points out, however, that this does not prevent Finanstilsynet, pursuant to the new Financial Institutions Act, from imposing restrictions in the event of non-compliance with total capital requirements. Finanstilsynet will make adjustments to circular 9/2015 in light of the Ministry of Finance's letter.

LEVERAGE RATIO

Both the Basel Committee and the EU plan to introduce a minimum leverage ratio requirement as from 1 January 2018. This requirement will supplement the capital adequacy requirement calculated on risk weighted assets. The EU Commission is due to send, by 31 December 2016, a proposal for new rules on leverage ratios to the European Parliament and the Council to apply as from 2018. The Commission will base its proposal on advice from the EBA which is scheduled to become available in July 2016.

The Ministry of Finance asked Finanstilsynet in autumn 2014 to consider when and how a leverage ratio requirement should be implemented in Norway. Finanstilsynet recommended by letter of 26 June 2015 that a national minimum leverage ratio requirement should not be set before the EU body of rules is clear. In its letter Finanstilsynet states that it will continue to attach much importance to the significance of common equity tier 1 capital and leverage ratios in assessing Norwegian banks' financial soundness.

[14] https://www.bis.org/bcbs/publ/d365.htm

The Ministry of Finance asked Finanstilsynet by letter of 9 December 2015 to draft a consultation document and regulations on leverage ratios. Finanstilsynet was asked to consider what levels of leverage ratio would be appropriate for Norwegian institutions, including any differentiation between the latter, given the introduction of a leverage ratio that would not replace other capital requirements.

In its reply to the Ministry's approach, Finanstilsynet maintained its recommendation to await the new EU requirements before national leverage ratio requirements are established, and at the same time put forward a proposal in the event that a national requirement is established before new EU requirements become clear. In its consultation document Finanstilsynet proposes a minimum requirement of 6 per cent for banks and banking groups, as well as for financial groups with the exception of insurance-dominated financial groups. It also proposed that this requirement should also apply to other institutions, including finance companies and investment firms, with the exception of mortgage companies. Finanstilsynet proposes that the leverage ratio for mortgage companies should be set at 3 per cent. The consultation document assumes that the requirement will be based on the same definition of leverage ratio as that to be reported by European banks to the EBA. The Ministry of Finance circulated the proposal for comment on 12 April 2016 with the deadline for response set at 5 August 2016.

LIQUIDITY REQUIREMENTS

EU legislation contains two quantitative liquidity requirements: the LCR (Liquidity Coverage Ratio, a liquidity buffer) and the NSFR (Net Stable Funding Ratio). The rules on the LCR became effective in the EU as from 1 October 2015, with a gradual phase-in up to 2018. It has yet to be decided how the stable funding requirement is to be implemented in the EU.

The liquidity reserve requirement (LCR) is included in the CRD IV regulations with effect from 31 December 2015. The rules apply to banks and mortgage companies at the company, sub-consolidated and consolidated level. For parent companies that own a bank and/or mortgage company, the rules apply at the sub-consolidated and consolidated level.

The liquidity reserve requirement is to be phased in such that institutions must have an LCR of at least 70 per cent as from 31 December 2015, at least 80 per cent as from 31 December 2016 and at least 100 per cent as from 31 December 2017. For mortgage companies the requirement is phased in with at least 70 per cent as from 30 June 2016.

Systemically important institutions must meet the liquidity reserve requirement by at least 100 per cent as from 31 December 2015. For mortgage companies that are a subsidiary of a systemically important institution, the liquidity requirement must be met by at least 100 per cent no later than 30 June 2016.

With a basis in the CRD IV Regulations, Finanstilsynet adopted on 22 December 2015 regulations on the calculation of liquid assets, cash outflows and cash inflows etc in the LCR. The regulations contain rules on haircuts for liquid assets, along with rules for the determination of liquidity outflows and inflows in the calculation of the liquidity coverage ratio. The rules are based on the liquidity framework under CRD IV.

The LCR requirement must be met for all currencies combined. The Ministry of Finance has asked Finanstilsynet to consider, by the end of August 2016, whether requirements should be imposed on LCR in significant currencies, including the Norwegian krone.

CRISIS RESOLUTION

The EU Recovery and Resolution Directive entered into force on 1 January 2015. The Directive provides banks and other mortgage companies, and government authorities, with a tool designed to prevent, and to intervene in, crises at an early stage. The Directive requires all banks to prepare recovery plans containing concrete and implementable measures for the resolution of financial crisis situations. The plans must be reviewed by national supervisory authorities. National resolution authorities must prepare resolution plans for financial institutions headquartered in their home country.

An important purpose of the Directive is to curb costs to the taxpayer as a result of crisis at an institution and to prevent a crisis at a systemically important institution from threatening financial stability. Shareholders and creditors must bear their share of the costs when an institution is in crisis. Institutions must have a minimum level of own funds and eligible liabilities which can be written down or converted to equity capital (available for bail-in) when a bank is in crisis. Deposits that are covered by deposit guarantee schemes must as a rule be protected against loss. Some other types of liabilities are excluded from bail-in. The EBA has drafted a technical standard for establishing minimum requirements on own funds and eligible liabilities (MREL)[15]. This proposal is under consideration by the Commission. According to the proposal, it is the resolution authority that will determine the MREL requirement individually for each institution, based on general principles set out in the standard.

[15] http://www.eba.europa.eu/regulation-and-policy/recovery-and-resolution/regulatory-technical-standards-on-minimum-requirement-for-own-funds-and-eligible-liabilities-mrel-

The Banking Law Commission is drafting statutory rules to implement anticipated EEA rules corresponding to the Recovery and Resolution Directive in Norwegian law. Although this Directive has not been transposed into Norwegian law, the considerations behind the requirement of recovery plans suggest that Norwegian banks should also prepare such plans. The largest Norwegian banks have forwarded their recovery plans to Finanstilsynet for assessment.

NEW RULES FOR ACCOUNTING TREATMENT OF LOAN LOSSES

In the accounting area a new standard for accounting treatment of loan losses may acquire significance for banks. The International Accounting Standards Board (IASB) finalised in July 2014 a new standard, IFRS 9, containing a new model for write-down of loans. The standard will in principle apply as from 2018, but the IASB has recommended allowing insurers to wait until 2021 before putting the standard into use. For European companies (including listed Norwegian institutions), use of the standard will be mandatory as from the same point in time, provided it is incorporated as a Regulation by the EU.

Under current accounting rules, loans are only written down where there is objective evidence of a loss event. Significant financial difficulties on the part of a debtor are an example of a loss event. The new standard requires loss provisions also to be made on new, healthy loans for credit loss expected as a result of non-performance anticipated in the twelve months immediately ahead. For loans where the credit risk has increased significantly after establishment, expected credit loss is to be written down over the term of the loan. The new accounting standard is expected to result in increased loss provisioning.

INSURANCE AND PENSIONS

INSURERS

The Solvency II framework entered into force in the EU on 1 January 2016. In Norwegian legislation the relevant provisions are set out in the new Financial Institutions Act and the Solvency II Regulations of 25 August 2015. Based on the Solvency II Directive, a Regulation (2015/35) has been adopted which expands on the overarching provisions of the Directive. Finanstilsynet adopted on 22 December 2015 the Regulation as a set of Norwegian regulations, with an adjustment as regards exposure to local authorities etc.[16] The EU Commission has established a number of technical standards with a basis in the Solvency II Directive or Regulation. Finanstilsynet expressed in circular 15/2015 and 5/2016 its expectation that insurers will abide by the standards, and stated that Finanstilsynet will base its supervisory follow up on the standards.

Upon the introduction of Solvency II, the capital adequacy framework and the solvency margin requirement (Solvency I) were revoked for insurers. The quantitative investment limits ensuing from the Asset Management Regulations also ceased to apply.

Insurers are required to report under Solvency II for the first time in May 2016 (opening information and figures for the first quarter).

Transitional measures

According to the Solvency II Regulations institutions can, up to 31 December 2031, and with Finanstilsynet's approval, reduce the value of their technical provisions measured under Solvency II by a share of the difference between technical provisions under Solvency II and reserves[17] measured under the rules in force up to 31 December 2015. The maximum reduction is scaled down linearly at the start of each year, from 100 per cent as of 1 January 2016 to 0 per cent as of 1 January 2032. Comparison with previous rules and deductions are made for homogeneous risk groups (business lines), but in such a way that aggregate provisions cannot be lower than Solvency II provisions or provisions measured under the previous rules, whichever is lowest.

The Solvency II framework contains two types of capital requirement: the solvency capital requirement (SCR) and the minimum capital requirement (MCR). Different rules govern what capital can cover the SCR and MCR respectively, and breaching the requirements has different consequences. If the MCR is breached, the perpetrator's licence shall be revoked within three months. Where the SCR is breached, dispensation may be granted for up to six months (with the possibility of an extension) provided a realistic plan exists to restore the solvency capital position. Transitional rules apply whereby institutions that met the applicable solvency margin requirement as at 31 December 2015, but which do not meet the solvency capital requirement, may be allowed up to two years in which to do so. Transitional rules also apply whereby institutions that met applicable solvency margin requirements as at 31 December 2015, but which do not meet the minimum capital requirement, may be allowed one year in which to do so.

Interest rate curve

Solvency II requires liabilities to be valued using a market interest rate dependent on maturity. For maturities where no market interest rate is available, an interest rate curve is

[16] Exposure to regional and local authorities that are not rated by an approved credit rating agency is to be treated as exposure in a risk category higher than the risk category following from the rating assigned by the central government in the state in which the authorities are domiciled.

[17] I.e. premium reserve, supplementary provisions, fluctuation reserves, contribution fund and pension regulation fund.

constructed in accordance with a specified methodology and incorporating an assumption that the ultimate forward rate (UFR) converges in the long term towards 4.2 per cent. On 6 April 2016 EIOPA circulated for consultation[18] a proposal to change the UFR for Norwegian kroner (and a number of other currencies) from 4.2 to 3.7 per cent. Consultation is ongoing up to 18 July 2016. A lower UFR will result in a higher value of liabilities measured under Solvency II.

Natural perils fund

The Ministry of Justice and Public Security adopted in February 2016 amendments to regulations on instructions for the Norwegian Natural Perils Pool. The amendments will pave the way for non-life insurers' natural damage capital to be counted as own funds under Solvency II. Finanstilsynet will from now on regard an institution's natural perils fund as tier 2 capital, i.e. capital of next highest quality.

PENSION PROVIDERS

The current solvency requirement (Solvency I) is retained for pension funds in 2016. By letter dated 25 August 2015 Finanstilsynet was asked by the Ministry of Finance to consider whether the Solvency II rules should also apply to pension funds. In January 2016 Finanstilsynet proposed the introduction of a simplified Solvency II requirement for pension funds as from 1 January 2018. The Ministry of Finance asked Finanstilsynet in a letter of 18 February 2016 to draw up a consultation document and draft regulations on new capital requirements for pension funds. Finanstilsynet will present its proposal in autumn 2016.

Finanstilsynet has also proposed, pending new rules, an amendment to the Asset Management Regulations requiring a pension fund's board of directors to consider taking measures where risk analyses based on fair value give cause to believe that the pension fund's future financial position will be exposed. The Ministry of Finance has circulated an amendment to the regulations for comment setting the deadline for response at 6 June 2016.

IORP II – A NEW BODY OF RULES AT THE EUROPEAN LEVEL

The EU Commission presented in 2014 a proposal for changes to the Institutions for Occupational Retirement Provision Directive (IORP II). The proposal brings changed requirements on management and control, expanded requirements on information to the members of a pension scheme and measures to make it easier to carry on cross border activities. The proposal does not contain new solvency rules. The Commission's proposal is now subject to negotiation between the Commission, Parliament and Council.

EIOPA has since 2013, on its own initiative, worked on new prudential rules for pension institutions operating under the IORP Directive. In April 2016 EIOPA published an opinion addressed to the EU institutions (the Commission, Council and Parliament) concerning a shared/harmonised framework for risk assessment and transparency. The opinion calls for pension institutions to perform a fair market value assessment of the balance sheet that covers all assets and liabilities (including sponsor support and guarantee arrangements), along with a standardised risk measurement based on shared, predefined stress scenarios. The stress scenarios will be based on a confidence level of 99.5 per cent over a time horizon of one year, in accordance with the same principle as in Solvency II. The results will in principle be published annually, but allowance is made for a full risk assessment to be performed every third year. A harmonised valuation of the balance sheet of this type will enable improved comparisons of pension institutions across national borders. EIOPA emphasises that this opinion dos not entail a new capital requirement. The opinion may however be a first step towards a new European solvency framework for pension providers, although this looks to be a matter for the future.

OCCUPATIONAL PENSIONS LEGISLATION (NORWAY)

Changes in the disability pension rules

Disability pension cover is mandatory in public sector occupational pension schemes. Up to 2015 disability pension schemes were designed such that disability pension under occupational pension schemes was adjusted to the size of disability pension under National Insurance such that overall pension from the two schemes was least 66 per cent of previous salary (and such that 30 years' accumulation qualifies for full disability pension. The new rules on disability benefits under public sector occupational pension schemes, adjusted to the new disability benefits under National Insurance, entered into force on 1 January 2015. The changes turn disability pension from an occupational pension scheme into a net arrangement, resulting in a relatively substantial reduction in the overall premium reserve required in public sector occupational pension schemes. Freed-up funds are partly used, with Finanstilsynet's approval, to lower the maximum guaranteed interest rate at the majority of municipal pension funds and at KLP.

The rules governing disability pension schemes in the private occupational pensions context are adjusted to the new disability benefit under National Insurance as from 1 January 2016. The Ministry of Finance established on 15

[18] https://eiopa.europa.eu/Publications/Consultations/RFR%20CP%20on%20methodology%20to%20derive%20the%20UFR%20%28after%20BoS%29.pdf

December 2015 transitional rules allowing firms one year to adjust their disability pension scheme to the new framework.

RULES APPLYING TO BOTH BANKING AND INSURANCE

FINANCIAL GROUPINGS – CONSOLIDATION

The Ministry of Finance adopted on 18 December 2015 new prudential rules for financial groups. Financial groupings are required to fulfil sector-specific prudential requirements on a consolidated basis. Financial groups consisting of both a bank and an insurer are in addition subject to a requirement to specifically demonstrate that they meet all sectoral requirements combined (cross-sectoral measurement). Financial groupings operating under both Solvency II and CRD IV are exempt from the rules governing the smaller sector on a consolidated basis if the larger sector accounts for more than 60 per cent in terms of total assets and solvency requirements.

Insurance-dominated groups will measure consolidated solvency under Solvency II. Bank-dominated groups will measure consolidated capital adequacy under CRD IV (the capital adequacy framework). Measurement of consolidated capital adequacy under the capital adequacy framework is revised as from 2016 such that investment in the insurance undertakings is deducted from own funds under further rules, instead of being included with risk-weighted assets (ref. revocation of the capital adequacy legislation for insurers).

NEW FINANCIAL INSTITUTIONS ACT

A new Financial Institutions Act entered into force on 1 January 2016. The new act replaces the Savings Bank Act, Commercial Banks Act and the previous Financial Institutions Act along with parts of the Insurance Act. The new act contains rules on licensing, organisational rules, general conduct of business rules, rules and guarantee schemes and capital inadequacy and on sanctions for banks, insurers and other financial institutions. Transitional rules for some of the provisions involved are set out in regulations.

The new Financial Institutions Act contains a number of enabling provisions. It follows from the transitional rules to the new Financial Institutions Act that the current body regulations pertaining to revoked statutes will continue to apply until further notice.

Finanstilsynet has on commission from the Ministry of Finance drafted regulations to the new Financial Institutions Act. Finanstilsynet recommends a set of regulations specifically for financial institutions to assemble many provisions that are currently spread across various regulations. A set of regulations specifically for pension providers is also recommended, and a proposal was circulated for comment in December 2015 with the deadline for response set at 1 April 2016.

REGULATIONS ON NEW HOME MORTGAGE LOANS

The Ministry of Finance's regulations on new residential mortgage loans entered into force on 1 July 2015. The regulations, whose purpose is to contribute to a more sustainable housing market, impose requirements on banks' residential mortgage lending practices. All financial institutions are covered by the regulations, which will expire on 31 December 2016.

According to the regulations, financial institutions will be required to measure a borrower's ability to service their mortgage on the basis of income and all relevant expenses, including all normal living expenses, and to make allowance for an interest rate increase of 5 percentage points. Repayment loans secured on residential property should not exceed 85 per cent of property value, while home equity credit lines should not exceed 70 per cent of property value. These requirements may be met by additional collateral in the form of security in other fixed property or suretyship or personal guarantee. In the case of mortgages in excess of 70 per cent of property value, instalments must be paid. In order to allow financial institutions continued flexibility to grant mortgages to creditworthy customers who do not meet all the requirements of the regulations, up to 10 per cent of the volume of mortgages granted per quarter can be mortgages that do not meet one or more of the regulatory requirements as to debt servicing capacity, loan-to-value ratio or instalment payments. Such mortgages must be within limits and guidelines established by the bank's board of directors. In order to maintain competition in the market, mortgages that are moved from one entity to another (refinancing) will not be included in the 10 per cent quota[19].

In view of market developments, consideration must be given to the question of retaining the regulations after 31 December's 2016, and in the event, to any need to amend the regulations.

SECURITIES AREA

MARKET FOR FINANCIAL INSTRUMENTS

The Markets in Financial Instruments Directive (MiFID) is implemented in Norway through the Securities Trading Act and the Stock Exchange Act. In the EU a revision of this legislation has been adopted through the MiFID II Directive, and the MiFIR Regulation, which were initially to be

[19] Provided that the refinanced mortgage 1) does not exceed previous mortgages, 2) is mortgaged on the same property, 3) as a term that is not longer than the residual term on existing mortgages and 4) is subject to the same or more stringent requirements as to instalment payments as existing mortgages.

implemented in the EU on 3 January 2017. However, the Commission has proposed deferring entry into force until 3 January 2018, due inter alia to technical challenges related to the IT systems used to compile data under the scope of MiFID / MiFIR. The Government appointed in 2015 a law commission mandated to draw up provisions to implement the new EU rules in the securities area, including MiFID II, the Reporting Directive and the Market Abuse Regulation. The law commission will also work on further national regulation to assure consumer protection for customers of investment firms. The law commission will in addition review the rules on mandatory offers and some aspects of the treatment of appeals filed against public law decisions handed down by a regulated market under delegated authority.

The law commission presented its first interim report containing proposals for amendments to the Securities Trading Act and Regulations. The bill aims to implement forthcoming EEA rules corresponding to the EU's amendments to the Reporting Directive (2004/109/EC) etc. The bill removes the statutory quarterly reporting requirements for listed companies, and introduces a disclosure obligation for several types of financial instruments. The law commission also recommends making it clear that Finanstilsynet will maintain supervision of companies' reporting on payments to the authorities under the Securities Trading act section 5-5a, land-by-land reporting, in pursuance of the provisions applying to the supervision of issuers' financial reporting. The law commission's report was circulated for comment with the deadline for response set at 2 June 2016.

SECURITIES FINANCING TRANSACTIONS

Regulation (EU) 2015/2365 on transparency of securities financing transactions and of reuse was adopted by the EU on 25 November 2015. The Regulation is designed to increase the transparency of securities financing transactions (SFTs) in shadow banking and will help towards identifying the scope of these transactions and risks associated with them. The definition of what comes under the term SFT is broad and includes credit for the acquisition of financial instruments, repurchase agreements, as well as borrowings/loans of financial instruments and commodities.

The Regulation requires all institutions to report all SFTs to which they are party to a transactions register. The reporting obligation also applies to changes to and termination of such transactions. Where a financial counterparty enters an SFT with a small or medium-sized entity, the financial counterparty is also required to report on behalf of the other party. The transaction registers shall regularly publish data received in aggregated form, and allow supervisory authorities and central banks etc direct and immediate access to the data they need in order to discharge their tasks. ESMA is responsible for registering the transactions registers and for their supervision.

The Regulation also requires securities funds management companies (UCITS) and managers of alternative investment funds (AIFMs) to inform investors of their use of securities financing transactions and total return swaps (TRSs).

Institutions may only reuse financial instruments they have received as collateral where this has been agreed in writing with the guarantor or title collateral has been expressly transferred. The guarantor must also have informed in writing about potential risks and the consequences of such reuse or title transfer, and the financial instruments must have been transferred from the guarantor's account[20]. Even more stringent rules on reuse may follow from national legislation or sectoral legislation, and the Regulation especially highlights UCITS III (Directive 2009/65/EC) and MiFID II (Directive 2014/65/EU).

The Regulation entered into force in the EU on 12 January 2016, but transitional rules attach to several of the provisions. It will be supplemented by Commission Regulations. These are under preparation. The Regulation is considered to be EEA-relevant, but has thus far not been included in the EEA Agreement.

RULES ON OTC DERIVATIVES, CENTRAL COUNTERPARTIES AND TRANSACTION REGISTERS (EMIR)

The European Market Infrastructure Regulation (EMIR),[21] adopted in the EU in July 2012, introduces rules on mandatory clearing and other risk-mitigating measures for OTC derivatives, requirements as to reporting of derivative trades to transaction registers and pan-European rules for central counterparties and transaction registers.

The Regulation requires all institutions to report all[22] derivatives contracts to which they are a party to a transaction register. If they trade OTC derivatives that are not cleared, they are also duty-bound to institute specific risk-mitigating measures. Only financial counterparties and institutions that trade a relatively large volume of OTC derivative contracts are covered by the obligation to, respectively, exchange collateral and to clear OTC derivatives that are subject to a clearing obligation.

[20] Some exception from this requirement are made for accounts maintained in countries outside the EEA.
[21] Regulation (EU) No 648/2012 on OTC derivatives, central counterparties and trade repositories
[22] Some exceptions are made in respect of transactions entered into with a central bank

Important provisions – including detailed regulation of reporting to transaction registers and of risk-mitigating measures that parties to derivatives contracts are duty bound to initiate – are set out in supplementary Commission Regulations. Moreover, supplementary Commission Regulations show which derivatives contracts are subject to a clearing obligation. Thus far a clearing obligation has been introduced for specified interest rate derivatives denominated in euro, US dollar, Japanese yen and pound sterling, and on credit default swaps in euro. A proposal has been put forward to introduce a clearing obligation for specified interest rate derivatives in Norwegian kroner.

The EMIR Regulation entered into force in the EU on 16 August 2012. The Regulation requires the EU Commission to evaluate it. The evaluation gives the Commission an opportunity to assess the experience gained with the Regulation and whether this experience suggests a need for changes. The Commission has in this connection conducted a consultation process with the deadline for response set at 13 August 2015. It is uncertain when the Commission's report from the round of consultation will become available. A working group appointed and headed by Finanstilsynet has proposed provisions to implement the EMIR Regulation in Norwegian law. The working group's report was circulated for comment on 10 May 2016.

SECURITIES SETTLEMENT AND SECURITIES REGISTERS

The Ministry of Finance commissioned in 2015 Finanstilsynet to appoint and head a working group mandated to propose rules to implement anticipated EEA rules corresponding to Regulation (EU) No. 909/2014 on improving securities settlement and on central securities depositories (the CSD Regulation). The working group will in addition propose rules granting bond issuers insight into the identity of the holders of bonds they have issued. Finanstilsynet will forward the working group's proposed rule changes to the Ministry by 1 November 2016.

The CSD Regulation aims to assure a high settlement rate and speedy settlement of trades in financial instruments. It requires investment firms to take steps to limit the number of trades that are not settled in time and securities registers to levy fines for late settlement. In the event of longer delays in delivering financial instruments, defaulted trades will be subject to buy-in. The CSD Regulation also contains requirements on licensing, organisation and conduct of business for securities registers. The CSD Regulation entered into force in the EU on 17 September 2014, but will only have full upon the entry into force of supplementary Commission Regulations. These are under preparation. The Regulation is considered to be EEA-relevant, but has thus far not been incorporated in the EEA Agreement.

The Ministry of Finance requested that current Norwegian law provisions regarding perfection of security interests and provisions of the Securities Register Act governing right of access to information should as far as possible be retained. The CSD Regulation entitles issuers of financial instruments that are traded in a market place to choose any securities register, however such that national corporate law continues to apply. The working group will therefore also examine Norwegian company legislation to clarify what rules foreign securities registers must fulfil in order to offer services to Norwegian issuers.

UCITS V

The UCITS V Directive (2014/91/EU) amends the UCITS IV Directive (2009/65/EC) on undertakings for collective investment in transferable securities. The object of the Directive is first and foremost to adapt the rules to market developments and to harmonise and strengthen the rules covering depositories, remuneration schemes and sanctions. The new rules will contribute to strengthening the protection mechanisms that already apply to UCITS funds, and will further set the stage for UCITS funds as a savings and investment option for consumers. UCITS V will entail changes in the Securities Funds Act and associated regulations.

The Ministry of Finance circulated for comment on 21 September 2015 a consultation document prepared by Finanstilsynet containing draft amendments to the Securities Funds Act and regulations to implement future EEA obligations corresponding to UCITS V with a view to tabling a bill in the Storting in the course of 2016.

EUROPEAN LONG-TERM INVESTMENT FUNDS (ELTIFS)

The Ministry of Finance circulated for comment on 21 April 2016 a consultation document prepared by Finanstilsynet containing a proposal for the implementation of expected future EEA obligations corresponding to Regulation (EU) 2015/760 on European long-term investment funds (the ELTIF Regulation).

The object of the Regulation is to set the stage for long-term investments in accordance with the EU's goal of sustainable economic growth. The Regulation will play a part in the funding of projects, such as infrastructure and research and development projects, where alternative funding sources are called for. The Regulation entails full harmonisation of the rules governing such funds in the EU, and confines the management of this particular type of fund to AIF managers with the requisite authorisation. The ELTIF Regulation permits long-term investment funds to be marketed to non-professional investors on specific conditions.

REFERENCE INTEREST RATES

Act of 4 December 2015 no. 95 on the determination of reference interest rates (the Reference Interest Rate Act) entered into force on 1 January 2016. The object of the Act is to ensure that generally used reference interest rates are determined in a prudent and reliable manner. The Act defines "generally used reference interest rates" as any interest rate that is set regularly based on market prices or on estimates of prices procured by financial institutions, that is made publicly available and is used to determine payments in or the value of financial instruments or financial contracts. The administrator for the fixing of such rates (i.e. the person responsible for fixing a generally used reference interest rate) must according to Regulations of 4 December 2015 apply for approval by 1 July 2016.

The EU has worked on a Regulation on financial benchmarks. Pending new EU/EEA rules, the Ministry asked Finanstilsynet to draft rules on requirements for administrators and panel banks. Finanstilsynet's proposal has been circulated for comment and is currently under consideration at the Ministry of Finance. The EU Regulation was adopted in May 2016 and will enter into force upon publication in the Official Journal (expected in June 2016).

RULES APPLYING TO ALL SUPERVISED INSTITUTIONS

MONEY LAUNDERING

The Ministry of Finance appointed on 2 February 2015 a law commission mandated to consider amendments to the money laundering legislation. The money laundering commission delivered its first interim report on 6 November 2015. In the report the law commission proposes that responsibility for anti-money laundering supervision of dealers in expensive objects should be assigned to the tax administration, and that supervision of offerors of business services be assigned to Finanstilsynet. The law commission has also considered whether, as part of the combating of money laundering and terrorist financing, restrictions should be imposed on the right to make payments using large amounts of cash. The interim report has been circulated for comment. In its consultative statement Finanstilsynet advised against a solution whereby supervision of "offerors of business services" is assigned to Finanstilsynet. Further, Finanstilsynet supported the minority of the law commission's proposal to ban cash payments in excess of NOK 40,000.

The law commission has until 5 August 2016 to deliver the second and final interim report. The law commission will in that report consider how the provisions of the EU Fourth Anti-Money Laundering Directive on transparency around the beneficial ownership of corporate entities can be implemented.

OUTSOURCING, IT SECURITY ETC

With effect from 1 July 2014 a provision was added to the Financial Supervision Act requiring supervised entities to notify Finanstilsynet of outsourced operations and a provision authorising Finanstilsynet to intervene against outsourcing. Finanstilsynet adopted on 5 June 2015 regulations that lay down certain exceptions from the obligation to notify.

Finanstilsynet adopted in December 2015 an amendment to the ICT regulations that assigns responsibility for the vetting of agreements on the outsourcing of ICT operations and for the revision of such agreements to the board of directors. Moreover, further requirements are imposed on crisis planning.

The EBA published guidelines on internet payments security in 2015. Finanstilsynet adopted on 18 December 2015 regulations on payment systems imposing special security requirements on offerors of electronic payment services.

THEME 1: STRESS TEST OF THE NORWEGIAN ECONOMY AND THE BANKS

The likely path of the world economy and the consequences for the Norwegian economy of low growth internationally and low oil prices are highly uncertain. Norwegian house prices have risen substantially in recent years, households' debt burden is unprecedentedly high and many firms' earnings are impaired.

This theme chapter discusses two possible scenarios for the Norwegian economy in the period 2016-2020. The first scenario is relatively benign, while the second incorporates low and/or negative GDP growth lasting several years and a strong increase in unemployment. The consequences for households' and firms' financial vulnerability under both scenarios are discussed.[23]

The second part of this theme chapter presents the banks' results and capital adequacy under the two scenarios. The focus is on net interest revenues, losses on securities portfolios and in particular losses on loans to firms and households. Given a relatively favourable path of the economy, the banks' capital adequacy strengthens in the period to 2020. However, a sharp deterioration in the Norwegian economy leads to negative financial results for several years running and to capital ratios at the end of the projection period that for many banks fall short of the minimum and buffer requirements.

The scenario presenting a relatively benign development in the Norwegian economy largely matches the forecasts of Statistics Norway and Norges Bank. Neither of these scenarios is a forecast: they are examples of possible paths for the Norwegian economy. Finanstilsynet does not draw up forecasts for the Norwegian economy.

NORWEGIAN ECONOMY

This section discusses how the Norwegian economy might develop under two different sets of assumptions. The projection period runs from the first quarter of 2016 to the fourth quarter of 2020. The analyses are based on projections made using the NAM-FT2 macroeconometric model.[24]

Underlying the first scenario (baseline scenario) is an assumption that the Norwegian economy after the oil price fall fares relatively well with a moderate, temporary rise in unemployment. The cycle downturn in the Norwegian economy is assumed to bottom out in 2017, with the mainland (non-oil) economy resuming GDP growth, somewhat above trend, from 2018 onwards. Financial imbalances strengthen through a further build-up of household and corporate debt and rising house prices. Continued low interest rates lead however to a limited increase in households' and firms' interest burden. Problem loans as a share of banks' outstanding loans to households remain low throughout the period, while the proportion of problem loans to firms rises somewhat. Banks' loan losses stay low through the projection period.

The second scenario (stress scenario) presents a protracted weak development for the Norwegian economy. The already weak growth picture internationally deteriorates, bringing a decline in demand from Norwegian export goods, a fall in the price of oil, and continued very low inflation and expansionary monetary policy internationally. At the same time investor uncertainty regarding the economy and risk aversion increase, bringing a sharp fall in the price of corporate bonds, peripheral government bonds and equities. The weakening of the international economy feeds through to the Norwegian economy spurring a cyclical decline which lasts throughout the projection period. Unemployment increases, and households' income growth weakens. Firms post lower earnings and impaired profits. This leads to a strong increase in the proportion of problem loans to households and firms, and increased loan losses for the banks – in particular on loans to firms.

Fiscal policy is assumed to be identical in the stress scenario and the baseline scenario. The analysis illustrates the consequences – inter alia for credit growth and banks' loan losses – of the shocks suffered by the Norwegian economy in the stress scenario. An assessment of how the alignment of fiscal policy might affect the real economy and financial markets is beyond the scope of this analysis.

[23] See Risk Outlook 2014 for an account of Finanstilsynet's stress test tools.

[24] NAM-FT builds on the Norwegian Aggregate Model (NAM), and was developed specifically with a view to stress testing banks and analysing financial stability. See Risk Outlook 2015 for an account of NAM-FT2. NAM documentation can be downloaded from Professor Ragnar Nymoen's homepage: http://folk.uio.no/mymoen/.

Box I.1 Changes in NAM-FT

NAM-FT represents a further development of earlier versions of the model,[25] and now contains equations for banks' losses on loans to corporate[26] and retail borrowers[27]. Banks' losses on corporate exposures increase when GDP growth turns negative, when the oil price falls, when firms' interest burden increases and when unemployment increases. The impact of an increased interest burden on firms and unemployment is particularly strong where firms' interest burden or unemployment reaches predefined threshold values. Banks' losses on loans to retail borrowers rise when households' interest burden rises. This effect is particularly strong where households' interest burden reaches certain predefined threshold values. Both loss functions are based on experience from the Norwegian banking crisis in the early 1990s.

BASELINE SCENARIO

The most important variables included in NAM-FT, but which are not determined in the model (exogenous variables),[28] are: international demand for Norwegian-produced goods and services, international consumer and producer prices, international money market rates, Norwegian oil exports, the oil price, oil investments, general government demand for goods and services, implicit volatility[29] of the US equity markets and the price of credit default swaps (CDSs) for five-year bonds issued by European banks.

International demand and prices are for the projection period set in keeping with projections made by the IMF. International money market rates are represented by three-month euro rates, and are set with a basis in observations from the futures market at about -25 basis points in the period from 2016 to 2019 and 14 basis points in 2020. The trend in oil exports and oil investments is based on forecasts from Statistics Norway up to 2019. For 2020 the growth in oil exports is assumed to show no change from 2019, while growth in oil investments is set equal to 2 per cent. The oil price path is based on futures contracts for delivery of oil (Brent) in the period from 2016 to 2020. These rise gradually to USD 52.8 per barrel in the fourth quarter of 2020. Norges Bank's key rate in the baseline scenario matches the central bank's interest rate path up to the end of 2019 and thereafter kept flat to the end of the projection period. Growth in general government consumption and investments is identical to Statistics Norway's projections up to 2019, and continues at the same rate of growth in 2020 as in 2019. Both implicit volatility of US shares and the price of CDSs for bonds issued by European banks are for the projection period set equal to historical averages.[30]

The baseline scenario outlines a development for the Norwegian economy in which the readjustment in the wake of the oil price fall has no lasting consequences for growth in activity in Mainland Norway. The readjustment is stimulated by recent years' weakening of the Norwegian krone and low interest rates. The cyclical decline in evidence in the Norwegian economy is replaced by a moderate cyclical upturn in 2017, and Mainland Norway's GDP growth is again somewhat over trend (about 2¼ per cent per year) from 2018 to the end of the projection period. The increase in unemployment in the baseline scenario is moderate and temporary. At the end of the period, registered unemployment is about 3 per cent.

Households' disposable income rises nominally and – with the exception of 2017 – also in real terms over the entire projection period. In nominal terms, households' disposable income rises by 17 per cent in the period. Partly due to low money market rates, banks' average lending rates remain at a low level. For large parts of the period, lending rates are so low that the real after-tax interest rate on household debt turns negative. The low cost of borrowing contributes to increased domestic debt among households and rising house prices. House prices rise more quickly than households' disposable income, and rise by 30 per cent in nominal terms over the period. Household debt also increases more rapidly than disposable income through the period, with the debt burden[31] rising from 215 to 237 per cent in the period. At the same time the lower lending rates reduce households' interest burden at the start of the period. Towards the end of the period bank lending rates and household debt growth both increase so that households' debt burden at the end of the period is 7 per cent of disposable income, which is about the same as at the start of the period.

[25] See Risk Outlook 2014 and Risk Outlook 2015 for further accounts of the model.
[26] The corporate market is defined as private non-financial firms, sole proprietors, non-profit organisations, housing cooperatives et al.
[27] The retail market is defined as wage earners, pensioners, welfare benefit recipients, students etc.
[28] In order to project endogenous variables, the path over the projection period for the exogenous variables included in the model needs to be specified.
[29] The implicit volatility of a share index is the estimated standard deviation for the return on the index derived from options contracts on the index. This is used as an indicator of investors' assessment of risk attending investments in the equity market.
[30] The exogenous variables are set based on information available as at 15 April 2016.
[31] Debt burden is defined as the ratio of gross debt at the end of the period to disposable income in the preceding four quarters.

Both the proportion of banks' loans to the retail market characterised as problem loans[32] and the proportion recognised as loan losses in the banks' accounts, are low, and remain low through the projection period. The corresponding proportions for loans to corporates also remain low, but show somewhat more variation over the projection period. The proportion of problem loans among banks' loans to corporates rises from close to 2 per cent to about 3.5 per cent in the period. Banks' losses on loans to corporates rise from 0.4 per cent of overall lending to this sector in 2015 to 0.7 per cent per year in 2016, but fall by 0.1 percentage point in 2017 and 2018, and remain at 0.5 per cent per year for the remainder of the projection period. In this scenario house prices and household debt rise more strongly than incomes, thereby further increasing the risk of a subsequent setback and financial instability.

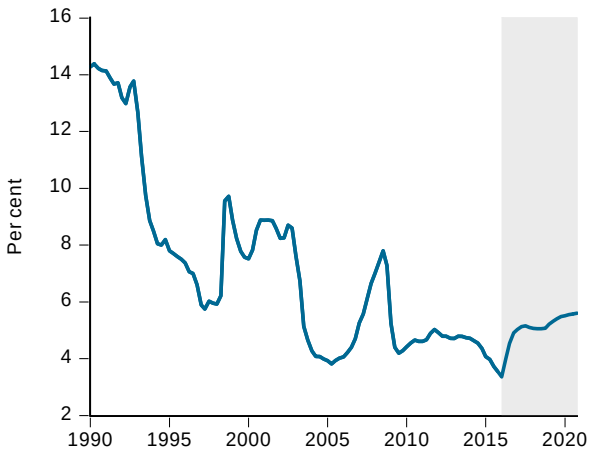
STRESS SCENARIO

The other scenario (the stress scenario) entails a prolonged weak development of the Norwegian economy. The backcloth to this scenario is a deterioration of the already weak growth picture internationally, where neither the US, the EU nor the BRICS countries[33] achieve a lasting increase in GDP growth. A further assumption is that attempts to transition the Chinese economy from investment-driven to consumption-driven growth lead to turbulence in China's financial market, tighter lending and weaker growth in the economy. Weak international growth suppresses demand for various commodities and causes prices of important commodities such as oil and metals to edge down. This fuels expectations of a longer-lasting international situation of low inflation and recourse to expansionary monetary policy, accompanied by falling investor confidence in financial markets and by increased risk aversion. This brings a sharp increase in risk premiums on fixed income securities. Yields on corporate bonds and peripheral government bonds rise, and share prices fall.

The negative international trend feeds through to the Norwegian economy. The oil price is assumed to fall from USD 45 in the fourth quarter of 2015 to an average of close to USD 30 per barrel in 2016, and then gradually increase to about USD 37 per barrel at the end of the period. The weak trend in the oil price is assumed to lead to a 25 per cent fall in the level of oil investments as from 2017, while oil exports are assumed to remain unaffected through the projection period. Despite a weaker krone exchange rate at the start of the period, Norwegian traditional exports fall by 2.3 per cent in 2016. Overall Norwegian exports decline by 1.1 per cent. The decline in exports is due in the first instance to a marked fall in international product markets

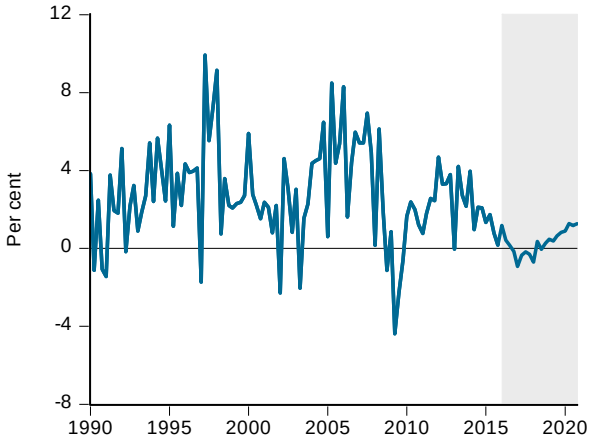
[32] Problem loans are defined as the sum of the banks' non-performing loans and performing loans that have been loss provisioned.
[33] Brazil, Russia, India and China and South Africa

I.1 Banks' average lending rate



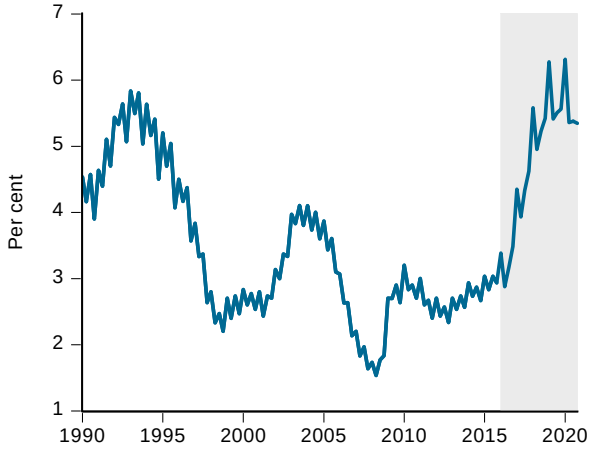
Sources: Statistics Norway and Finanstilsynet

I.2 GDP growth Mainland Norway, annualised



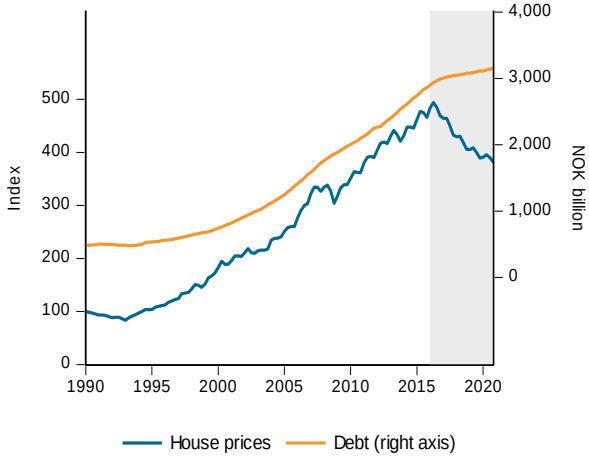
Sources: Statistics Norway and Finanstilsynet

I.3 Unemployment rate (registered)



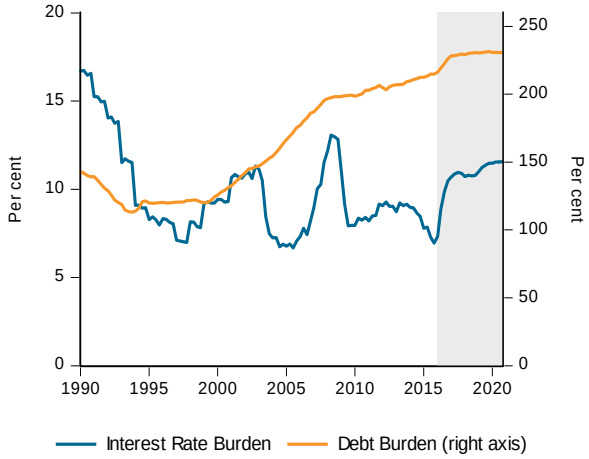
Sources: Statistics Norway and Finanstilsynet

I.4 Household debt and house prices



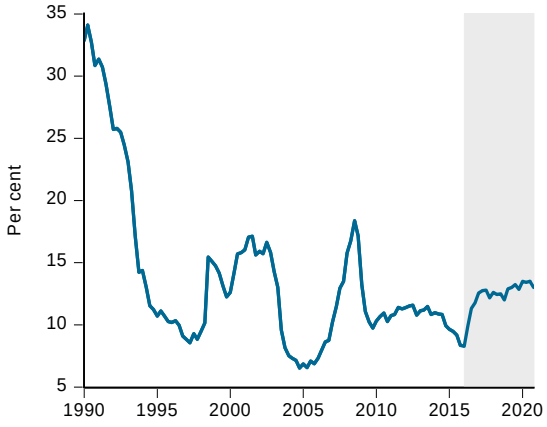
Sources: Statistics Norway and Finanstilsynet

I.5 Household interest and debt burden



Sources: Statistics Norway and Finanstilsynet

I.6 Non-financial firms' interest burden



Sources: Statistics Norway and Finanstilsynet

on which Norwegian firms compete. However, later in the period there is some improvement in Norwegian exports, partly thanks to a real depreciation early in the period. For the period 2017 to 2020 as a whole, Norwegian traditional exports increase by about 9 per cent.

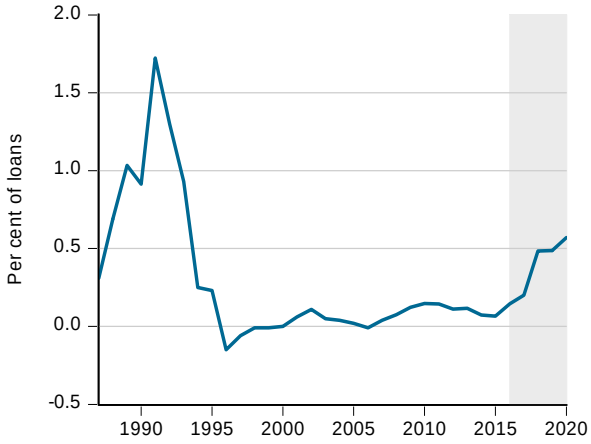
Changes in international money market rates feed through rapidly to corresponding rates in Norway and to bank lending rates. The Norwegian three-month interbank rate (NIBOR) rises from 1.1 per cent to 2.9 per cent over the course of the period. Concurrently banks' average lending rate rises from 3.6 to 5.6 per cent (chart I.1). The difference between banks' lending rate and NIBOR widens slightly to 2.7 percentage points in 2020. The Norwegian equity market slumps almost 44 per cent through 2016, but recovers towards the end of the period by about 11 per cent distributed across the final four years.

Higher lending rates and a weak economic climate contribute to a decline in private mainland (non-oil) investment, which over the period as a whole falls by 20 per cent. Private consumption also shows a weaker trend with an overall decline of just over 5 per cent over the period. The decline in private consumer demand should be viewed in relation to the weak trend in household incomes, a marked fall in house prices and higher household borrowing rates. Mainland Norway's GDP rises by a mere 1.6 per cent from 2015 to 2020 (chart I.2).[34] Registered unemployment (annual average) rises from 3.0 to about 5.6 per cent in the same period (chart 1.3).

House prices fall by 18 per cent in nominal terms over the projection period (chart I.4). In the fourth quarter of 2020 house prices are almost 40 per cent lower in the stress scenario than in the baseline scenario. House prices are pushed down by the rise in interest rates, higher unemployment and the weak trend in households' disposable income. However, despite the house price decline and interest rate increase, households continue to accumulate debt. Households' stock of domestic credit (C2) rises by 10 per cent over the period. Households' debt burden rises in the period from 215 to 231 per cent (chart I.5). At the same time the interest rate hike increases households' debt burden to 11.1 per cent by the end of the period. This illustrates that it may be difficult to achieve financial consolidation by downscaling debt in a situation in which the debt burden is high at the outset.

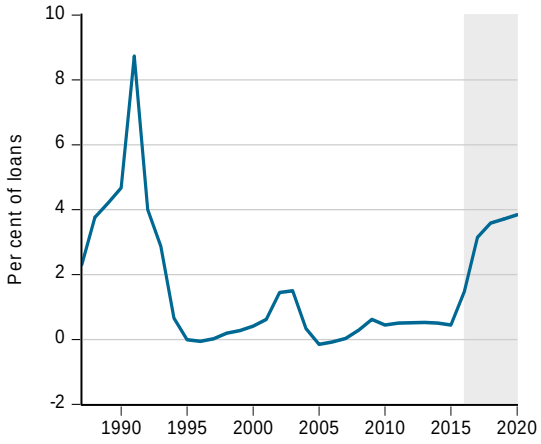
[34] Quarterly data are used in the charts. This contributes to a more uneven path than if, for example, annual data had been used.

I.7 Banks' losses on loans to retail borrowers, annual data



Sources: Statistics Norway and Finanstilsynet

I.8 Banks' losses on loans to corporate borrowers, annual data



Sources: Statistics Norway and Finanstilsynet

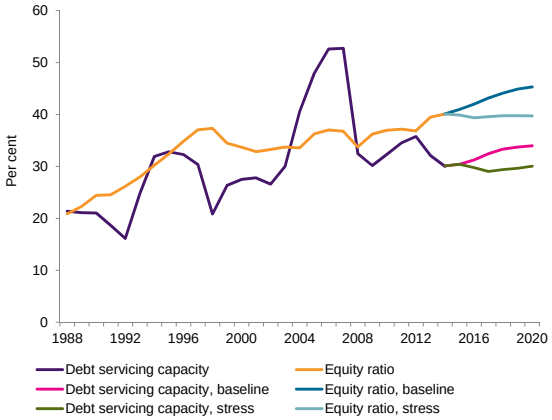
Non-financial firms' debt burden rises from 8 to 13 per cent of the period (chart I.6), primarily due to higher interest rates and a weak income trend. In addition, corporate debt increases somewhat in the period, but the real rate of growth is negative in the final three years. The weak credit growth is followed by a low level of real investment in the period.

Problem loans as a share of bank lending both to retail borrowers and corporate borrowers rise markedly in the period. Bank losses on loans to retail borrowers and corporate borrowers are also calculated to increase in the period (charts I.7 and I.8). However, the increase in bank losses on loans to corporates over the period is significantly larger than the increase in losses on loans to retail borrowers. During the banking crisis at the start of the 1990s, banks' loan losses were also significantly higher in the case of loans to firms than to households. Financial consolidation in the household sector is however an important reason for heavy losses on corporate loans. Losses on loans to the corporate market add up to 16 per cent of overall loans to firms over the projection period. This is high, but nonetheless significantly lower than the losses incurred by the banks during the banking crisis early in the 1990s. For the retail market, the losses add up to 2 per cent of overall loans to retail borrowers over the projection period.

TREND AMONG FIRMS

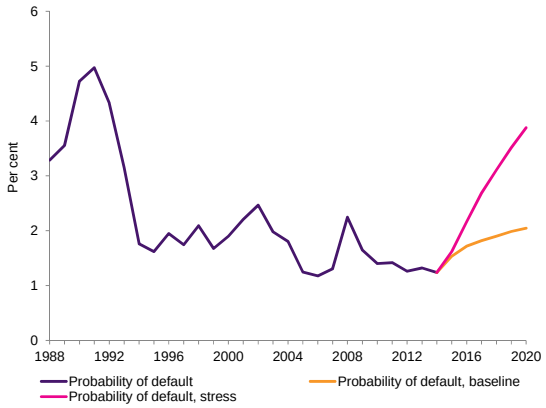
In its analyses of non-financial firms Finanstilsynet uses the SEBRA model.[35] This model consists of several modules,

I.9 Debt servicing capacity* and equity ratio, Norwegian non-financial firms (private limited and public limited)



*Debt servicing capacity is defined here as profits before tax, depreciation and write-downs in per cent of total debt.Source: Finanstilsynet

I.10 Probability of default, Norwegian non-financial firms (private limited and public limited)



Source: Finanstilsynet

[35] For more information on the SEBRA model, see Bernhardsen, E. and K. Larsen, "Modelling credit risk in the enterprise sector – further development of the SEBRA model", Economic Bulletin (Norges Bank) 3/2007, and Bernhardsen, E. and Syversten, B.D., "Stress testing the enterprise sector's bank debt: a micro approach", International Journal of Central Banking, September 2009.

including a module used to predict non-financial firms' probability of default (PD) based on the latest available annual accounts, and a module for projecting accounting variables and PD (Box I.2).

The basis for the SEBRA analyses and other analyses of firms is an accounting database containing more than 4 million accounts from Norwegian non-financial limited companies for the period 1981-2014. The accounting database contains information on financial developments in non-financial firms that is used to measure credit risk at Norwegian firms in general and in particular to measure risk present in banks' corporate portfolios. The latter measurements provide a basis for distributing loan losses produced by the macro model on individual banks.

Debt servicing capacity and equity ratios are important variables in assessing a firm's ability to honour its obligations as they fall due. For Norwegian non-financial firms in aggregate, debt servicing capacity has weakened in recent years. However, equity ratios have improved.

On an overall basis, debt-weighted PD [36] for the same firms has fallen (charts I.9 and I.10). The final accounting year for these calculations is 2014, i.e. they do not reflect the slowdown in the Norwegian economy in 2015.

The SEBRA model projects accounting variables for each firm based on assumptions regarding developments in income, expenses, debt growth, write-downs and dividend. Projection of these accounting variables depends on the path of a set of macroeconomic variables projected in the NAM-FT macro model. The projected accounting variables enable the calculation of PD for each company and for each year in the projection period. Thereafter a debt-weighted PD is calculated for all the companies combined for each year, which is a measure of average PD for all Norwegian non-financial limited companies.

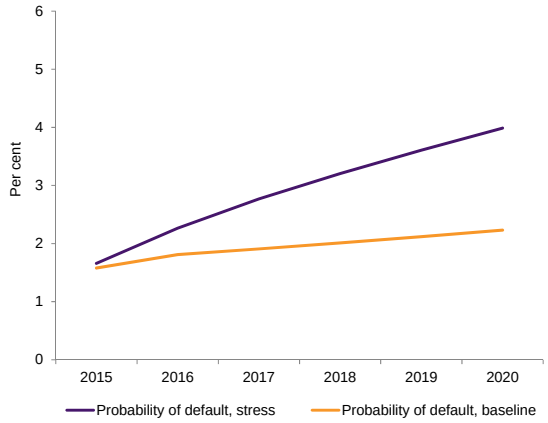
The baseline scenario shows a gradual improvement in debt servicing capacity and equity ratio of the firms concerned in the period from 2015 to 2020. Debt-weighted PD rises slightly in the period. In the stress scenario, incomes fall in the years 2017 and 2018 and no fresh equity capital is supplied. This results in impaired debt servicing capacity and lower equity ratios. The firms' debt-weighted PD rises gradually to almost 4 per cent in 2020 (chart I.10).

[36] PD per financial year for each individual institution's multiplied by the institution's share of all institutions' total debt in the financial year, summated over all institutions.

Box I.2 SEBRA model: more about PD calculations and their use in the stress test

The SEBRA model estimates a company's probability of default (PD) based on the company's accounting figures, along with sector-specific and company-specific variables such as the company's age and size.

I.11 Debt-weighted PD for banks in the baseline scenario and the stress scenario



Source: Finanstilsynet

I.12 Average risk weight for banks in the baseline scenario and the stress scenario

Source: Finanstilsynet

The SEBRA model's estimates of firms' PDs forms the basis for calculations of debt-weighted PDs, risk-weighted assets and risk weights for individual banks for each financial year in the projection period.[37] These variables are included in the calculation of the individual bank's share of the total lending loss on non-financial firms (corporate market). For banks using IRB models to determine risk weighted assets

[37] The SEBRA model is not an IRB model. It is not estimated on bank-specific lending figures and is applied to all types of corporate exposure.

for loans to corporates, the SEBRA model is also used to project the change in risk weighted assets.

The PD estimates for the last available financial year in SEBRA cover about 70 per cent of Norwegian limited companies.

The absence of sales revenues is the main reason why some Norwegian firms are not assigned a PD in the SEBRA model. For these companies PD is assigned on the basis of various combinations of key figures for debt servicing capacity and equity ratio.

Company information from the SEBRA model is collated with the banks' loan portfolios. Company-specific PDs from the SEBRA model are linked to the same company in the banks' loan portfolios. Because the final financial year is 2014 and the final reporting year for the banks is 2015, the projected PDs for 2015 are linked to the banks' loans for the reporting year 2015.

The underlying data used in the SEBRA model include only Norwegian non-financial limited companies. The foreign companies are assigned the same SEBRA PD as the debt-weighted average for Norwegian companies in the same sector.

Starting out from the loans granted by the banks, expected loss and risk weighted assets[38] are calculated for each exposure in the banks' portfolios per year. Risk weighted assets and loans granted are summated for each year in the stress test for each individual bank. The average risk weight for each bank's portfolio is calculated by dividing the individual bank's risk weighted assets by the bank's overall loans granted (exposure). Exposure-weighted PD per bank per year is calculated by summating exposure-weighted PD for all exposures per bank and financial year. To calculate exposure-weighted PD for all banks combined, the figures for each bank are weighted by the particular bank's share of total loans granted in the banking sector.

In the baseline scenario, banks' debt-weighted PD rises slightly in the period. The average risk weight for the banks' portfolio of loans to corporate borrowers follows the same trend. In the stress scenario both this debt-weighted PD and risk weights show an increase (charts I.11 and I.12).

[38] Based on the Basel formula for calculating risk weights, in which the SEBRA model is utilised as an IRB PD model.

BANKS' FINANCIAL RESULTS AND CAPITAL ADEQUACY

Finanstilsynet stress tests banking groups, parent banks and mortgage companies. The group model is used to project profit, balance sheet and capital adequacy figures of Norwegian banking groups. For banks and mortgage companies that do not report group data, similar variables are projected with a basis in parent company figures.[39] Both models build on the same underlying methodology and the same macro scenarios and assumptions.

The bank models start out from financial institutions' profit, balance sheet and capital adequacy figures for the latest accounting year, which is 2015 in the stress test in question. The most important profit and balance sheet items are projected using the NAM-FT macro model and two sub-models: the SEBRA model (see Box I.2) and the market risk module. The SEBRA model is used to project PDs and risk weights for corporate clients, while the market risk module is used to project value changes in the banks' securities portfolios. In addition to the assumptions underlying the macro and SEBRA models, assumptions are made here concerning profit retention, banks' net interest revenues and market risk.

No fresh equity capital is assumed to be injected in the financial institutions over the course of the projection period. The results of the projections are driven mainly by the recognised loan losses, net interest revenues and value changes in securities portfolios. Risk-weighted assets are influenced by changes in the banks' lending volumes. For IRB banks' loans to corporates, risk-weighted assets were also affected by changes in risk weights.[40]

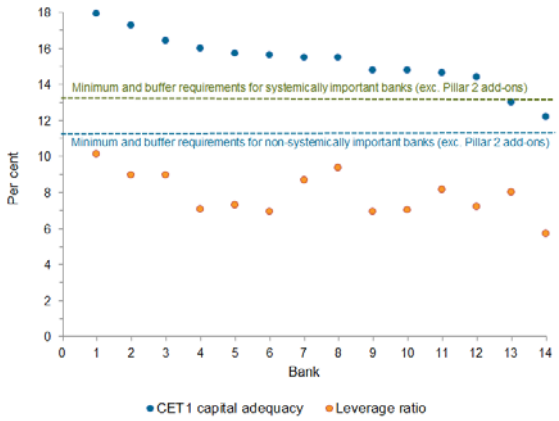
In the theme analysis, individual banks are not identified and results for individual banks are shown anonymously, in addition to aggregated results. In the stress scenario, the main emphasis of the account of the results is on banking groups. The main results for common equity tier 1 (CET1) capital adequacy and leverage ratio[41] are also shown for the other Norwegian banks.

RESULTS IN THE BASELINE SCENARIO

The starting point for the projection of banks' net interest revenues is that higher funding costs are immediately passed on to borrowers through higher lending rates in the baseline scenario. Norwegian banks' lending and borrowing rates are both largely floating. In light of competition among

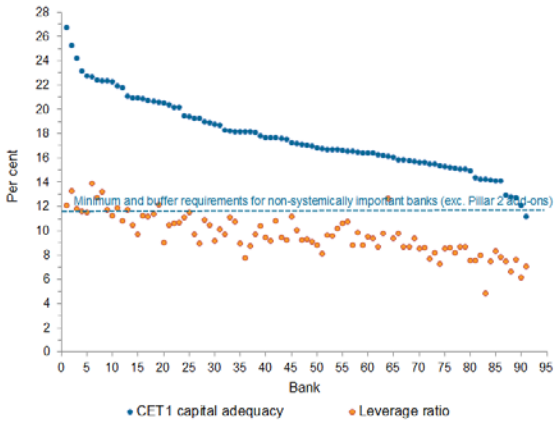
[39] In this year's Risk Outlook, 14 of the largest Norwegian banking groups are included in the banking group selection, representing about 85 per cent of Norwegian banks' aggregate total assets. The other banks are included in the parent bank selection. Mortgage companies that are not part of the banking group selection are not discussed in this theme analysis.
[40] IRB banks are banks that are authorised to use their own risk models to determine risk-weighted assets for the capital charge for credit risk.
[41] Common equity tier 1 capital in per cent of total balance sheet assets.

I.13 Common equity tier 1 (CET1) capital adequacy and leverage ratio at the end of 2020. Norwegian banking groups. Baseline scenario



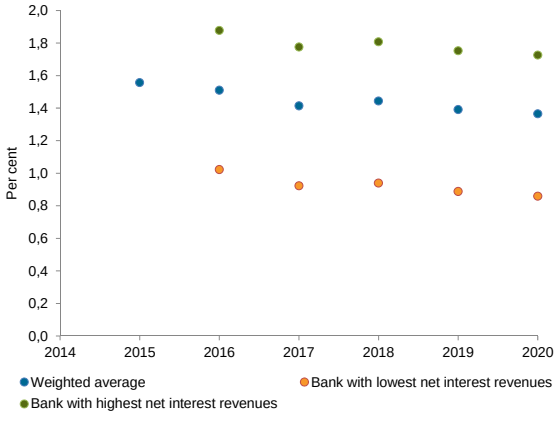
Source: Finanstilsynet

I.14 Common equity tier 1 (CET1) capital adequacy and leverage ratio at the end of 2020. Other banks. Baseline scenario



Source: Finanstilsynet

I.15 Net interest revenues in per cent of ATA.* Norwegian banking groups. Stress scenario



Includes all interest expenses and revenues, including from interest-bearing securities. Source: Finanstilsynet

banks and from the bond market, very low interest rates, rising incidence of fixed interest loans and general pressure on banks' funding costs in the market, net interest revenues in per cent of average total assets (ATA) are assumed to weaken by 0.02 percentage points per year in the projection period, i.e. from 1.56 per cent at the end of 2015 to 1.46 per cent in 2020. In the baseline scenario Norwegian banking groups' loan volume rises by 25 per cent overall in the period (determined in the NAM-FT macro model), while net interest revenues increase by 9 per cent.

Loan losses in per cent of ATA roughly double in the first year of the baseline scenario, before the ratio falls back to a somewhat lower level. Although higher than in 2015, loan losses are relatively low in the baseline scenario.

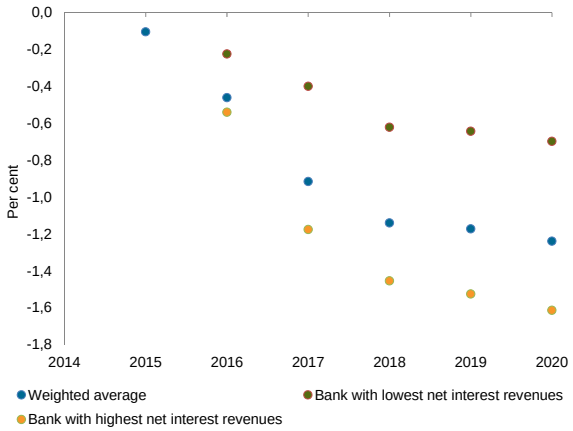
The increase in the first year in the baseline scenario reflects a weaker development in the Norwegian economy, and is roughly in keeping with loan losses envisaged by some large Norwegian banks for the current year. Losses on loans to corporates account for a good 80 per cent of accumulated losses in the projection period. Differences in the change in loan losses between banking groups are relatively small in the baseline scenario, but the initial level of losses varies somewhat. The projection methodology for loan losses receives further attention in Box I.3.

There are small changes in the remaining profit items and risk-weighted assets in the baseline scenario. The various items largely shadow the level of activity, which shows moderate growth over the next five years.

Although banking groups' profits weaken somewhat in the baseline scenario, they remain relatively good. The overall post-tax profit in per cent of ATA falls from about 0.9 per cent in 2015 to 0.6 per cent per year in the projection period. The increase in equity capital depends on what share of the profit is retained. Chart I.13 includes an assumption that 70 per cent of the profit for the year is retained throughout the projection period. This is a technical assumption, and does not represent an expectation on the part of Finanstilsynet with regard to banks' future dividend policy or future capital requirements.

Apart from in the case of two banking groups, CET1 and the leverage ratio increase in the baseline scenario. All banking groups meet minimum and buffer requirements for non-systemically important banks of 11.5 per cent at the end of 2020 (chart I.13). The two banking groups included in the stress test, and defined as systemically important, both meet CET1 minimum and buffer requirements of 13.5 per cent for

I.16 Annual book loan losses in per cent of ATA. Norwegian banking groups. Stress scenario



Source: Finanstilsynet

systemically important banks.[42] The chart does not take account of Pillar 2 requirements that will be imposed on the individual bank.

Of the banks that are not included in chart I.13, all but one meet CET1 minimum and buffer requirements for non-systemically important banks at the end of 2020 (chart I.14).

RESULTS IN THE STRESS SCENARIO

Net interest revenues

Like the baseline scenario, the stress scenario assumes that net interest revenues as a percentage of ATA weaken by 0.02 percentage points per year. A further assumption is that 5 per cent of banks' volume of loans to problem-loan customers do not generate interest revenues in the projection period, and that the interest rate increase on banks' funding is not compensated for through higher lending rates in the case of 10 per cent of "healthy" loans to corporates and 5 per cent of "healthy" loans to retail customers due to impaired debt servicing capacity.[43]

The bank groups' net interest revenues fall from 1.56 to 1.37 per cent of ATA in the stress scenario (chart I.15). This development is virtually identical across all the banking groups, although their initial levels differ a good deal.

Loan losses

A strong decline in households' consumption and firms' investment, a large increase in unemployment and higher lending rates contribute to a sharp increase in banks' loan losses in the stress scenario. All in all, the banking groups' annual loan losses rise from about 0.1 to 1.3 per cent of ATA in the projection period (chart I.16).[44]

Loan losses increase for all Norwegian banking groups and parent banks in the stress scenario. The increase is greatest at banks with a relatively high proportion of corporate exposures. All in all, a good 80 per cent of loan losses are related to corporate exposures. See Box I.3 for a further account of loan losses.

Box I.3 Projecting loan losses

Banks' overall losses on loans to firms and households respectively are projected in the macro model NAM-FT. Losses on loans to corporate customers are distributed among the banks based on the size of the individual bank's projected debt-weighted SEBRA PD. This presupposes that all banks have an identical loss given default (LGD) level throughout the projection period. Both the initial level and development of debt-weighted PD are of significance for the distribution of losses between the banks. For retail and other exposures, losses are projected based on the individual bank's relative share of loans to these categories. Hence the banks' percentage losses to these exposure categories are identical in the projection period.

Banks' losses on loans to corporate customers accumulate to almost 16 per cent of total corporate exposures in the projection period 2016-2020. During the banking crisis in 1988-1992 corporate loan losses accumulated to about 27 per cent. Some of these losses were reversed later in the 1990s. One reason for the reversals was a sharp increase in property prices, and thus substantially higher collateral values. Future reversals are a matter of great uncertainty. The potential for loan loss reversal may well be limited compared with after the banking crisis in the early 1990s.

Losses on loans to retail customers accumulate to just under 2 per cent of total retail exposures in the projection period. During the banking crisis, losses on loans to retail borrowers accumulated to just over 6 per cent. Home mortgage loans, which account for the majority of retail exposures, are a far more homogeneous item than corporate exposures. Hence there is less uncertainty with regard to the distribution of retail losses than corporate losses. Losses on consumer loans are not projected as a separate item in the NAM-FT macro model. Such loans are assigned the same percentage loan loss as overall retail exposures, despite the

[42] The third systemically important financial institution in Norway is not included in the stress test since the stress test model is little suited to that institution's type of business.

[43] "Healthy" loans are loans not classified as problem loans. These borrowers are assumed to service current interest rates, but their weak earnings and liquidity position mean they are unable to service an interest rate increase.

[44] All charts in this theme analysis show accounting items that make a negative contribution to profit as negative values relative to ATA, while all items that make a positive contribution to profit are shown as positive values.

fact that the risk associated with such loans is significantly higher than in the case of mortgages. The proportion of losses on consumer loans may prove high in a severe downturn. However, for most banks consumer loans make up a relatively small share of total lending. Banks which exclusively, or largely, provide consumer loans are not included in the stress test.

Value changes in the securities holding

For the banking groups the projections of value changes in the banks' securities holding are based on relatively detailed information about the individual bank's equity, bond and property portfolios. The projections start out from a sensitivity analysis of these banks' market risk conducted each year by Finanstilsynet. This sensitivity analysis is inter alia based on the banks' internal limits for the relevant market risk categories, and a "shock" associated with share price falls and credit spreads. This shock is scaled to render it consistent with the path of the stress scenario. For the other, just over 90, Norwegian parent banks, simplified input data on market risk are used.

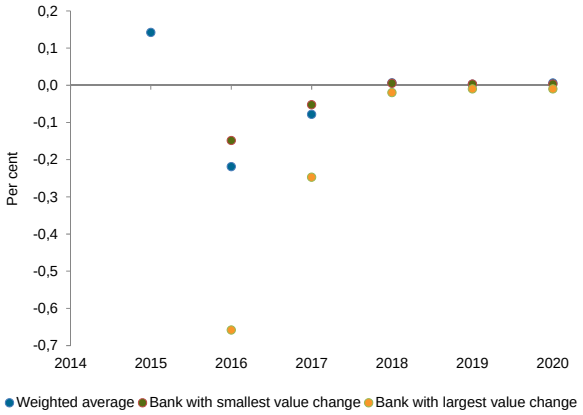
Equity markets tumble 36 per cent in the first two years of the stress scenario.[45] Further, there is an increase in risk premiums on the banks' bond holding. This contributes to a negative value trend in the share and bond holding which on average for the banks comes to 0.21 per cent of ATA in the first year and 0.07 per cent in the second year (chart I.17). The fall in share values contributes more than half of the overall fall in value. In the following years of the projection the contribution from change in securities values is about zero.

Other profit/loss items

Several of the other items in the banks' profit and loss accounts, such as commission revenues, are assumed to shadow the growth in lending. Salary and administration costs follow the trend in wage growth from the NAM-FT macro model. The other profit/loss items change relatively little in the stress scenario, and consequently have little impact on the banks' results. The fact that many banks are likely to reduce their salary and administration costs by labour shedding and branch closures in a serious stress scenario is not taken into account, nor is account taken of the fact that salary and administration costs associated with problem loans are likely to increase sharply under such a scenario.

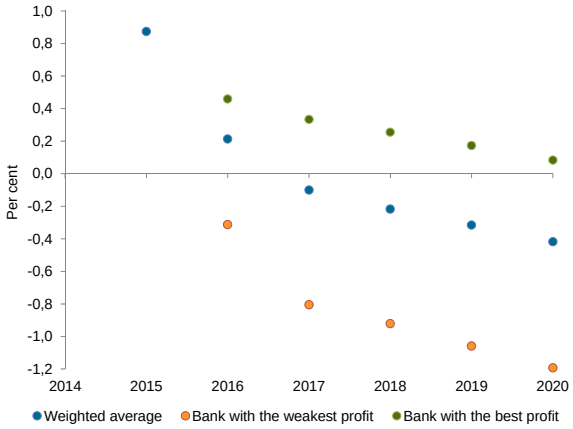
[45] Equity markets' development in the projections is based on the average development of the Oslo Børs Index and the World Index.

I.17 Value changes in banks' securities holding in per cent of ATA.* Norwegian banking groups. The stress scenario



*Based on the banks' own definitions of the content of the securities portfolio. A negative value shows a negative value change, and thus a negative contribution to banks' profits.Source: Finanstilsynet

I.18 Post-tax profit in per cent of ATA. Norwegian banking groups. Stress scenario



Source: Finanstilsynet

Profit/loss

Lower net interest revenues, a sharp increase in loan losses and, to a lesser degree, negative value changes in securities portfolios, contribute to marked impairment of financial results (chart I.18).

Two of the banking groups show negative profit as early as in 2016, while one banking group manages to maintain positive profit throughout the period. What in general characterises banks that are impacted most negatively in the stress scenario are their relatively low net interest revenues, a high share of corporate exposures and a large increase in debt-weighted SEBRA PD. A technical assumption is included that the banks retain 70 per cent their profit in the first year of the projection period, when

profits are positive for most banks. In the remaining years profits are negative for many banks, and the banks are assumed not to pay dividend.

Risk weighted assets for capital adequacy

Risk weighted assets are an important component in the calculation of banks' capital adequacy. Projection of risk weighted assets is based on assumption that they change in proportion with changes in the balance sheet. Risk weights are thus kept constant throughout the projection period. However, for banks using IRB models to measure their capital charges, risk weights on corporate exposures are assumed to change as a result of changes in their SEBRA PDs (section I.2).[46] Increased risk in the projection period, estimated in the SEBRA model, accordingly leads to increased risk weights. For banks not using IRB models, no changes in risk weights on corporate exposures are assumed.

Since only risk weights on corporate exposures are subject to change in the projection, and risk weighted assets otherwise shadow the path of ATA, risk weighted assets increased little relative to ATA in the projection period. Moreover, for some banks the Basel I floor is in effect in the initial years of the projection period, meaning that the increase in risk weights does not have full effect.

Common equity tier 1 capital adequacy

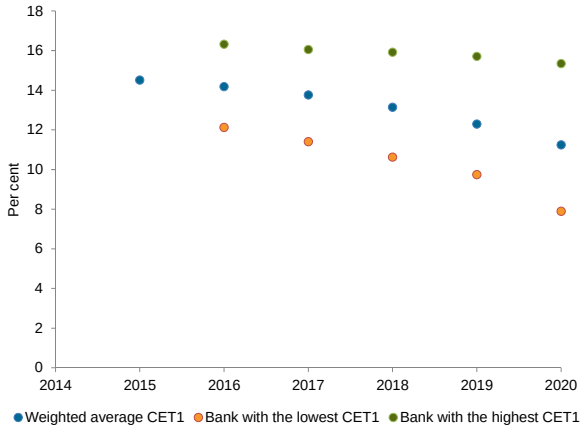
Reduced net interest revenues, negative value changes in the securities holding, increased risk weighted assets and in particular higher loan losses, contribute to a gradual impairment of common equity tier 1 (CET1) capital adequacy ratio. Overall for the banking groups, the CET1 ratio falls from 14.5 to 11.2 per cent in the projection period (chart I.19).

At the end of 2020 the CET1 ratio is between 15.3 and 7.9 per cent in the banking groups (chart I.20). Five of the banking groups have a CET1 ratio below the minimum requirement for non-systemically important banks of 11.5 per cent.[47] A significant share of banks show a considerably lower leverage ratio in 2020 than in 2015.

Among the just over 90 Norwegian parent banks that are not part of a banking group in chart I.20, 29 have a CET1 ratio below the minimum and buffer requirements (chart I.21). The leverage ratio is significantly impaired for a large share of these banks.

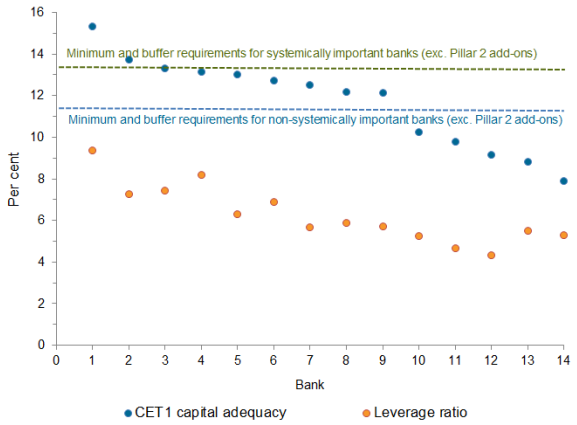
[46] The basis for the projections is the banks' actual risk weighted assets, where the banks' own PD models are used in the calculation of risk weights.
[47] Minimum and buffer requirements but not, where applicable, individual Pillar 2 add-ons.

I.19 Common equity tier 1 (CET1) capital adequacy. Norwegian banking groups. Stress scenario



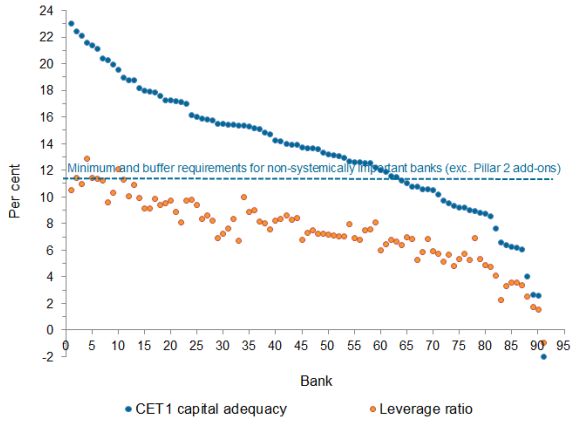
Source: Finanstilsynet

I.20 Common equity tier 1 (CET1) and leverage ratio at the end of 2020, Norwegian banking groups. Stress scenario



Source: Finanstilsynet

I.21 Common equity tier 1 (CET1) capital adequacy and leverage ratio at the end of 2020. Other banks. Stress scenario



Source: Finanstilsynet

Many small and medium-sized banks fare in general better than the larger banks because they have a small proportion of corporate exposures and higher net interest revenues. However, some small and medium-sized banks have a relatively large share of market risk in their portfolio. These banks are hit relatively hard in the first two years of the stress test. Some of the smaller banks also have relatively large loan losses in their corporate portfolio.

Projections both in the baseline scenario and the stress scenario are mechanical in the sense that developments among the banks do not reflect the path of the macroeconomy. In other words there are no feedback effects to the macro model NAM-FT. Further, no account is taken of the fact that the supervisory authorities would have intervened in individual banks, instructing them to recapitalise when capital adequacy ratios fall below a certain level.

SUMMARY ASSESSMENTS

Banking involves relatively low margins and high debt ratios. This renders banks vulnerable in a weak economic period. The above analyses show that capital adequacy at a number of banks may be markedly reduced in a sharp downturn in the Norwegian economy.

The banks ought to maintain a capital adequacy ratio that is high enough to enable severe stress to be tackled by the banking sector unaided. This reduces the likelihood of the authorities having to intervene, and helps to reduce the economic costs of crises. High capital ratios mitigate the risk of adjustments in the banking sector that are detrimental to the economy.

THEME II LIQUIDITY IN THE NORWEGIAN COVERED BOND MARKET

Since the entry into force of the legislation governing covered bonds on 1 June 2007, the volume of covered bonds has increased considerably. At the end of 2015 covered bonds accounted for about one-fifth of Norwegian banks' overall funding. The largest investor group in the market for covered bonds is the banks themselves. In the Norwegian market the banks own about one-third of all bonds. The increase in the banks' holding of covered bonds in recent years is in part related to the liquidity coverage requirement (LCR), and the fact that covered bonds can account for up to 70 per cent of the liquidity buffer. Given Norwegian covered bonds' prominence in the banks' liquidity portfolio, a well-functioning secondary market for covered bonds is important in enabling banks to realise their illiquid assets rapidly and efficiently without heavy costs. The EU liquidity framework requires a liquid market in order for a security to qualify for inclusion in the LCR buffer.

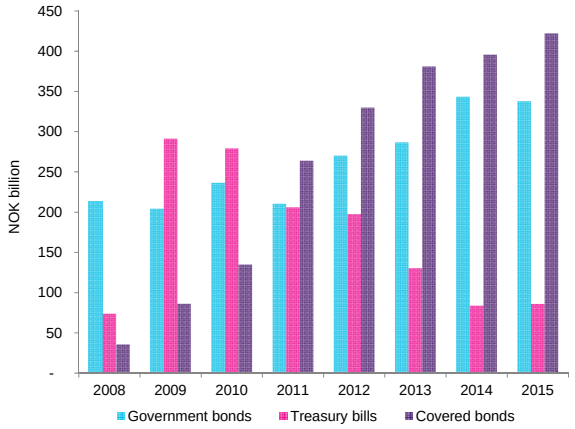
THE NORWEGIAN COVERED BOND MARKET

Norwegian banks issue covered bonds in Norwegian kroner and in foreign currencies. About 40 per cent of bonds are issued in Norwegian kroner and 60 per cent in foreign currency. The largest institutions have established their own covered bond programmes in foreign currency, with euro issuance making up the largest proportion of foreign currency funding. This chapter discusses primarily the market for Norwegian covered bonds issued in Norwegian kroner in view of the limited availability of data on Norwegian covered bonds issued in foreign currencies.

By the Norwegian market is meant covered bonds denominated in Norwegian kroner and quoted on Oslo Børs or the Nordic Alternative Bond Market (ABM). These are issued mainly by Norwegian entities. The Norwegian covered bond market has grown substantially since 2008. At the end of 2015 the outstanding volume came to NOK 422 billion, roughly comparable in size with the market for government securities (chart II.1).

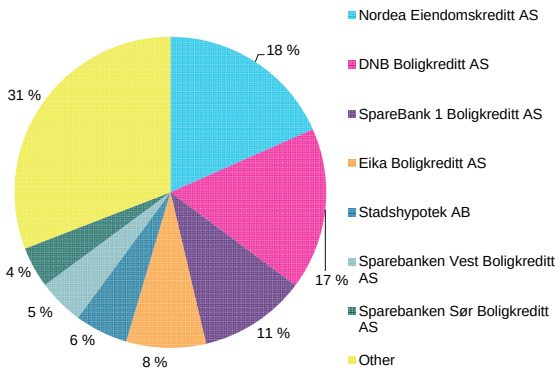
The government securities market consists of government bonds and Treasury bills. In the years following the financial crisis Treasury bills made up the bulk of the government securities market. The increase from 2008 to 2009 is related

II.1 Outstanding value of securities quoted on Oslo Børs and ABM



Source: Oslo Børs

II.2 Covered bonds in NOK quoted on Oslo Børs and ABM by issuer, May 2016



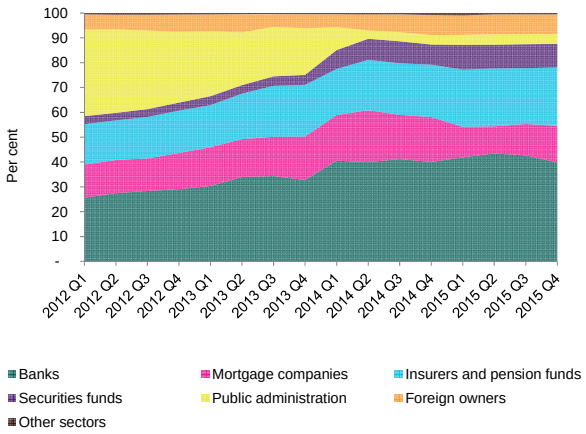
Source: Stamdata

the government's rescue package[48], which allowed the banks to swap covered bonds for Treasury bills in order to improve the banks' liquidity situation. When the swaps were reversed in the years to 2014, the outstanding volume of Treasury bills fell, and covered bonds included in the arrangement emerged in the secondary market.

A total of 24 Norwegian covered bond issuers, and almost all Norwegian banks, are able to finance their operations through either wholly owned or jointly owned covered-bond-issuing entities. The four largest such issuers are the wholly owned DNB Boligkreditt and Nordea Eiendomskreditt and the jointly owned SpareBank 1 Boligkreditt and Eika Boligkreditt. Together these account for 55 per cent of the volume issued. Some foreign entities also issue covered bonds denominated in Norwegian kroner

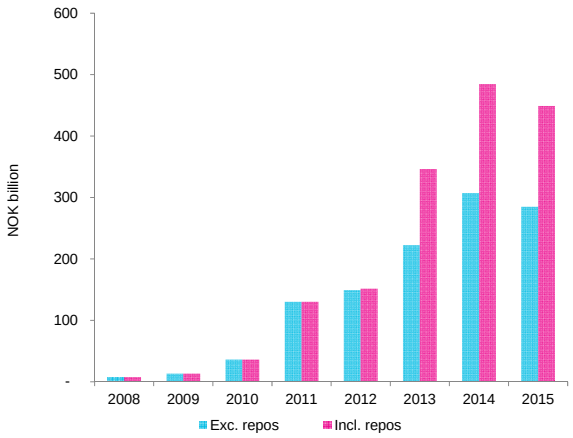
[48] https://www.regjeringen.no/no/aktuelt/bytte-av-statspapir-mot-obligasjoner-med/id533944/

II.3 Owner distribution of bonds issued by mortgage companies registered with the Norwegian central securities depository (VPS)



Source: Statistics Norway

II.4 Annual turnover of covered bonds at Oslo Børs and ABM



Source: Oslo Børs

on Oslo Børs. Stadshypotek AB is a wholly owned subsidiary of Svenska Handelsbanken and has issued kroner denominated covered bonds to a value of about NOK 27 billion. Danske Bank and Swedbank Hypotek AB have also issued covered bonds in Norwegian kroner, but in limited volumes. Of the total outstanding volume of quoted covered bonds denominated in Norwegian kroner, NOK 363 billion were quoted on Oslo Børs and NOK 59 billion on ABM at the end of 2015.

A small number of issuers account for a significant portion of the issued volume of Norwegian covered bonds. This could lead to high concentration risk in investors' Norwegian covered bond portfolios. A high level of issuer concentration could thus contribute to systemic risk. The underlying risk in covered bonds relates to households and the housing market. The largest issuers of covered bonds have more diversified home mortgage loan portfolios, for example a wider geographical and demographic spread, than smaller issuers. This helps to some extent to reduce the risk of high issuer concentration.

In June 2014 a benchmark list for covered bonds was established on Oslo Børs (Covered Bond Benchmark List) at the request of the issuers themselves. The benchmark list comprises covered bonds quoted on Oslo Børs, denominated in Norwegian kroner and with an outstanding volume of at least NOK 2.5 billion. Bonds included in the list must have indicative prices quoted on an ongoing basis, and bid and offer prices must be quoted during at least 85 per cent of the trading day. The benchmark list aims to create increased liquidity and transparency in the bonds in question and in the Norwegian covered bond market in general. At the end of April 2016 the benchmark list consisted of 38 bonds from DNB Boligkreditt, Eika Boligkreditt, Møre Boligkreditt and Stadshypotek AB.

Altogether the bonds comprised a volume of about NOK 233 billion.

OWNERSHIP STRUCTURE IN THE COVERED BOND MARKET

Banks, mortgage companies, insurers and pension funds are the largest investors in the Norwegian covered bond market (chart II.3) whereas the public administration's owner share has fallen substantially in recent years owing to the termination of the government's swap arrangement. The public administration's owner share is now largely confined to the National Insurance Fund's holding of covered bonds. The growth in banks' and mortgage companies' owner share in recent years must is also related to the requirement of a liquidity reserve. At the end of the first quarter of 2016 the banks' overall, weighted liquidity coverage ratio (LCR) portfolio stood at NOK 730 billion. Of this, covered bonds accounted for 31 per cent, of which 18 percentage points comprise securities denominated in Norwegian kroner. Covered bonds in an issue volume above EUR 500 million and between EUR 250 and 500 million are regarded as, respectively, Level 1 and Level 2 assets in the LCR buffer provided they also meet requirements as to overcollateralisation and external rating. At the end of April 2016 a total of 98 securities in Norwegian kroner met the volume requirements, of which 43 were larger than NOK 4 billion and 55 were between NOK 2 and 4 billion. Together these accounted for about 80 per cent of the outstanding volume of covered bonds on Oslo Børs and the ABM.

Substantial owners in addition to banks and mortgage companies are insurers and pension funds. A large portion of life insurers' holding at the outset invested in held-to-maturity portfolios. Hence it is likely that a fairly large proportion of Norwegian covered bonds are not traded on a regular basis.

Banks, mortgage companies, insurers and pension funds own just under 80 per cent of covered bonds and other bonds issued by mortgage companies. The structure of this market creates interlinkages in the financial market which could contribute to systemic risk. Were insurers and pension funds to opt to shift their investments away from Norwegian banks, it could have consequences for the banks' market funding. A rapid disinvestment in covered bonds would probably be related to a prior increase in credit risk in the banking sector. In such a situation the banks already be in a difficult position, which would be exacerbated by insurers' and pension funds' disinvestment. In its assessment of the structure of Norway's covered bond market, the IMF points out that in a situation in which the banks are trying to sell one others' covered bonds, liquidity in the market could become so weak as to impair opportunities for new bond issues – precisely in a situation where there is a substantial need for long-term funding.

SECONDARY MARKET TRADING

Part of the trading of covered bonds is done outside Oslo Børs. However, all trades in quoted securities must be reported to Oslo Børs by the end of the trading day at the latest and are thus included in the statistics. Chart II.4 shows that the annual traded volume of covered bonds quoted on Oslo Børs and the ABM has risen from just under NOK 8 billion in 2008 to just under NOK 300 billion in 2015. However, there was a decline in traded volume from 2014 to 2015. In recent years about one-third of trading has been in the form of repos. In the government securities market repos account for the bulk of trading. Disregarding repos, trading has fallen since 2010 and amounted to just over NOK 650 billion (chart II.5) in 2015.

Viewed in relation to outstanding volume, covered bond trading has increased somewhat since 2008 (II.6). In 2015 just under 70 per cent of the outstanding volume of covered bonds on Oslo Børs and the ABM changed hands. In the government securities market the volume traded as a proportion of the outstanding volume has declined over time. The fall in the proportion traded since 2010 is due mainly to a decline in trading of Treasury bills. Compared with the government securities market, trading in the covered bond market has been low historically speaking, although the difference has narrowed in the past two years also.

MARKET LIQUIDITY

Securities will typically be regarded as liquid if a large volume can be rapidly and effectively traded in the market without heavy costs. This is in keeping with the intention behind the classification of liquid assets in the LCR legislation. However, there is no unambiguous definition of market liquidity, and a number of interconnecting factors affect liquidity in a given market or security. Harris (1990) speaks of liquidity along four dimensions: width, depth, immediacy and resiliency[49].

II.5 Annual turnover of government bonds and Treasury bills at Oslo Børs and ABM

Source: Oslo Børs

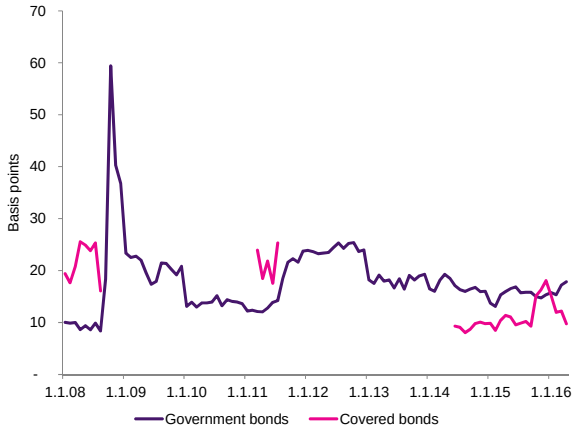
II.6 Annual turnover of covered bonds and government bonds in per cent of average outstanding volume at Oslo Børs and ABM (exc. repos)

Source: Oslo Børs

Width in the market reflects the cost of an immediate trade. A measure of width is the difference between the best sell price and the best buy price, also called the bid-ask spread. The spread measures how far a seller must lower the price in order to achieve an immediate sale, or how much a buyer must raise the price in order to achieve an immediate purchase. A low spread indicates ample liquidity. The width does not however reflect the cost of immediate transactions involving a larger volume than that covered by the best quote.

[49] Harris, L. (1990) Liquidity, Trading Rules and Electronic Trading Systems, New York University, Salomon Center Monograph Series in Finance and Economics.

II.7 Relative bid-ask spread. Monthly average



Sources: Oslo Børs Information and Finanstilsynet's calculations

In a deep market the cost of an immediate trade will depend on order volume, while in a less deep market the seller (buyer) will need to accept steadily lower (higher) prices in order to achieve an immediate trade at a desired volume. Hence depth is a measure of how far the cost of immediate transactions rises in step with order volume.

Immediacy is a matter of the time it takes to trade larger lots and is thus closely related to breadth and depth. Immediacy may also refer to search and information costs. Established market places such as stock exchanges contribute to better liquidity, and the costs of matching buyers and sellers is low.

Resiliency is the fourth and final dimensional and describes the market's ability to recover, and how long it takes for market liquidity to reach equilibrium following trading of large volumes.

Market liquidity cannot be measured and observed directly. Even so it is possible to comment on the degree of liquidity in securities through measures related to the dimensions mentioned above. This analysis focuses in the main on the first two dimensions, width and depth, since these are somewhat simpler to quantify than the last two dimensions. The analysis makes use of data from Oslo Børs. The dataset contains information on all quoted covered bonds and government securities in Norwegian kroner that were traded on Oslo Børs or the ABM in the period 1 January 2008 to 8 April 2016, with daily observations of traded volume, closing price, best bid price and best offer price per ISIN number[50]. Where the covered bond market is divided into groups, data on issued volume, series extensions and term from Stamdata are also utilised.

[50] International Securities Identification Number (ISIN) is a number unique to each security.

WIDTH

The difference between bid and ask price, the spread, is a measure of width of the market. Rakkestad et al. (2012)[51] defines the relative spread at time t as:

$$Spread_t = \frac{p_t^s - p_t^k}{p_t^m}$$

Where p_t^s and p_t^k are, respectively, the best bid and ask price at time t and where the middle rate , p_t^m, is the average of p_t^s and p_t^k. In order to compute the spread, same-day bid and ask prices are required. In the government securities market the primary dealers [52] undertake to quote binding prices on an ongoing basis. Primary dealers are also entitled to borrow government securities from the Treasury's own holding in order to offer them on the market. In the covered bond market, bid and ask prices are only available for securities included on the benchmark list; see the section on the Norwegian covered bond market. The prices are indicative and not binding as in the government securities market. Chart II.7 shows the trend in the average spread for government securities and covered bonds from 2008 to 2016. The average spread is calculated as a monthly average of weighted daily averages for all individual securities.

For those months where two-way prices for covered bonds prior to June 2014 are available, the spread was consistently higher in the covered bond market than in the government securities market. However, in the period prior to June 2014 only a small number of covered bonds with indicative bid and ask prices were available, and observations are so few in number that robust conclusions are difficult to draw based on data in this period. Since June 2014 the average spread has been lower in the covered bond market than in the government securities market, with the exception of autumn 2015.

DEPTH

Over a short time horizon and without changes in fundamentals affecting the pricing of the security, the price effect from a trade may be a measure of depth of the security. In deep markets it will be possible to trade a large volume without a large change in the price. A much used indicator of price impact is Amihud's measure of illiquidity (Illiquidity Ratio – ILR) (2002)[53]:

[51] Rakkestad, K., Skjeltorp, J. og Ødegaard, B. (2012), The Liquidity of the Secondary Market for Debt Securities in Norway. UiS Working Papers in Economics and Finance 2012/12, University of Stavanger.

[52] Agreements exist with four banks to carry on primary trading activity in the Norwegian government bond and Treasury bill market. The primary traders undertake to quote binding bid and ask prices in each individual security.

[53] Amihud, Y. (2002). "Illiquidity and stock returns: cross section and time series effects". Journal of Financial Markets, 31-56.

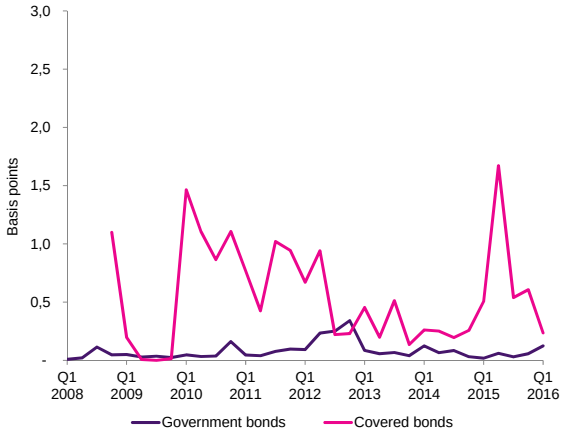
$$Amihud\ ILR_t = \frac{\left|\ln\left(\frac{p_t}{p_{t-1}}\right)\right|}{Volum_t} \times 10^6$$

where $\left|\ln\left(\frac{p_t}{p_{t-1}}\right)\right|$ is the absolute return from day t-1 to day t and $Volum_t$ is traded volume on day t. The indicator is a measure of how much the price of a security changes per traded unit of currency[54]. Hence high values indicate little depth and vice versa. This analysis computes daily ILR values for all bonds where trading is registered on two consecutive days. Values at the aggregated level are calculated as monthly averages of daily averages across ISIN numbers. Calculating daily values curbs the effect of fundamentals on the price from one day to the next day compared with choosing a period of for example one month or one quarter. Nonetheless, the period from January 2008 to April 2016 contains the financial crisis in 2009 and 2010, the sovereign debt crisis in Europe in 2011 and 2012 and several other periods of market turbulence. Such events have resulted in large price effects on certain days and may cause the calculation of ILR values to capture factors other than market liquidity. Further, the number of data points for covered bonds is limited, given the small number of observations on two consecutive days of trading. This is particularly true for covered bonds with a small issue volume, but also for large-volume covered bonds in the period to 2011. Hence the covered bond indicator is susceptible to sizable individual impacts.

Chart II.8 shows movements from January 2008 to April 2016. In addition a test was done to determine whether average values for government securities and covered bonds differ statistically. A test was also done to identify any significant difference in average values within the two markets over time. This was done using t-tests of daily data (table II.1)[55]. When the absolute t value exceeds the critical value, it indicates a statistically significant difference. The table also shows volatility in terms of standard deviation. On average the indicator was lower for government securities than for covered bonds and the difference appears to be significant. The indicator for covered bonds also appears to have been significantly lower in the period 2013 to April 2016 than from 2008 to 2012. Up to 2011, as mentioned, very few securities were traded on consecutive days, and the indicator for covered bonds prior to 2011 should not be assigned particular weight. The indicator appears to have deteriorated slightly through 2015, but has in recent quarters improved in step with the bid-ask spread. As regards the government securities market there cannot be said to be a significant difference in the indicator's average

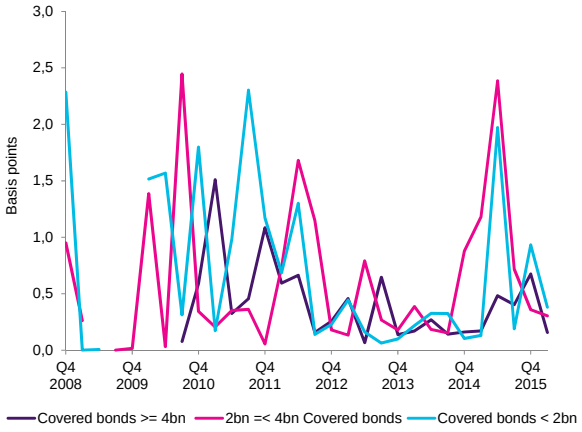
[54] The indicator is generally scaled up by 106 for practical reasons, and thus shows the price impact per NOK million.
[55] A reservation applies to the effect that the assumptions underlying the data and t tests may not be met.

II.8 Amihud illiquidity measure. Quarterly average



Sources: Oslo Børs Information and Finanstilsynet's calculations

II.9 Amihud illiquidity measure. Quarterly average. Covered bonds by issue volume



Sources: Oslo Børs Information and Finanstilsynet's calculations

level over time. The covered bond indicator shows greater volatility than the indicator for covered bonds. The average indicator level for covered bonds is lower after 2012, but volatility appears to be equally high in both periods. Covered bonds with a volume above NOK 4 billion consistently appear to be more liquid as measured by the ILR indicator than do medium-sized and smaller securities (chart II.9 and table II.2).

The increase in the indicator for covered bonds as a whole through 2015 was primarily attributable to covered bonds with an issue volume below NOK 4 billion. Although the indicator is on average somewhat higher for covered bonds between NOK 2 and 4 billion than for covered bonds below NOK 2 billion, the difference is not statistically significant.

Table II.1 Amihud illiquidity measure

	Govt. bonds	Covered bonds
Average (bps)	0,08	0,59
Standard deviation (bps)	0,44	1,88
t-value (absolute)	7,99	
Critical value (two-sided)	1,96	
	Govt. bonds (2008-2012)	Govt. bonds (2013-2016)
Average (bps)	0,09	0,06
Standard deviation (bps)	0,53	0,26
t-value (absolute)	1,40	
Critical value (two-sided)	1,96	
	Covered bonds (2008-2012)	Covered bonds (2013-2016)
Average (bps)	0,77	0,48
Standard deviation (bps)	1,91	1,85
t-value (absolute)	2,23	
Critical value (two-sided)	1,96	

Sources: Oslo Børs Information and Finanstilsynet's calculations

Tabell II.2 Amihud illiquidity measure - covered bonds by issue volume

	Above NOK 4bn	NOK 2-4bn	Below NOK 2bn
Average (bps)	0,40	0,76	0.65
Standard deviation (bps)	1,34	2,55	1,84

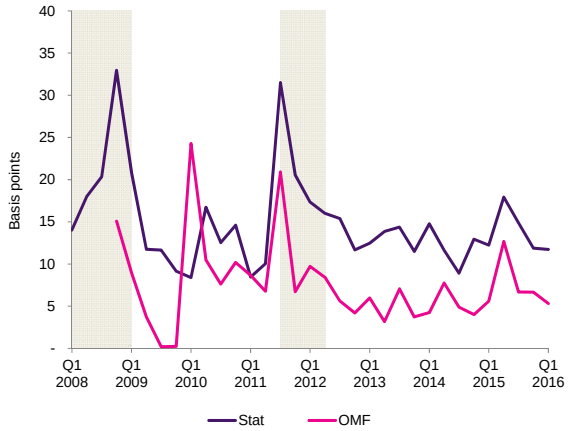
Sources: Oslo Børs Information and Finanstilsynet's calculations

Tabell II.3 Price impact – t-test

	Govt. bonds	Covered bonds
Average (bps)	14,9	7,6
Standard deviation (bps)	14,1	13,7
t-value (absolute)	13,19	
Critical value (two-sided)	1,96	
	Govt. bonds (2008-2012)	Govt. bonds (2013-2016)
Average (bps)	16,1	13,0
Standard deviation (bps)	15,5	11,3
t-value (absolute)	5,35	
Critical value (two-sided)	1,96	
	Covered bonds (2008-2012)	Covered bonds (2013-2016)
Average (bps)	9,8	6,4
Standard deviation (bps)	16,7	11,3
t-value (absolute)	3,37	
Critical value (two-sided)	1,96	

Sources: Oslo Børs Information and Finanstilsynet's calculations

II.10 Price impacts. Quarterly average. Covered bonds and government bonds



Sources: Oslo Børs Information and Finanstilsynet's calculations

There are several variants of the ILR indicator. Dick-Nielsen et al. (2012)[56] cites that there is not necessarily a positive linear relationship between price impact and trading volume in the Danish bond market. A simplified version of Amihud ILR for a given security can thus be written as:

$$Prisutslag_t = \left| ln\left(\frac{p_t}{p_{t-1}}\right)\right|$$

Hence the indicator does not adjust for the size of the trading volume. It only measures the relative impact on price from time t-1 to t resulting from trading independently of the volume traded. However, it is not certain that the result from the Danish covered bond market applies to the Norwegian market. The Norwegian market is probably less deep than the Danish. Since it cannot be assumed that the price impact is independent of trading volume, caution must be shown when interpreting the results from the calculation of the indicator for Norwegian data.

Quarterly average values are calculated in the same way as the ILR indicator. Chart II.10 shows price impact over time. The issue of two consecutive trading days is the same as in the calculation of the Amihud indicator for covered bonds, and price impact calculations are also vulnerable to extreme values of individual securities. This may explain some of the volatility from 2008 to 2012, but, for government securities too, large impacts were seen in the years prior to 2012. This is probably due to the collapse of Lehman Brothers in autumn 2008 and the ensuing financial crisis and subsequent sovereign debt crisis in Europe illustrated by

[56] Dick-Nielsen, J., Gyntelberg J. and Sangill, T. (2012). "Liquidity in Government versus Covered Bond Markets". BIS Working Papers No 392.

the shaded fields in chart II.10. For the entire period the average for covered bonds was somewhat lower than for government securities, and in both markets volatility was somewhat lower from 2013 onwards than from 2008 to 2012 (table III.3). For the groups of covered bonds grouped by issue volume, the price impact was on average lowest for the largest series, but differences between the groups are not statistically significant.

SUMMARY

The Norwegian market for covered bonds has grown considerably in recent years and is now about the same size as the government securities market measured in volume issued on Oslo Børs. Trading in the secondary market has picked up somewhat, although trading volumes remain markedly lower than in the government securities market. The Norwegian covered bond market is still young compared with the large European markets. In the period from 2008 to 2012 liquidity of the covered bond market appears to have been lower and less robust than in the government securities market. True enough, few observations are available in a period to compute the various liquidity measures, and part of the volatility is probably due to this. Liquidity appears to have improved from 2013 onwards.

There is substantial cross-ownership between banks and mortgage companies. The banks themselves largely act as market maker in the covered bond market. In a crisis situation liquidity will probably be poor, both because banks and pension funds and insurers will stop trading with one another, and because the market makers do not quote prices. In addition, the banks' opportunity to issue new covered bonds in the primary market will be considerably impaired.

Insurers and pension funds are major investors in covered bonds, and their ownership share has risen in recent years. Stronger linkages between banks, insurers and pension funds may result in increased systemic risk and the contagion effects of for example a sharp fall in house prices could be stronger.

There is a high level of concentration on the issuer side of the covered bond market. This may reduce investors' opportunity to maintain diversified covered bond portfolios.

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