FINANSTILSYNET
THE FINANCIAL SUPERVISORY
AUTHORITY OF NORWAY

RISK OUTLOOK II
2016

Risk Outlook II 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 real economy and markets. 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 economy and markets. As from 2003 Finanstilsynet has given its view of the state of the financial market in a separate report which also covers financial institutions' earnings, financial strength and liquidity.
The report assesses potential sources of future stability problems in the Norwegian financial system. Finanstilsynet publishes the report *Risk Outlook I* in the spring and *Risk Outlook II* in the autumn.

ISSN: 2464-1650

RISK OUTLOOK II 2016

Cut-off date 29 November 2016.

SUMMARY

Recent months have seen signs of a slight improvement in the world economy. Government measures have helped to maintain growth in China, and higher commodity prices have improved prospects in many emerging economies. However, uncertainty remains high. Growth in industrialised countries is moderate. Weak government finances give little scope to implement measures to contribute to increased growth, and space for action in monetary policy is limited.

Extraordinary monetary policy measures have supplied much liquidity and key policy rates are close to or below zero in several countries. Much of the liquidity is invested in financial and property markets, and has contributed to maintaining or increasing prices of property, stocks and bonds. Low interest rates have stimulated borrowing in both the private and public sector. A protracted low interest rate could increase the financial imbalances.

Economic developments in Norway reflect reduced activity levels in the oil sector and in oil-related industries. The oil price is considerably lower than prior to the onset of the price fall in 2014. Futures prices indicate a moderate rise in prices in the period to end-2019. Developments ahead are uncertain, and a new oil price fall cannot be ruled out.

The steep fall in the oil price has brought a marked impairment in the profits and financial position of companies in oil-related industries. Several of the largest Norwegian banks are exposed to these industries.

In parts of the country, particularly the South West, non-oil related business and industry have also been hit by the oil price fall. The wider mainland economy appears thus far to be less affected, and much of the Norwegian economy shows good growth. However, a number of enterprises in the offshore industry are engaged in debt restructuring negotiations with creditors. Further consolidation in the oil-related segments could contribute to a reduction of demand for domestic goods and services and impaired profits in business and industry in Mainland Norway.

Corporate earnings in Mainland Norway are only marginally higher relative to indebtedness than during the financial crisis in 2008. The book equity ratio has fallen in recent years, and is now lower than during the financial crisis. There are indications that credit risk has also risen in parts of the non-oil related business sector.

Household debt has grown faster than household incomes for a long time. The debt burden is at a historically high level and is high compared with other countries. House prices have also grown faster than household incomes, and in the past year the difference in growth rate has widened. Credit growth and house price growth are mutually reinforcing. Higher house prices increase household wealth and raise mortgage values, providing an opportunity for further borrowing. Expectations of continued low interest rates could contribute to maintaining high growth in house prices and debt in the years ahead, thereby adding to the debt burden.

The unprecedentedly low level of interest rates contributes to the moderate household interest burden. However, the interest burden will rise markedly should interest rates go up. The effect of an interest rate increase is particularly marked when indebtedness is high. The longer the debt build-up lasts and the more house prices rise, the larger the potential fall in the Norwegian economy. A sharp interest rate hike and a turnaround in household expectations could have major negative spillover effects in the economy. The immediate impact of higher interest rates is an increased interest burden, which may be followed by reduced house prices. Financial consolidation in the household sector could in the next instance lead to reduced consumption, lower corporate investments, increased unemployment and reduced real disposable income. A sharp fall in house prices and securities will for large groups of households cause the value of their assets to fall below the value of their debt. This applies in particular to young borrowers whose financial buffers are small and mortgage debt high. In many cases the mortgage debt will exceed the collateral held by the banks.

Norwegian banks have enjoyed good profits for many years because their net interest revenues have been stable relative to total assets and because loan losses have been low. Of late the volume of corporate loan defaults has risen slightly from a low initial level, while personal loan defaults have declined somewhat. Overall book losses on loans remain low, but losses on loans to oil and offshore segments have risen. It is above all the larger banks that are directly exposed to the oil sector and that account for the increase in loan losses. Finanstilsynet has made it clear to the banks that their provisioning for losses on risky exposures must be sufficient and must be based on prudent valuations.

Norwegian banks' equity has risen in the period since the international financial crisis. Moderate dividend payouts have enabled retention of a significant share of net profits. Total assets have risen by a larger margin than risk weighted assets, so that the leverage ratio has risen less than common equity tier 1 (CET1) capital adequacy. Stronger growth in total assets than in risk weighted assets is partially explained by the fact that residential mortgage loans, which carry low risk weights, have grown faster than lending to corporates. Banks' opportunity to use their own models to calculate risk weights has also played a role. After

a long period of sound growth in the Norwegian economy and low loan losses, there is a risk that banks' internal models, which are based on historical data, underestimate the risk present in their loan portfolios. In order to reduce this risk, the loss-given-default ratio for residential mortgage models was raised in 2014, and the models were tightened further in 2015. This led to a significant increase in the average risk weight for residential mortgage loans. Finanstilsynet conducts annual inspections of the banks' internal models which include a review of risk weights assigned to other types of loan.

A large portion of banks' funding is raised in the Norwegian and international money and capital markets. More than 60 per cent of market funding comprises debt to foreign lenders. Much of this funding is short-term. The international financial crisis in autumn 2008 demonstrated that a general crisis of confidence and substantial uncertainty can cause money and capital markets to cease functioning or to function poorly in periods. The banks' liquidity reserves, measured by the LCR (Liquidity Coverage Ratio), have risen in recent years. On average, banks' liquidity reserves exceed expected net disbursements over a 30 day period of heavy market turbulence. However, the liquidity reserve in Norwegian kroner is smaller than expected net disbursements in Norwegian kroner, while the opposite is true for the liquidity reserve in foreign currency. Finanstilsynet forwarded draft regulations to the Ministry of Finance in September 2016 recommending the introduction of a minimum required liquidity reserve in Norwegian kroner. Such a requirement can make banks less vulnerable to turbulence in the international swap markets.

Much of the liquidity reserve consists of covered bonds (obligasjoner med fortrinsrett, OMF) issued by other banks' mortgage companies. This could contribute to increased concentration risk in the banking system.

A fairly good balance exists between the volume of the banks' illiquid assets, comprising mainly loans, and the volume of their long-term funding. Covered bonds, which are a long-term funding medium, account for about 20 per cent of banking groups' funding. This proportion rose markedly after the financial crisis but has now stabilised. Covered bonds are issued by banks' mortgage companies and are backed by well-secured residential mortgages. A high level of asset encumbrance in the banking system could contribute to increased liquidity risk in turbulent times when mortgaging needs are high. The growth in covered bonds is closely related to banks' residential financing. A turnaround in the housing market accompanied by loss of confidence and a marked fall in prices could have a negative impact on the market for covered bonds. The growth in residential lending and covered bonds could therefore increase the covariation between banks' credit risk and liquidity risk. Norwegian insurance companies have invested heavily in covered bonds, which increases the interconnectedness between banks and insurers and heightens the risk of contagion spreading from one sector to another. Finanstilsynet will continue to keep a close watch on the encumbrance of residential loans.

Negative impacts of shocks that are inflicted on the Norwegian economy can be dampened by good risk management and prudent credit practices on the part of banks. Finanstilsynet's annual residential mortgage loan survey shows that banks have granted somewhat fewer loans with a high loan-to-value ratio than in 2015. The banks have however granted a larger proportion of repayment loans where the borrower's income was insufficient to meet normal living expenses, pay instalments and cover interest expenses after an interest rate increase of five percentage points. The survey also shows that total debt relative to gross income rose compared with previous years, and that it rose by the largest margin in the case of young borrowers. Finanstilsynet has recommended to the Ministry of Finance that the current residential mortgage lending regulations should be retained and tightened.

Household debt consists mainly of loans secured on residential property. Lately strong growth has also been seen in households' consumer loans. This type of debt accounts for a small portion of households' aggregate debt, but is marketed very actively by banks and finance companies. It is important that institutions that offer this product have in place sound procedures for assessing borrowers' creditworthiness, and that their advisers give due emphasis to the individual borrower's long-term interests.

This spring Finanstilsynet adopted new guidelines for banks' invoicing of credit card debt which require that the customer's invoice shows the overall outstanding credit and that the credit limit should not be raised without the customer applying for this to be done. Many companies have failed to comply with the guidelines. Finanstilsynet has therefore recommended the Ministry of Finance to adopt regulations based on the requirements of the guidelines.

In addition to prudent credit practices, there is a need for well-capitalised banks that are well prepared to withstand unforeseen losses. As in previous years Finanstilsynet has pointed out that banks must hold CET1 capital over and above the minimum and buffer requirements under Pillar 1. Pillar 2 requirements on CET1 capital, which must cover risk that is not covered, or that is only partly covered, by the Pillar 1 requirement, are set by binding order as from 2016. Finanstilsynet also expects the banks to take steps to ensure that aggregate CET1 capital adequacy exceeds the sum of Pillar 1 and 2 requirements by an ample margin. The banks should take due account of the need for the space for action required to maintain normal lending activity in downturns

and to ensure that their capitalisation supports access to the capital markets under difficult conditions as under good conditions. Norwegian banks are vulnerable to turbulence in international financial markets. That is why it is also important for banks to hold sufficient long-term stable funding alongside ample liquidity buffers.

In Finanstilsynet's assessment the banks should, in light of the uncertainty of economic developments, safeguard their financial position by retaining a significant portion of this year's net profit.

The low level of long-term interest rates has intensified pressures on life insurers internationally. The likelihood of interest rates remaining low for a long period ahead has weakened profit prospects, in particular for insurers with a large proportion of guaranteed pension products. The low interest rate also poses a major challenge to Norwegian pension institutions, a significant portion of whose liabilities offer a guaranteed annual return. Pension institutions' asset management must be aligned in a manner that safeguards policyholders' guaranteed benefits. It is also in policyholders' interest to achieve a return on their assets above the interest guarantee. However, the higher expected return enabled by higher-risk asset management requires pension institutions to maintain a risk-bearing capacity in the form of solvency capital.

Rising longevity and low interest rates have brought an increase in corporate outlays on defined benefit pension plans. Recent years have seen, in Norway as elsewhere, a considerable switch from defined benefit plans with an interest guarantee to unit-linked defined contribution plans. This trend is expected to continue in the years immediately ahead. Return on unit-linked portfolios has in recent years exceeded the return on collective portfolios, which manage contracts carrying an annual interest guarantee. This is because unit-linked portfolios carry higher risk, reflected in a higher equity component. In good times a high equity component provides good return. The high risk present in the management of policyholders' pension assets could however have substantial negative consequences for policyholders in the event of a sharp decline in the markets.

Reduced wealth as a result of a strong price fall in stock markets could also encourage households to increase their saving to offset a higher risk of lower pension. This could in turn lead to lower economic growth in the short and medium term.

Solvency II was implemented for insurers on 1 January 2016. A low long-term interest rate puts pressure on insurers' solvency position. However, transitional rules for technical provisioning allow insurers a number of years in which to adjust their asset management and build up buffers that are geared to the new solvency requirements. Solvency II has not been given effect for pension funds, which remain subject to the capital requirements under Solvency I. Pension funds have however since 2012 reported stress tests based on the valuation principles of Solvency II. Finanstilsynet has recommended that a simplified version of the Solvency II capital requirement based on these stress tests should be introduced as a binding capital requirement for pension funds. This will bring pension funds' capital requirements largely into line with those applying to life insurers, thereby affording pension fund members the same security for future disbursements as persons with a pension plan provided by a life insurer.

The Solvency II regime reflects the risk posed to life insurers by low interest rates and a high proportion of products providing a guaranteed return. Insurers should in the main retain profit in order to strengthen their financial position, even if transitional rules reduce the challenges in the short term.

CHAPTER 1 ECONOMIC TRENDS AND MARKETS

Growth in the international economy remains low, but there are wide variations from country to country. In the past year growth in the industrialised countries as a whole came to a halt, but some recovery is expected in the next couple of years. Forecasts for the Norwegian economy point to low growth in the current year, but to higher growth from 2017 onwards. Oil-related industries are hard hit by overcapacity and a low oil price, with a considerable decline in activity levels and profits. This has hit some regions hard. However, the spillover effects to the wider economy have so far been limited. Economic activity is being sustained by low interest rates, expansionary fiscal policy and a weak Norwegian krone. House prices are high and still rising sharply at the same time as household debt continues to grow faster than household incomes.

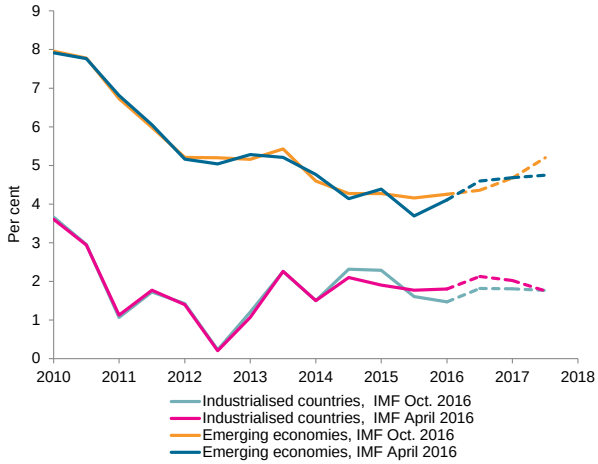
INTERNATIONAL ECONOMY

Growth in the world economy has slowed in recent years. This is due to slower growth rates among the emerging economies. In the industrialised countries, which make up the bulk of Norway's trading partners, there has been a moderate upturn, but growth remains low. Overall, global production is expected to expand by just over 3 per cent in 2016, i.e. by roughly the same margin as in 2015. Somewhat higher growth is expected for 2017. The IMF has again revised down its forecasts, in particular for the industrialised countries (chart 1.1). The upshot will be a slight curb on the upturn among Norway's main trading partners, and the IMF puts growth at just over 2 per cent in both 2016 and 2017.

In the US a strong dollar contributed to weaker exports while a low oil price contributed to a decline in petroleum-related industries and in investments in the first half of 2016. The low oil price has improved households' purchasing power. This, together with a fall in unemployment, has fuelled relatively high growth in private consumption. Production growth picked up in the third quarter, driven both by domestic demand and higher exports. The IMF expects this to continue in 2017 as the negative effect of a stronger currency and low oil price fades (table 1.1). A lower debt burden in the private sector and improvement in the housing market are also expected to bolster growth.

Almost 80 per cent of Norwegian exports go to countries in Europe, which are still struggling with the aftermath of the financial crisis in 2008. Both the public and private sector are heavily indebted, and several banks carry a large share

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



Source: IMF World Economic Outlook, April 2016 and October 2016

of non-performing loans. Growth in the euro area weakened in the first three quarters of 2016. Weaker growth in private investment was a contributory factor, while exports and private consumption helped to sustain growth. Unemployment has gradually subsided in recent years, but remains above 10 per cent. Among the large countries, growth in Germany has slowed thus far in 2016, but has picked up somewhat in France and Italy and remains high in Spain. The IMF expects receding growth in the euro area in the approach to 2017 (table 1.1). A low oil price and continued low interest rates are helping to sustain consumption and economic growth. Low investment willingness, further weakened by uncertainty about the consequences of the United Kingdom's referendum on EU membership (Brexit), and weak growth in international trade, pull in the opposite direction.

Growth in the EU countries outside the euro area has far outstripped growth in the euro countries in recent years. This looks set to continue although the differences have narrowed. Growth in the UK has held up in the first nine months of the year, but the IMF expects a pronounced slowdown in 2017. The increased uncertainty in the wake of Brexit is expected to put a hefty damper on investment willingness. The Swedish economy has shown a positive trend since summer 2013. Growth has subsided somewhat in recent quarters, but remains relatively high. Forecasts point to GDP growth of around 2.5 per cent in 2017, which is expected to be driven largely by private consumption and housing investments.

Although a mere 10 per cent of Norwegian exports go to emerging economies, these countries are of major indirect importance for Norway. The most important effect is through commodity prices and in particular the oil price. China has accounted for most of the growth in commodity

Table 1.1 Key macroeconomic variables. Forecasts for 2016 and 2017

	USA			Euro area			China		
	2015	2016	2017	2015	2016	2017	2015	2016	2017
GDP	2.6	1.6	2.2	2.0	1.7	1.5	6.9	6.6	6.2
Inflation	0.1	1.2	2.3	0.0	0.3	1.1	1.4	2.1	2.3
Unemployment	5.3	4.9	4.8	10.9	10.0	9.7	4.1	4.1	4.1

Source: IMF, World Economic Outlook, October 2016

demand in recent years. The Chinese economy is currently undergoing a structural shift initiated by the government authorities in order to put growth on an investment-driven rather than consumption-driven footing. Overcapacity is in evidence in the property market and in production of steel, coal and cement, and investment growth has slowed. This has contributed to lower growth in demand for imports. Although household consumption is rising, GDP growth has dropped markedly. Even so growth in China's economy in the first nine months amounted to 6.7 per cent, sustained by expansionary fiscal and monetary policy. The IMF expects continued high, but receding, growth in the next few years (table 1.1).

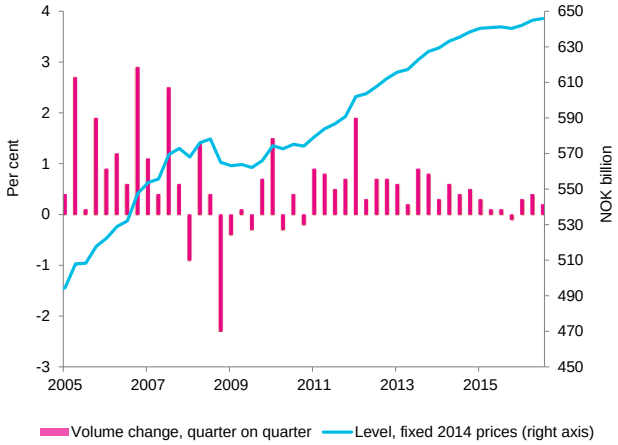
Weaker growth in demand from China contributed to lower commodity prices. This brought sharp setbacks in commodity-producing emerging economies such as Russia and Brazil. However, there are signs that the fall in output may have come to a halt, and the IMF expects positive growth in both countries in 2017. India has benefited from lower oil and food prices, which have helped to lower inflation, enable interest rate reductions and increase households' real incomes. Prospects appear bright, and the IMF expects GDP growth of around 7.5 per cent in both 2016 and 2017.

NORWEGIAN ECONOMY

A marked decline in petroleum-related investment demand from as early as 2013 was reinforced by the oil price fall in 2014. While activity levels in the petroleum sector and supplier industries have fallen sharply, the spillover effects to the wider Norwegian economy have thus far been limited. Statistics Norway expects the decline in petroleum investments to continue in 2017, but to be followed by some measure of recovery in 2018 and 2019. After contracting somewhat in the second half of 2015, Mainland Norway's GDP rose moderately in the first nine months of 2016 (chart 1.2). Statistics Norway expects growth to pick up further in 2017, driven in the first instance by increased housing investment, a gentler decline in petroleum investments and an improved trade balance (table 1.2).

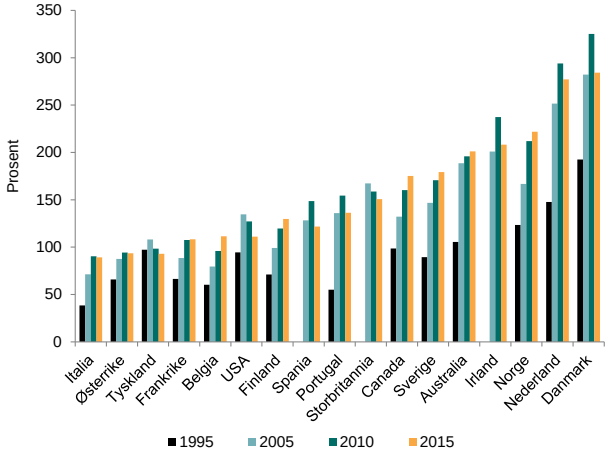
Traditional exports have declined in 2016, due above all to a fall in investment demand from oil and gas producers

1.2 GDP Mainland Norway. Seasonally adjusted



Source: Statistics Norway

1.3 Household debt burden in selected OECD countries*



*2014 figures shown for Australia, Belgium and Ireland. Source: OECD

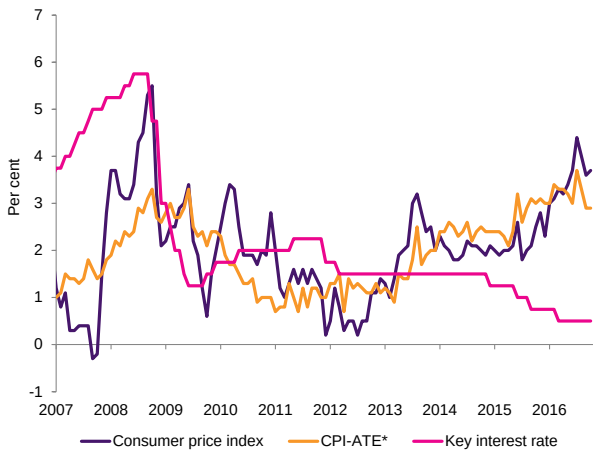
internationally. Business investments have reversed from decline to moderate upturn in 2016. Forecasts for the Norwegian economy show that the recovery will continue in 2017, in particular in non-petroleum-related industries (table 1.2). However, estimates differ widely, suggesting much uncertainty about further developments. Norges

Table 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	2.1	1.9	1.9	1.4	2.0	2.1	2.3
Gross fixed investment, Mainland Norway	-1.6	1.6	2.1	1.8	1.3	5.5	4.4
Housing investments	1.6	8.4	7.6	8.7	9.1	4.0	5.6
Traditional exports**	5.8	-1.4	-4.0	-1.5	3.3	3.1	4.6
GDP Mainland Norway	1.1	0.9	0.9	1.0	2.1	1.8	1.7
Unemployment rate – Labour Force Survey***	4.4	4.7	4.7	4.7	4.5	4.7	4.6
Annual pay	2.8	2.3	2.5	2.4	2.7	3.2	2.7
House prices	6.1	7.1	–	–	5.4	–	–

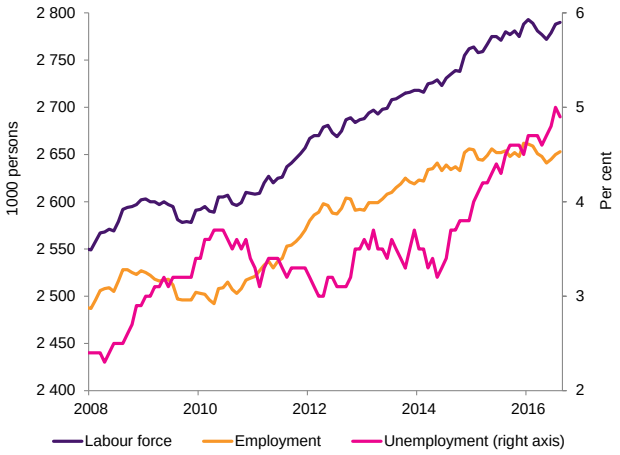
*Preliminary figures. **Norges Bank: exports from Mainland Norway. ***Level in per cent. Sources: Statistics Norway, Norges Bank and Ministry of Finance

1.4 Consumer price index (12-month growth) and key policy interest rate



Sources: Statistics Norway and Norges Bank

1.5 Unemployment, labour force and employment. Seasonally adjusted



Source: Statistics Norway

Bank's regional network confirmed in September the impression of a moderate recovery in business investments.

Stock exchange listed companies' profits fell through 2015, but have risen thus far in 2016. Limited companies reported very low operating margins in 2015. Bankruptcy statistics from Statistics Norway for limited companies show an increase in the number of bankruptcies in the current year to the highest level seen since the financial crisis in 2009. According to Lindorff, the first half of 2016 also saw a marked increase in the number of companies that have a payment default registered against them. See theme chapter II for a closer analysis of the situation for listed companies.

Growth in private consumption is expected to remain moderate ahead (table 1.2). This expectation should be seen in light of low interest rates, which also encourage rapid debt growth among households, along with strong growth in house prices and housing investment. Households' debt burden (debt as a share of disposable income) is now historically high. Due to the very low interest rate level, households' interest burden (interest expenses as a share of income) is nonetheless historically low. Norwegian households' debt burden is also high compared with other OECD countries (chart 1.3). While the debt burden has fallen somewhat in many OECD countries over the past few years, it has continued to rise in the case of Norwegian households. See Theme I for a closer analysis of households' vulnerability in the housing market.

Expansionary fiscal policy has stimulated the economy. In the Fiscal Budget for 2017 the government incorporates a fiscal policy stimulus, measured by changes in the structural, oil-adjusted budget deficit, of 0.4 per cent of value creation in the mainland economy.

Inflation has risen progressively since 2012, and in October this year stood at 3.7 per cent (chart 1.4). Higher prices of imported goods due to the depreciation of the krone in the same period explain much of the rise in the consumer price index (CPI). Statistics Norway, Norges Bank and the Ministry of Finance all expect CPI growth close to 3.5 per cent and a real wage decline of about 1.0 per cent in 2016.

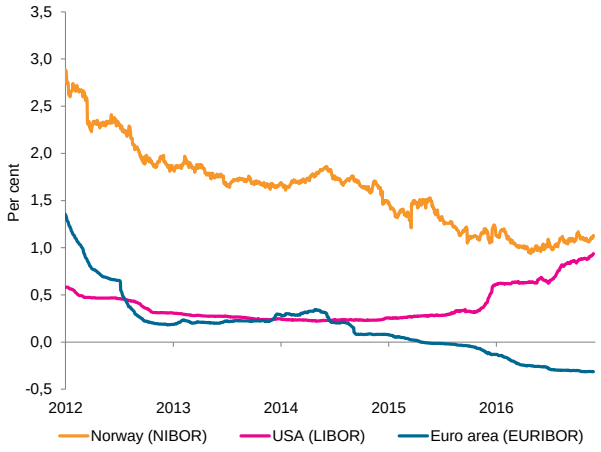
Unemployment has increased as a result of the economic slowdown (chart 1.5). Measured by Statistics Norway's Labour Force Survey (AKU), unemployment was 4.8 per cent in September 2016. The increased unemployment and weak krone exchange rate have contributed to lower net immigration, and thus to a weaker trend in the labour force in recent quarters. Unemployment registered by the Norwegian Labour and Welfare Administration (NAV) stood at 2.8 per cent in October. There are considerable regional differences, which reflect the bifurcation of the Norwegian economy. Registered unemployment was highest in Rogaland (4.4 per cent) and lowest in Hedmark, Oppland, Sogn og Fjordane and Troms (all below 2.0 per cent).

SECURITIES AND FOREIGN EXCHANGE MARKETS

Moderate international growth prospects and expansionary fiscal policy continue to leave their mark on financial markets. While extraordinarily low interest rates support the stock and property markets, weak growth prospects, falling inflationary expectations and increased political uncertainty in many countries pull in the opposite direction.

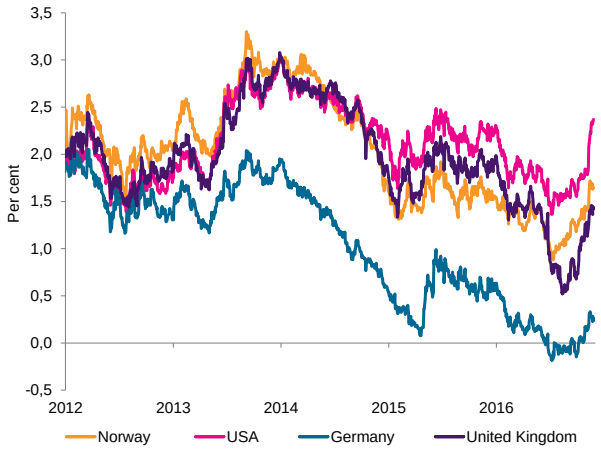
On several occasions in the past year, market turbulence has led to lower share prices and higher risk premiums in the fixed income markets. Brexit triggered hefty market fluctuations accompanied by increased volatility, falling yields on secure government bonds, a weakening of pound sterling and falling share indices in many countries. However, the market turbulence diminished fairly rapidly. Share prices and risk premiums in most international markets, except for UK and European securities, were in mid-July back to the levels in effect prior to the referendum. Brexit prompted increased uncertainty regarding growth prospects in Europe. This strengthened belief that European interest rates would remain low for a long period. On 4 August the Bank of England lowered its base rate to 0.25 per cent, expanded its government bond-buying programme and established a programme for purchase of UK corporate bonds.

1.6 Three-month money market rates



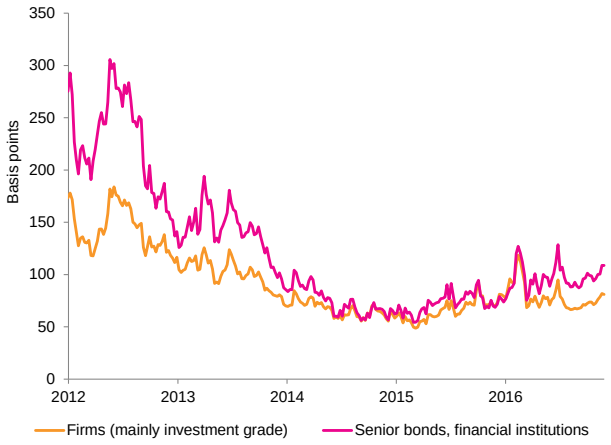
Source: Thomson Reuters Datastream

1.7 Ten-year government bond yields



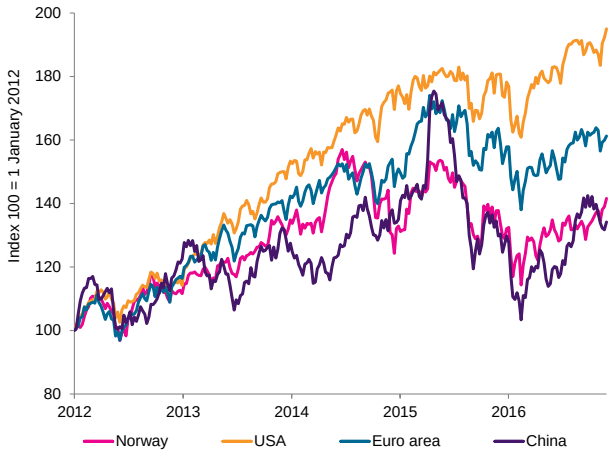
Source: Thomson Reuters Datastream

1.8 CDS prices for European bonds



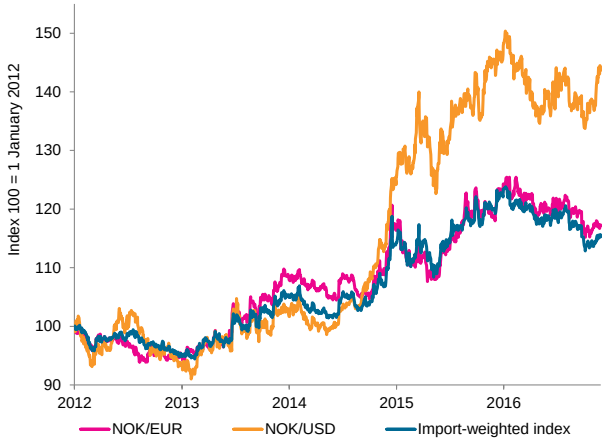
Source: Thomson Reuters Datastream

1.9 Share indices (MSCI, total return)



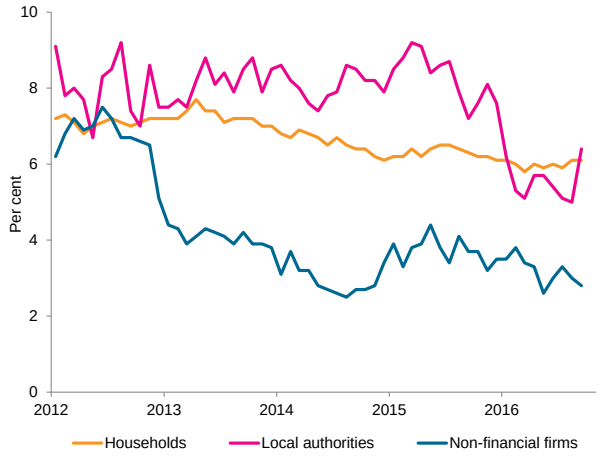
Source: Thomson Reuters Datastream

1.10 Exchange rates



Source: Thomson Reuters Datastream

1.11 Growth in domestic credit to households, non-financial firms and local authorities (C2). 12-month growth



Source: Statistics Norway

Table 1.3 Growth in per cent in prices of existing homes as at October 2016, non-seasonally adjusted figures

Area	12-month growth	So far this year	Last 5 years	Last 10 years
Oslo	21,7	20,8	54,3	89,2
Bergen	4,5	4,9	30,4	57,0
Trondheim	10,1	10,4	36,4	71,0
Stavanger	-3,9	-2,1	-0,9	52,6
Kristiansand	4,1	4,8	7	47,3
Tromsø	7,2	7,5	53,2	63,9
Norway	12,0	12,1	35,1	71,7

Sources: Eiendom Norge, Eiendomsverdi and Finn.no

Short-term money market rates in the euro area have fallen further in 2016 (chart 1.6). US money market rates have risen in the second half-year. Market participants expect the US Federal Reserve to raise its key policy rates in December this year. In Norway money market rates have risen somewhat since the summer. This development should be viewed in light of Norges Bank's upward revision of its forecast for the key policy rate in September.

Long-term government bond rates fell further in the first half of 2016 to record low levels (chart 1.7). This is related to heavy demand for bonds due to central banks' purchases and of life insurers' and pension funds' need for safe, long-term bonds. The bond rate fall is also viewed in relation to the economic uncertainty and increased demand for high-quality securities emanating from the political uncertainty in evidence in many countries. Over the course of summer risk aversion subsided and long-term interest rates rose, and continued to do so through autumn, in particular for US government bonds after the presidential election in the US.

Risk premiums in the credit market, both in the industrialised countries and emerging economies, rose somewhat through 2015 and climbed rapidly at the start of 2016 (chart 1.8). Risk premiums have subsequently declined to around the levels in effect at the start of 2015. Prospects of low interest rates are encouraging search for yield, increased purchases of credit bonds and reduced risk premiums in credit markets. CDS prices of European bank bonds, however, have hovered around a somewhat higher level than through much of 2014 and 2015.

Share markets fell considerably in connection with the market turbulence at the start of the year, but have picked up subsequently (chart 1.9). The turbulence that rose in the aftermath of the Brexit referendum brought a brief fall in share markets, especially in Europe. A higher oil price and prospects of protracted low interest rates may explain part of the increase in share prices through the year. While US share indices have risen to a new peak this autumn, the picture is somewhat weaker for European share indices.

Return on shares quoted on Oslo Børs thus far in 2016 is only just positive.

The Norwegian krone has strengthened by 7 per cent in terms of the import-weighted exchange rate index thus far in 2016. This should be viewed in light of the rise in the oil price. The krone is nonetheless about 13 per cent weaker than at the onset of the oil price fall in summer 2014. The recovery of commodity prices as from February this year has improved the economic situation for commodity producing countries and stimulated capital inflow to a number of emerging economies.

SELECTED MARKETS

The bulk of Norwegian banks' loans to households are secured on residential property. Of loans to corporate borrowers, close to one-half are loans to businesses that manage or invest in commercial property. The two largest banks along with some medium-sized banks also have a relatively large proportion of loans to the shipping industry. Developments in these segments are largely determinative for the level of banks' credit risk.

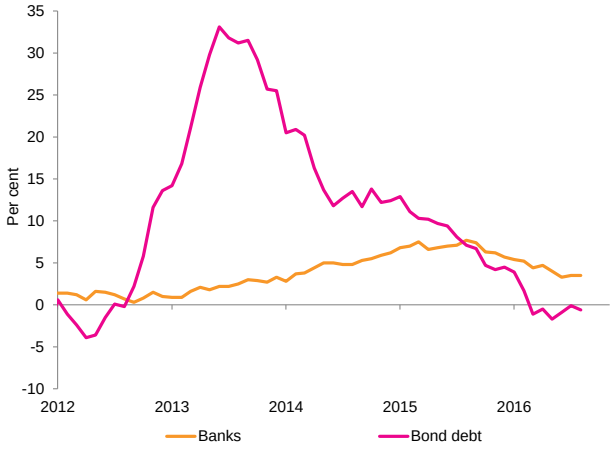
CREDIT AND BOND MARKET

Overall credit growth (C3) has slowed, and twelve-month growth now stands at 4 per cent, somewhat below nominal GDP growth. The oil and shipping industries pulled debt growth down earlier this year, but in recent months growth has picked up somewhat. Debt growth for mainland sectors stands at 4 per cent.

Twelve-month growth in household debt has been about 6 per cent of late (chart 1.11), and continues to outstrip growth in household incomes. Norwegian local authorities have shown high debt growth for a long time. Twelve-month growth has slowed through 2016 and now stands at about 5 per cent.

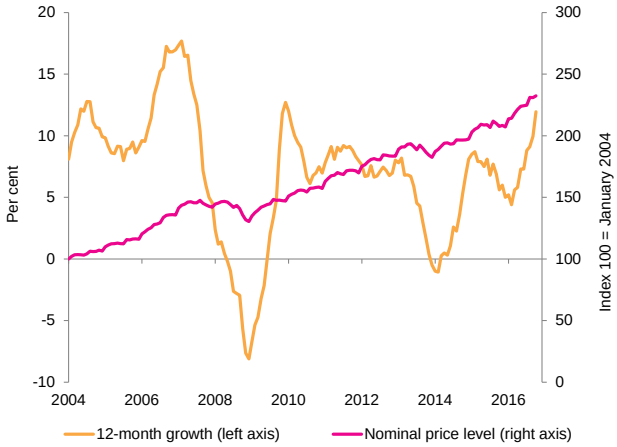
Issue volumes in the Norwegian bond market were high from 2011 to the start of 2015. Through 2015 and thus far in 2016 issue activity has fallen, bringing down outstanding bond debt somewhat in the Norwegian market in the past year (chart 1.12). The Norwegian market for high-yield bonds has effectively been closed for businesses in the seismic, rig and oil service fields since 2014. A high rate of defaults on existing debt and uncertainty regarding ongoing debt restructuring processes are leaving their mark on this market. Market conditions for industrial bonds with a high credit rating are relatively good, but issue volumes have nonetheless been moderate thus far in the current year. This reflects a relatively low level of corporate real investment. Bonds issued by Norwegian local authorities have been the fastest growing segment of Norway's bond market in recent years. The market for covered bonds expanded considerably up to 2013, but outstanding volumes have fallen somewhat since that time. See chapter 2 for a further account of the market for covered bonds.

1.12 Growth in domestic credit (C2) by credit source. 12-month growth



Source: Statistics Norway

1.13 Prices of existing homes, 12-month growth



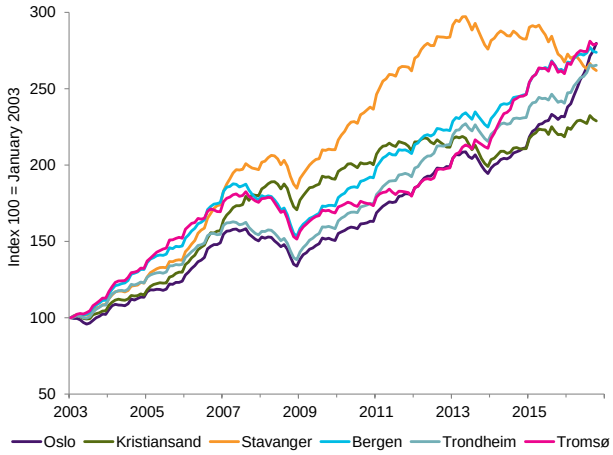
Sources: Eiendom Norge, Eiendomsverdi and Finn.no

HOUSING MARKET

House prices have risen markedly throughout Norway in the past 10 years (table 1.3), and prices are at unprecedentedly high level. Price growth in the housing market has also been strong thus far in 2016. At end-October twelve-month growth was 12 per cent (chart 1.13).

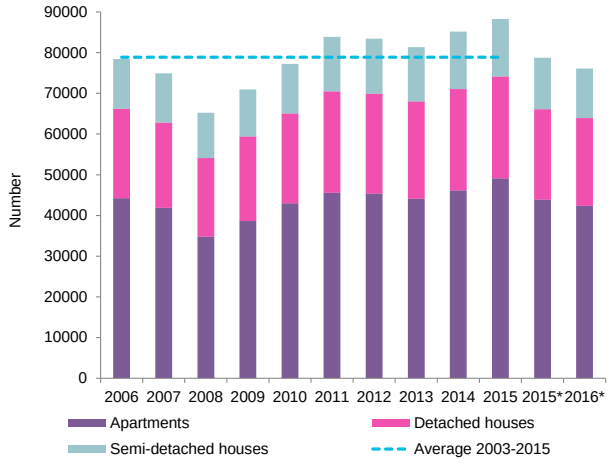
The regional differences are considerable (chart 1.14 and table 1.3). Price growth has been particularly strong in Oslo and south-eastern Norway whereas it has been weaker in Stavanger and the remainder of south-western Norway which have been harder hit by restructuring processes in oil-related industries than other regions.

1.14 Regional prices of existing homes



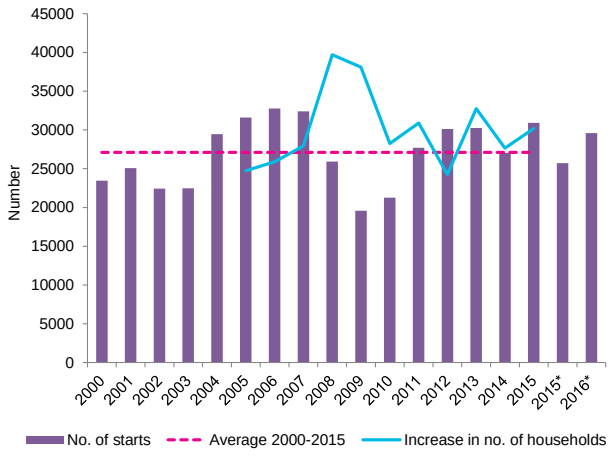
Sources: Eiendom Norge, Eiendomsverdi and Finn.no

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



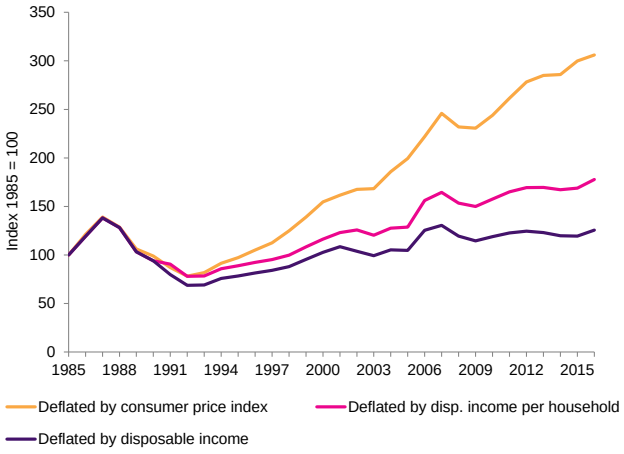
*January through October. Sources: Eiendomsverdi, Eiendom Norge and Finn.no

1.16 Housing starts and growth in number of households



*January through October. Source: Statistics Norway

1.17 House prices with various deflators



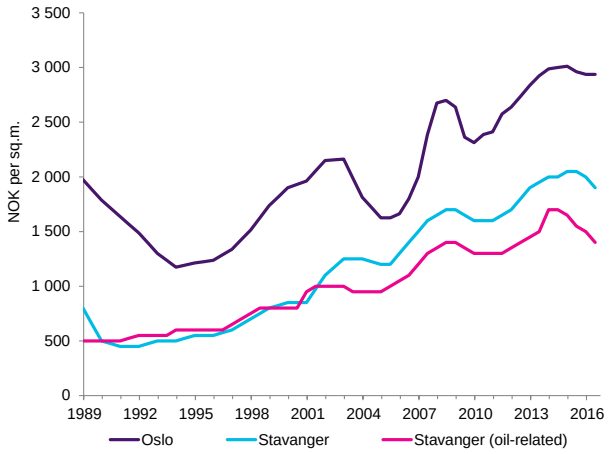
Source: Statistics Norway

Turnover in terms of number of units sold was record high in 2015 (chart 1.15). In the period January to October 2016 turnover was somewhat lower than for the same period of 2015, but was high none the less. Lower turnover compared with 2015 is probably related to a markedly lower offering of existing homes thus far in 2016 compared with previous years. This is particularly true of Oslo. Viewed in isolation, this contributes to increased price pressures in the region. The average selling period has fallen in Oslo thus far this year, whereas it has risen in other large towns. In October it took on average 13 days to sell a house in Oslo and 79 days in Stavanger. The balance between supply and demand appears more balanced in the remainder of the country.

According to the Norwegian Home Builders' Association, sales of new homes rose by 13 per cent in the period January to October 2016 compared with the same period of the previous year. The trend in the market for new dwellings is also reflected in housing construction. Figures from Statistics Norway show a higher number of housing starts in the first ten months of 2016 than in the same period of 2015 (chart 1.16). In recent years the number of housing completions has approximated to the volume of new households at the national level.

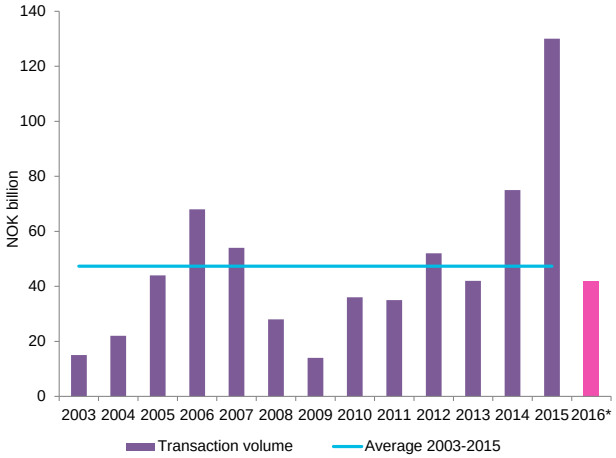
House prices are unprecedentedly high in both nominal and real terms. Several factors have contributed: low unemployment, strong growth in household incomes and historically low interest rates. Low property taxation and strong price growth in recent years have also contributed to increased housing investments. Growth in house prices in the first three quarters of 2016 has outstripped general price growth and growth in households' disposable income (chart 1.17). In regions where unemployment and uncertainty regarding future incomes have increased, house price growth has come to a halt or fallen.

1.18 Office rental prices in Oslo and Stavanger



Sources: Dagens Næringsliv and OPAK

1.19 Transaction volume - commercial property



* Up to and including September 2016 Source: DNB Næringsmegling

COMMERCIAL PROPERTY

Office rental prices in most large towns were unchanged or fell slightly in the first half of 2016. In Oslo rental prices remained unchanged in most areas of the city in the first half-year, and the tendency has continued into the second half-year (chart 1.18). In Stavanger rental prices have shown a further fall, in particular in areas dominated by oil-related business and industry.

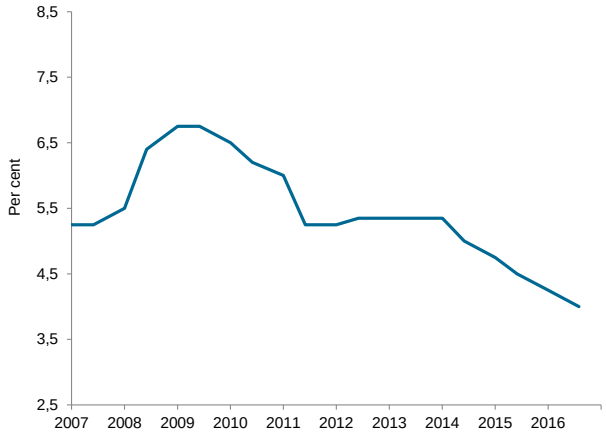
According to DNB Næringsmegling (a commercial property broker), the office vacancy rate in Oslo, Asker and Bærum fell from 8.7 per cent in the first quarter of 2016 to 8.3 per cent at the end of the third quarter of 2016. A low level of building starts along with conversion of commercial premises to dwellings has contributed to this development. However, vacancy rates are still at a high level in historical terms. A relatively low volume of new office space is expected in 2016 and 2017. Conversion of commercial property to dwellings remains high, and will in isolation help to dampen vacancy rates and the fall in rental prices ahead. DNB Næringsmegling expects rental prices in most segments in Oslo to pick up from 2017 onwards, but to pick up the least in areas with an industry structure closely linked to the oil sector. In the other large towns DNB Næringsmegling expects some increase in vacancy rates and a slight fall in rental prices.

The turnover of commercial properties quickened 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 1.19). Low lending rates make it more attractive to invest in commercial property. In addition, foreign investors have purchased commercial properties to a larger degree than previously. According to figures from DNB Næringsmegling, foreign investors accounted for about 35 per cent of the overall transaction value in 2015. As at September 2016 the value of property transactions in excess of NOK 50 million adds up to about NOK 42 billion (chart 1.19). DNB expects a turnover of about NOK 65 billion for 2016. Lower volume than the previous year is explained by reduced activity on the part of international investors and a lower supply of attractive investment objects with a prime location and reliable tenants.

According to DNB Næringsmegling low financing costs and heavy demand for upmarket property have pushed the direct yield (expected rental income relative to purchase price) on office buildings in central locations with long rental contracts in the Oslo area below 4 per cent in the third quarter of 2016. The direct yield on office property of normal standard in Oslo was just over 6 per cent at the same point. 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.

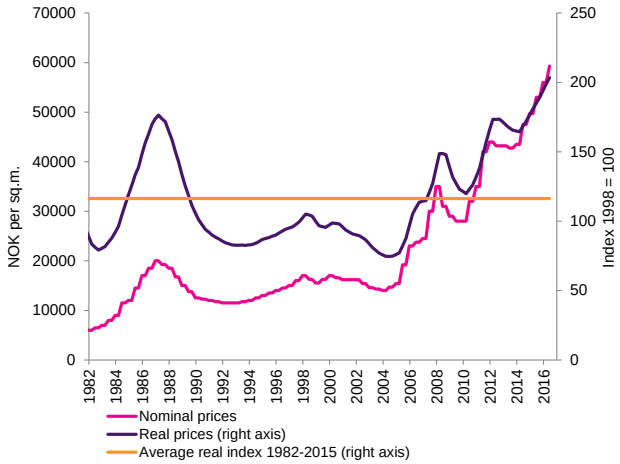
OPAK's estimate of direct yield on upmarket property in Oslo shows the same trend (chart 1.20). The estimated price of office property in central locations in Oslo has risen markedly in 2016, both in nominal terms and deflated by GDP (chart 1.21).

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



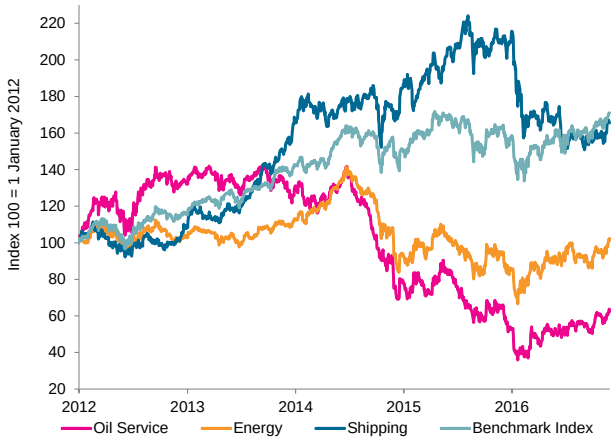
Sources: Dagens Næringsliv and OPAK

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



Sources: OPAK, Statistics Norway and Finanstilsynet

1.22 Share indices, Oslo Børs



Source: Thomson Reuters Datastream

SHIPPING AND OFFSHORE MARKETS

Oil-related parts of shipping and offshore are marked by overcapacity, low rates and poor profitability. Contracting of new ships and rigs has helped to maintain capacity, and in some segments has also increased it. The utilisation ratio for platform supply and anchor handling tug supply vessels dropped further in 2016, to about 60 per cent. More ships have been laid up. Shipyards' order books indicate that capacity could continue to increase, putting further pressure on profits. The oil service index at Oslo Børs has recovered somewhat after the oil price bottomed out in January this year, but is still 50 per cent lower than in the summer of 2014 (chart 1.22).

Many companies have problems servicing debt. The default rate for Norwegian high-yield loans to the energy sector rose strongly in 2016 and in October stood at 35 per cent, which is higher than during the financial crisis. Restructuring processes involving banks, bondholders and owners have proved to be complicated and protracted. This generates lasting high uncertainty for investors and lenders and weakens the scope for new borrowing.

Traditional shipping has for several years been marked by low freight rates and weak profits. A high rate of ship newbuilds over several years has led to a relatively young fleet in many segments. Continued high shipyard order books will continue to put pressure on freight rates and profits. Downward revision of growth prospects for the world economy pulls in the direction of lower growth in world trade and poorer market conditions for ships. The restructuring in China towards a more consumption-driven economy will likely continue to curb demand for coal and other commodities.

RISK FACTORS

In the past half-year the risk of a negative development in the world economy in the short term has receded. This is down to government measures which have dampened the immediate risk of a sharp slowdown in China, while higher commodity prices have improved prospects in many emerging economies. However, uncertainty is high in the medium term. A number of countries' economies are still affected by the aftermath of the financial crisis, and debt levels in both the private and public sector are high. Weak government finances in many countries make it difficult to implement measures capable of contributing to increased growth, and the space for monetary policy action is limited. While low interest rates and search for yield are stimulating share and property markets, low economic growth and substantial uncertainty regarding developments in the medium term pull in the opposite direction. In such a situation, increased uncertainty could prompt investors to revise their preferred portfolio composition, leading to instability in capital markets. This has happened on several

occasions in recent years. Such turbulence could gain significance for Norwegian banks' liquidity and funding.

Increased political polarisation and expectations of more protectionism contribute to the uncertainty regarding prospects for world trade and economic growth. The United Kingdom is the EU's second largest economy, and the country's decision to leave the union surprised the markets. How the decision will impact on the United Kingdom and the EU remains highly uncertain. The presidential election result in the US has compounded the uncertainty regarding the growth picture for the world economy ahead, and could affect the Norwegian economy through international trade, commodity prices and the situation in the financial markets. Geopolitical developments are now a bigger risk factor for the Norwegian economy.

The expansionary monetary policy in the euro area has contributed to low market interest rates. Despite quantitative easing in monetary policy and negative deposit rates at the ECB, inflation in the euro area remains low. The low economic growth combined with weak price growth makes it difficult for debt-burdened countries to reduce their debt. The prospect of protracted low growth and low interest rates among some of Norway's main trading partners is a risk factor for Norway's real economy and financial industry.

Economic developments in Norway are marked by the challenges facing the oil sector and oil-related industries. In southern and western Norway some sectors aside from the petroleum industry have been hit by the oil price fall, but the effect on the overall mainland (non-oil) economy is so far moderate. The depreciation of the krone in the wake of the oil price fall has improved Norwegian export enterprises' competitive power, and provided impetus to the mainland economy. The negative spillover effects may however become larger if the oil price remains low and the adjustment of the economy drags on. The oil price has risen somewhat from the low level seen at the start of 2016. This has contributed to some strengthening of the krone exchange rate, impacting negatively on exports. Uncertainty on both the supply and demand side is affecting the oil market. Forward prices indicate a moderate rise in price in the period to end-2019. A new fall in oil prices can however not be ruled out, which would be a risk factor for the Norwegian economy in the foreseeable future.

Norwegian household debt has risen faster than household incomes for a long period, and the debt burden is at an historically high level. Real after-tax interest rates on residential mortgages are negative. This, together with expectations of low interest rates for a long period ahead, is a spur to high debt growth among Norwegian households. Rapid house price growth, combined with the low interest rate level, is stimulating debt financing of consumption and investments. Given the unprecedentedly high debt level, households' vulnerability to a lapse of income and higher interest expenses is particularly high. The longer the accumulation of debt lasts, the greater the potential fall in the Norwegian economy.

House prices are historically high, and past experience shows that a price fall coming after a large rise in prices is likely to be substantial. A house price fall can be triggered both by change of sentiment in the housing market and by consolidation in the household sector prompted by an interest rate hike or income lapse. Higher unemployment, in particular in the oil sector where wage levels are high, has already contributed to reduced wage growth. At the same time, the weakening of the krone has contributed to higher inflation. Overall, this dampens households' purchasing power, bringing a weaker trend in consumption than would otherwise have been the case. A low interest burden pulls in the opposite direction. Should house prices fall, the negative impact will be augmented. If the fall in oil-related industries provides stronger negative spillover effects than those seen hitherto, households' finances will be impaired. Households' adjustment to harder times represents a major uncertain factor in the Norwegian economy. Norges Bank's loan survey in the third quarter of 2016 suggests that household demand for residential mortgages has been higher in the last two quarters than the banks expected. A high debt level and household debt growth that continues to outstrip growth in household incomes represent a significant risk to financial stability in Norway. The spillover effects to Norwegian business and industry could be substantial if households are compelled to reduce consumption and housing investments in order to service their debt.

CHAPTER 2 BANKS

The economic challenges to petroleum-related industries have led to a marked increase in banks' overall loan losses in recent quarters, from a low level. Although most medium-sized and small banks have not seen a strong increase in the level of losses, substantial write-downs at some of the larger banks have considerably diminished profits for banks overall. Continued low activity levels in oil-related sectors in the next few years may subject banks to further heavy losses on problem exposures. Banks have devoted good results in recent years to building solid financial positions. Continued moderate dividend policies will put the banks in a position to strengthen their financial positions further in 2016 despite higher loan losses.

Banks have in recent years benefited from increasing their funding through covered bonds, but heavy dependence on this source of funding could render banks vulnerable to a setback in the housing market.

PROFITABILITY

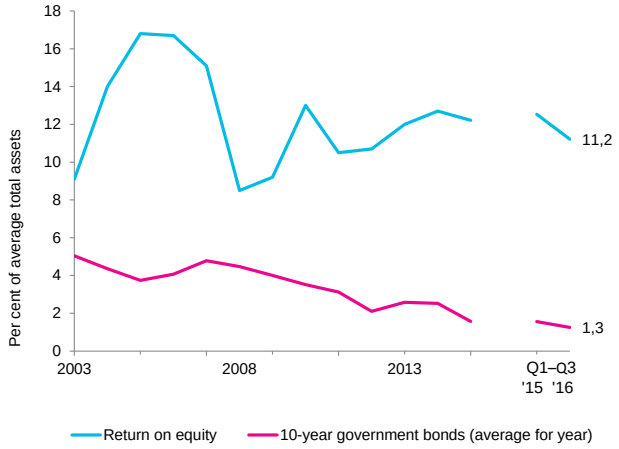
The slowdown in the Norwegian economy after the oil price fall as from summer 2014 brought only a slight reduction in banks' profits in the following year. Thus far in 2016 the challenges in particular facing oil-related industries have had larger negative effects on banks' overall earnings (chart 2.1). Results after nine months were nevertheless still good, with a return on equity of 11 per cent (chart 2.2). Lower profits were mainly down to a substantial increase in loan losses at some of the larger banks, largely driven by write-downs on loans to oil-related industries. Low loan losses are a key reason for Norwegian banks' good results since the international financial crisis. After nine months of 2016, however, losses (annualised) have risen to 0.4 per cent of loans, the highest level since 2009. It is the large banks that have substantial, direct exposures to oil activities, and these banks have taken the heaviest losses so far this year. Medium-sized and small banks have a far lower loss level, and show only a weak increase in losses compared with preceding years. For 2016 most banks' financial results reflect large gains on disposals of ownership interests in Visa Europe. Without this gain, banks' overall return on equity would have been about one percentage point lower.

Norwegian banks' main source of income is net interest income (the difference between interest income and interest expenses). When corrected for the fact that banks that transfer loans to group-owned covered-bond-issuing entities largely recognise income from these loans as commission income instead of interest income, net interest

2.1 Pre-tax profit and loan losses

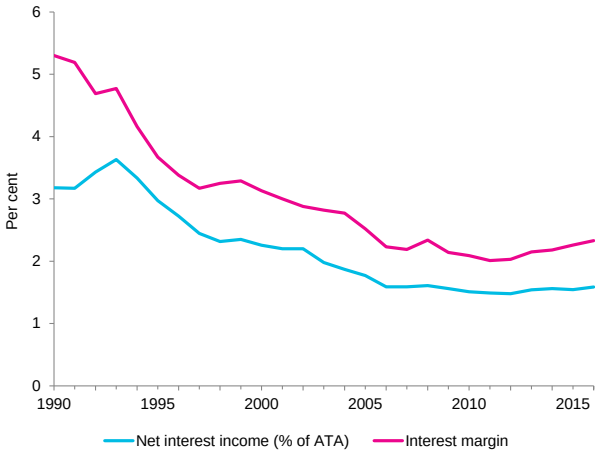
Source: Finanstilsynet

2.2 Return on equity



Sources: Finanstilsynet and Norges Bank (government bond yield)

2.3 Net interest income and interest margin



Source: Finanstilsynet

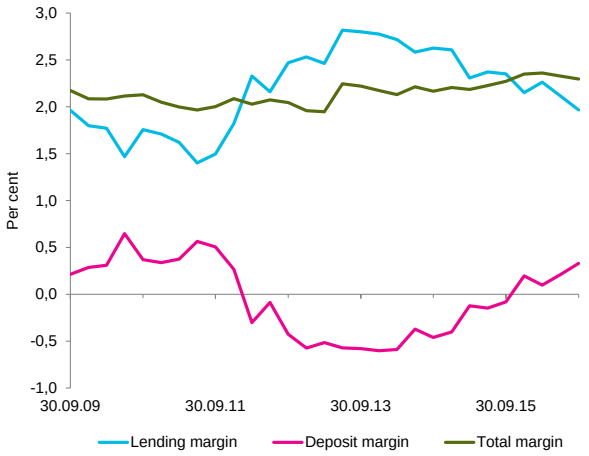
income accounts for just over 70 per cent of overall operating income. This share has been relatively stable in recent years. A long period of falling interest margins, and falling net interest income relative to total assets, levelled out in about 2010, and the banks have seen a slight increase in their interest margin in recent years (chart 2.3).

Inasmuch as the business of Norwegian banks focuses largely on traditional loan and deposit products, banks' earnings are highly sensitive to the trend in interest margins. Intense competition for borrowers has led to heavy pressure on margins in the last three years. The average lending margin, calculated as the difference between the lending rate and the three-month money market rate, has fallen by 0.8 percentage point in the period, and was at its lowest level since 2011. The interest margin on loans to corporate borrowers was virtually identical to the margin on loans to personal borrowers in 2013 and 2014, despite the higher risk traditionally associated with corporate loans as opposed to personal loans. After a considerably larger reduction in the lending rate to personal borrowers than to corporate borrowers over the past year, the margin difference between the two customer groups was about 45 basis points at end-September. For loans to corporates, the average lending rate tends to be higher at small banks than at large banks. Part of the reason for the difference in average rate is that small customers tend to be more resource-demanding than large customers and that the credit risk attending loans to small businesses may be higher than in the case of large companies. Further, competitive intensity in geographically small markets may be lower than in larger regions, partly as a result of informational advantages of local presence, which may enable small banks to charge higher interest on their loans. Differences in funding costs between large and small banks also influence the pricing of loans.

As shown in chart 2.4, the pressure on loan margins in recent quarters has in part been offset by improved deposit margins. Between 2012 and the end of the third quarter of 2015 the deposit margin was negative, i.e. deposit rates were higher than the money market rate. Keen competition for depositors' funds contributed to the negative deposit margins. Prospects of a long lasting low interest rate level could put pressure on banks' earnings on deposits ahead, since any further lowering of rates on customer deposits from an already very low level presents a challenge.

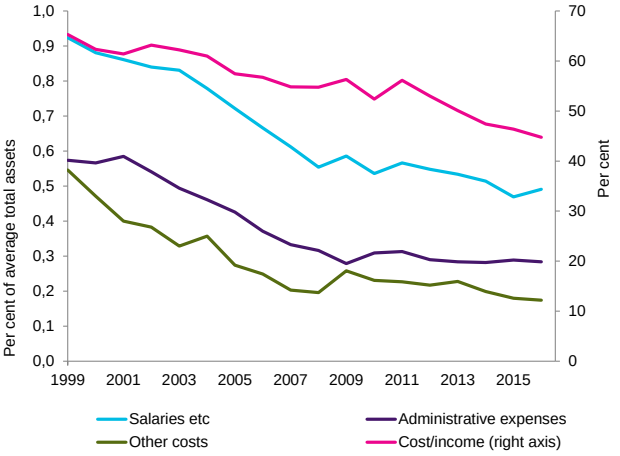
The fact that banks' net interest income has held up relatively well in recent years, despite the pressure on lending rates, is largely explained by the considerable fall in average funding costs in the period. One reason for this is that securities loans have been refinanced at lower interest; see chart 2.16 for the trend in risk premiums on senior and covered bond debt. Interest on customer deposits has concurrently been reduced. Banks' interest expenses, for all

2.4 Interest margin in Norwegian banks



Sources: Finanstilsynet and Oslo Børs (for reference interest rate)

2.5 Operating expenses



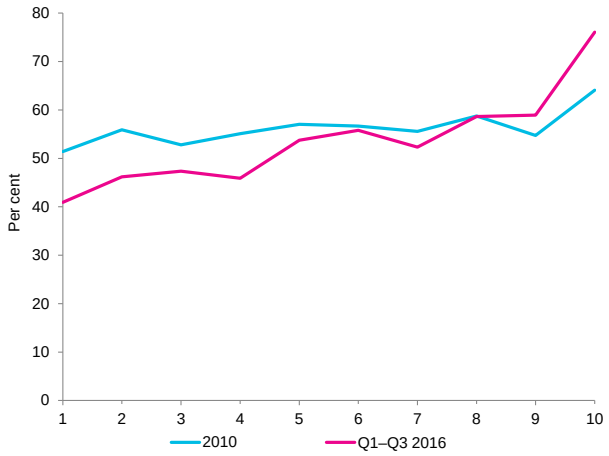
Source: Finanstilsynet

interest-bearing liabilities as a whole, have accordingly fallen steeply in recent years, at the same time as business volumes have increased.

Prospects of a lengthy period of abnormally low interest rates, which may put pressure on net interest income, could heighten the significance of other income sources at banks. Technological development, with greater emphasis on self-service for simple bank products, could also prompt changes in banks' income structure ahead. Banks may also see an incentive to take higher risks on lending, both through increased sales of unsecured loans to personal borrowers, and by redirecting lending to corporates towards riskier projects.

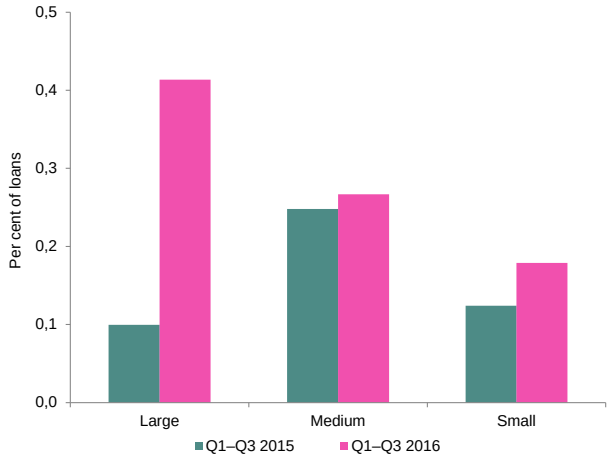
Several decades of falling net interest income relative to total assets have not led to lower profits among the banks, largely thanks to improved cost effectiveness in the industry. As shown by chart 2.5, all larger expense items have fallen considerably over the period. In the last few

2.6 Average cost level in banks by size, per decile



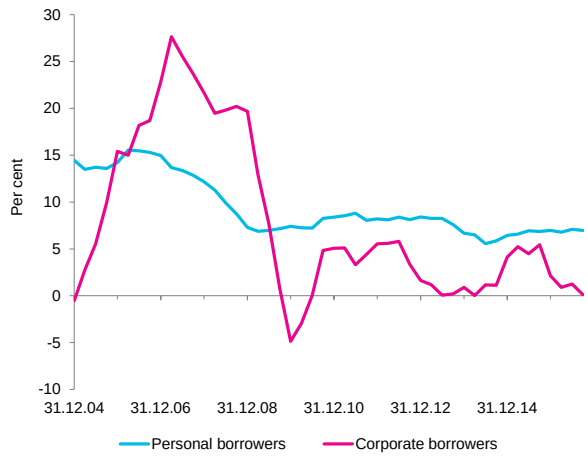
Source: Finanstilsynet

2.7 Loan losses in groups of banks



Large: the eight largest banks. Medium: other banks with total assets above NOK 10 billion. Small: banks with total assets below NOK 10 billion

2.8 Growth in lending to personal and corporate borrowers



Source: Finanstilsynet

years wage expenses in particular have fallen relative to business volume, largely because technological progress has enabled substantially higher productivity. Banks' overall expenses relative to income have fallen from 65 per cent at the turn of the millennium to 46 per cent as at end-September 2016. There are nonetheless wide differences in cost level between banks, not least between banks of differing size. The difference in cost level between large and small banks has risen markedly in the past six years. Chart 2.6, in which banks are grouped by declining size, shows that whereas the smallest banks' average cost level has risen since 2010, larger banks' cost level is far lower than previously. One reason for this development may be many small banks' emphasis on a business model based on a local, physical presence, which entails higher costs.

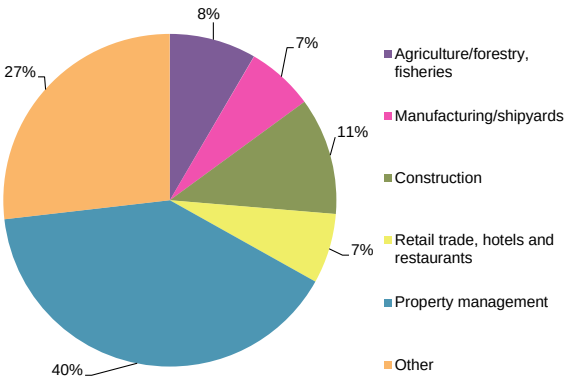
For Norwegian banks overall, loan losses for the period 2010-2015 amounted to a mere 0.2 per cent of gross outstanding loans, despite the fact that some small banks had to take substantial loan losses in the period. The challenges to the oil and offshore industries have brought a marked increase in loan losses associated with exposures to such customers in 2016. The problems in these industries have nonetheless not resulted in a substantial increase in losses on loans to other sectors. Neither has high unemployment brought increased losses on loans to personal borrowers. Total loan losses after the first nine months were about three times higher than one year previously, corresponding to almost 0.4 per cent of outstanding loans (annualised). Losses have in particular risen for the largest banks (chart 2.7). The Norwegian economy faces low to moderate growth in the years immediately ahead. The economic problems in oil and offshore – industries in great need of restructuring and consolidation – can be expected to result in the recognition of further sizeable losses on such exposures. A prudent valuation of collateral values and borrowers' creditworthiness is crucial to maintaining confidence in the banks' financial statements.

CREDIT RISK

Loans to customers account for close to three quarters of Norwegian banks' aggregate total assets. Credit risk developments are thus crucial for banks' profitability and soundness. An increase in loss levels of 10 basis points relative to loan volume will reduce overall return on equity for the banks collectively by almost 1 percentage point, all else unchanged.

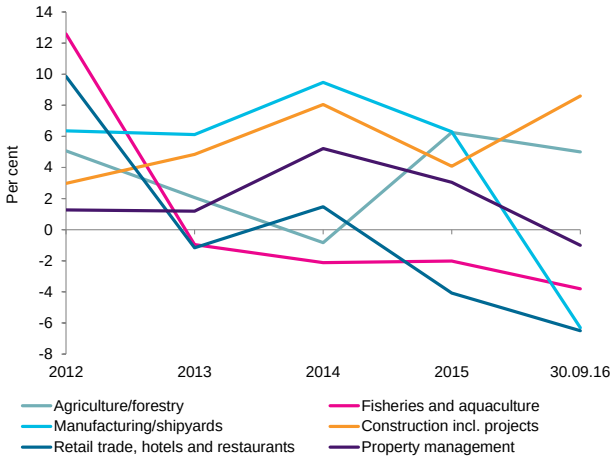
Growth in lending by Norwegian banks was 2.9 per cent at the end of September 2016. Since 2007 growth in lending to personal borrowers in particular has been high, whereas growth in lending to domestic corporates has been moderate since 2009 (chart 2.8). Foreign banks' branches in

2.9 Lending to domestic firms



Source: Finanstilsynet

2.10 Growth in lending to domestic sectors



Source: Finanstilsynet

Norway have increased their lending considerably in recent years, both to personal and corporate borrowers. Total growth to domestic corporates, including foreign branches, came to 2.7 per cent at the end of September, a decline of some 5 percentage points from one year previously. Total growth in lending to personal borrowers was 7.2 per cent, after a decline of about half a percentage point in the previous year.

Lending to personal borrowers accounts for the clearly largest portion of banks' loan portfolio, at more than 56 per cent. Due to lower growth in lending to domestic corporates over the past six years, this customer group's share has fallen to just over a quarter of the banks' total outstanding loans. The distinctly largest industry in most banks' corporate portfolios is property management, at about 40 per cent for the banks as a whole (chart 2.9). Most Norwegian banks will therefore be vulnerable to a setback in this segment. In the past two years banks have reduced growth in lending to property management to a slightly negative 12-month figure at the end of the first nine months of 2016 (chart 2.10). Lending to manufacturing and shipyards has been reduced by 6 per cent in the past year, of which loans to shipyards in isolation shows a negative growth of 8 per cent. Lending to building and construction, including development of building projects, has maintained rapid growth in recent years, with a growth rate close to 9 per cent at the end of September.

Survey of exposure to offshore companies in five Norwegian banks

Finanstilsynet carried out in the second quarter of 2016 a thematic survey of five Norwegian banks focusing on the offshore sector with a basis in the banks' exposures as at 31 March 2016; see the account in Risk Outlook 2016.

Based on the size of the banks' impairment write-downs at the end of the first quarter of 2016, the extensive restructuring processes and refinancing that had been initiated by that point, and the assumption of bleak prospects for the platform supply and rig segments in the short and medium term, Finanstilsynet expected an increase in impairment write-downs.

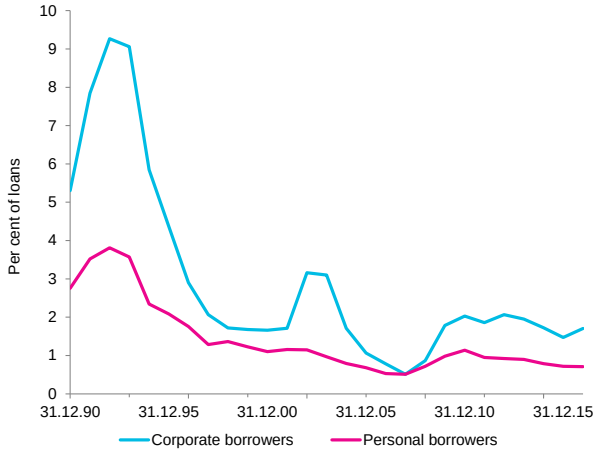
Finanstilsynet has reviewed and updated the position as at 30 September 2016, showing a marked increase in write-downs since the survey was conducted.

At the end of the first nine months of 2016, overall exposure to the offshore sector totals NOK 87 billion (measured by exposure at default, EAD), a reduction of NOK 4 billion since the end of the first quarter of 2016. This accounts for 6 per cent of banks' aggregate exposure to corporate borrowers.

The exposure breaks down to NOK 22 billion on rigs and NOK 65 billion on the platform supply sector.

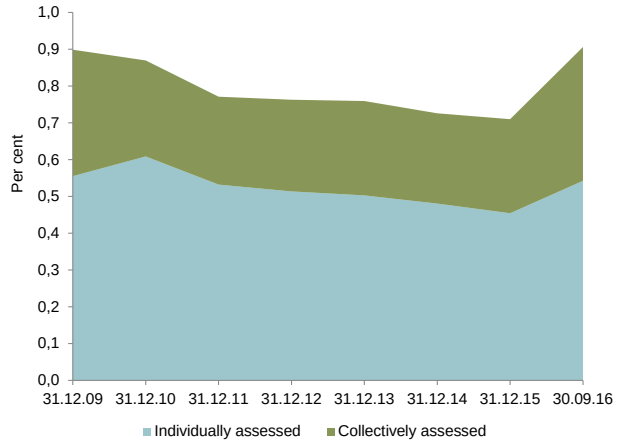
At the end of the first nine months of 2016, overall write-downs were NOK 5.3 billion, an increase of NOK 3.2 billion since the end of the first quarter of 2016. Overall write-downs account for 6.1 per cent of the total exposure to platform supply and rig companies compared with 2.3 per cent as at 31 March 2016.

2.11 Non-performing loans to domestic borrowers, up to 30.09.16



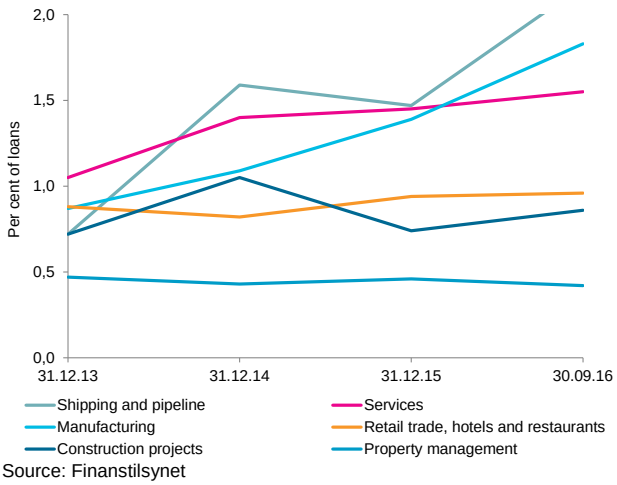
*The definition of non-performance was changed as from 31.12.2009 to include exposures more than 30 days past due date/overdraft date. The previous criterion was 90 days. The figures are for banks in Norway.
Source: Finanstilsynet

2.12 Loan write-downs



Source: Finanstilsynet

2.13 Individually assessed, accumulated, write-downs on business loans



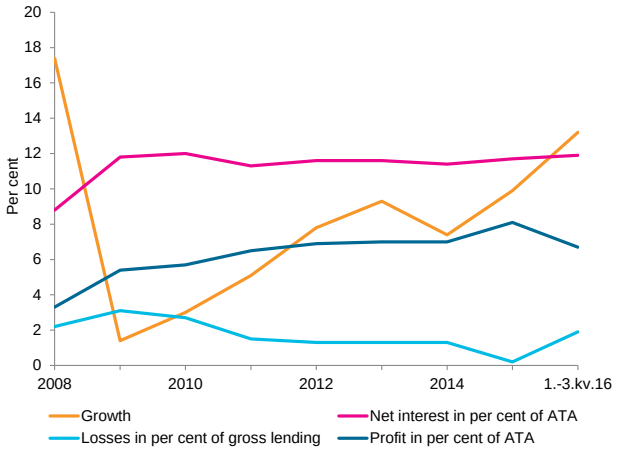
Source: Finanstilsynet

The level of non-performing exposures in the banks' portfolios has been low for a long period, and on a slightly falling tendency in the period 2010-2015. In recent quarters the trend has reversed, with a moderate increase in the volume of non-performing exposures. As shown by chart 2.11, non-performance is higher on loans to domestic corporates, at 1.7 per cent of overall loans, which explains the increase. Exposures not in default, but which banks have written down on an individually assessed basis, have increased considerably in recent quarters. Total problem exposures to corporates – the sum of non-performing and other problem exposures – came to 3.1 per cent of outstanding loans compared with 2.2 per cent at the end of last year. Non-performing exposures to personal borrowers show approximately no change in the past year. The banks have made individually assessed write-downs corresponding to 26 per cent of the volume of non-performing and other problem exposures.

The declining level of non-performance among Norwegian banks since 2010 has been reflected in the level of accumulated write-downs, which fell each year up to 2015. In the current year, on the other hand, both individually assessed and collectively assessed write-downs have risen substantially (chart 2.12). By the end of September 2016, individually assessed write-downs corresponded to 0.5 per cent of overall lending volume, while collectively assessed write-downs measured 0.4 per cent.

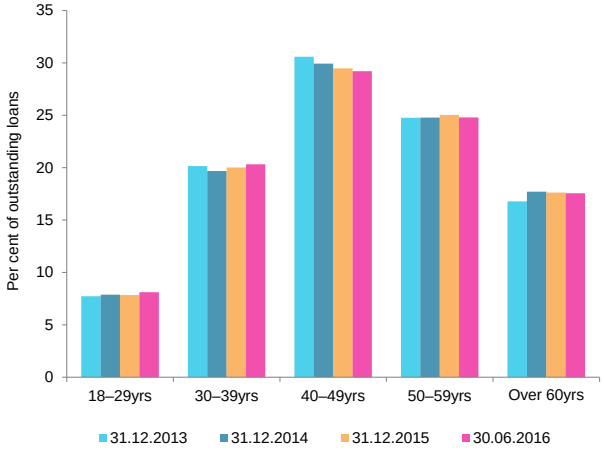
Individually assessed write-downs on loans to domestic corporates have risen somewhat in the past two years, but were still at a moderate level at the end of the first half of 2016. Write-downs on loans to property management, the largest industry in the banks' portfolios, have been stable and low in recent years. The most marked increase in write-downs has been for loans to the following industries: shipping and pipeline transport, manufacturing, and services provision (chart 2.13). There are considerable differences in the trend in write-downs from one group of banks to the next. The largest banks in particular have increased their write-downs substantially in the latest period. The smallest banks still show a falling level of write-downs on the larger industries in the portfolio, apart from a weak increase in write-downs on loans to agriculture and forestry. The challenges to oil-related industries have caused many entities to initiate restructuring processes, which also often involve the lenders. Forbearance measures, even temporary, can be an instrument suited to resolving a borrower's financial problems. It is nonetheless crucial that banks make prudent assessments of problem exposures, which must also include any need for write-downs.

2.14 Consumer lending at a selection of entities



Source: Finanstilsynet

2.15 Consumer loans by age group



Source: Finanstilsynet

CONSUMER LOANS

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

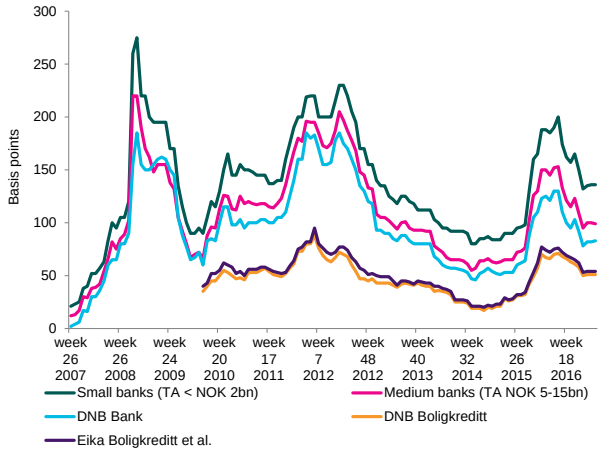
The volume of consumer borrowing is relatively small, at about 3 per cent of households' overall borrowings at the end of the first half of 2016. While consumer loans make up a small proportion of households overall loans, they can inflict heavy burdens on individuals. It is important that lenders do 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.

The Ministry of Children and Equality circulated for comment on 15 October 2016 a law proposal on the registration of individuals' debt (Debt Register Bill) with the deadline for response set at 6 December 2016. Information on unsecured credits, such as credit card debt and consumer loans, is to be recorded in a debt register. In the longer term the scheme may be expanded to include other types of debt, for example residential mortgages. The purpose of the act is to set the stage for more precise creditworthiness assessments in financial institutions and to help to ensure that fewer households run into debt problems. The Government plans to submit a debt register bill to the Storting (parliament) in spring 2017 with a view to putting the register in place in autumn 2017.

Consumer loans are now marketed on a large scale. Active marketing may contribute to vulnerable groups taking out loans that they subsequently have problems servicing. To help insure that borrowers receive good, neutral information on costs and other aspects of a credit agreement, the Consumer Ombudsman has proposed new regulations on the marketing of credit. The proposal prohibits the signing of a credit agreement as a condition for achieving better terms on other purchase agreements, prohibits credit marketing that directly targets consumers for example by means of addressed advertising mail and telephone sales, and prohibits marketing focusing on the speed of the lender's response and the ready availability of the money. The Ministry of Children and Equality recently received a report clarifying the legal basis for a potential ban on direct marketing of consumer loans. In its consultation document on the Debt Register Act the Ministry states its view that regulation of the marketing of consumer loans should be a supplement, and not an alternative, to the debt information register.

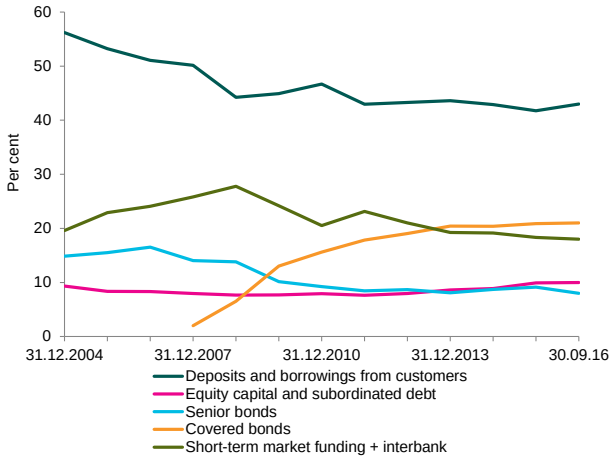
Finanstilsynet established in circular 10/2016 tighter guidelines for invoicing credit cards: the amount field on the customer's bill must now show the overall credit outstanding, and the credit limit must not be increased unless the customer so requests. Finanstilsynet carried out a survey in October 2016 to verify whether the entities concerned have come into line with the guidelines. The survey showed that many entities still omit to invoice overall outstanding credit, although most are now compliant with the other guidelines. Finanstilsynet, on commission from the Ministry of Finance, has drafted regulatory provisions on credit card invoicing based on Finanstilsynet's guidelines.

2.16 DNB Markets' indicative premiums for senior bonds and covered bonds against three-month NIBOR, 5-year. Weekly observations. Up to and incl. week 46/2016



Source: DNB Markets

2.17 Funding sources, banks and covered-bond-issuing entities



Source: Finanstilsynet

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 households from this selection of entities totalled about NOK 86 billion at the end of the third quarter of 2016.

Growth in recent years has been higher than general growth in credit to personal borrowers. At the end of the third quarter of 2016 twelve-month growth in the Norwegian market was 13.2 per cent, which was a clear increase on the previous year (chart 2.14). Some entities also focus on the foreign market. Net interest income on consumer loans has since 2009 been well over 10 per cent of average total assets, indicating that these entities factor in the higher risk posed by consumer loans. Profit in the first to third quarter of 2016 was somewhat weaker than the previous year measured in relation to ATA. This is due to an increase in book losses. In addition, results in 2015 reflected the reversal of an earlier loss on a portfolio disposal.

Little consumer lending goes to the under-30s. The share of consumer loans to this group was just under 8 per cent at the end of the first half of 2016, and has been relatively stable at this level in recent years (chart 2.15). Borrowers in the age group 40-49 accounted for the largest share of consumer loans at close to 30 per cent. More than half of consumer loans went to borrowers between age 40 and 60.

LIQUIDITY RISK

One of the banks' main tasks is to convert short-term funding to long-term loans to customers. The difference in term between funding and lending means that banks assume a risk in meeting their ongoing refinancing needs in the money and capital markets. 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.

Covered bonds, issued against a cover pool of residential mortgage loans, make up an ever increasing proportion of Norwegian banks' liquidity reserve and market funding. Covered bonds are regarded as a reliable and stable source of funding, and their emergence has been favourable for Norwegian banks. However, growing dependence on covered bonds could entail higher risk. Banks' funding risk is to a greater degree than previously linked to the trend in the housing market, and a large holding of covered bonds in banks' liquidity reserve increases the interconnectedness between market participants since they hold each other's covered bonds. This increases the risk of problems at one participant spreading to other participants.

THE SITUATION IN MONEY AND CAPITAL MARKETS

Conditions in the money and capital markets have in general been good thus far in 2016. After some turbulence and increased risk premiums at the start of the year, risk premiums fell back during the first quarter, especially in the case of senior bonds.

In the second quarter the referendum in the United Kingdom on continued EU membership generated some turbulence both before, and not least after, the result became clear. However, the markets rapidly recovered, and risk premiums fell anew, stabilising during the third quarter (chart 2.16). Norwegian money market rates, Nibor, rose slightly thus far in the second half-year; see chapter 1.

BANKS' FUNDING STRUCTURE

Bank funding consists mainly of customer deposits and borrowings in the money and capital markets.

The international financial crisis in autumn 2008 demonstrated that a general crisis of confidence and great uncertainty can cause money and capital markets to cease functioning in periods. Customer deposits have proven to be a relatively stable source of funding, also in periods of market turbulence.

Deposits and deposit-to-loan ratio

Customer deposits made up 43 per cent of overall funding at the end of the third quarter of 2016, a slight increase compared with the end of the third quarter of 2015 (chart 2.17). Customer deposits rose by 2.7 per cent in the twelve months to date. Medium-sized and small banks reported particularly high deposit growth of 7 and 8 per cent respectively, while large banks saw an increase of 1 per cent in deposits. The high deposit growth for medium-sized and small banks is partly due to those banks whose main business is consumer lending. They offer markedly higher deposit rates than other banks and accordingly attract new deposit customers.

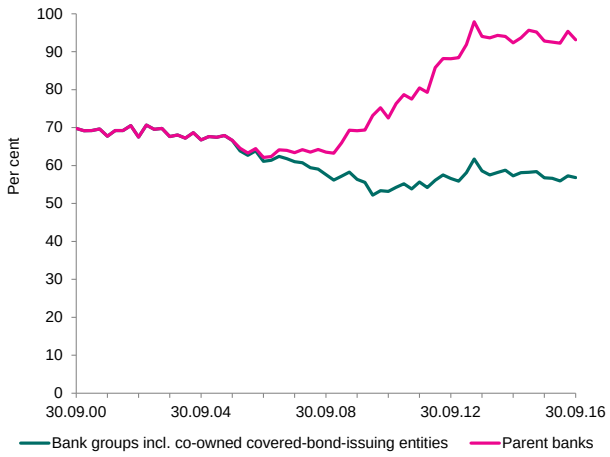
The deposit-to-loan ratio (deposits in per cent of loans) at Norwegian parent banks rose markedly from 2009 to 2013 as a result of transfers of loans from banks to residential mortgage institutions, but has levelled off in the last few years. The deposit-to-loan ratio was 93 per cent at the end of the third quarter of 2016, the same as one year previously. When loans residing in wholly and jointly owned covered-bond-issuing enterprises are included, the deposit to loan ratio was 57 per cent (chart 2.18).

Market funding

Banks' market funding consists of senior bonds, covered bonds and short-term market funding, including commercial paper and interbank debt. Market funding as a share of banks' total funding has been stable at just under 50 per cent in recent years. Covered bonds make up the largest element of banks' market funding, and the share rose slightly in the year to date. The share of short-term market funding declined slightly while the figure for senior bonds remained stable.

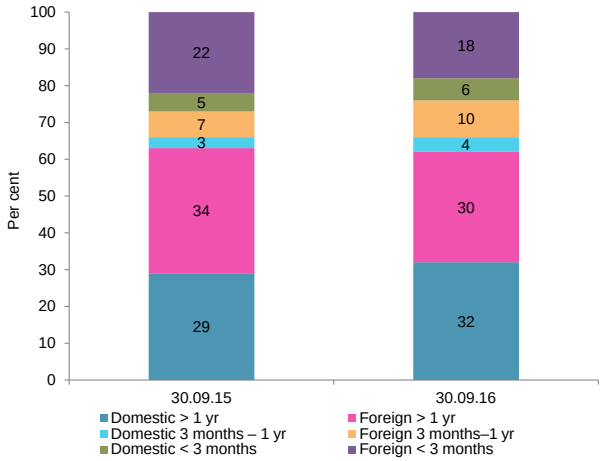
More than 60 per cent of banks' market funding consists of borrowings from abroad. A substantial portion of this has a term below three months, making Norwegian banks vulnerable to international turbulence. The share of short-term funding from foreign sources has however declined in the past year (chart 2.19). The decline is mainly ascribable to a reduction in commercial paper debt from such sources.

2.18 Deposit-to-loan ratio



Source: Finanstilsynet

2.19 Market funding, banks and covered-bond-issuing entities at 30.09.15 and 30.09.16

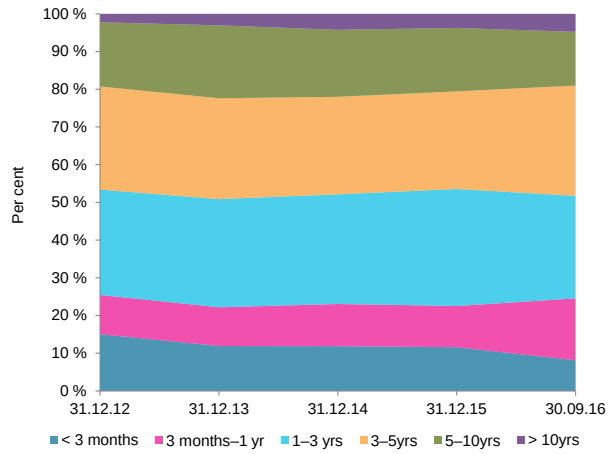


Source: Finanstilsynet

Funding with a term above one year makes up the largest share of market funding. This share has been relatively stable in recent years. The share of foreign funding with a term above one year has fallen compared with the end of the third quarter of 2015 due to a reduction of bond debt to foreign sources, while the share of Norwegian funding with a term above one year has risen (chart 2.19). A high proportion of long-term funding makes banks more robust to market turbulence.

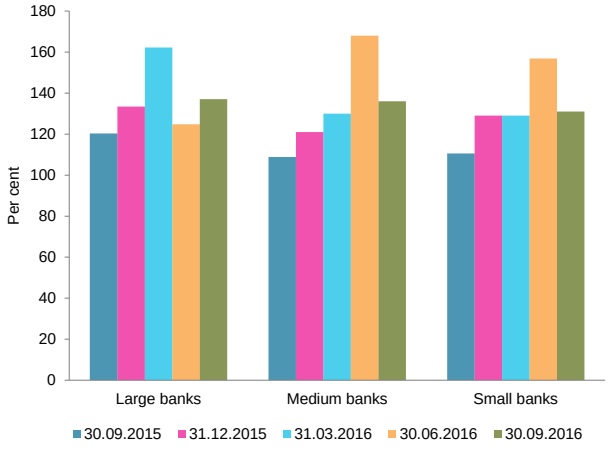
The term on banks' commercial paper debt and bond debt has been relatively stable in recent years. The bulk of the bond debt has a residual term of 1 to 5 years (chart 2.20).

2.20 Residual maturity of commercial paper and bonds, banks and covered-bond-issuing entities



Source: Finanstilsynet

2.21 Total LCR, weighted average



Source: Finanstilsynet

While the rising share of covered bonds in banks' market funding can help to increase the maturity of banks' funding, the latter's increased dependence on covered bonds could also pose a risk. Banks' funding risk is to a larger degree than previously associated with developments in the housing market. A hefty house price fall could lead to increased funding challenges for banks related to covered bonds. In the event of a house price fall, the value of the cover pool will be reduced, and banks will need to replenish the cover pool in order to remain compliant with the asset coverage requirement[1] for the outstanding covered bonds and to remain compliant with the rating agencies' requirement of excess asset coverage. The legislation governing covered bond issuing enterprises, including the 75 per cent cap on maximum loan-to-value ratios for residential mortgages eligible for use as collateral, is aimed at reducing this risk. At the end of the first half of 2016 the average loan-to-value ratio on mortgages included in the cover pool ranged from 42 to 57 per cent for the five largest covered-bond-issuing entities. Many banks have made residential mortgages ready for rapid transfer to residential mortgage companies for issuance of new covered bonds when needed. A house price fall could make investors more sceptical to covered bonds as an investment medium, which may make it difficult for banks to exploit this potential for new covered bond issues.

[1] The value of the cover pool shall at all times exceed the value of bonds with a preferential claim over the cover pool. See the new Financial Institutions Act section 11-11subsection (1).

LIQUIDITY RESERVE

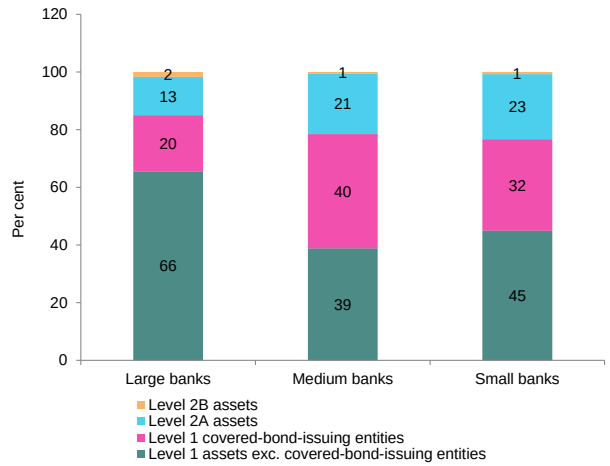
The liquidity reserve, LCR, measures the size of banks' liquid assets as a ratio of net liquidity outflow 30 days ahead in time, given a stressed situation. The Ministry of Finance adopted on 25 November 2015 rules implementing requirements on liquidity reserves for Norwegian banks, mortgage companies and financial holding companies in groups that are not insurance groups. The rules entered into force on 31 December 2015. As of 30 September 2016 the minimum requirement on liquidity reserves for banks and mortgage companies was 70 per cent. Entities defined as systemically important under regulations on identifying systemically important financial institutions, and such institutions' subsidiaries, had a minimum requirement of 100 per cent.

The total LCR for banks (bank groups) overall was 137 per cent at the end of the third quarter of 2016. The group comprising large banks had an LCR of 137 per cent, while the medium-sized and small banks had an LCR of 136 and 131 per cent respectively. The large banks increased their LCR in the last quarter while the medium-sized and small banks recorded a decline in their LCR. The LCR is liable to vary widely from one period to the next as a result of payments and receipts connected to derivatives, securities debt falling due and surplus liquidity being deposited with other banks. All bank groups have shown an increase in their LCR compared with the end of the third quarter last year (chart 2.21).

Covered bonds make up about 30 per cent of Norwegian banks' liquidity reserve all told. Medium-sized and small banks hold a particularly large proportion of covered bonds, about 50 per cent, in their liquidity reserve.

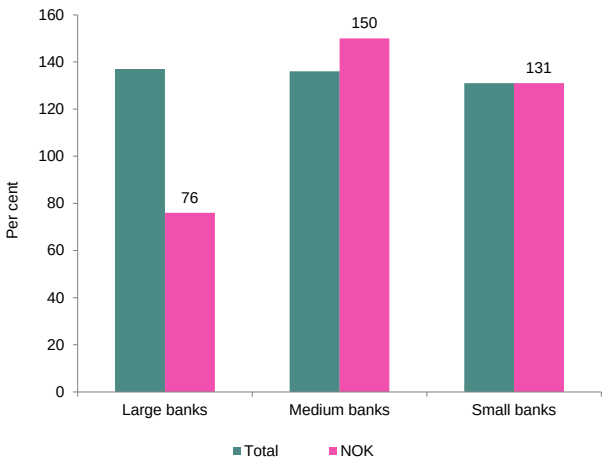
A large holding of covered bonds in the banks' liquidity reserve increases the interconnectedness between market participants via cross-holdings of such bonds. This increases the risk of problems at one entity spreading to others. The fact that many banks maintain a large holding of covered bonds could also create problems in a situation in which all are in need of liquidity and wish to sell covered bonds.

2.22 Composition of the liquidity reserve, LCR, at 30.06.2016



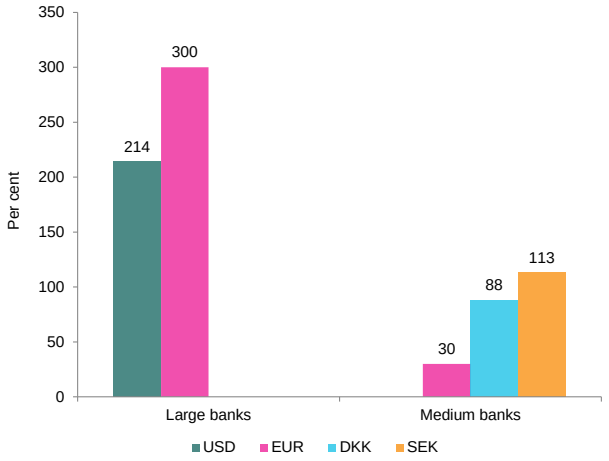
Source: Finanstilsynet

2.23 Total LCR and LCR in NOK, weighted average, at 30.09.2016



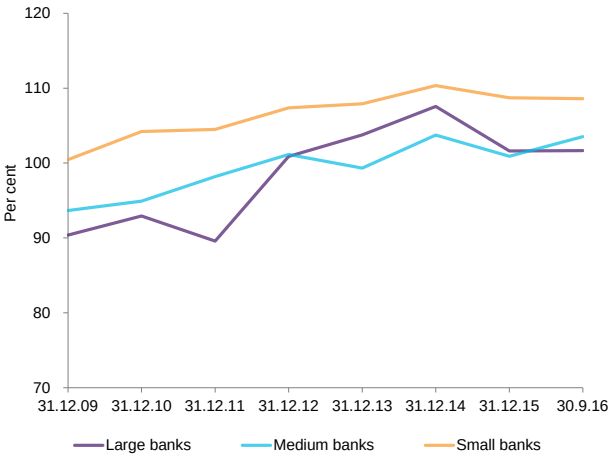
Source: Finanstilsynet

2.24 LCR in significant currencies other than NOK at 30.09.2016



Source: Finanstilsynet

2.25 Liquidity indicator 1, Norwegian banks



Source: Finanstilsynet

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. The NOK LCR was 86 per cent for the banks as a whole at the end of the third quarter of 2016, up from 57 per cent at the end of last year's third quarter. The large banks hold sizeable liquidity reserves in significant currencies[2] other than Norwegian kroner, mainly the US dollar and the euro, which pushes up the total LCR. The medium-sized banks hold smaller liquidity reserves in other significant currencies, and the NOK LCR is accordingly identical to total LCR for those banks (charts 2.23 and 2.24).

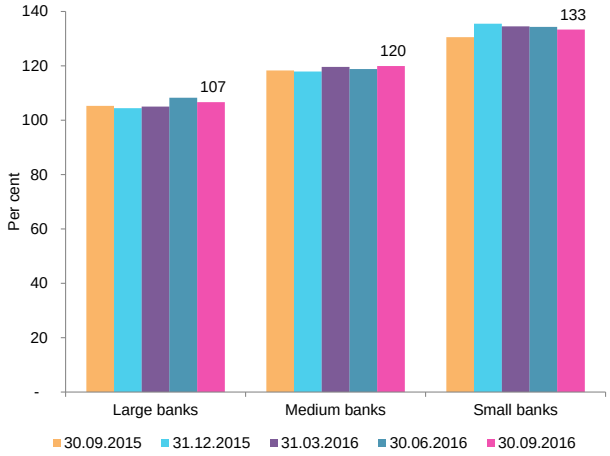
Under EU legislation on the LCR, an entity is required to hold liquid assets corresponding to its net liquidity outflow in its significant currencies. There is no requirement of an absolute match between net liquidity outflow and liquid assets in the individual currencies. Supervisory authorities may however require entities to limit mismatch in a given currency by setting limits on the size of net liquidity outflow that can be covered by liquid assets in another currency. When the Ministry of Finance established a minimum LCR requirement at total level in November 2015, Finanstilsynet was concurrently asked to consider LCR requirements in significant currencies, including Norwegian kroner, by the end of August 2016. See chapter 4 for further details.

STABLE FUNDING

A high proportion of short-term market funding could weaken banks' ability to handle periods of market turbulence and reduced access to new funding in the money and capital markets. Finanstilsynet uses a range of indicators to assess banks' maturity structure. Liquidity indicator 1 is used to monitor banks' liquidity risk and shows banks' funding with residual maturity above one year

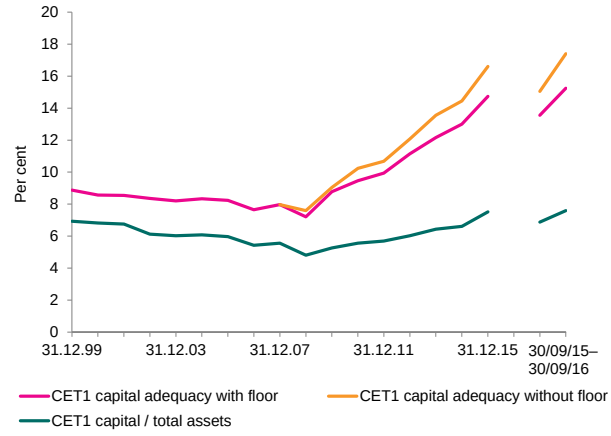
[2] Liabilities in a currency accounting for more than 5 per cent of en entity's total debt.

2.26 Total NSFR, weighted average



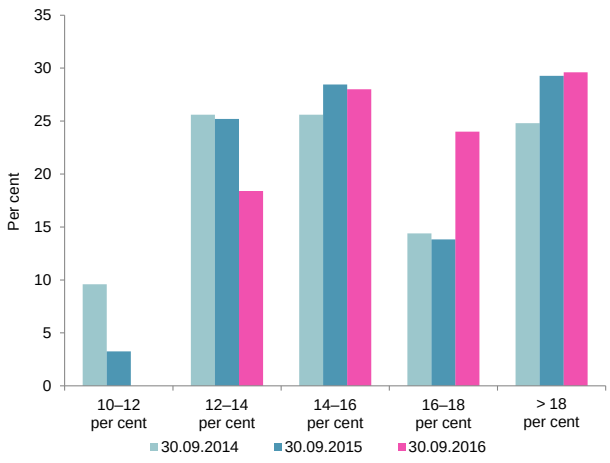
Source: Finanstilsynet

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



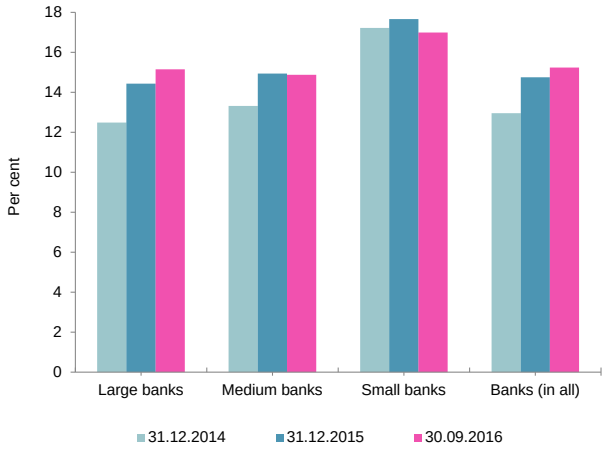
Source: Finanstilsynet

2.28 Share of banks in CET1 ratio intervals



Source: Finanstilsynet

2.29 CET1 capital adequacy in Norwegian banks/banking groups



Source: Finanstilsynet

as a share of illiquid assets with residual maturity above one year. 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, ownership interests and encumbered securities. While the liquidity indicator fell somewhat in 2015, it has risen for all groups since 2009 (chart 2.25). This development is due to the increasing share of own funds in banks' balance sheets. In addition, debt to credit institutions has increased along with bond issues with a term above one year.

The Net Stable Funding Ratio (NSFR) is reported to the authorities under CRD IV / CRR and measures banks' available stable funding relative to required stable funding. The NSFR has yet to acquire its final definition, but the EU Commission is expected to produce a closer definition of the NSFR by the end of 2016. Until a closer definition is available from the EU the indicator is calculated on the basis of the Basel Committee's final recommendations from October 2014. Available stable funding relative to required stable funding has risen over the past year (chart 2.26). Large banks' NSFR is consistently lower than that of medium-sized and smaller banks. This is partly because the largest banks have a larger share of market funding than the medium-sized and smaller banks which to a larger degree fund their lending out of their customer deposit base. The NSFR and liquidity indicator 1 share a number of similarities even though liquidity indicator 1 does not include stress factors related to items requiring stable funding or haircuts on stable funding, in contrast to the NSFR.

FINANCIAL SOUNDNESS

Banks' aggregate common equity tier 1 (CET1) capital adequacy has risen steadily in recent years (chart 2.27). Overall minimum and buffer requirements rose in the

second quarter of 2016[3] to 13.5 per cent for systemically important financial institutions (SIFIs) and 11.5 per cent for other banks. As from 1 October 2016 the countercyclical buffer rate will be recognised across the EEA and elsewhere. This will impact overall Pillar 1 requirements for banks with exposures in other countries; see the description of amendments to regulations on the countercyclical buffer in chapter 4. In parallel with the increased requirements, the banks' overall CET1 capital ratio rose to 15.2 per cent at the end of the third quarter of 2016, up 1.6 percentage points compared with the end of the third quarter of last year. Recent years have seen an increase in the CET1 capital ratio of most banks (chart 2.28). At the end of the third quarter of 2016 the majority of banks were at a level in excess of 16 per cent.

CET1 capital adequacy has traditionally been lower among large banks than among medium-sized and smaller banks. However, at the end of the third quarter of 2016 CET1 levels among the large and medium-sized banks were approximately identical, while smaller banks showed the highest CET1 capital adequacy. The marginal overall increase in CET1 capital adequacy since the turn of the year is partially explained by the fact that only a minority of Norwegian banks include a positive interim profit in their quarterly measurement of capital adequacy. A positive profit performance can only be included provided it is auditor approved, and developments since the turn of the year should be seen in this light. Given growth, risk weighted assets will increase in the course of the year and, in isolation, weaken CET1 capital adequacy.

The gap between aggregate total assets and aggregate risk weighted assets has widened each year since 2003, and is continuing to widen (chart 2.30). The widening gap is partially explained by the introduction of internal models and lower risk weights under the standardised approach through Basel II. The growth in exposures with lower risk weightings, such as residential mortgages, has in the past seven years outstripped the growth in exposures with higher risk weightings (chart 2.8), and this also contributes to a wider gap between total assets and risk weighted assets.

The leverage ratio (CET1 capital relative to total assets) was 7.6 per cent at the end of the third quarter of 2016. Compared with CET1 capital adequacy, the leverage ratio has risen moderately in recent years (chart 2.27). The widening difference between these measures is a direct effect of the widening gap between risk-weighted assets and total assets as illustrated in chart 2.30.

[3] The new buffer requirements on CET1 capital adequacy for SIFIs and other banks entered into force on 1 July and 30 June respectively.

2.30 Risk weighted assets and total assets in Norwegian banks/banking groups

Source: Finanstilsynet

Preliminary summary of the SREP process

SREP process

Finanstilsynet has planned to assess in the course of 2016 risks and capital needs (SREP – Supervisory Review and Evaluation Process) at a selection of institutions, viz.:

- three systemically important institutions
- large regional institutions
- a selection of small and medium-sized institutions with CET1 ratios below 15 per cent at the end of the third quarter of 2015

Other institutions will be reviewed in 2017 and 2018. For banks with subsidiaries in other EEA countries or that form part of a group domiciled in another EEA country, the SREP feedback will be rooted in a Joint Decision arrived at by the supervisory colleges concerned.

As at 25 November 2016 Finanstilsynet had communicated its review of risk and capital needs to 28 institutions. After considering comments from the institutions, Finanstilsynet communicates its final decision on Pillar 2 requirements to the institutions by letter.

On 25 October Finanstilsynet communicated its decisions on Pillar 2 requirements for the three systemically important institutions in Norway – DNB, Nordea Bank Norway and Kommunalbanken. As at 25 November, decisions have been communicated to a further 18 institutions, including the largest regional institutions, along with a selection of other regional and local entities. All decisions are published on Finanstilsynet's website. Institutions can appeal against

decisions within three weeks of receipt. Any appeal is to be directed to Finanstilsynet. The appeal body is the Ministry of Finance.

Review of risks and capital needs

Finanstilsynet's reviews of risks and capital needs have started out from the institutions' own capital need assessments (ICAAP). Finanstilsynet has made discretionary overall reviews supported by measurement methods developed for credit and concentration risk and various types of market risk. Information and analysis drawn from on-site inspections also informs the basis for the assessments. The Pillar 2 requirement must be met by CET1 capital.

All systemically important institutions have received a Pillar 2 requirement of 1.5 per cent, but based on somewhat differing risk factors in each case. The requirement for DNB relates mainly to credit risk, market risk in banking portfolios and operational risk. The Pillar 2 requirement for Nordea Bank Norway is based on assessments of concentration risk in the credit area, market risk in banking portfolios, operational risk and risk posed by the bank's pension arrangements for its own employees. For Kommunalbanken the Pillar 2 requirement relates specifically to market risk in the liquidity portfolio, in particular to spread risk.

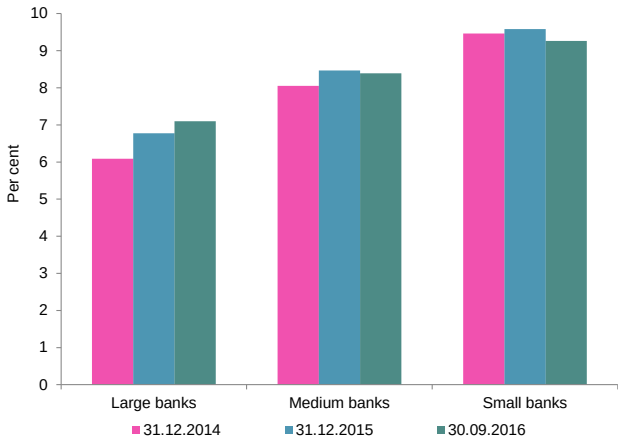
In the case of the regional institutions, concentration risk in the credit portfolio (by sector and single name) and market risk in the banking portfolios are the predominant risk areas and, for single names, risk associated with the business model and risk and capital needs at jointly owned companies. A number of entities in this group have also received Pillar 2 requirements for operational risk over and above the Pillar 1 requirement.

For those institutions thus far considered in group 3 and 4, concentration risk in the credit portfolio (single names and sector) are an important part of the rationale for the Pillar 2 requirement, while risk in the credit portfolio and market risk in the banking portfolio and operational risk are also important factors.

Review of need for margin above the overall capital requirement

Finanstilsynet expects institutions to adjust their capitalisation in such a way as to ensure an ample margin above the overall CET1 capital requirement. The board of directors of the institution should give due weight to the latitude needed to maintain normal lending activity in periods of downturn and for capitalisation to support access to capital markets under difficult market conditions. In its final letters communicating decisions on Pillar 2 requirements, Finanstilsynet also gives its assessment of the need for margin in the form of CET1 capital that should be maintained by the institution over and above the overall requirement on CET1 capital.

2.31 Leverage ratio



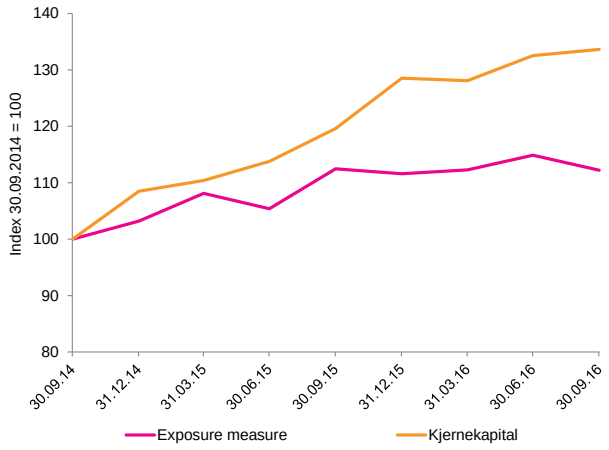
Source: Finanstilsynet

LEVERAGE RATIO

Since the financial crisis, assessments of institutions' financial soundness have given greater weight to leverage ratios. Experience gained from the financial crisis showed that also institutions that could point to a high risk-weighted capital adequacy ratio could encounter problems due to excessive debt finance. A capital adequacy requirement on a non-risk-weighted basis would have limited the build-up of banks' debt finance. The Basel Committee has accordingly recommended a minimum leverage ratio requirement of 3 per cent. The EBA endorsed this proposal in August, and recommends its implementation in EU legislation with effect from 1 January 2018. 'Leverage ratio' denotes the ratio of tier 1 capital to a measure of non-risk-weighted assets that includes both on- and off-balance sheets items (exposure measure). The value of off-balance sheet items is adjusted based on the likelihood of their being recognised in the balance sheet at a later stage. Finanstilsynet, on commission from the Ministry of Finance, has recommended that if a national leverage ratio requirement is implemented before such a requirement is implemented in EU legislation, it should as a main rule be 6 per cent.

Compared with other European banks, Norwegian banks have a relatively high leverage ratio. For Norwegian banks overall, this stands at 7.4 per cent. Smaller banks consistently maintain a higher leverage ratio than larger banks (chart 2.31). Banks' recapitalisation through profit retention in recent years has contributed to a higher leverage ratio. The exposure measure has also risen in the

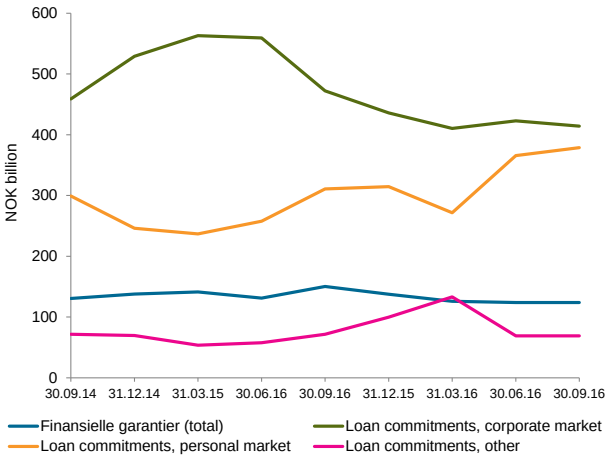
2.32 Tier 1 capital and exposure measure



Source: Finanstilsynet

period, but by a smaller margin in percentage terms than tier 1 capital (chart 2.32). Like banks, mortgage companies have also increased their leverage ratio. These institutions have, as mentioned, an atypical business model which on the asset side is largely limited to exposures in the form of residential or municipal loans. This result in low risk weighting, and, by the same token, a low volume of risk weighted assets. As a result these entities have – for a given capital adequacy ratio – a lower leverage ratio than banks with higher risk weighting. Despite this, all Norwegian covered-bond-issuing entities have a leverage ratio above 3 per cent, which is the requirement that the EBA recommends should be implemented in EU legislation. Where mortgage companies are concerned Finanstilsynet recommends a 3 per cent requirement, citing these institutions' business model.

2.33 Nominal value (before conversion factor) of Norwegian banking groups' off-balance sheet items



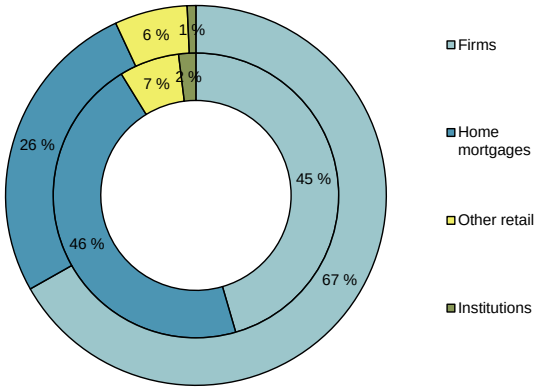
Source: Finanstilsynet

Decomposition of off-balance sheet items in the exposure measure

For banks as a whole, off-balance sheet items account for just under 10 per cent of the exposure measure. As mentioned, conversion factors are applied to these items, entailing that their nominal value is far higher than the value included in the calculation of the exposure measure. Off-balance sheet items consist inter alia of loan commitments, guarantees, credit derivatives and transferred assets included in repurchase agreements. For a selection of (the largest) banks Finanstilsynet has detailed information on-balance sheet items[4]. For these banks overall, the nominal value of off-balance sheet items relative to total assets is about 20 per cent. As shown by chart 2.33, Norwegian banks' loan commitments to corporate borrowers and personal borrowers are the most important off-balance sheet items. Guarantees make up a small portion of off-balance sheet exposures. The clearest development over the past year is that loan commitments to personal borrowers in the period have risen at the same time as loan commitments to corporate borrowers have fallen. A possible reason for the fall in commitments to corporates is that drawings made on a number of the commitments have entered the banks' balance sheet, or that commitments have been terminated.

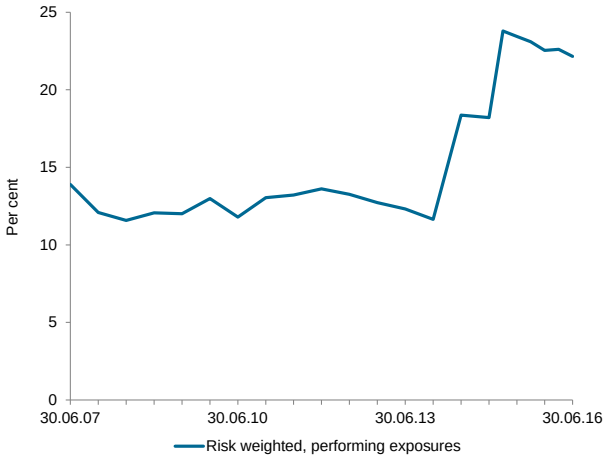
[4] Financial Reporting (FINREP) under CRD IV breaks down information on banks' loan commitments and guarantees by sector. 25 banks report FINREP, and these reporting entities' combined total assets account for about 85 per cent of the overall total.

2.34 Distribution of exposure amounts (inner circle) and risk-weighted assets (outer circle) by category. IRB portfolios as at 2nd quarter 2016



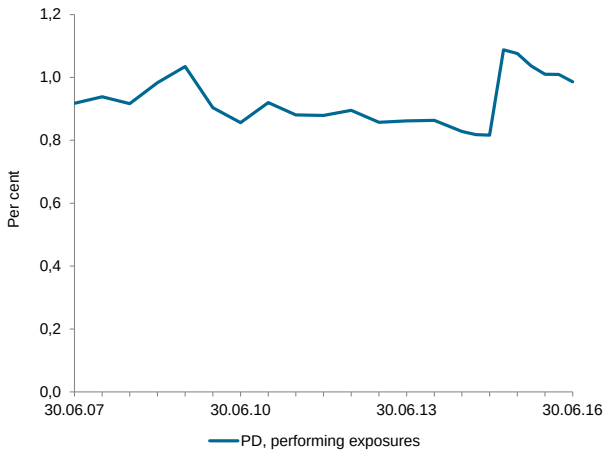
Source: Finanstilsynet

2.35 Risk weight for retail portfolios, performing exposures



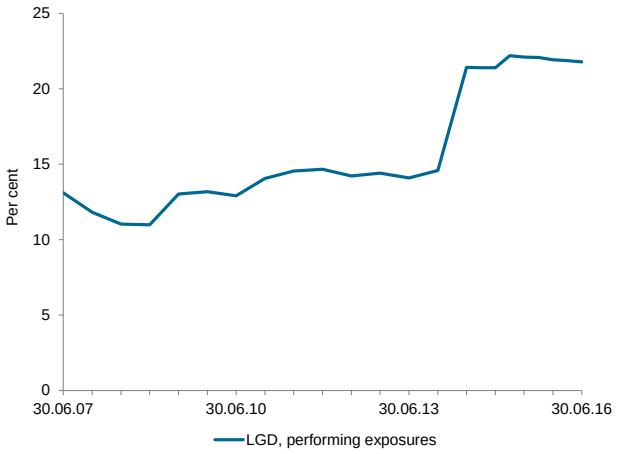
Source: Finanstilsynet

2.36 PD for retail portfolios, performing exposures



Source: Finanstilsynet

2.37 LGD for retail portfolios, performing exposures



Source: Finanstilsynet

IRB MODELS

Eleven Norwegian banks use internal models (IRB) to compute capital charges for credit risk for the bulk of their portfolios. Other banks use the standardised approach for credit risk under which the risk weights are 100 and 35 per cent for business loans and well secured residential mortgages respectively. The average risk weight measured by the IRB banks' residential mortgage models was 20 per cent at the end of the second quarter of 2016. The average risk weight for corporate exposures measured by IRB was 48 per cent. However, in capital requirement calculations, non-risk-weighted assets for IRB banks cannot be lower than 80 per cent of risk-weighted assets under the previous capital adequacy regime (Basel I floor). Risk weighted assets will accordingly be higher for IRB banks than indicated directly by the models. The floor is binding for nine banks.

Corporate exposures account for two-thirds of the overall risk-weighted assets, but for only 45 per cent of banks' overall exposures (chart 2.34). For residential exposures the picture is almost the reverse. At 46 per cent of banks' overall exposures, residential exposures account for a mere 26 per cent of overall risk weighted assets. Other retail items include loans to certain small entities and loans other than residential mortgages to private individuals, such as car loans and consumer loans.

Since the minimum value for loss given default for residential mortgage models was raised from 10 to 20 per cent at portfolio level (LGD floor) in 2014, along with further model tightening in 2015, the risk parameters in the Norwegian-owned IRB banks' residential mortgage models have risen substantially in the past two years. The average risk weight for these banks' retail exposures, which essentially comprise residential mortgages, has risen from

12 per cent at the end of 2013 to 22 per cent at the end of the second quarter of 2016 (chart 2.35).

The tightening action in 2015 clarified requirements on assumptions underlying IRB models for residential mortgages. Probability of default (PD) increased in the first quarter of 2015 as a result of Finanstilsynet's requirements as to how default data from the Norwegian banking crisis in the period 1988-1992 should be taken into account, as did minimum requirements on safety margins in the best risk classes (chart 2.36). However, a tendency for reduction in the PD is in evidence since the introduction of tighter constraints on residential mortgage borrowing in 2015.

The increase in the LGD floor from 10 to 20 per cent lifted the level of the IRB banks' average LGD from just under 15 per cent in 2013 to about 21 per cent in 2014 (chart 2.37). New requirements on LGD estimation in 2015 have brought a further increase. At the end of the second quarter of 2016 the average LGD stands at 22 per cent.

CHAPTER 3 INSURANCE AND PENSIONS

IMPORTANT TRENDS AND CHALLENGES

A further fall in long-term interest rates has intensified pressures on insurers internationally. The likelihood that interest rates will remain low for a long time ahead has weakened profitability prospects, in particular for companies with a large share of guaranteed pension products. Falling share values and increased CDS spreads for several of the world's largest insurers indicate that markets are factoring in higher risk of solvency problems in the medium term. The IMF points out in its latest report[5] that systemic risk present in the international insurance sector has risen, as has the potential for contagion to the rest of the financial sector. The macroeconomic situation also poses a major challenge to Norwegian pension providers (life insurers and pension funds), much of whose liabilities carry a guaranteed annual rate of return. Pension providers must align their asset management in such a way as to safeguard policyholders' guaranteed benefits. It is also in policyholders' interest to achieve a return on their assets in excess of the guarantee. However, any increase in expected return that can be achieved through greater risk in asset management requires risk bearing capacity in the form of the solvency capital.

Due to the high and unpredictable costs associated with defined-benefit plans carrying a guaranteed interest rate, recent years have seen a substantial switch from such pensions to unit-linked defined-contribution pensions, in Norway as elsewhere. This trend is expected to continue in the next few years.

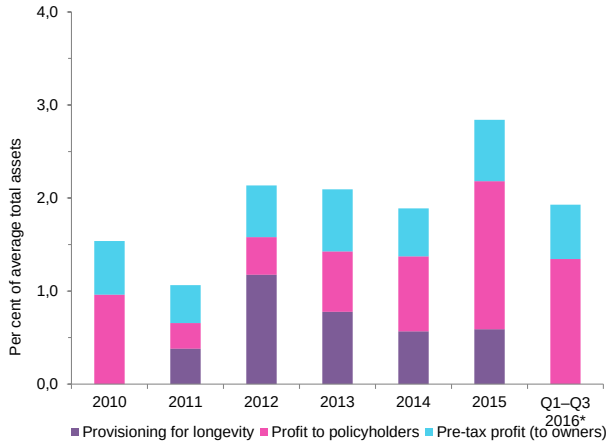
Solvency II was introduced for insurers on 1 January 2016. A lengthy period of low interest rates will add pressure to insurers' solvency situation. However, transitional rules on technical provisions allow insurers several years in which to modify their asset management and build up buffers that are in line with new solvency requirements.

RESULTS OF LIFE INSURERS AND PENSION FUNDS

Life insurers recorded a profit of NOK 5.8 billion before tax in the first nine months of 2016 (0.6 per cent of average total assets (ATA)) (chart 3.1), which is about the same level as the previous year. Policyholder surplus totalled NOK 13 billion compared with NOK 6 billion in the first to third quarter of 2015. Pension funds' profit before tax in the first half of 2016[6] measured 2.1 per cent of ATA, which was slightly weaker than in the same period of the previous year (chart 3.2).

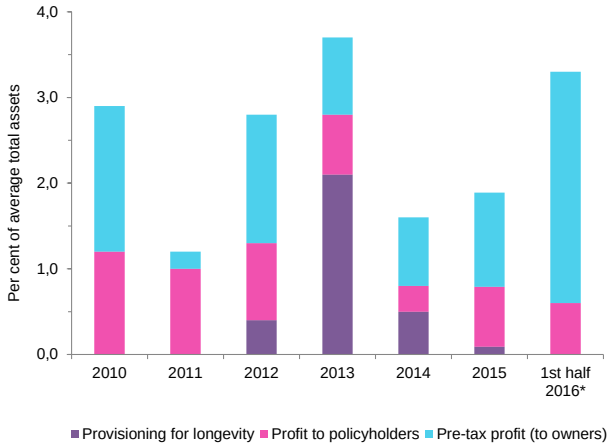
The year to date has seen some increase in provisioning for rising longevity under the mortality tariffs set in 2013[7]. Final provisioning takes place mainly at year-end. At the end of 2015 life insurers' residual need for technical provisions totalled NOK 6 billion (mostly in the paid-up policy portfolio) compared with an initial need of NOK 41 billion. Pension funds have almost completed the provisioning process, with a residual need of NOK 0.5 billion at the end of 2015 compared with an initial need of NOK 11.5 billion.

3.1 Pre-tax profits at life insurers



*Annualised. Provisioning for longevity shown only per full year Source: Finanstilsynet

3.2 Pre-tax profit at pension funds



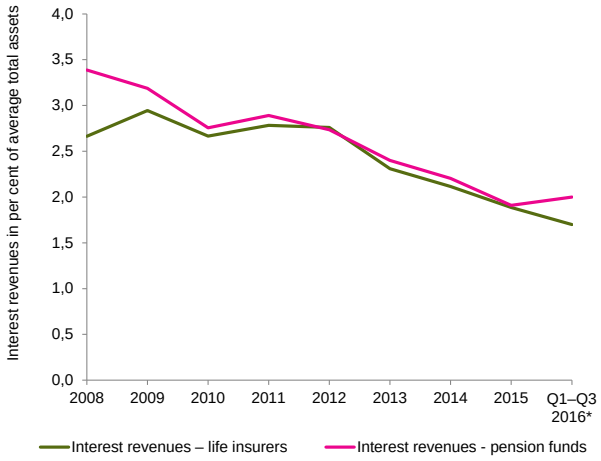
*Annualised. Provisioning for longevity shown only per full year. Source: Finanstilsynet

[5] IMF Global Financial Stability Report, October 2016

[6] Pension funds report accounting data on a half-yearly basis.

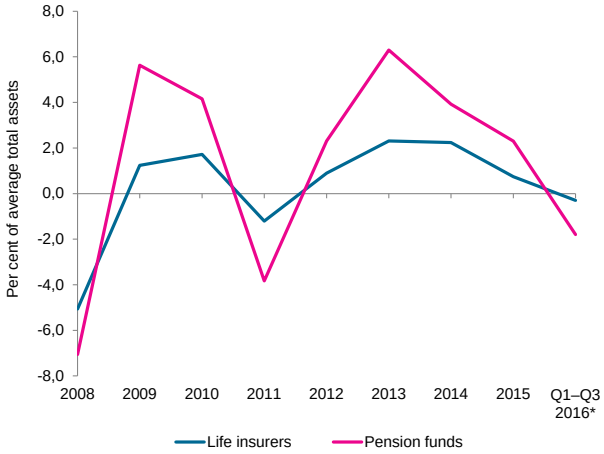
[7] For a further account of provisioning for increased longevity, see Finansielle Utviklingstrekk 2015, p. 30

3.3 Interest revenues at life insurers and pension funds



*Annualised. For pension funds, first half-year. Source: Finanstilsynet

3.4 Realised and unrealised gains on shares at life insurers and pension funds



* Annualised. For pension funds, first half-year. Source: Finanstilsynet

LOW INTEREST RATES - REDUCED INTEREST REVENUES

Falling interest rates have reduced life insurers' interest revenues from 2.7 per cent of ATA in 2008 to 1.9 per cent in 2015 (chart 3.3). Pension funds have seen an even larger decline. In the short-term falling interest rates have increased the fair value of the bond portfolio, but, over time, refinancing bonds at low interest will reduce returns. In order to assure a return above the guaranteed rate, pension providers must have investments that provide an ongoing rate of return above the guaranteed rate. The equity portfolio has produced good returns in some periods, but the fluctuations are substantial (chart 3.4). In the period 2008 to 2015 unrealised gains on the equity portfolio ranged from -3.7 to 1.8 per cent of average total assets at life insurers and from -6 to 6.5 per cent of average total assets at pension funds. Some of these fluctuations are due to the impact of exchange rate changes on the value of foreign shares, and are to some extent offset by currency hedges.

3.5 Adjusted return on capital at life insurers and pension funds

*Annualised. For pension funds, first half-year. Source: Finanstilsynet

AVERAGE RETURN REMAINS HIGHER THAN THE GUARANTEED INTEREST RATE

Life insurers and pension funds both recorded a book return on the collective portfolio for the first nine months of 2016 of about 4.9 per cent (annualised) (chart 3.5). This remains higher than their average guaranteed rate of return of 3.1 per cent. It is the book return that covers the annual interest guarantee. Low interest rates have in part been offset by an increase in the value of the bond portfolio. Parts of this value increase were realised in 2015, whereas thus far in 2016 it has broadly contributed to an unrealised increase in the value of the portfolio. Life insurers still hold a considerable proportion of bonds providing a return in excess of the annual interest guarantee to policyholders. Due to a weaker trend in equity markets, adjusted return has fallen in recent years for life insurers and pension funds.

3.6 Adjusted return on capital at life insurers – variation

*Figures for 2016 are Q1-Q3. Source: Finanstilsynet

The decline has been particularly marked for pension funds (chart 3.5). Pension funds hold a higher proportion of equities than life insurers. As shown by chart 3.6, return has in periods varied widely among life insurers, albeit less so in recent years. In the event of major changes in equity markets, wider differences in return can be expected among pension providers given the wide variation in the proportion of equities held.

UNIT-LINKED DEFINED CONTRIBUTION SCHEME RETURNS

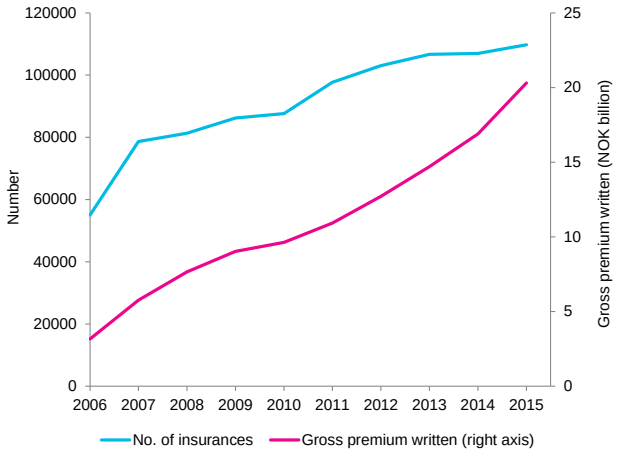
Unit-linked defined contribution schemes have increased considerably in recent years, from below NOK 5 billion in gross premium written in 2006 to more than NOK 20 billion in 2015 (chart 3.7). Virtually all new subscription to pension products with life insurers is now to unit-linked defined contribution plans, and a strong increase is noted in conversion from defined benefit plans to defined contribution plans. Defined contribution pensions accounted for almost 20 per cent of life insurers' overall insurance liabilities in 2015 compared with 10 per cent in 2010.

Under unit-linked defined contribution plans the rate-of-return risk is borne by the policyholder, and the plans provide no guaranteed return. The policyholder is to some extent free to select a risk profile, and as the policyholder nears retirement age the equity component is generally reduced (and the bond component increased) to counter the risk to pension payments.

Chart 3.8, based on figures from Norsk Pensjon, shows historical return on defined contribution plans for various risk profiles. The return is calculated before charges and fees and shows the annual average for, respectively, 1, 3, 5, 10 and 15 years for low, medium and high risk profiles. Management fees vary from 0.3 to 1.8 per cent of managed capital annually. In the case of collective defined contribution plans the management fee is charged to the provider. When an employee quits his/her position and a statement of accumulated pensions rights is issued, fees and charges are levied on the pension recipient concerned. No calculations have been done showing net return after management fees.

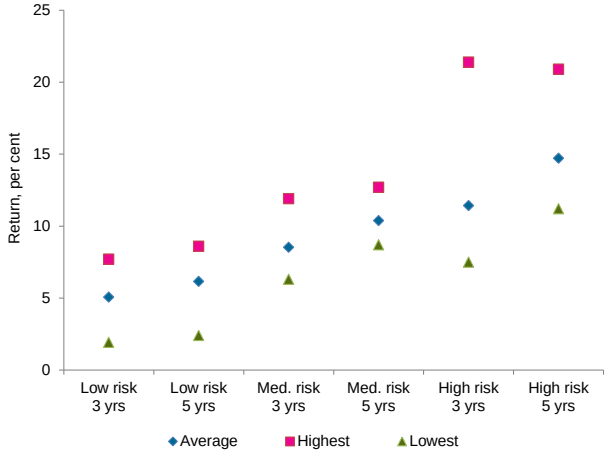
The risk profiles depend on the size of the equity component. Portfolios with an equity component from 0 to 39 per cent are designated 'low risk', 40 to 69 per cent are 'medium risk' and 70 to 100 per cent are 'high risk'. There is relatively high variation between the lowest and highest return in the respective risk profiles, but annual average return of the last 3 and 5 years shows that the higher the proportion of shares in the portfolio, the higher the return. Average return has been higher over the last 5 years than

3.7 Defined contribution pensions, number of insurances* and gross premium written



*Insurance contracts. Source: Finance Norway

3.8 Return in unit-linked defined contribution pensions



Source: Norsk Pensjon

the last 3, since return has declined over the past 2 to 3 years due to a weaker trend in the markets.

Average annual return (arithmetic mean) over the past 5 years for the investment profiles was 6.2 per cent for the low risk portfolios compared with 10.4 and 14.7 per cent for medium and high risk portfolios. As mentioned, these are gross figures since they include management fees. There are wide variations in return between the various funds (investment profiles), from 1.9 per cent in one of the low risk profiles to 21.4 per cent in one of the high risk profiles. In comparison, 5 years' (2011-2015) average adjusted return in the collective portfolio was 5.9 and 6.1 per cent at life insurers and pension funds respectively.

LIFE INSURERS' INVESTMENTS – NEED TO REDUCE INTEREST RATE RISK

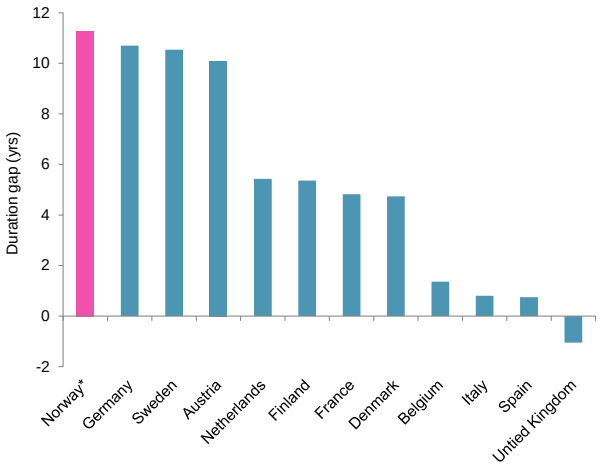
Life insurers' interest rate risk depends on the difference in duration of assets and liabilities. Matching duration may however be difficult to achieve given the limited supply of long-term fixed income securities, in particular in the Norwegian market. The duration gap is wider in Norway than in most other European countries, although it is also high in countries such as Sweden and Germany (chart 3.9). At the end of 2015 the average duration of liabilities for the five largest Norwegian life insurance providers was about 15 years, while the average duration of the bond portfolio was about four years. Hence to reduce interest rate risk, an objective for life insurers is find investment mediums with a long time horizon and a fixed interest rate that covers the annual interest guarantee. They may on the other hand consider it undesirable to lock in large portions of their bond holding at low long-term interest rates.

Investments can be accounted for at amortised cost to ensure a long-term return that covers the guaranteed return in the longer term, while at the same time reducing short-term accounting fluctuations, thereby helping to secure the required annual return. Valuation at amortised cost entails that value changes are not reflected over profit/loss unless a write-down needs to be carried out due to objective evidence of impairment. Bonds account for about 60 per cent of investments in the collective portfolio, of which bonds at amortised cost make up about a half. As shown in chart 3.10, loans and receivables at amortised cost have risen considerably in recent years. In addition to the increase in bonds at amortised cost, the figures also include other loans, among them residential mortgages (see below).

The bulk of bonds at amortised cost have a residual maturity of more than four years (chart 3.11) and an interest rate higher than the average interest guarantee.

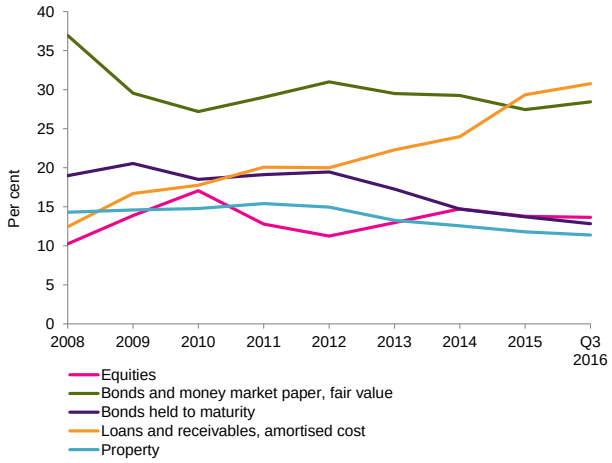
An express strategy of a number of private life insurers has been to reduce risk in the collective portfolio through a lower equity share and an increased proportion of long-term investments at amortised cost. Entities providing public service pension plans do not face the same challenges posed by a low interest rate since they can factor an interest rate fall into the interest guarantee premium, and face no risk in terms of conversion to paid-up policies. Lower interest rate risk contributes to a solvency capital situation that puts them in a better position to take higher risk, as reflected in a higher equity share.

3.9 Duration gap between assets and liabilities 2014



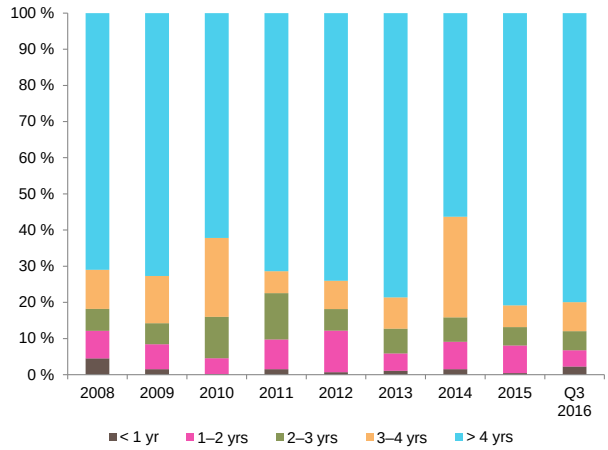
* The 5 largest life insurers in Norway in 2015. Sources: BIS and Finanstilsynet

3.10 Investments in the collective portfolio, life insurers



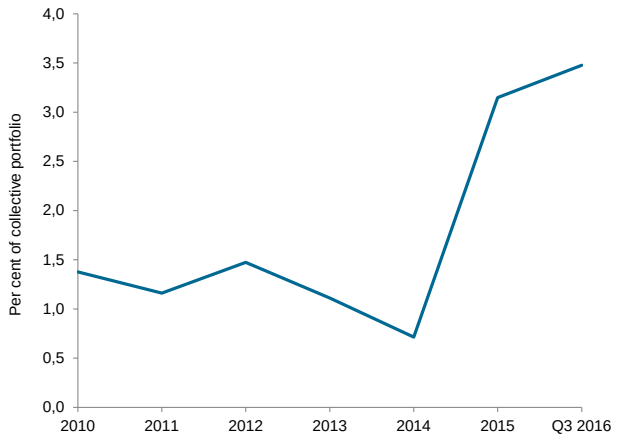
Source: Finanstilsynet

3.11 Residual maturity of bonds at amortised cost at life insurers



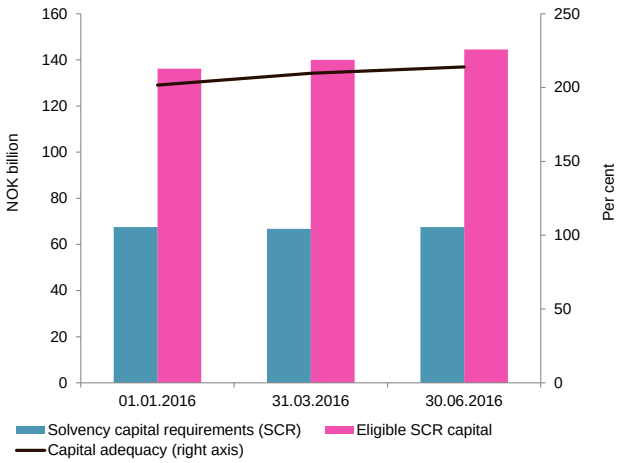
Source: Finanstilsynet

3.12 Residential mortgages in per cent of total assets at life insurers



Source: Finanstilsynet

3.13 Life insurers' capital adequacy (with transitional measures)



Source: Finanstilsynet

RESIDENTIAL MORTGAGES – TRANSFER OF PORTFOLIOS FROM BANKS TO INSURERS

The past year has seen a considerable increase in residential mortgages in life insurance providers' portfolios, although the level remains low as a share of the collective portfolio. At some institutions there has been a transfer of residential mortgage portfolios from banks to life insurers within the same group.

Given life insurers' need for long-term investments providing a stable return, fixed income loans secured on residential property are a relevant investment medium.

In Norway as elsewhere various capital requirements for banks and mortgage companies under CRD IV and for insurers under Solvency II have been in focus. The treatment of residential loans under the two solvency regimes is an area where attention has been drawn to opportunities for regulatory arbitrage. Calculations show that primarily fixed interest loans with a low loan-to-value ratio will receive more advantageous treatment under Solvency II than under CRD IV. For floating rate loans the difference in capital requirements is more uncertain. For a financial group with both banking and insurance arms it may be appropriate to transfer loans from the bank to the insurer as an alternative to transferring them to a mortgage company.

Hence the different capital requirements could contribute to the best secured residential loans being transferred to a mortgage company or insurer, while the worst secured remain on the bank's balance sheet. For the financial sector, transfer of residential loans to insurers could overall result in lower capital requirements. For life insurers, however, this could have a positive effect on overall interest rate risk.

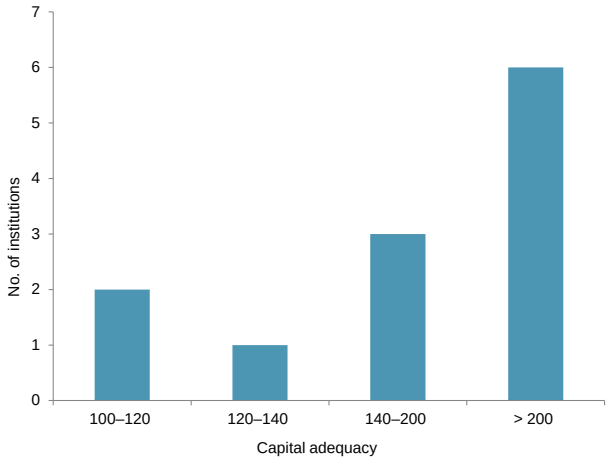
SOLVENCY II – RESULTS FROM NEW REPORTING

The new solvency regime for insurers was introduced on 1 January 2016. In contrast to earlier solvency rules, both assets and liabilities are to be recognised at fair value. A capital requirement will be set that provides sufficient cover for the various risks to which an entity is exposed such as market risk, insurance risk, counterparty risk and operational risk. Institutions must have sufficient capital to cover the potential overall loss calculated using standardised stress tests. If an institution's capital (eligible SCR capital) is lower than the calculated solvency capital requirement (SCR), i.e. a solvency capital ratio below 100 per cent, the institution will be in breach of the requirements of the solvency framework.

Between 2008 and the end of 2015 insurers conducted stress tests based on the Solvency II rules that were being developed. The results of the stress tests showed that the new solvency regime would pose a challenge for a number of institutions under the current low interest rate regime. For some institutions, however, the results are better under Solvency II than under previous stress tests. This is due inter alia to the treatment of investments in subsidiaries which was considerably more stringent in the stress test than under Solvency II, and the fact that the risk-reducing effect of deferred tax, which was not included in the stress test, proved to be highly significant under Solvency II.

At the end of the second quarter of 2016 the solvency capital ratio was 214 per cent, including use of transitional rules (see below) (chart 3.12). This is somewhat higher than at the start of 2016 and at the end of the first quarter. Although the solvency capital ratio is high for life insurers as a whole, there are wide variations between the institutions (chart 3.15). Apart from one institution, which is exempt

3.14 Capital adequacy (with transitional measures) – variation, 30.06.2016



Source: Finanstilsynet

from the Solvency II requirement in 2016, all life insurers had a solvency capital ratio above the requirement of 100 per cent. For some institutions the margin was narrow, while others had a ratio in excess of 600 per cent. In general terms Solvency II poses a particular challenge to institutions with a high share of paid-up policies and collective defined benefit pensions with a guaranteed return. However, transitional rules for technical provisions help to dampen the effect of the new rules in the short term.

EFFECT OF TRANSITIONAL RULES

Life insurers can use a transitional rule which permits an increase in the level of technical provisions as a result of the switch to Solvency II to be phased in over a period of 16 years. This transitional rule is of much significance for some institutions. Other transitional rules that have been introduced are of less significance, among them a transitional rule for calculating the capital charge for equity risk.

Normally a lower interest rate will cause an increase in the value of technical provisions under Solvency II since it will be more demanding for institutions to achieve the guaranteed rate of return to policyholders when the interest rate level falls. However, this effect of interest rate changes is dampened by the transitional rule. The interest rate decline in the first half of 2016 has accordingly contributed to weaker solvency capital adequacy when the transitional rule is not taken into account whereas it has a negative effect for solvency capital adequacy when the transitional rule is taken into account. At the end of the first half of 2016 the solvency capital ratio without the transitional rule was 144 per cent whereas it was as mentioned 214 per cent when account is taken of transitional rules.

Low interest rates, Solvency II and systemic risk – a need for macroprudential supervision for insurers?

The financial crisis showed that regulation and monitoring of systemic risk in the financial markets was inadequate. In the period since the financial crisis, work on developing macroprudential supervision has focused on banks. This is natural since the existence of systemic risk is evident in the banking sector, as witnessed during the banking crisis in Norway in the early 1990s and the international financial crisis in 2008. In parallel with this work there has been a debate on insurers' importance for financial stability. There is broad agreement that systemic risk is lower in insurance than in banking, in part because the interrelatedness among insurers is far less than among banks, and because insurers are not dependent on short-term funding and thereby a functioning interbank market. However there are elements of the insurance activity that may have repercussions for financial stability. The literature points in particular to insurers' tendency to procyclical adjustment and to insurers' role in the funding of banks, which creates interrelatedness between these sectors.

The International Association of Insurance Supervisors (IAIS) has selected criteria for identifying systemically important insurers. Importance is assigned inter alia to the fact that a bankruptcy in a major insurance group will have significant contagion effects through interrelatedness with other financial institutions and contagion effects in financial markets. Based on the criteria, the IAIS has identified global systemically important institutions which will be subject to special capital requirements[8].

The European Insurance and Occupational Pensions Authority (EIOPA) and the European Systemic Risk Board (ESRB) have both put macroprudential supervisory tools for the insurance sector on the agenda[9]. This work is at the initial stage. Since Solvency II entered into force this year, little experience has been gained of how the solvency regime will function in various situations. EIOPA will conduct a review of the effect of the Solvency II regime. Emphasis will in part be on possible problems connected to procyclical adjustment. EIOPA will also consider other elements, which are not motivated primarily by

[8] Requirement of higher loss absorbency for global systemically important insurers.
[9] See inter alia "A potential macroprudential approach to low interest rate environment in the Solvency II context", EIOPA 23 March 2016. EIOPA has appointed several project groups with mandates connected to assessments of Solvency II and macroprudential issues. The ESRB's expert group on insurance is working on the risk of financial instability and the insurance sector.

macroprudential considerations, but which may have a bearing on systemic risk in the insurance sector.

Under Solvency II the value of insurance liabilities is set by discounting future cash flows using a risk-free interest rate curve. The risk-free interest rate curve is designed based on market interest rates in a liquid fixed income market. For longer maturities the interest rate curve is calculated by extrapolation up to the expected equilibrium rate, called the ultimate forward rate (UFR). The UFR is set at 4.2 per cent based on assumptions of an expected real interest rate of 2.2 per cent and expected inflation of 2.0 per cent. Long-term market rates have for a period stood well below the UFR. EIOPA has announced its intention to review the methodology employed to derive the UFR, and that any new UFR will be effective as from 2017. A reduction in the UFR will impair solvency capital most strongly for companies with a high share of guaranteed long-term liabilities and a large duration gaps. Financial stability considerations pull in the direction of a UFR that does not diverge excessively from long-term market interest rates. This can contribute to appropriate incentives for insurers' risk management. On the other hand, frequent large adjustments of the UFR may lead to stronger procyclical adjustments with insurers altering their investments simultaneously and in the same direction.

Under Solvency II, government securities denominated in euro and issued by EEA member states are weighted with a 0 per cent capital requirement, so that no account is taken of real credit risk attending such investments. Hence the treatment of government securities represents a breach of the general principles of Solvency II. In countries where insurers are major investors in the country's own sovereign debt, an increased probability of default on such debt will also weaken the insurance sector and by the same token compound the financial problems. The favourable treatment of government securities under Solvency II may therefore have a detrimental impact on financial stability. EIOPA has announced that the weighting of government securities will be reconsidered. The ESRB as calculated that removing the favourable treatment of government securities will increase EU insurers' capital need by about 10 per cent of the SCR.

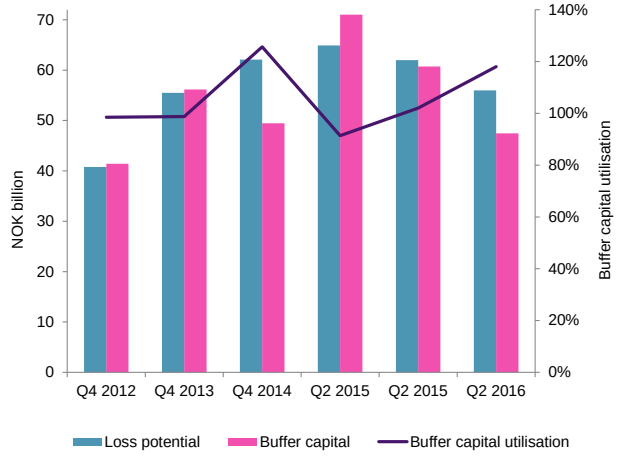
Solvency II builds on the principle of valuation of assets and liabilities at market price. In the current situation of low interest rates, and where the institutions have low solvency buffers, institutions could be compelled to engage in procyclical adjustment. Falling risk-free interest rates will contribute to reduced capital adequacy since liabilities will rise more in value than assets. To counter this, companies can sell risky assets and buy assets with lower capital charges, or reduce their interest rate exposure by acquiring long-term bonds. The IMF has pointed to pension institutions' need for long-term investments as a contributory factor to the fall in long-term interest rates in recent years. A fall in long-term interest rates increases the duration of liabilities and bond holdings alike, but the increase is strongest for liabilities with the longest duration at the outset. By the same token the duration gap (the difference between the duration of liabilities and assets) increases so that the demand for long-term bonds increases further. Moreover, where interest rates at the outset are very low, as at present, the effect of a further interest rate fall is stronger than in the case of a higher interest rate level. Insurers could therefore strengthen an initial fall in long-term interest rates.

In a situation of falling risk-free interest rates, falling share prices and increased risk premiums in credit markets (double hit), institutions may to a particularly high degree be forced into procyclical adjustment. In markets where pension institutions are major investors, the price effects may be considerable.

Solvency II contains elements established in the Omnibus II Directive (an amending directive to the Solvency II Directive) which are designed to dampen cyclical effects. The Omnibus II Directive includes various permanent measures and transitional arrangements which are primarily directed at life insurers that issue long-term guarantees. One such measure involves volatility adjustment of the market interest rates used to discount insurance liabilities. Volatility adjustment aims to dampen the effect of interest rate changes in bond markets that are not assumed to represent real changes in credit risk by making a corresponding change in the interest rate curve used to discount insurance liabilities. In other words a distinction is drawn between temporary fluctuations in the market, for which compensation is made, and more fundamental changes in credit risk, where no compensation is made.

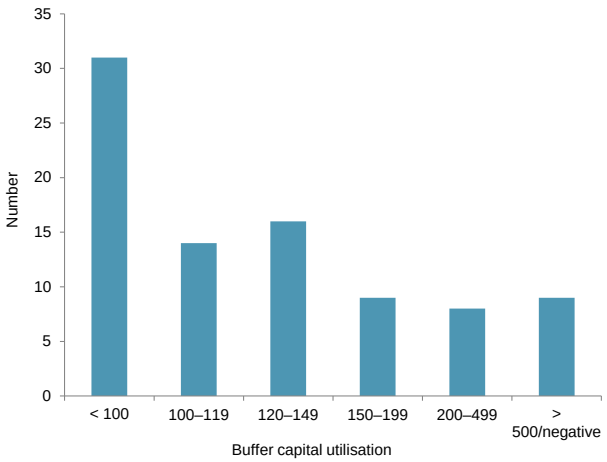
Various macroprudential tools may be relevant with regard to systemic risk related to pension institutions. In its consultative statement to the ESRB on macroprudential supervision, EIOPA mentions various alternatives. For example, by allowing the capital charge to vary over the cycle (countercyclical capital buffer) it will be possible to dampen the tendency for procyclical adjustment. Further, maximum limits or extra capital requirements on some exposures, such as bank bonds, may dampen concentration and detrimental interrelatedness between institutions. EIOPA stresses that at the current time it would be premature to recommend macroprudential tools for the insurance sector, and that any future macroprudential tools must be proportionate to the desired objectives and take into account costs and side-effects of such regulation.

3.15 Buffer capital utilisation at pension funds



Source: Finanstilsynet

3.16 Buffer capital utilisation at pension funds 30.06.2016 – variation



Source: Finanstilsynet

STRESS TESTS AND NEW CAPITAL REQUIREMENTS FOR PENSION FUNDS

All pension funds have since 2012 reported stress tests based on the valuation principles set out in Solvency II, and this reporting is an important basis for supervisory follow-up of pension funds. At the end of the second quarter of 2016, pension funds had an overall buffer capital utilisation of 118 per cent, up from 102 per cent at the turn of the year (chart 3.15). A buffer capitalisation above 100 per cent indicates that the overall loss potential exceeds available buffer capital (inverse fraction compared to Solvency II). The interest rate fall has impaired in particular the private pension funds' buffer capital utilisation over the past year. Private pension funds with a high proportion of paid-up policies are negatively impacted to a particularly high degree by the low level of interest rates. There are wide variations in pension funds' buffer capital utilisation (chart 3.16), and the stress test shows that several pension funds' loss potential exceeds their available buffer capital at the end of the second quarter of 2016. Pension funds remain subject to the capital requirements of Solvency I, and all pension funds met the Solvency 1 requirement at the end of 2015 (annual reporting).

PROPOSAL FOR NEW CAPITAL REQUIREMENT

The new solvency framework for insurers aims to provide a more risk sensitive regime in which both assets and liabilities are measured at fair value, and which to a greater degree reflects institutions' underlying risk. Solvency II does not apply pension funds, which remain subject to Solvency I, and the capital adequacy regime, which also applied to insurers, was dispensed with as from 2016. A new Europe-wide capital requirements arrangement for pension funds is not set to be introduced in the years immediately ahead.

Finanstilsynet has previously considered whether new capital requirements for insurers should also have effect for pension funds' solvency requirements. The need for a more risk-based regime for pension funds, and for equal treatment of homogeneous liabilities, suggests that pension funds should be subject to a regime corresponding to Solvency II. The Ministry of Finance in February 2016 commissioned Finanstilsynet to draw up a consultation document and draft regulations on new capital requirements based on a simplified version of Solvency II. The assignment was based on a report from Finanstilsynet dated January 2016 in which Finanstilsynet recommended that a simplified version of the Solvency II capital requirement based on Finanstilsynet's stress test I should be introduced as a binding requirement for pension funds.

The pension funds manage, on a par with the life insurers, collective defined-benefit occupational pension plans providing a guaranteed return. In Finanstilsynet's assessment, homogeneous activities should be subject to the same capital requirements. Solvency II provides a better picture of the pension funds' real financial position, and thus greater assurance that pension funds will be able to meet their future pension disbursements. At the same time Solvency II is a complex body of rules, and consideration for pension funds' size suggest some simplification of the rules. It is therefore proposed that a simplified version of Solvency II, based on Finanstilsynet's stress test I which pension funds have already introduced, should be brought in as from 2018. Life insurers will be given the opportunity to employ transitional rules for technical provisions over a transitional period of 16 years. The same transitional rules are proposed for pension funds, so that pension funds' transitional period will also terminate in 2032. Finanstilsynet forwarded the consultation document and draft regulations to the Ministry of Finance in September 2016, and the Ministry of Finance has circulated the proposal for comment with the deadline for response set at 9 January 2017.

CHAPTER 4 REGULATION

INTRODUCTION

In the second half of 2016 the regulations governing the EU's financial supervisory structure were incorporated into the EEA Agreement. This means that a number of EU legislative acts can now be included in the EEA Agreement under the usual procedure.

Several wide-ranging law amendments are under preparation. In August 2016 the Ministry of Finance tabled a bill proposing amendments to the Securities Funds Act to implement EEA rules corresponding to UCITS V[10]. In November a bill implementing the CSD Regulation[11] was circulated for comment. In October the Banking Law Commission tabled a proposal for new rules to implement the EU Bank Recovery and Resolution Directive in Norwegian law. Law drafting continues in the securities area (MiFID[12]/MAR[13]) and in the anti-money-laundering area.

The Norwegian capital adequacy regime is in line with CRR/CRD IV. The Ministry of Finance adopted in September amendments to the rules governing the calculation of the countercyclical capital buffer which entail recognition of other countries' buffer requirements for Norwegian banks' exposures abroad.

Finanstilsynet has thus far in the second half of 2016 forwarded the following regulatory proposals to the Ministry of Finance:

- changes to the residential lending regulations
- requirement for a liquidity buffer in significant currencies
- new solvency rules for pension funds based on Solvency II principles
- rules to transpose the PRIIPs[14] Regulation in Norwegian law
- regulations on banks' contingency plans for cash distribution
- rules on invoicing credit card debt

THE EU'S FINANCIAL SUPERVISORY SYSTEM

2011 saw the establishment of a new European financial supervisory system comprising an overall macroprudential supervisory authority, the ESRB, and the following sectoral supervisory bodies: EBA (banking), ESMA (securities) and EIOPA (insurance and pensions).

The EU and the EEA/EFTA countries have for several years negotiated on how the new supervisors' formal role and authority should be accommodated within the framework of the EEA Agreement. An agreed solution was arrived at this summer. The Norwegian Storting (Parliament) considered the proposal in June 2016 and endorsed the solution as described in Proposition to the Storting 100S (2015-2016). On 30 September 2016 the EU regulations establishing the new financial supervisory authorities were duly incorporated into the EEA Agreement.

Finanstilsynet will now be a member of the EU's three supervisory authorities, with the same rights and obligations as the EU member states' national supervisors, but without voting rights. Finanstilsynet will accordingly participate on a par with other members in all work of a non-binding nature, including supervisory cooperation and rule drafting. The EU's financial supervisors can issue recommendations and guidance for government authorities and private market participants in the EEA/EFTA member states. However, the EU'S financial supervisors cannot adopt decisions that are binding on authorities and market participants in the EEA/EFTA member states. Supranational decisions may only be adopted by the EFTA Surveillance Authority. The EFTA Surveillance Authority will be invited to participate in the activities of the EU's financial supervisors and will in its work in this area take its cue from the EU supervisory authorities.

Since the EU's establishment of the European financial supervisory authorities in 2011, the EU has adopted more than 200 EEA-relevant legislative acts in the financial market field. The bulk of these new legislative acts involve the EU financial supervisors. For example, they task the EU's financial supervisors with drafting supplementary provisions or to mediate in disputes between national supervisors. Incorporation of these sectoral legislative acts in the EEA Agreement has been deferred pending clarification of the EEA's accommodation to the EU's financial supervisory system. The fact that a solution is now in place, with fundamental issues clarified, means that the above-mentioned EU legislative acts can now be incorporated into the EEA Agreement under customary procedure.

RULES FOR BANKS ETC.

CAPITAL REQUIREMENTS – PILLAR 1

The Norwegian capital adequacy regime is aligned to the EU Capital Requirements Directive (CRD IV) and Regulation (CRR). New capital adequacy requirements were added to

[10] Undertakings for Collective Investments in Transferable Securities Directive
[11] Central Securities Depositories Regulation 909/2014
[12] Markets in Financial Instruments Directive
[13] Market Abuse Directive and Regulation
[14] Packaged Retail and Insurance-based Investment Products

the Financial Institutions Act[15] in 2013, including special rules on phasing in new buffer requirements. The new buffer requirements were fully phased in as from 1 July 2016.

According to the Act banks, mortgage companies and finance companies shall at minimum maintain common equity tier 1 (CET1) capital, tier 1 capital and own funds of, respectively, 4.5, 6 and 8 per cent of risk weighted assets. These institutions shall in addition maintain a capital conservation buffer of 2.5 per cent, a systemic risk buffer of 3 per cent and a countercyclical capital buffer between 0 and 2.5 per cent. Systemically important institutions are required to maintain an additional buffer of 2 per cent. The buffer requirements must be met by CET1 capital.

Table 1: Minimum and buffer requirements on CET1 capital and Tier 1 capital and total capital adequacy (figures in per cent) for banks, mortgage companies and finance companies

	July 2016	
	Systemically important institutions	Other institutions
CET1 capital adequacy	13.5	11.5
Tier 1 capital adequacy	15	13
Total capital adequacy	17	15

The countercyclical capital buffer requirement is set by the Ministry of Finance each quarter. The Ministry of Finance set for the first time in December 2013 a requirement of 1 per cent for the countercyclical capital buffer, effective as from 30 June 2015. In June 2015 it was decided that the countercyclical capital buffer requirement should be 1.5 per cent as from 30 June 2016. The Ministry of Finance has retained the countercyclical capital buffer unchanged since that date.

The Ministry of Finance adopted on 28 September 2016 changes to the rules on calculating the countercyclical capital buffer which entail recognition of other countries' buffer requirements for Norwegian banks' loan exposures abroad. The amendments to the regulations, which entered into force on 1 October 2016 require Norwegian institutions, when determining their institution-specific buffer, to fully utilise the countercyclical capital buffer set by any other EEA member state for that part of their business that is carried out in the country concerned. For exposures in third countries (countries outside the EEA) that have established a countercyclical capital buffer, the countercyclical capital buffer rate set by the authorities of the country concerned shall be applied, unless the Ministry of Finance has set a different rate. For third countries that do not have a system for determining a countercyclical capital buffer, the Norwegian rate will apply.

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

Basel Committee

The Basel Committee has in recent years tabled proposals for changes to several of the standards for measuring capital adequacy, including with a view to reducing observed variations in banks' risk weighted assets that are due to factors other than differences in risk. The changes to the standards are presented as a completion of Basel III which was adopted in 2010 in response to the financial crisis. Changes to the Basel Committee's standards may be of significance for a future capital adequacy regime in the EU and Norway. All new standards are expected to be adopted at around the end of 2016. The Basel standards are developed for major international banks and are not legally binding. The standards are implemented in Norway through EU legislation. The changes now being discussed affect:

- The standardised approach for credit risk (more risk sensitive)
- IRB (restrictions on the use of models for certain exposures and model-parameter floors)
- Operational risk (new approach that replaces the Basic Indicator Approach and the Standardised Approach; the AMA will no longer be permitted
- Output floor to limit the effect of internal models and the calibration of this floor
- Special requirements on the leverage ratio for systemically important banks

Reference is made to a description in Risk Outlook 2016. The Basel Committee has on 11 October 2016 also published a consultation document[16] on regulatory treatment of accounting loss provisions in light of the forthcoming changes to IFRS 9 on accounting for financial instruments.

Amendments proposed for CRR / CRD IV

The EU Commission published on 23 November 2016 its proposal for amendments to CRR and CRD IV.[17] The proposal follows up previously announced measures and will be forwarded to the Parliament and Council for consideration.

[15] Replaced by a new Financial Institutions Act (finansforetaksloven) on 1 January 2016.

[16] https://www.bis.org/bcbs/publ/d.386.htm

[17] http://europa.eu/rapid/press-release_IP-16-3731_en.htm?locale=en

The Commission proposes:

- a minimum leverage ratio of 3 per cent under Pillar 1
- a long-term funding requirement (NSFR) of 100 per cent
- new methods for calculating capital requirements for market risk, counterparty risk and exposures to central counterparties (CCPs) that follow the Basel Committee's new standards, but permitting the use of current calculation methods
- changes to Pillar 2 rules to harmonise international supervisory practices
- change of capital measure for large exposures (from own funds to Tier 1 capital)
- rules permitting the effect of the switch from IAS 39to IFRS 9 to be phased in gradually over a five-year period

The Commission also proposes amending the Bank Recovery and Resolution Directive (BRRD) to set total loss-absorbing capacity (TLAC) requirements for globally systemically important banks.

CAPITAL REQUIREMENTS – PILLAR 2

The CRD IV Directive sets requirements on institutions' own assessment of risk and capital needs (ICAAP – Internal Capital Adequacy Assessment Process) and requirements on supervisory authorities' evaluation (SREP – Supervisory Review and Evaluation Process). Supervisory authorities are empowered under the Directive to set requirements on adjustments to institutions' business or capital over and above the minimum requirements (Pillar 2 requirements).

The EBA published in December 2014 guidelines on common procedures and methodologies for the supervisory review and evaluation process. Finanstilsynet has confirmed to the EBA its intention to comply with the guidelines.

The Ministry of Finance stated in a letter dated 17 March 2016 that Pillar 2 requirements will be imposed in the form of administrative decisions and that these decisions are to be published. The Ministry of Finance concurrently emphasised that under Norwegian law Pillar 2 requirements will not affect the timing of automatic restrictions on dividend payments etc. under the CRR / CRD IV Regulation article 6. The Ministry of Finance points out that this does not prevent Finanstilsynet, with a basis in the new Financial Institutions Act, from ordering restrictions where total capital requirements are breached. Finanstilsynet's practice as regards evaluation of risk and capital needs is described in circular 12/2016.

Finanstilsynet published in October and November 2016 its Pillar 2 decision for the largest institutions. Pillar 2 decisions for other banks will be published as and when the SREP process is completed.

REQUIREMENT ON LEVERAGE RATIO

Both the Basel Committee and the EU intend to introduce a minimum requirement on leverage ratios as from 1 January 2018. The requirement will be a supplement to capital adequacy calculated on risk weighted assets. The EBA sent in August 2016 a report[18] to the Commission recommending the introduction of a minimum leverage ratio requirement of 3 per cent for all credit institutions as from 1 January 2018. It is pointed out that for globally systemically important institutions higher requirements on leverage ratios may be necessary and that this must be evaluated in light of the progress made by the Basel Committee. The EU Commission forwarded on 23 November 2016 a proposal for the introduction of a minimum leverage ratio requirement of 3 per cent as from 1 January 2018, in keeping with the EBA proposal.

The Ministry of Finance asked Finanstilsynet by letter of 9 December 2015 to draft a consultation document and regulations on leverage ratios. In its reply, sent in April 2016, Finanstilsynet upheld its previous recommendation[19] to await the new EU requirements before establishing national requirements on leverage ratios, and concurrently drafted a proposal in the event that a national requirement were established before new requirements in the EU came into being. Finanstilsynet's consultation document proposed a minimum requirement of 6 per cent for banks, finance companies and investment firms and 3 per cent for mortgage companies. The Ministry of Finance circulated the proposal for comment on 12 April 2016 with the deadline for response set at 5 August 2016.

REQUIREMENTS ON LIQUIDITY

EU rules contain two quantitative liquidity requirements: a liquidity buffer (Liquidity Coverage Ratio – LCR) and a stable funding (Net Stable Funding Ratio – NSFR). The rules on the LCR were given effect in the EU as from 1 October 2015, with a gradual phase-in up to 2018. The EU tabled on 23 November a proposal to introduce a binding NSFR requirement of 100 per cent as from 2019.

The requirement for a liquidity reserve (LCR) is included in the CRR / CRD IV Regulation with effect from 31 December 2015. The LCR 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

[18] https://www.eba.europa.eu/documents/10180/1360107/EBA-Op-2016-13+%28Leverage+ratio+report%29.pdf
[19] Letter of 26 June 2015

December 2017. For mortgage companies the requirement is to be phased in with at least 70 per cent as from 30 June 2016.

Systemically important institutions are required to meet the liquidity reserve requirement by at least 100 per cent as from 31 December 2015. For mortgage companies that are subsidiaries of a systemically important institution, the liquidity requirement must be met by at least 100 per cent as from 30 June 2016.

The LCR requirement must be met for all currencies combined. Finanstilsynet proposed in September 2016 the introduction of liquidity reserve requirements in significant currencies equal to the level applying to all currencies combined, with the exception of Norwegian kroner in the case of institutions having the euro and/or US dollar as a significant currency. For such institutions Finanstilsynet proposed the introduction of an LCR requirement in Norwegian kroner of 50 per cent. The Ministry of Finance has circulated the proposal for comment with the deadline for response set at 31 January 2017.

NEW RULES FOR ACCOUNTING TREATMENT OF LOAN LOSSES

The International Accounting Standards Board (IASB) finalised in July 2014 a new standard, IFRS 9, containing a new loan impairment model. It was recently decided to incorporate the standard in EU legislation[20]. For institutions that have issued securities on a regulated market the standard will apply as from 2018[21].

Under current accounting rules, loan impairments are recognised only where there is objective evidence of a loss event. Significant financial difficulties on the part of a debtor are an example of such a loss event. The new standard requires new "healthy" loans – as well as problem loans – to be loss provisioned by recognising an impairment for the credit loss expected to result from a default in the coming twelve months. For loans where credit risk as risen significantly since establishment, the expected credit loss is to be recognised over the life of the loans concerned. The new accounting standard is expected to entail higher loss provisions.

The Basel Committee published in October two consultation documents on possible adjustments to the capital adequacy framework, including transitional rules, resulting from new rules on loss impairments. The EU Commission presented on 23 November 2016 a proposal for rules in CRR enabling the effect of the transition from IAS 39 to IFRS 9 to be phased in over a five-year period; see earlier account.

CRISIS MANAGEMENT

The EU's Bank Recovery and Resolution Directive entered into force on 1 January 2015. The Directive requires all banks to draw up recovery plans including concrete and implementable measures for dealing with financial crisis situations. The plans are to be evaluated by national supervisory authorities. National crisis management authorities will draw up resolution plans for financial institutions headquartered in their home country.

Institutions must meet a minimum requirement on own funds and eligible liabilities (MREL) which can be written down or converted to equity capital (be subject to bail-in) where a bank is in crisis. Deposits covered by deposit guarantee schemes shall normally be protected against loss. Some other types of liabilities are excluded from the scope of the bail-in requirement.

The EU Commission adopted on 23 May 2016 a Regulation on a method for determining the MREL[22]. The crisis management authority shall, after consultation with the supervisory authority, set the MREL requirement individually for each institution, based on certain general principles set out in the standard.

The EBA will submit a report to the EU Commission containing recommendations for the implementation and calibration of minimum requirements for the MREL in the course of the year. The Commission will submit by the end of 2016 a proposal for a harmonised MREL requirement, based inter alia on the EBA's report.

The Bank Law Commission presented on 26 October 2016 draft statutory provisions to transpose the Recovery and Resolution Directive into Norwegian law. This document also contains a proposal for implementing the EU's updated Deposit Guarantee Directive from 2014.

It emerges from the Banking Law Commission's report that the Recovery and Resolution Directive's provisions on capital inadequacy and government-directed administration of institutions in the banking sector essentially match the principles underlying existing regulation in the new Financial Institutions Act. The principal new elements are the rules on recovery plans and resolution plans, rules on write-down or conversion to equity capital of own funds and eligible liabilities (bail-in), and establishment of a national crisis fund. The Ministry of Finance is put forward as the crisis management authority.

[20] http://ec.europa.eu/newsroom/fisma/itemdetail.cfm?item_id=50268&newsletter_id=166&utm_source=fisma_newsletter&utm_medium=email&utm_campaign=Finance%20&utm_content=IFRS %209%20&lang=en

[21] Insurers can defer compliance with the standard until 2021. Finanstilsynet will shortly submit draft rules for credit institutions and financial institutions that have not issued securities on a regulated market (unlisted entities)

[22] http://eur-lex.europa.eu/legalcontent/EN/ALL/?uri=uriserv:OJ.L_.2016.237.01.0001.01.ENG

The Ministry of Finance has circulated the Banking Law Commission's proposal for comment with the deadline for response set at 9 January 2017.

CASH DISTRIBUTION IN EMERGENCIES

Section 16-4 of the new Financial Institutions Act requires banks to make cash available to their customers. The Ministry of Finance asked Norges Bank (Norway's central bank) and Finanstilsynet in a letter dated 13 January 2016 to look into the responsibility for cash distribution in an emergency situation and to give advice on rule changes if a need for such changes was identified. In their reply of 29 September 2016 to the Ministry of Finance, Norges Bank and Finanstilsynet point out that the extent of banks' obligations under section 16-4 of the new Financial Institutions Act may be unclear. They accordingly propose that banks' responsibility for cash distribution in an emergency situation should be clarified in regulations. Draft regulations stipulate that the banks must have in place the preparedness to deal with a failure of the electronic payments system, a strong increase in demand for cash or failure of the cash supply system.

INSURANCE AND PENSIONS

INSURERS

The Solvency II regime entered into force in the EU on 1 January 2016. In Norwegian legislation the provisions are set out in the new Financial Institutions Act and the Solvency II Regulations of 25 August 2015. In connection with the Solvency II Directive, an EU Regulation (2015/35) has been adopted that supplements the overall provisions of the Directive. Finanstilsynet adopted on 22 December 2015 the Regulations as Norwegian regulations, duly adjusted as regards exposure to local authorities etc.[23]

In November 2016 Finanstilsynet circulated for comment a proposal for amendments to the regulations concerning supplementary rules to the Solvency II Regulations. The proposed amendments implement adopted amendments to EU Regulation 2015/35. The amendments cover capital requirements for certain types of infrastructural investments, European long term investment funds (ELTIFs) and assets traded on multilateral trading facilities, along with an enlargement of the scope of transitional rules for equities.

Insurers reported under Solvency II for the first time in May 2016 (opening information and figures as at end-March).

[23] 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.

Transitional rules

It follows from the Solvency II regulations that institutions are permitted up to and including 31 December 2031, with Finanstilsynet's approval, to reduce the value of technical provisions calculated under Solvency II by a portion of the difference between technical provisions under Solvency II and provisions[24] calculated under the rules that applied up to 31 December 2015. For a fuller account see Risk Outlook 2016.

Rules on public administration of insurers

The Ministry of Finance circulated for comment on 25 November 2016 a proposal for certain changes in the new Financial Institutions Act's rules governing public administration of insurers.

One of the ministry's proposals is to make clear that where an insurer is placed under public administration, paid-up policies managed by that insurer should be eligible for conversion to unit linked as part of a transfer to another insurer.

PENSION UNDERTAKINGS

The current solvency requirement (Solvency I) is retained for pension funds. Finanstilsynet proposed in January 2016 the introduction of a simplified Solvency II requirement for pension funds as from 1 January 2018, and a discussion document and draft provisions of regulations on new capital requirements for pension funds were forwarded to the Ministry of Finance in September 2016. The proposal is being circulated for comment until 9 January 2017.

Pending new rules the Ministry of Finance adopted in June 2016, following Finanstilsynet's proposal, an amendment to the Regulations on Asset Management for pension funds requiring the board of directors of a pension fund to consider appropriate measures should risk analyses based on fair value give cause to believe that the pension fund will be in a vulnerable financial position in the future.

IORP II – work on a new regulatory regime at the European level

The EU Commission presented in 2014 a proposal for revision of the Directive on Institutions for Occupational Retirement Provision (IORP II). The proposal entails inter alia new requirements on pension funds' governance and transparency of information to pension scheme members and new rules to facilitate cross-border activities and transfers. The proposal does not contain new prudential rules. The Commission's proposals were approved by the Parliament on 24 November 2016. The Council has yet to give its approval.

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

RULES APPLYING TO BOTH BANKING AND INSURANCE

NEW FINANCIAL INSTITUTIONS ACT

A new Financial Institutions Act (lov om finansforetak og finanskonsern (finansforetaksloven)) entered into force on 1 January 2016. This act supersedes the savings banks act, commercial banks act and financial institutions act along with parts of insurance activity act. The Act contains provisions on licensing, organisational rules, general business rules, rules on guarantee schemes and capital inadequacy and sanctions provisions applying to banks, insurers and other financial institutions. Transitional rules for some of the above provisions are set out in regulations.

Under the transitional rules, institutions not obliged to establish a risk committee under previous legislation were required to have such a committee in place by 1 July 2016. On 24 June 2016 the Ministry of Finance adopted amending regulations to postpone this deadline to 1 January 2017.

The new Financial Institutions Act contains a number of enabling provisions. Under the above-mentioned transitional rules, regulations issued pursuant to repealed Acts will be retained until further notice.

Finanstilsynet has on commission from the Ministry of Finance drafted regulations to the new Financial Institutions Act. These comprise a set of 'financial institution regulations' assembling many of the provisions that are currently dispersed across various regulations, and a set of regulations similarly assembling provisions for pension undertakings. The proposal is under consideration by the Ministry of Finance.

REGULATIONS ON NEW LOANS SECURED ON RESIDENTIAL PROPERTY

The Ministry of Finance's regulations on new residential mortgage loans entered into force on 1 July 2015. The regulations set requirements on institutions' mortgage lending practices. All financial institutions are covered by the regulations, which have a time-limited duration up to 31 December 2016.

Under the regulations, financial institutions are required to measure the customer's ability to service their mortgage based on income and all relevant expenses, including normal living expenses, and to make allowance for an interest rate increase of 5 percentage points. Repayment loans secured on residential property may not exceed 85 per cent of property value, whereas credit lines may not exceed 70 per cent of property value. These requirements may be met by additional collateral in the form of other real property or by suretyship or personal guarantee. For residential mortgages in excess of 70 per cent of property value, instalments must be paid. Up to 10 per cent of the volume of mortgages granted per quarter may comprise 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 comply with limits and guidelines set by the bank's board of directors. In order to maintain competition in the market, mortgages that are moved from one institution to another (refinancing) cannot be included in the 10 per cent quota[25].

In September 2016 Finanstilsynet forwarded to the Ministry of Finance its assessment of the question of retaining and possibly tightening the regulations. In light of the strong growth in debt and house prices, Finanstilsynet recommended tightening the regulations as follows:

- The banks' right to depart from the regulations' requirements on debt servicing capacity, loan-to-value ratio and repayment of instalments to be removed.
- The current requirement on the borrower's debt servicing capacity to be supplemented by a provision to the effect that the borrower's overall debt may not constitute more than five times gross annual income.
- The maximum loan-to-value ratio for credit lines to be reduced from 70 per cent to 60 per cent.
- Requirements for payment of instalments on repayment loans to apply to all mortgages with a loan-to-value ratio above 60 per cent, compared with 70 per cent under the current regulations.

In its assessment Finanstilsynet also expressed the view that if the Ministry of Finance wished to retain the rules allowing banks some flexibility, the lower limit for deviation should be reduced from 10 per cent to a maximum of 4 per cent.

The Ministry of Finance circulated the recommendation for comment on 8 September 2016 with the deadline for response set at 24 October 2016.

SECURITIES AREA

MARKET IN FINANCIAL INSTRUMENTS

The Markets in Financial Instruments Directive (MiFID) is transposed in Norway in the Securities Trading Act and the Stock Exchange Act. In the EU a revision of this Directive has been adopted through the MiFID II Directive and the MiFIR Regulation which were originally to be implemented in the EU with effect from 3 January 2017. It has now been decided to defer entry into force by one year, to 3 January 2018. Among the reasons are technical challenges posed by IT systems for compiling data under the scope of application of MiFID II and MiFIR. The Government appointed in 2015 a

[25] 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

law committee charged with drafting provisions to implement the new EU rules in the securities area, including MiFID II, the Reporting Directive and the Market Abuse Directive. The committee will also report on further national regulatory measures to assure consumer protection for investment firms' clients. The committee will also review the mandatory bid obligation and some aspects of the appeal board's treatment of public law decisions reached by regulated markets pursuant to delegated authority.

The committee presented on 2 February 2016 its first interim report proposing amendments to the Securities Trading Act and Securities Trading Regulations. The law proposal aims to implement forthcoming EEA rules corresponding to the EU's amendments to the Transparency Directive (2004/109/EC) et al. The report was circulated for comment with the deadline for response set at 2 June 2016.

The committee is due to present its second interim report by 1 January 2017 (deadline deferred from the initial date of 24 June 2016). This interim report aims to implement forthcoming EEA rules corresponding to the EU's amendments to MiFID II and MiFIR.

RULES ON OTC DERIVATIVES, CENTRAL COUNTERPARTIES AND TRADE REPOSITORIES (EMIR)

EMIR[26], adopted across the EU in July 2012, introduces rules on mandatory clearing and other risk-mitigating measures for OTC derivatives, requirements on reporting derivatives trades to trade repositories and pan-European rules governing central counterparties and trade repositories.

Important provisions, including close regulation of reporting to trade repositories and of the risk-mitigating measures taken by the parties to derivatives contracts, are laid down in regulatory and implementing technical standards. Such standards also make clear 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, the US dollar, Japanese yen and the pound sterling, and for credit derivatives (credit default swaps) in euro. A clearing obligation has also been introduced for specified interest rate derivatives in the Norwegian, Polish and Swedish currencies.

The clearing obligation is to be phased in gradually depending on the counterparties' classification under EMIR. ESMA has this autumn circulated for comment a consultation document proposing an approximately two-year deferment of the clearing obligation for category 3 counterparties (small financials). This is assumed to be of significance or many financial Norwegian counterparties (inasmuch as in the European context and in compliance with established limit values are regarded as small financials). EMIR entered into force across the EU on 16 August 2012 and was incorporated into the EEA Agreement on 30 September 2016. The Ministry stated in that connection its intention to put the Norwegian body of rules implementing the EMIR Regulation and associated level 2 legislative acts into force in the course of the second quarter of 2017. The rationale is that deferred entry into force will allow time to incorporate further level 2 Regulations to EMIR into the EEA Agreement, and time for market participants and Finanstilsynet to prepare for a new regulatory regime.

SECURITIES SETTLEMENT AND SECURITIES REGISTERS

The Ministry of Finance commissioned in 2015 Finanstilsynet to appoint and head up a working group charged with drafting rules to implement expected EEA rules corresponding to Regulation (EU) No 909/2014 on improving securities settlement and on central securities depositories (CSD). The working group was in addition asked to draft rules granting bond issuers insight into the identity of the holders of the bonds they have issued. The working group's proposed rule changes were forwarded to the Ministry on 3 November 2016. The Ministry of finance has circulated the working group's report for circulation with the deadline for response set at 8 February 2017.

The Ministry of Finance, pursuant to the Act on Payment Systems etc., has adopted regulations on implementation of the securities settlement in insolvency situations. The regulations enter into force on 1 January 2017.

UCITS V

The UCITS V Directive (2014/91/EU) amends European rules on collective investment in transferable securities. The Directive is designed primarily to adapt current rules to market developments and to harmonise and strengthen the rules on depositaries, remuneration policy and sanctions. The new rules will help to strengthen the protection mechanisms that already apply to UCITS funds, and will prepare the ground further for UCITS funds as an investment medium for consumers. UCITS V will entail changes to the Securities Funds Act and associated regulations.

The Ministry of Finance tabled on 26 August 2016 a bill recommending amendments to the Securities Funds Act to implement EEA rules corresponding to UCITS V (Prop. 154 L (2015-2016)).

[26] Regulation (EU) 648/2012 on OTC derivatives, central counterparties and trade repositories

EUROPEAN LONG TERM INVESTMENT FUNDS (ELTIFS)

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

The Regulation is aimed at preparing the ground for long-term investments in accordance with the EU's objective of sustainable economic growth. The Regulation will promote the financing of projects, such as infrastructure and research and development, where there is a need for alternative sources of funding. The Regulation entails full harmonisation of the rules governing such fund in the EU, and confines the management of this particular type of fund to AIF managers with requisite authorisation. The ELTIF Regulation permits long-term investment funds to be marketed to non-professional investors on specific conditions.

USE OF TECHNIQUES FOR EFFECTIVE PORTFOLIO MANAGEMENT

The provision of the Securities Funds Act on management companies' right to lend financial instruments on behalf of securities funds was revoked by act of 4 December 2015, and replaced by an explicit clause enabling the adoption of rules in regulations on techniques for effective portfolio management. Section 6-10 was concurrently amended to permit management companies to furnish a fund's assets as security for contracts entered with a view to achieving effective portfolio management. The Ministry of Finance adopted with effect from 1 July 2016 amendments to the Securities Funds Regulations on techniques for effective portfolio management, including the lending of financial instruments and repurchase agreements.

REFERENCE INTEREST RATES

Act of 4 December 2015 no 95 on determination of reference interest rates (Reference Interest Rate Act) entered into force on 1 January 2016. The object of the Act is to help to ensure that frequently used reference interest rates are fixed in a prudent and reliable manner. The Act defines 'frequently used reference interest rates' as any interest rate that is set regularly on the basis of market prices or estimates of prices obtained from financial institutions that is made publicly available and is used to determine payments in or the value of financial instruments or financial contracts. Finanstilsynet will supervise the fixing of reference interest rates. Under a transitional rule established by the Ministry of Finance, the person who fixes the reference interest rate (the administrator) must meet the requirements set out in or pursuant to the Act as from 1 January 2017, and submit an application for approval to the Ministry of Finance by the same date.

The Ministry of Finance adopted on 16 on November 2016 regulations to the Reference Interest Rate Act. The Reference Interest Rate Regulations imposes further requirements on how the administrator shall organise, control and monitor the reference interest rate fixing process. The reference interest rate shall inter alia be set on the basis of reliable and representative interest rate contributions, and the administrator shall have in place a monitoring committee charged with monitoring the delivery of interest rate contributions and the fixing of the reference interest rate. The regulations also contain further requirements on the panel banks, i.e. the banks which contribute data/estimates for the reference interest rate fixing process. The panel banks shall inter alia take measures to identify and handle conflicts of interest related to the delivery of interest rate contributions, and the bank employees participating in the delivery of interest rate contributions shall in no event have access to information on the bank's trading positions related to the reference interest rate concerned.

The EU's Regulation No 2016/1011 lays down rules concerning the fixing of reference interest rates and other indices used as benchmarks in financial instruments and contracts, or to measure the performances of investment funds. The Regulation was adopted on 8 June 2016, and the requirements enter into force across the EU on 1 January 2018. The Regulation is expected to be incorporated into the EEA Agreement in the course of 2017. The Reference Interest Rate Act provides the statutory basis for future implementation of the Reference Interest Rate Regulation's rules on reference rates. However, the Act does not authorise implementation of the above Regulation's rules on indices other than reference interest rates. The Ministry of Finance has indicated its intention to ask Finanstilsynet to draft a widening of the Reference Interest Rate Act so that it covers the full range of Regulation No 2016/1011.

RULES APPLYING TO TWO OR MORE TYPES OF SUPERVISED INSTITUTIONS

PRIIPS

Finanstilsynet, on commission from the Ministry of Finance, has prepared a consultation document presenting a proposal for implementation in Norwegian law of Regulation (EU) No 1286/2014 of the European Parliament and of the Council on key information documents for packaged retail and insurance-based investment products. The Regulation, generally known as the PRIIPs Regulation, is expected to be incorporated into the EEA Agreement.

The PRIIPs Regulation harmonises information requirements to be met by vendors of packaged, insurance-based investment products across the banking, insurance and securities sector. The Regulation requires the drawing up of a standardised, key information document (KID) to be

made available to non-professional investors before an agreement on the sale of such products is signed.

Finanstilsynet proposes in its consultation document that the PRIIPs Regulation should be implemented in a new Act on Key Information on Packaged and Insurance Based Investment Products. It is recommended that the Act should enter into force on 1 July 2017 at the earliest.

After Finanstilsynet forwarded its proposal to the Ministry of Finance, the EU Commission recommended deferring entry into force of the Regulation until 1 January 2018[27]. This was in response to the Parliament's and Council's refusal earlier in 2016 to accept supplementary provisions established by the EU Commission.

MONEY LAUNDERING

The Ministry of Finance appointed on 6 February 2015 a law committee to consider amendments to the anti-money laundering legislation. The committee delivered its first interim report on 6 November 2015. This first interim report mainly deals with how the supervision of new and existing reporting entities that are not subject to supervision should be organised and who should be the supervisory authority.

The committee is to submit its second interim report by 16 December 2016. The mandate for this report is to draft statutory amendments to implement expected new EEA rules corresponding to the EU's coming Fourth Money Laundering Directive, and a new EU Regulation (2015/847) on information accompanying transfers of funds. The mandate also includes drafting a proposal regarding a register of ultimate beneficial owners. The committee will also recommend steps to act on observations set out in the FATF's mutual evaluation of Norway from December 2014.

[27] http://europa.eu/rapid/press-release_IP-16-3632_en.htm

THEME I HOUSING DEBT AND HOUSEHOLDS' FINANCIAL VULNERABILITY

Household debt consists primarily of loans secured on residential property. Rising house prices contribute to heavier borrowing for house purchase. The rise in prices also increases the wealth of house owners not intending to sell an existing dwelling, thus enabling heavier borrowing for them too. Rapid house price growth and rapid accumulation of debt relative to disposable income will render households vulnerable to changing prospects for the economy. This can affect household consumption and activity levels in business and industry, thereby entailing losses for banks. Imbalances in debt and house price growth consequently pose a substantial risk to financial stability.

The first section (part 1) of this theme chapter details the results of Finanstilsynet's residential mortgage lending survey, which maps a number of factors bearing on banks' granting of such mortgages. The regulations governing mortgage lending oblige banks to set requirements on the size of collateral relative to the mortgage granted, on the borrower's debt servicing capacity and on instalment repayments. The regulations permit up to 10 per cent of mortgages granted in any quarter may diverge from one or more of the conditions set for loan-to-value (LTV) ratio, debt-servicing capacity and instalment repayments.

Part 2 of this chapter discusses a possible development in households' financial vulnerability in the years ahead with a basis in Finanstilsynet's macro model NAM-FT. This is an aggregated model which can be used to analyse data for the average household. The analysis takes a basis in a fairly favourable scenario for the Norwegian economy ahead driven by continued low interest rates, causing house prices and household debt to continue to grow. This baseline scenario is compared with a possible scenario in the event of a sudden rapid rise in the interest rate level.

Households differ in a number of areas. For example, the debt and interest burden varies with income size and borrower age. These differences may have consequences that are not captured in an aggregated model. Differences among households in terms of income and debt and possible consequences thereof are discussed in part 3 of this chapter.

Table I.1 Key figures for repayment mortgages, shares in per cent

	2014	2015	2016
LTV ratio over 85 per cent	19	16	15
LTV ratio over 85 per cent including additional collateral	10	7	5
Insufficient debt servicing ability (5 pp interest rate increase)	4	2	4
Interest-only above 70 per cent LTV ratio	12	9	8

Source: Finanstilsynet

Table I.2 Key figures for lines of credit, shares in per cent

	2014	2015	2016
LTV ratio over 70 per cent	12	13	11
LTV ratio over 70 per cent including additional collateral	8	6	4
Insufficient debt servicing capacity (5 pp interest rate increase	2	1	1

Source: Finanstilsynet

PART 1: RESIDENTIAL MORTGAGE LENDING SURVEY

In 2015 the Ministry of Finance adopted regulations on requirements for new residential mortgage loans (Residential Mortgage Lending Regulations), effective as from 1 July 2015. The regulations aim to encourage a more sustainable trend in household debt and house prices. The regulations set maximum permitted LTV ratios, require assessments to be made of debt servicing capacity and instalments to be repaid on mortgages with a high LTV ratio[28]. In the course of a quarter up to 10 per cent of the value of mortgages granted may diverge from the requirements set in the main provisions of the regulations[29]. Finanstilsynet's recommendation to amend the mortgage lending regulations is under consideration by the Ministry of Finance. The regulations are described more fully in chapter 4.

The banks provide two forms of loan secured on residential property: repayment mortgages and lines of credit. Loans secured on residential property can be used for house purchase, for other purposes and to refinance existing mortgages from the same bank or other banks. The most common type of loan is the repayment mortgage which makes up 80 per cent of total mortgages from the banks[30]. A credit line allows the borrower to draw money up to a credit ceiling against the equity in their home without making repayments.

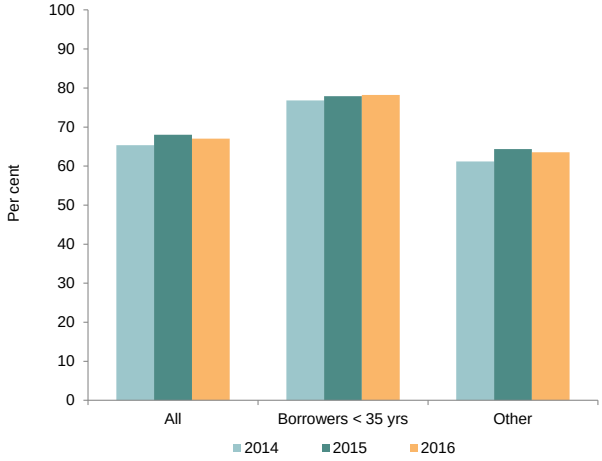
[28] See sections 3, 4 and 6 of the Residential Mortgage Lending Regulations.
[29] See section 7 of the Residential Mortgage Lending Regulations.
[30] Reported to Finanstilsynet via ORBOF.

Table I.3 Purpose of financing, repayment mortgages. Share of total number of loans (per cent)

Purpose	2014	2015	2016
House purchase	36	30	35
- Of which, purchase of second home	6	6	6
Other purposes, including refinancing	55	60	53
Refinancing of mortgages from other banks	9	10	12

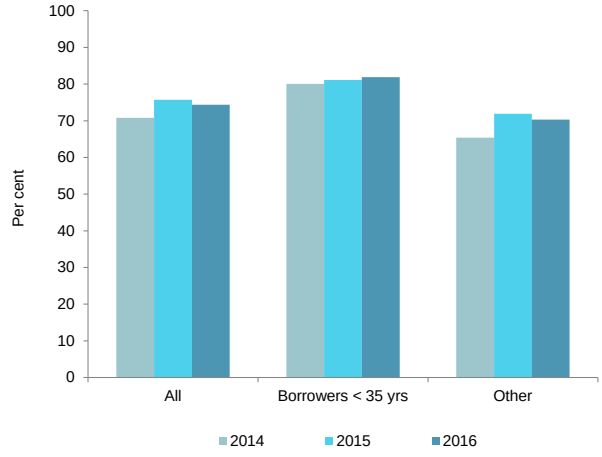
Source: Finanstilsynet

I.1 Average LTV ratio by borrower group. All repayment mortgages



Source: Finanstilsynet

I.2 Average LTV ratio by borrower group. Repayment mortgages for house purchase



Source: Finanstilsynet

The residential mortgage lending survey is designed to capture trends in bank lending practices as regards loans secured on residential property. Finanstilsynet monitors compliance with the regulations at on-site inspections and through copies of reports submitted to the banks' boards of directors. In the autumn 2016 survey the 30 largest banks (including foreign branches), measured by market share for residential mortgages, reported data on 8,000 new repayment loans and credit lines secured on residential property granted after 15 August 2016. The data were reported to Finanstilsynet on 30 September. The banks reporting to Finanstilsynet held an aggregate market share of 88 per cent of residential mortgages in Norway.

MAIN PICTURE

The latest autumn survey shows that this year banks granted a larger proportion of repayment mortgages to borrowers who lacked sufficient income to meet normal living expenses and concurrently service debt after an interest rate increase of 5 percentage points (table I.1). It was particularly in the case of young borrowers that the share with inadequate servicing capacity rose compared with last year. For credit lines the share is unchanged from last year (table I.2). The share of repayment mortgages granted with an LTV ratio above the 85 per cent ceiling declined somewhat compared with previous years. Lending practices with respect to interest-only mortgages were also tightened. The proportion of deviations in the tables from the three requirements should be viewed in light of the flexibility allowed to the banks; see the regulations. Loans granted by the banks in the quarter that diverged from the requirements of the regulations are described more fully in the box article.

Repayent mortgages

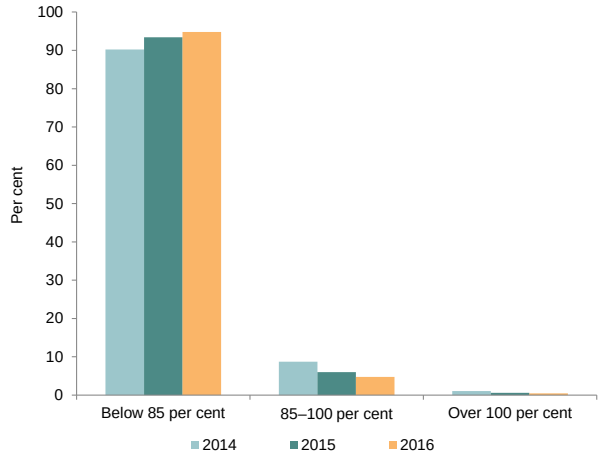
Loans for house purchase made up 35 per cent of all repayment mortgages in the survey. This figure includes second home purchases, where the share was unchanged compared with previous surveys (table I.3). Second home purchases – which include purchases of homes for the borrower's children and homes purchased as an investment – accounted for 2 and 4 per cent respectively of total new repayment mortgages for house purchase. Other repayment mortgages comprised new borrowing against equity in an existing home and refinancing mortgages, either from the same bank or after changing banks.

Loan-to-value (LTV) ratio

The survey shows that households that took out new home loans in the form of repayment mortgages had an LTV ratio averaging 67 per cent. This is a slight decline from 2015, but higher than in 2014 (chart I.1). The average LTV ratio for borrowers intending to buy a house was 74 per cent – also a slight decline compared with 2015 (chart I.2). This decline may be due to somewhat tighter credit practices, and is confirmed by Norges Bank's residential lending survey. House price growth and household debt growth are further described in chapter 1.

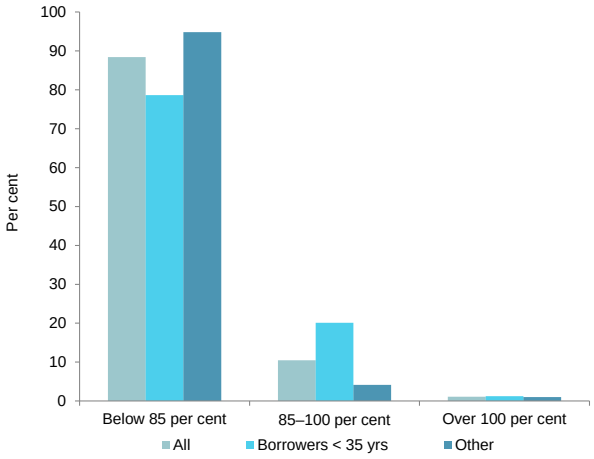
For new credit lines the LTV ratio averaged 56 per cent in 2016 and 55 and 53 per cent in 2015 and 2014 respectively.

I.3 Repayment mortgages by LTV ratio incl. additional collateral



Source: Finanstilsynet

I.4 Repayment mortgages for house purchase incl. additional collateral. 2016



Source: Finanstilsynet

Young borrowers normally have a higher LTV ratio than other borrowers. This is due to fewer working years in which to save up for house purchase. The residential mortgage lending survey makes it clear that this group of borrowers has a considerably higher LTV ratio for new residential mortgages than other borrowers.

The average LTV ratio for the under 35s was 78 per cent, which is approximately unchanged from the last two years (chart I.2). The same applied to young borrowers that took out lines of credit. The average LTV ratio was clearly higher for these borrowers than for other borrowers.

Young borrowers are particularly vulnerable since they often have small financial buffers. Young borrowers' home loans are primarily repayment mortgages. Of all repayment mortgages for house purchase, 39 per cent were taken out by under 35s – a somewhat lower figure than in the two preceding years.

Compared with previous years, banks have granted a somewhat lower proportion of loans above the LTV limit (table I.1 and I.2). This applies to repayment loans and credit lines alike. The share of repayment loans with an LTV ratio above 85 per cent was 15 per cent, and, including additional collateral, 5 per cent (chart I.3). The banks granted a lower proportion of repayment loans with a high LTV ratio to both young and other borrowers, but the figure remains high for young borrowers. 13 per cent of mortgages to the under 35s had an LTV ratio including additional collateral above 85 per cent, while for other borrowers the figure was 2 per cent.

The share of loans for house purchase with an LTV ratio above 85 per cent was larger than for loans for other purposes. For overall repayment loans for house purchase the share was 12 per cent including additional collateral (chart I.4). This is marginally lower than the figure for 2015.Young borrowers on the other hand increased their share from a high level. Among the under 35s, 21 per cent had an LTV ratio including additional collateral above the 85 per cent limit. In 2015 the share was 20 per cent. For other borrowers the share was reduced from 7 per cent in 2015 to 5 per cent this year.

For lines of credit the proportion of mortgages with an LTV ratio above 70 per cent fell to 4 per cent including additional collateral. This share has fallen in recent years (table I.2).

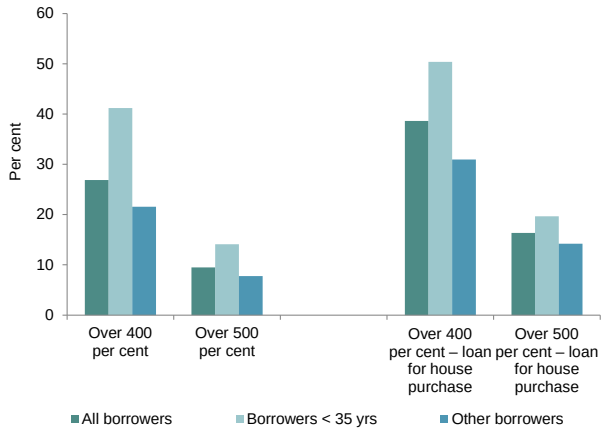
Servicing capacity

The requirement of sufficient servicing capacity entails that the borrower must have an income large enough to service their mortgage after an interest rate increase of at least 5 percentage points while at the same time meeting normal living expenses. This criterion sets an upper limit for household mortgage borrowing and aims to ensure that households have a sufficient financial buffer to withstand an interest rate hike. Both 2014 and 2015 saw a fall in the proportion of new mortgages to households that lacked sufficient servicing capacity. The results of the 2016 survey show that this positive trend has reversed. For repayment loans the share rose to 4 per cent (table I.1), with mortgages granted to young borrowers being the largest contributor. For the under 35s the share was 6 per cent, which is 2 percentage points higher than last year. The share of mortgages to all borrowers with a LTV ratio above 85 per cent including additional collateral, and who at the same time fell short of the servicing capacity requirement, rose from 4 per cent to 9 per cent.

I.5 Debt relative to gross income, repayment mortgages

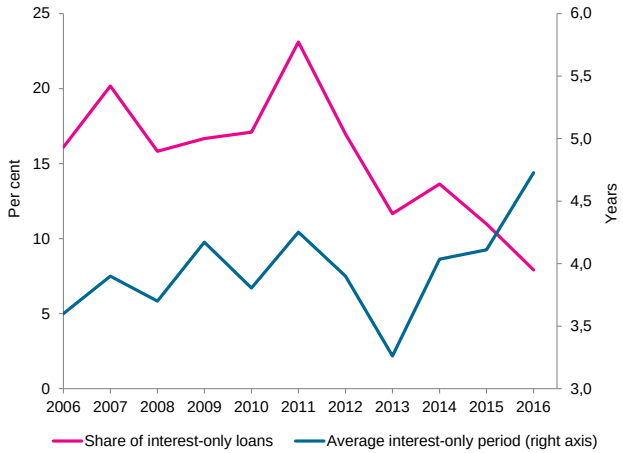
Source: Finanstilsynet

I.6 Debt relative to gross income over 400 and 500 per cent. 2016. Repayment mortgages, 2016



Source: Finanstilsynet

I.7 Share of interest-only loans and average interest-only period



Source: Finanstilsynet

For lines of credit, the volume was unchanged from last year when 1 per cent failed to meet the requirement of sufficient servicing capacity. The share of credit lines with an LTV ratio above 70 per cent including additional collateral where the borrower failed to meet the servicing requirement rose from 1 per cent in 2015 to 2 per cent in 2016.

Debt relative to gross income

Household debt relative to household incomes is unprecedentedly high. The ratio of overall debt to gross income averaged 323 per cent for borrowers who took out a repayment mortgage. This is a hefty increase over last year's survey (chart I.5). For young borrowers the ratio was 371 per cent, the highest recorded in the residential mortgage lending surveys. The debt to gross income ratio averaged just under 400 per cent for young borrowers with an LTV ratio above 85 per cent. Mortgages with an LTV ratio above 85 per cent to young borrowers that were used for house purchase had on average a ratio of 414 per cent, which is a substantial increase from 2015 and 2014.

Of total repayment mortgages, a large share of borrowers under the age of 35 had an average debt to gross income ratio above 500 per cent (chart I.6). For other borrowers the share was also high, but lower than for young borrowers. For mortgages for house purchase the share above 500 per cent was considerably higher for both borrower groups.

Repayment loans: interest-only period and maturity

Interest-only mortgages make for a reduced liquidity burden, and can encourage some households to take out a larger mortgage than they would otherwise have done. When computing servicing capacity, most banks have factored in normal instalments also where an interest-only period has been granted. Eight per cent of loans with an LTV ratio above 70 per cent were interest-only, which is marginally lower than last year (table I.1). The interest-only period averaged four years, showing no change from 2015. For all interest-only loans, the interest-only period averaged five years, which is one year more than last year (chart I.7).

The average term for new repayment loans has hovered between 22 and 23 years since 2007, but rose in the present survey to 23.5 years.

CONCLUSION

The residential mortgage lending survey conducted in autumn 2016 suggests that the banks have eased the servicing capacity requirement in their lending practice. Compared with the previous year, a larger share of repayment mortgages were granted where the borrower had insufficient income to service the mortgage after a 5 percentage point interest rate hike while at the same time meeting normal living expenses. The increase was

particularly large for young borrowers. The fact that the share of mortgages where the borrower has insufficient servicing capacity is rising in a period of historically low interest rates gives cause for concern. Total debt relative to gross income rose strongly compared to previous years, and showed the strongest growth in the case of young borrowers. The survey also shows that the volume of mortgages with a high LTV ratio to young borrowers rose compared with 2015. The survey findings suggest that households that took out new mortgages have become more vulnerable, in particular the under 35s.

Banks' compliance with the residential mortgage lending regulations

Under the current mortgage lending regulations banks submit each quarter a report to their board of directors showing the proportion of mortgages granted that do not meet the regulations' requirements with respect to servicing capacity, LTV ratio or payment of instalments. Since the regulations entered into force on 1 July 2015 Finanstilsynet has obtained such reports for 19 of the largest mortgage lending banks. Reports have also been obtained for a selection of smaller banks on a random basis and in connection with the ongoing supervisory activity.

In order to allow the banks flexibility in their credit process, section 7 of the regulations permits up to 10 per cent of loans granted per quarter to exceed the quantitative limits. In the third quarter of 2015, which was the first quarter after the regulations entered into force, four of the 19 largest residential mortgage banks exceeded their limit. In the following quarter two banks did so. While all 19 banks were within their limit in their reporting for the first quarter of the current year, reports for the second quarter showed that one bank was once again over the limit. In the third quarter of 2016 all banks were again compliant with the flexibility limit. Where smaller banks are concerned, a small number of overruns have been identified which have been followed up on through supervision.

The average rate of non-compliance for the 19 banks as a whole in the third quarter was 10.3 per cent. The figure declined in the following two quarters, only to rise in the second quarter of the current year and remained roughly constant in the third quarter. Reporting for the third quarter of 2016 shows a 6.6 per cent rate of non-compliance.

The reports show wide variation in the banks' use of the flexibility permitted by the regulations. The third quarter 2016 reports show that five banks had an overall non-compliance rate above 8.0 per cent. Seven reported a figure below 5 per cent, of which two were below 2 per cent.

Where the five banks with the highest overall non-compliance in the third quarter of 2016 are concerned, the distribution of non-compliance varies widely between poor debt servicing capacity, high LTV ratios and repayment requirements. Finanstilsynet lacks a basis on which to draw a general conclusion as to what factors underlie the observed variations. Overall, the maximum LTV ratio is the criterion that accounts for the largest portion of cases of non-compliance.

Up to the point at which the regulations entered into force the banks were required to submit internal reports to the board of directors on compliance with the previous residential mortgage lending guidelines. Finanstilsynet has since 2011 obtained the internal reports for eight of the largest banks. While not directly comparable with the current reporting under the regulations, these reports indicate that the proportion of loans to borrowers with poor servicing capacity has fallen in the largest banks since the regulations came into force.

The great majority of banks have come out with non-compliance rate below the regulations' maximum limit. The reason may be that the large banks in particular find it difficult to keep their non-compliance rate in line with a given level on a quarterly basis, and that they in large measure have sought to manage their loan portfolio through internal guidelines for creditworthiness assessments and market-related measures rather than establish their own internal non-compliance limits. Moreover, in order to avoid overstepping the 10 per cent limit banks may have put in place stricter measures than in retrospect have proven to be necessary to avoid overruns.

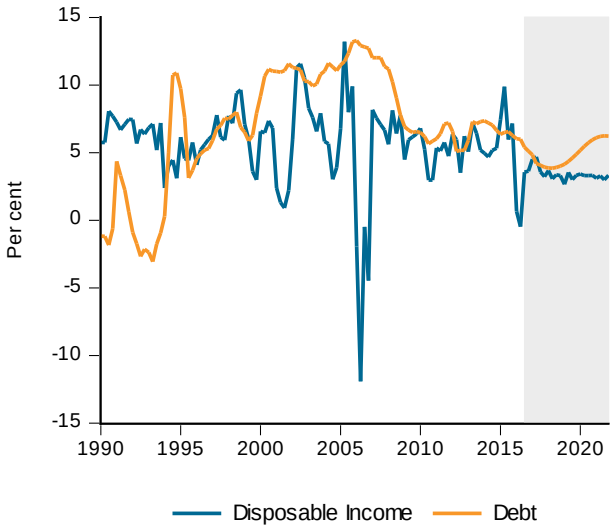
PART 2: HOUSEHOLDS' VULNERABILITY TO HIGHER INTEREST RATES

INTRODUCTION

Interest rates internationally and in Norway are very low. This has contributed to a sharp increase in household debt and house prices in recent years, and households' vulnerability has risen substantially. This part of the theme chapter presents a shift analysis that shows how the Norwegian economy, housing market, households' financial situation and banks' problem loans could develop in the event of a hefty interest rate hike.

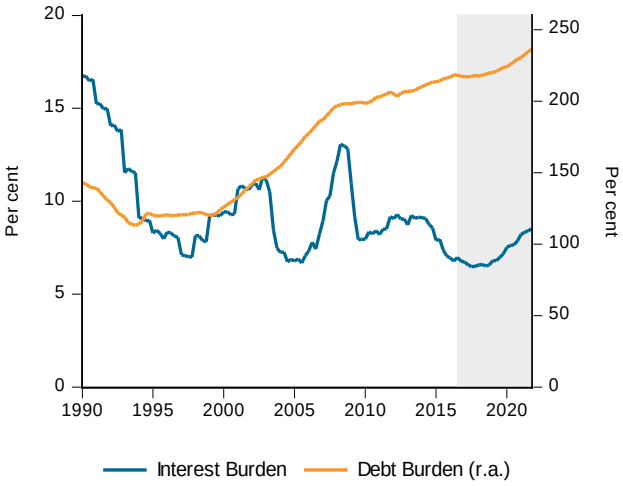
In the period from 2000 to 2015 households' gross debt rose by almost 260 per cent. In the same period household incomes rose by 120 per cent and interest expenses by about 70 per cent. Households' interest revenues were approximately unchanged. House prices rose by 146 per cent in the period.

I.8 Household disposable income and debt (growth)



Sources: Statistics Norway and Finanstilsynet

I.9 Household debt and interest burden



Sources: Statistics Norway and Finanstilsynet

Norwegian households carry a historically high debt burden measured as debt relative to disposable income[31]. For the average household, debt measured about 215 per cent of disposable income in 2015. 15 years previously the debt burden measured about 130 per cent. Today many households have an overall debt that exceeds five times their income.

In 2000 the average real interest rate on bank loans before tax was about 5 per cent whereas in 2015 it was below 2 per cent. Households spent in 2000 on average about 9 per cent of their income (disposable income before interest expenses) on interest payments. In 2015 interest expenses measured 7 per cent of income, despite a strong increase in debt.

[31] Disposable income is defined as the difference between pay, operating surplus, property income received, public benefits and other income on the one hand, and taxes, property income paid and other expenses on the other.

The decline in real interest rates and expectations of continued low rates are an important reason why household debt has grown faster than household incomes. Another reason is the strong growth in house prices which has raised the market value of residential property, thereby providing a basis for heavy borrowing.

STABLE DEVELOPMENT IN THE YEARS AHEAD

A possible scenario for the Norwegian economy in the next five years is for interest rates to remain low, unemployment to rise moderately but to remain at a relatively low level, household incomes to rise less than previously, growth in private consumption and corporate investment to decline somewhat, and GDP growth to edge down somewhat compared with recent years.[32] [33]

This scenario entails a development in which household debt continues to rise faster than incomes in the period to 2021 (chart I.8).[34] Households' overall debt rises by about 30 per cent, while nominal disposable income grows by almost 20 per cent. Bank lending rates[35] and Norwegian money market rates remain low through the projection period but rise somewhat towards the end of the period – partly as a result of a slight increase in the international interest rate level.

Because debt continues to grow faster than incomes, households' debt burden rises from 218 per cent in 2016 to just under 235 per cent in 2021 (chart I.9).[36] The combination of relatively strong debt growth and a slight increase in bank lending rates brings an increase of just over 45 per cent in households' interest expenses, which is considerably more than the growth in household incomes. The interest burden therefore rises from 6 per cent in 2016 to 8 per cent in 2021, but remains at a relatively low level in historical terms (see chart I.9).[37]

House prices continue to rise and are 25 per cent higher at the end of the projection period than at the end of the second quarter of 2016. Much of the growth is ascribable to

[32] The analyses are based on projections up to 2021 using the NAM-FT macroeconometric model. This model is based on the Norwegian Aggregate Model (NAM) and was developed particularly with a view to stress testing of banks and analyses of financial stability. The model was developed by economics professors Ragnar Nymoen (UiO) and Gunnar Bårdsen (NTNU). See Risk Outlook 2015 for a description of NAM-FT. Documentation of NAM can be downloaded from Ragnar Nymoen's webpage: http://folk.uio/nymoen/. See also Risk Outlook 2014 and Risk Outlook 2016 for descriptions of the model and Finanstilsynet's stress test tools.

[33] This scenario is termed the baseline scenario in the following discussion of the shift analysis.

[34] The analysis uses quarterly data without seasonal adjustment. A consequence of this is relatively wide variation in growth rates from quarter to quarter.

[35] The average lending rate to local authorities, non-financial firms and households.

[36] The debt burden is defined as the ratio of debt to disposable income.

[37] The interest burden is defined as the ratio of interest expenses to disposable income before interest payments.

expectations of low interest rates and income growth, but the interplay between credit growth and house price growth is also important. Higher house prices bring higher mortgage values, providing households with a basis for further debt incurrence and banks with collateral for mortgages granted. The close connection between increased debt and higher house prices is illustrated in chart I.10. Problem loans as a share of banks' aggregate lending remain low, but the share of problem loans to the corporate market shows a slight rising tendency (chart I.11).[38]

A shock in the form of for example higher interest rates or lower international demand for Norwegian goods will have significantly greater consequences for the economy when the leverage ratio in the economy is high than when it is low. The household debt burden is already unprecedentedly high in 2016. The scenario outlined above entails that Norwegian households' financial vulnerability will continue to increase in the years ahead.

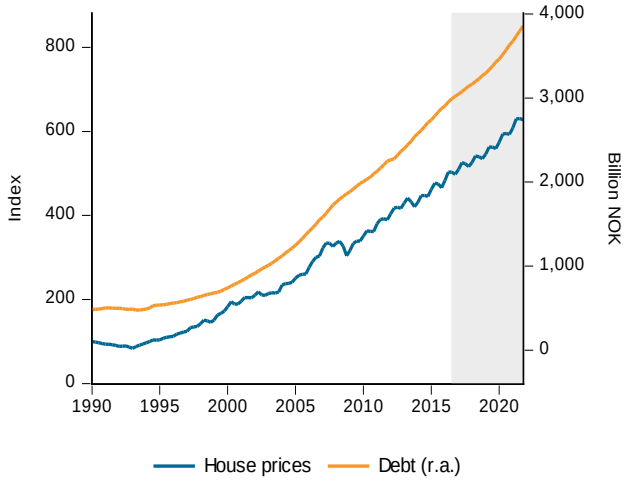
SHIFT ANALYSIS: INTEREST RATE HIKE

In order to illustrate possible consequences of an interest rate increase, Finanstilsynet has carried out a shift analysis using the NAM-FT macroeconometric model. The analysis covers the period from the third quarter of 2016 to the fourth quarter of 2021.[39] Many households see a considerable reduction in disposable income if interest rates increase. This is because a large proportion of households are heavily indebted and have small financial buffers in the form of bank deposits and interest bearing securities.[40] An interest rate hike will also heighten the likelihood of a significant decline in house prices.

The residential mortgage lending regulations are aimed at reducing risk to the individual borrower, the individual bank and the financial system. Under the regulations banks are required to measure a borrower's capacity to service the mortgage based on the borrower's income and all relevant expenses, including interest, mortgage instalments and normal living expenses. In its assessment the bank has to factor in an interest rate increase 5 percentage points above the prevailing rate level. If the borrower lacks sufficient means to meet normal expenses after the rate increase, the mortgage shall not be granted.

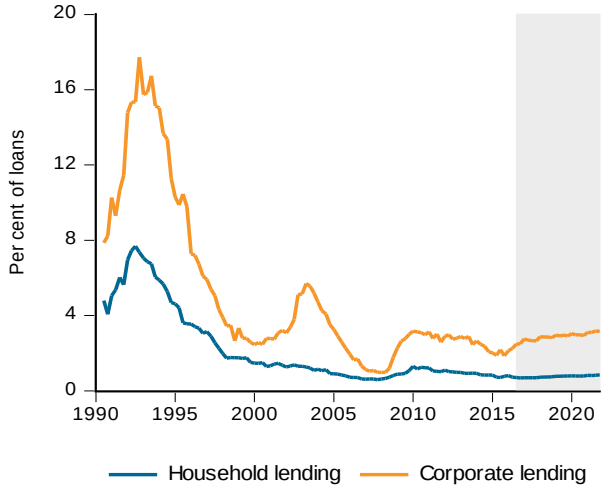
[38] Problem loans are defined as non-performing loans plus loans that are loss provisioned but performing.
[39] The shock (or shift) is assumed to occur in the third quarter 2016, and the shift scenario is compared with the baseline scenario, which is described under the preceding heading.
[40] NAM-FT is an aggregated model for the Norwegian economy. This entails inter alia that no distinction is drawn between households with high or low income and/or high or low debt. Model calculations of households' financial vulnerability accordingly illustrate the position and path for the average household. Large differences between households' income and wealth position may however have a bearing on the macroeconomy given an income or interest rate shock. Theme chapter part 3 gives an account of heterogeneity of income and wealth position and some possible consequences.

I.10 Household debt and house prices



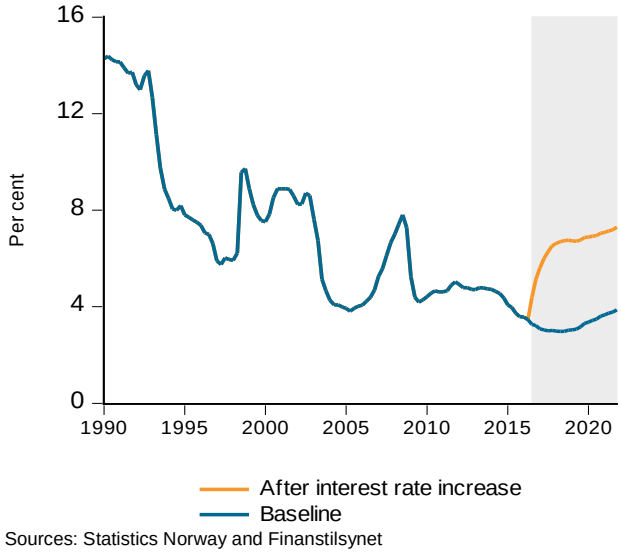
Sources: Statistics Norway and Finanstilsynet

I.11 Banks' problem loans



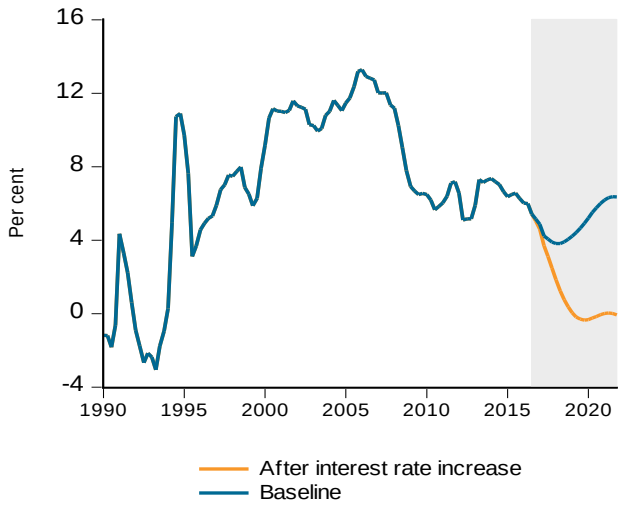
Sources: Statistics Norway and Finanstilsynet

I.12 Banks' average lending rate



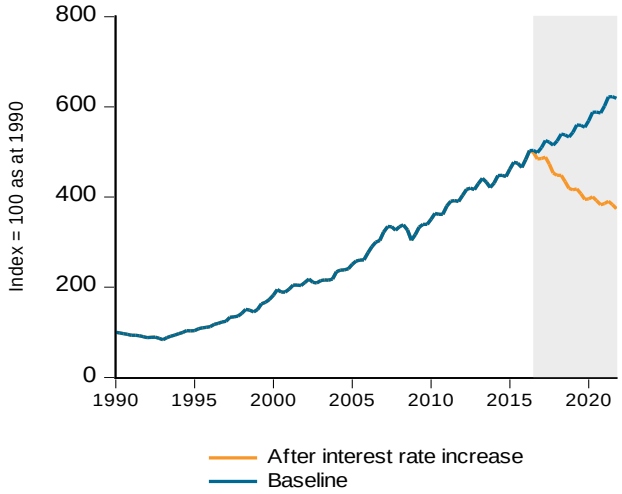
Sources: Statistics Norway and Finanstilsynet

I.13 Household debt growth



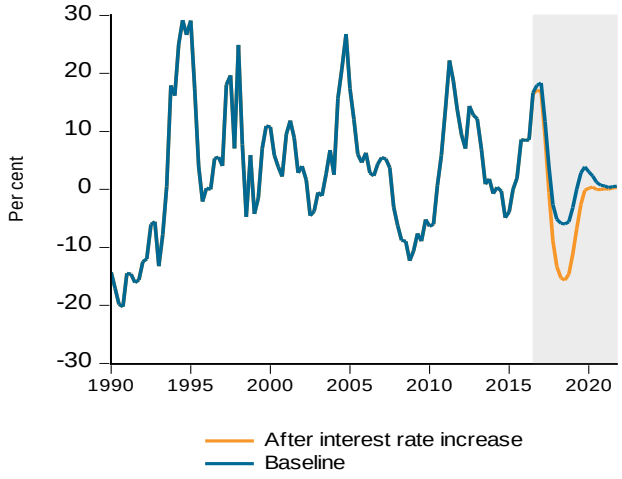
Sources: Statistics Norway and Finanstilsynet

I.14 House price index



Sources: Statistics Norway and Finanstilsynet

I.15 Housing investments (growth)



Sources: Statistics Norway and Finanstilsynet

The residential mortgage lending regulations help to reduce banks' risk of loan losses and households' risk of being unable to service their mortgage after a sharp interest rate increase. The Norwegian economy may nonetheless be negatively impacted by a higher interest rate level as shown by the discussion below.

The shift entails that, as a result of turbulence in the international financial system, foreign money market rates rise sharply and remain high throughout the projection period. The turbulence is assumed to start with a monetary policy tightening internationally that leads to higher interest rates, falling asset prices, liquidity problems in international banks and reduced world trade. This feeds through to Norwegian banks through higher funding costs which the banks compensate for by charging higher rates on loans to households and firms. In the shift scenario the interest rate level is 3 to 4 percentage points higher than in the baseline scenario (chart I.12).

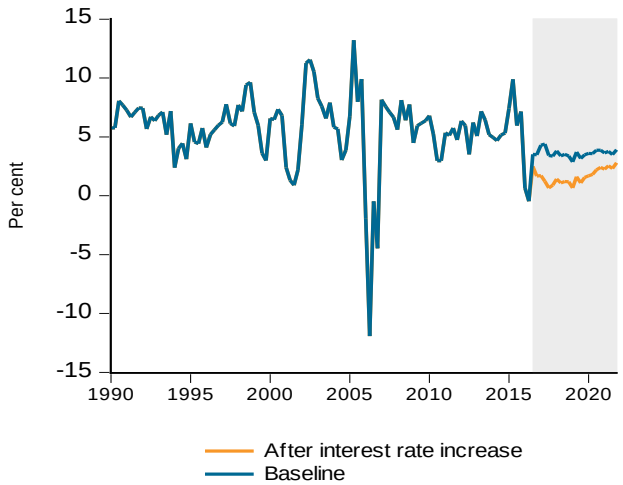
A strong interest rate increase can lead to impaired confidence in future economic development and to a negative spiral in which confidence is further impaired. In a situation of strong interest rate increase and downturn in the economy, banks may also be disinclined to grant new loans. Both impaired confidence and procyclical bank behaviour affect credit, consumption and house prices negatively in the shift scenario and compound the effect of the interest rate increase. Modelling the effect of a shift in sentiment among households is a complicated matter, and uncertainty about the effect on house prices and consumption is substantial. In the shift scenario the contribution from change in households' confidence in future economic development is therefore kept relatively moderate. The negative consequences of a change in household sentiment may however prove considerably larger.

The interest rate hike brings a reduction in households' debt build-up (chart I.13). This is because it becomes costlier to incur new debt, growth in disposable income is reduced and house prices fall.

The interest rate hike also further reduces debt growth among firms from a moderate level in the baseline scenario, and brings debt growth of approximately zero in the period2018-2021. A higher interest rate weakens corporate earnings, makes borrowing more costly and reduces the profitability of new investments.

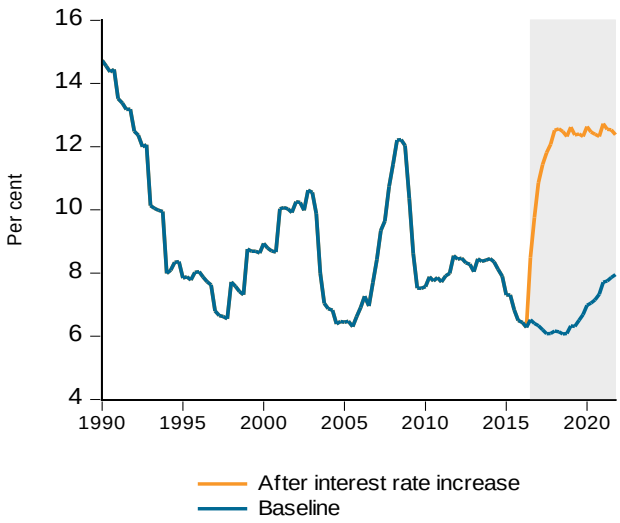
Higher interest rates lead to a fall in house prices (chart I.14). In 2021 house prices are about 25 per cent lower than in the second quarter of 2016. Compared with the baseline scenario in 2021, house prices in the shift scenario are 40 per cent lower. Higher interest rates, falling house prices and lower growth in incomes spread contagion to housing

I.16 Household disposable income (growth)



Sources: Statistics Norway and Finanstilsynet

I.17 Household interest burden



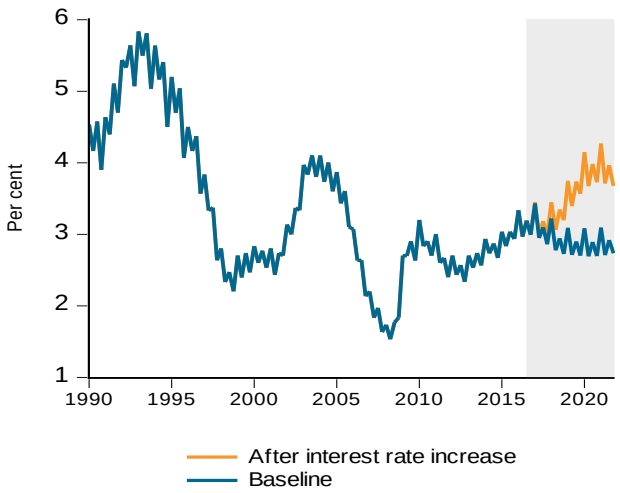
Sources: Statistics Norway and Finanstilsynet

investments where growth turns strongly negative before stabilising at about zero per cent (chart I.15). This will reduce demand in Mainland Norway, leading to low investment and activity levels among firms in general, which is an important reason for the increase in unemployment (chart I.18).

In the baseline scenario (the years 2017-2021) households' nominal disposable income rises by between 3.1 and 4.1 per cent annually, whereas growth in the shift scenario lies between 1 and 2.5 per cent (chart I.16). The interest rate increase contributes to a reduction in disposable income and explains a significant portion of the difference between the scenarios, but higher unemployment and lower wage growth are an additional contributory factor.

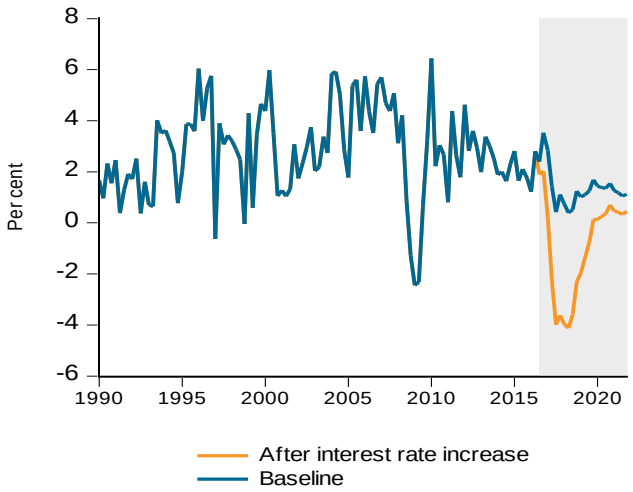
Unprecedentedly high debt combined with an interest rate increase and weak income growth lead to an upsurge in households' interest burden (chart I.17). The increase can be compared with what happened when the key policy rate was raised in autumn 2007. However, in contrast to that occasion, interest rates are posited to remain high over the next five years. A strong increase in the interest burden entails low liquidity among households, contributing to a reduction in private consumption (chart I.19). The interest rate hike also plays a part in reducing the debt-financed portion of consumption, both because borrowing becomes more costly and because lower house prices narrow the scope for borrowing against residential property, including home equity credit lines.

I.18 Registered unemployment



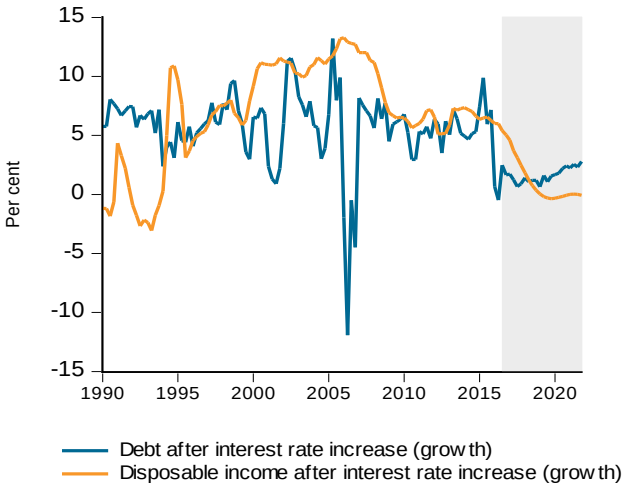
Sources: Statistics Norway and Finanstilsynet

I.19 Private consumption (growth)



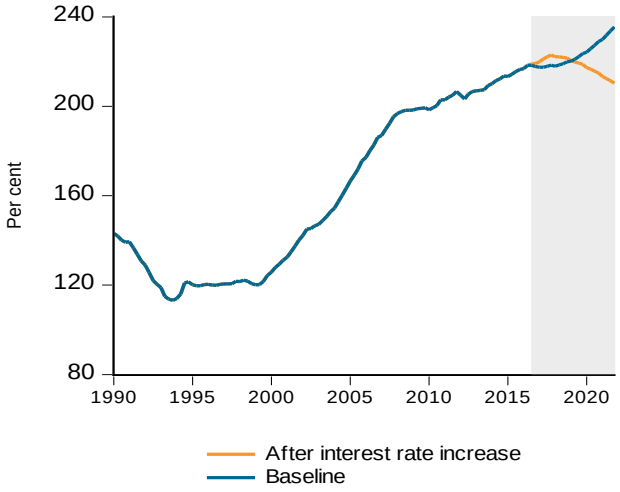
Sources: Statistics Norway and Finanstilsynet

I.20 Household disposable income and debt (growth)



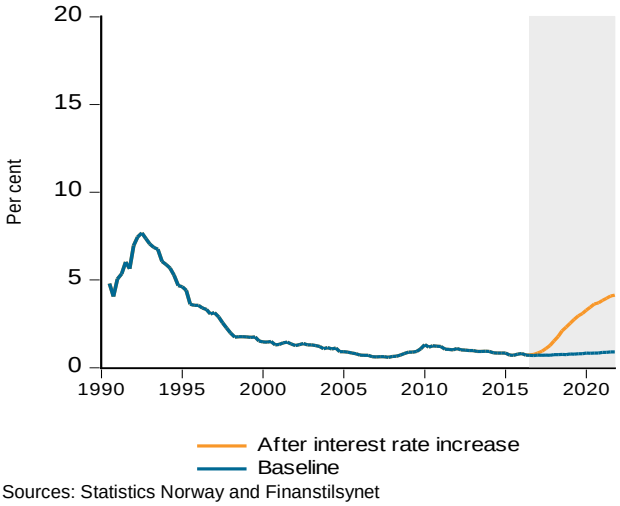
Sources: Statistics Norway and Finanstilsynet

I.21 Household debt burden



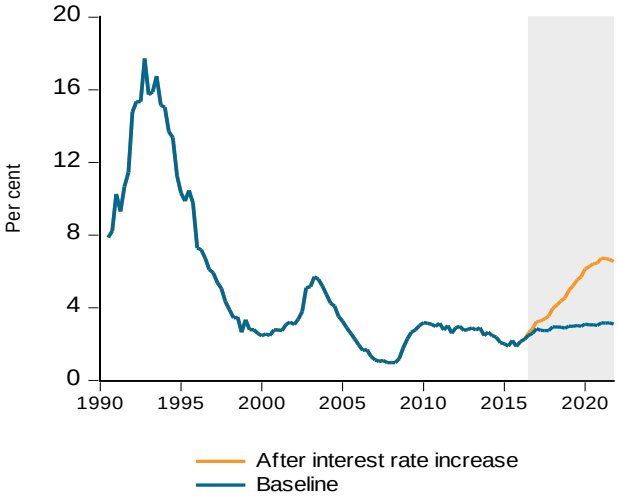
Sources: Statistics Norway and Finanstilsynet

I.22 Problem loans to households as a share of total loans to households



Sources: Statistics Norway and Finanstilsynet

I.23 Problem loans to corporates as a share of total loans to corporates



Sources: Statistics Norway and Finanstilsynet

As described above, the interest rate hike leads to a marked slowdown in household debt growth. A fall is concurrently seen in growth in disposable income (chart I.20). The overall effect on the household debt burden is therefore relatively limited (chart I.21). In the shift scenario the debt burden is reduced to 210 per cent, which is about 8 percentage points lower than at the start of the projection period.

In the baseline scenario the debt burden rises to 233 per cent, so that the differences between the baseline and shift scenario are relatively wide in 2021. Households' debt burden nonetheless remains high. This illustrates an important empirical observation related to the trend in debt burden after a long period of strong debt growth halted by a shock: lower disposable income impedes debt repayment.

In the baseline scenario the Norwegian economy follows a weaker path than in recent years. Problem loans as a share of all loans from banks to personal borrowers rises from 0.7 to 0.9 per cent (chart I.22). In the shift scenario the increase in households' interest burden, higher unemployment and weaker GDP growth bring a relatively large increase in problem loans. By the end of 2021 such loans have risen to 4 per cent, which is about half of the level seen during the banking crisis early in the 1990s.

The proportion of problem loans to firms rises in the baseline scenario from 2.5 to 3.1 per cent of overall lending to firms (chart I.23). In the shift scenario the share rises to 6.5 per cent. At its peak during the banking crisis it was close to 18 per cent.

For the banks the consequences in the form of increased problem loans are significantly less serious in the shift scenario than during the banking crisis. However, the

results of the shift analysis present a clearly poorer outturn for the Norwegian economy and the banks than that seen in recent years, and a significantly weaker outturn than in the baseline scenario.

PART 3: DIFFERENCES BETWEEN HOUSEHOLDS BY INCOME AND AGE

There are wide differences in debt, wealth, and interest expenses and incomes between various groups of households. Some household groups are considerably more vulnerable to higher interest rates, falling house prices and declining incomes than others. The negative spillover effects of economic setbacks will depend on the size of vulnerable groups of households and their share of the overall debt. The consequences will be greater if they hold a large share of the debt as opposed to a small share.

This part of the theme chapter discusses financial vulnerability for various groups of households. The data are taken from Statistics Norway's income and wealth statistics for households, and contain inter alia information from household members' income tax returns. Households are grouped by: (i) size of income by tax per consumer unit,[41] and (ii) age of person in the household with the highest registered income (main income earner).[42] Data are available for the period from 2004 to 2014. Despite the differences present among households within each of the 60 groups, the data show some important relationships between households' incomes, debt, life phase and financial vulnerability.

First, historical data for households' debt and interest burden are reviewed.[43] Financial vulnerability in the household sector is then illustrated through two numerical examples. The first numerical example features a sharp – but not unrealistic – fall in house prices and securities prices, while the second presents an increase of 3.5 percentage points in interest rates on household debts and deposits. In both examples large groups of households will experience considerable financial problems due to impaired financial positions or decline in income after payment of tax and servicing of debt.

DEBT BURDEN AND INTEREST BURDEN

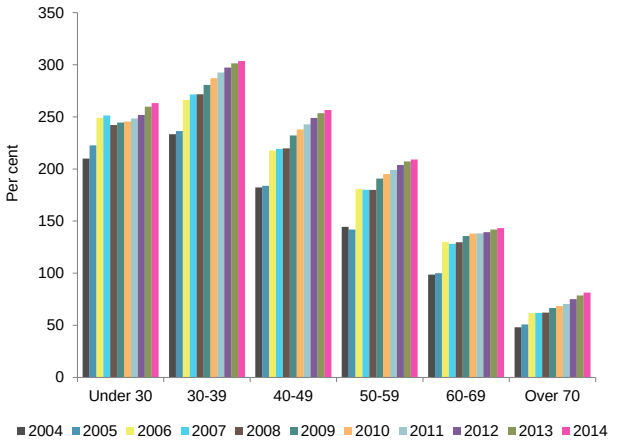
The debt burden has risen between 2004 and 2014 for all groups of households distributed by main income earner's

[41] Households are grouped into 10 income intervals (deciles) so that the number of household members is identical in each interval. The number of consumer units (the first adult family member is assigned a weighting of 1.0, the next adult a weighting of 0.5 and children a weighting of 0.3) in a household reflects both larger households' need for higher income to achieve the same standard as smaller households and larger households' potential for economies of scale. See Statistics Norway's website: https://www.ssb.no/ifhus.

[42] Households are grouped into six age categories.

[43] Debt burden is defined here as debt divided by income after tax. Interest burden is defined as interest expenses divided by income after tax.

I.24 Household debt burden distributed by main income earner's age



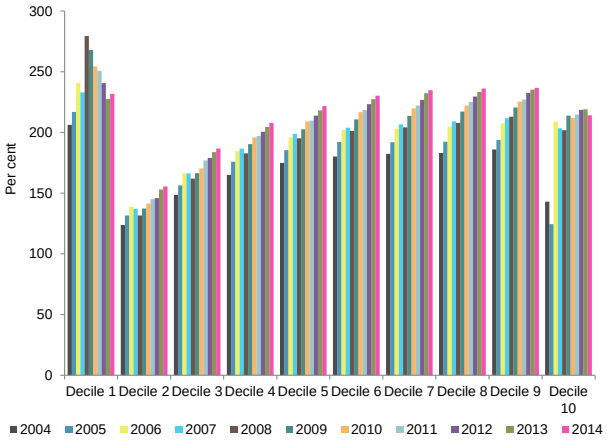
Source: Statistics Norway

age (chart I.24).[44] In 2014 households whose main income earner was below age 40 carried a debt that was on average 2.6 to 3 times larger than after-tax income. Such a high average indicates that a large number of households are very heavily indebted. Households with the main income earner in their 50s carried on average 2.1 times as high debt as income, while the debt burden was significantly lower for older households. Average household debt rises with age up to a main income earner age of about 40 – in the first instance as a result of establishment in the housing market – and thereafter edges down gradually. Up to about age 50 the average income climbs, but thereafter subsides, due in particular to reduced labour force participation.

It is in particular households between age 30 and 59 with the highest income (decile10) that carry the highest debt (table I.4). These groups accounted for 16 per cent of overall household debt in 2014, which is a decline of 2 percentage points from 2004. The debt burden varied from 212 to 310 per cent for these household groups. The average debt burden rose in all income groups from 2004 to 2014 (chart I.25). The debt burden among households with the lowest income (decile 1) rose strongly, from 206 per cent in 2004 two 279 per cent in 2008, but then declined to 232 per cent in 2014. Households with the main income earner aged between 50 and 59 with the lowest income (decile 1) were the group with the highest debt burden in 2014. In this group, debt was on average 3.8 times larger than after-tax income. Households with the lowest income in the age range 60 to 69 also carried very high debt relative to income and age of main income earner. These groups' share of overall debt to households is however modest, and they therefore pose limited risk to the banking sector.

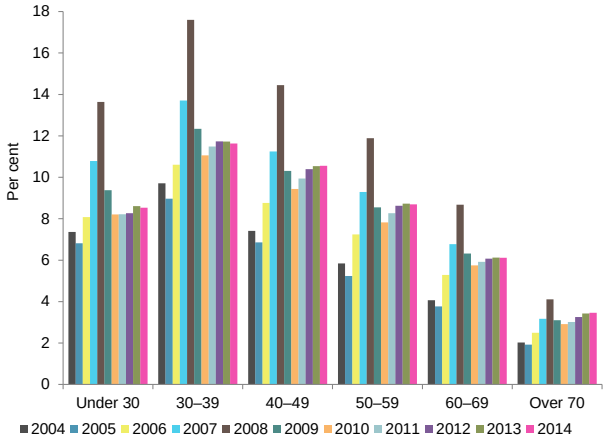
[44] The charts in this and following paragraphs show the sum total or the average for groups of households, i.e. households without debt are also included in the calculation of for example debt burden and in the assembled overview of different household groups' assets and debt.

I.25 Household debt burden distributed by after-tax income



Source: Statistics Norway

I.26 Household interest burden in 2014 distributed by main income earner's age



Source: Statistics Norway

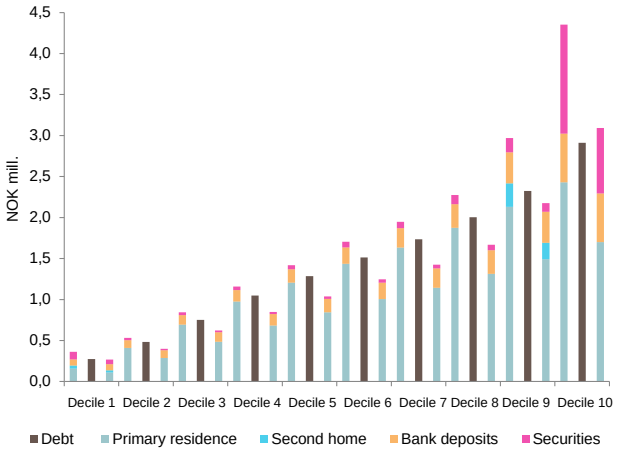
The interest burden (interest expenses in per cent of after-tax income) largely shadows the movement in interest rates, and has been quite uniform for all age groups. The interest burden distributed by age thus follows the same pattern as the debt burden distributed by age (chart I.26). The interest hikes prior to the financial crisis in 2008 contributed to a marked rise in the interest burden for all groups from 2005 up to 2008, when it peaked. The interest rate reductions in the wake of the crisis brought a considerable decline in the interest burden for all age groups. The interest burden will rise markedly in the event of a rise in the interest rate level, due to the unprecedentedly high level of debt. Although interest rates were low from 2010 to 2014, households' debt burden rose due to the relatively sharp increase in debt.

Table I.4 Distribution of debt on household groups 2014. Per cent

	Under 30	30–39	40–49	50–59	60–69	Over 70	Total
Decile 1	1.5	0.7	0.8	0.5	0.3	0.2	3.9
Decile 2	0.8	1.1	1.2	0.6	0.4	0.5	4.6
Decile 3	0.9	1.7	1.7	0.9	0.5	0.5	6.2
Decile 4	1.0	2.2	2.2	1.1	0.6	0.5	7.5
Decile 5	1.1	2.6	2.6	1.3	0.6	0.5	8.7
Decile 6	1.2	2.9	3.0	1.6	0.7	0.4	9.9
Decile 7	1.3	3.2	3.4	2.0	0.9	0.4	11.1
Decile 8	1.3	3.3	3.8	2.6	1.2	0.3	12.5
Decile 9	1.3	3.6	4.2	3.5	1.7	0.3	14.6
Decile 10	0.9	3.9	5.9	6.3	3.6	0.5	21.1
Total	11.1	25.3	28.6	20.3	10.5	4.0	100.0

Source: Statistics Norway

I.27 Assets and debt for households with main income earner below age 30 before and after a fall of 30 per cent in house prices and of 40 per cent in securities prices, by income. Average per household

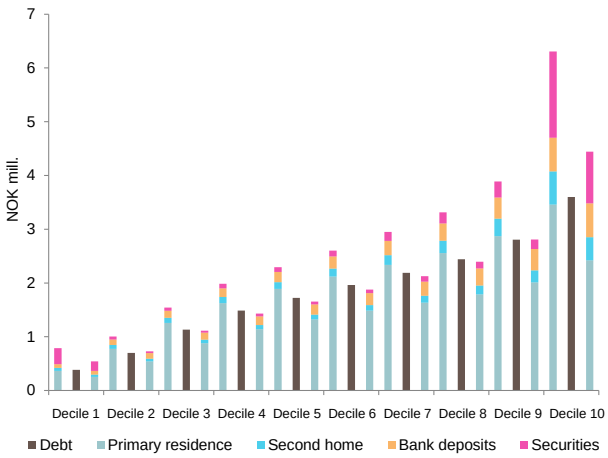


For each decile the left column shows the composition of the average household's wealth before the fall in house prices and securities prices, the middle column shows the size of debt, and the right column shows the composition of wealth after the fall in house prices and securities prices.
Source: Statistics Norway

EFFECT OF A SLUMP IN HOUSING AND SECURITIES MARKETS

Household wealth has a bearing on vulnerability and financial stability. This is a matter both of the size, and composition, of household wealth. If households have small or illiquid buffers, problems may arise in servicing debt even with a temporary lapse of income. In addition, assets subject to market pricing are liable to large value fluctuations. For Norwegian households as a whole, residential property accounts for 71 per cent of total wealth, securities

I.28 Assets and debt for households with main income earner aged 30-39 before and after a fall of 30 per cent in house prices and of 40 per cent in securities prices, by income. Average per household



For each decile the left column shows the composition of the average household's wealth before the fall in house prices and securities prices, the middle column shows the size of debt, and the right column shows the composition of wealth after the fall in house prices and securities prices. Source: Statistics Norway

I.29 House value relative to debt before and after house price fall for households with main income earner below age 40, distributed by after-tax earnings

Source: Statistics Norway

for 16 per cent, while bank deposits make up a mere 14 per cent.[45]

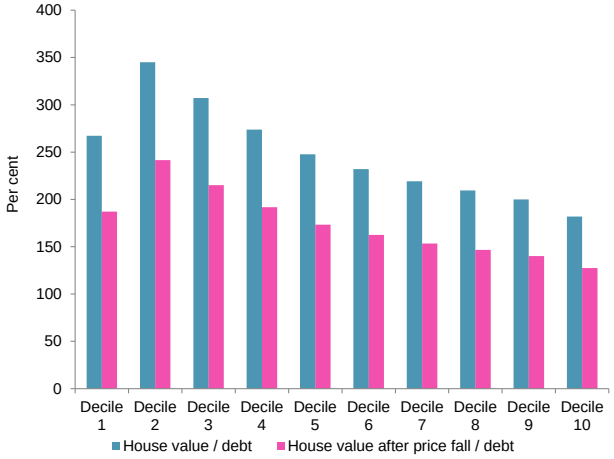
In the event of a marked decline in house prices and securities prices, large groups of households could find themselves in a negative equity position where the value of their assets is below the value of their debt. This will above all be the case among younger age groups which – apart from the two highest income deciles – possess little in the way of savings and where the level of borrowing to finance for example house purchases and education is highest. A marked decline in house prices, leading to a negative equity position in a good deal of households, will create problems for such households when acquiring a new home (lock-in effects) and may affect household saving and lead to reduced consumer demand. Lower mortgage values increase the risk of loan losses among banks.[46]

In this numerical example the effect on households' financial position of a 30 per cent fall in house prices[47] and a 40 per cent fall in securities prices is measured with a basis in the wealth position in 2014. Overall debt in all household groups where the main income earner is in the two youngest age groups is at the outset below the aggregate value of primary residence, second home, bank deposits and holding of securities (chart I.27 and I.28). After a decline in house prices and securities prices of, respectively, 30 and 40 per cent, overall assets will be worth less than overall debt for almost all groups of households where the main income earner is below age 40. The exceptions are household groups in the income decile 10 where the main income earner is below age 40 and household groups in income deciles 1, 2 and 9 where the main income earner is between age 30 and 39. Household groups where the main income earner is below age 40 and where the value of assets is lower than debt after such a decline in house prices and securities prices, comprise almost 613,000 households, i.e. 26 per cent of all households. The debt carried by these households accounts for 26 per cent of households' aggregate debt. For many households the net wealth position will be poorer than for the average in each decile in the sense that their equity position becomes more negative.

A marked decline in house prices will substantially impair the security backing banks' loans to households. Except in the case of households in the lowest income group (decile 1), a house price fall of 30 per cent for all household groups where the main income earner is below age 40 will entail a fall in house value from, on average, a level higher than debt (109 per cent) to a level lower than debt (76 per cent) (chart I.29). For households in income decile 1 where the main income earner is below age 40, the position is particularly weak, with an average house value of a mere 84 per cent of overall debt before the decline in house prices. The situation among households where the main income earner is above age 40 is better. A house price fall of 30 per cent will not cause house values to fall below overall debt

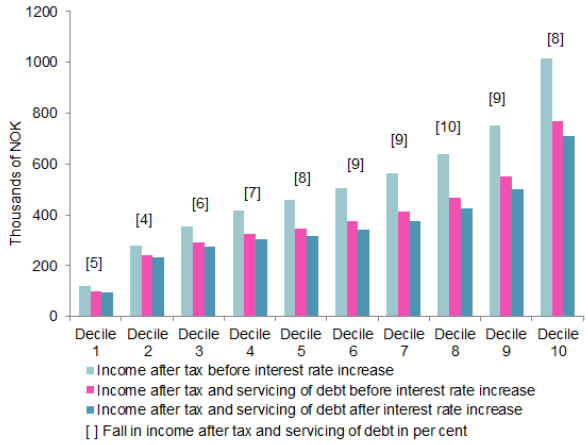
[45] This statistical base does not include assets in the form of land and buildings related to business activity, residential property on farms, forests and machinery, inventories, household effects etc.
[46] Residential property is valued at market value.
[47] Norway (1987-1992), Denmark (2005-2008), USA (2006-2009) and Spain (2007-2013) are historical examples of a 30 per cent fall in house prices.

I.30 House value relative to debt before and after house price fall for households with main income earner above age 40, distributed by after-tax earnings



Source: Statistics Norway

I.31 Effect on income of an interest rate increase of 3.5 percentage points for households with main income earner below age 30, distributed by income, average per household



Source: Statistics Norway

for any of these household groups (chart I.30).[48]

EFFECT OF INTEREST RATE HIKE

A marked interest rate increase will present large groups of households with significantly increased challenges in terms of debt servicing. The youngest age groups, who have high debts and low incomes, will be hardest hit by an interest rate hike. Mortgage defaults will increase among households, and the risk of loan losses for banks will rise. An interest rate increase will reduce household incomes after debt servicing, and can be expected to bring reduced consumer demand; see the discussion in Part 2.

In this numerical example the effect of a 3.5 percentage point increase in debt and deposit rates on the income that remains to households after payment of tax and servicing of debt is calculated.[49] In 2014 the calculated value of debt servicing[50] (i.e. the sum of interest and instalment payments) averaged 22 per cent of after-tax income for households where the main income earner was under age 30, and 27 per cent of after-tax income for households where the main income earner was between age 30 and 39. An interest rate increase of 3.5 percentage points will reduce incomes that remain to households after tax and debt are serviced by on average 7 per cent for households where the main income earner is below age 30, and on average 9 per cent for households where the main income earner is between age 30 and 39 (charts I.31 and I.32). The decline in income after tax and debt servicing that results from an interest rate increase of 3.5 percentage points, measured in per cent of after-tax income before the interest rate increase, averages 6 per cent for households where the main income earner is below age 30 and 7 per cent for households where the main income earner is between age 30 and 39. Hence an interest rate increase of 3.5 percentage points will for large sections of the younger household groups be comparable with a loss averaging 76 per cent of monthly income per year. Households with above-average debt in the respective income deciles will find themselves worse off.

SUMMARY

The residential mortgage lending survey conducted in autumn 2016 shows that banks have granted somewhat fewer mortgages with a high LTV ratio than previously. The volume of interest-only mortgages is also reduced somewhat. The proportion of mortgages with a high LTV ratio to young borrowers is however somewhat higher than in 2015. Banks also granted a larger proportion of repayment loans where the borrower lacked sufficient income to service debt after an interest rate increase of 5 percentage points while concurrently meeting normal living expenses. The increase was particularly high for young borrowers. Debt relative to gross income also rose substantially for young borrowers compared with the previous year.

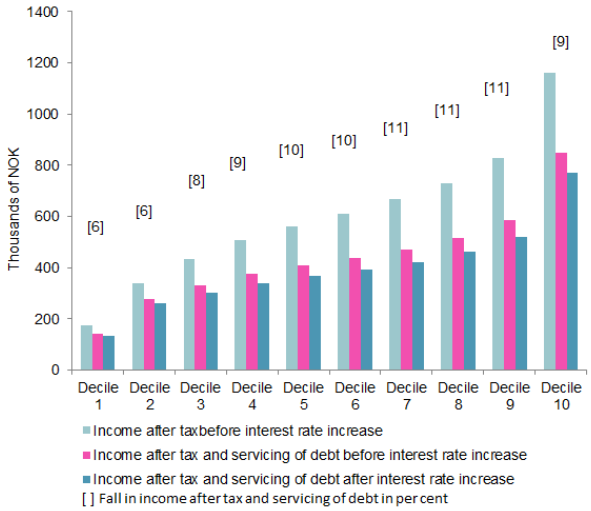
The Norwegian economy could see a poorer trend in the years ahead than expected by forecasting institutions. Some consequences are illustrated by the shift analysis. Households and the Norwegian economy are vulnerable to higher interest rates. The interest burden for the average

[48] Considerable variation is seen in each decile. Some households are debt-free while others have far higher debt than shown by the average figures referred to here.

[49] This is consistent with the interest rate increase in the shift scenario in Part 2.

[50] The calculations assume an average loan period of 20 years for household debt and that all debt carries interest.

I.32 Effect on income of an interest rate increase of 3.5 percentage points for households with main income earner aged 30-39, distributed by income, average per household



Source: Statistics Norway

household rises, and house prices fall. Financial consolidation in the household sector leads to reduced consumption and housing investments, corporate investments fall both because interest rates rise and households demand fewer goods and services. Unemployment increases and the average household's real disposable income declines.

There are wide differences in debt, wealth, interest expenses and income between various groups of households. The debt burden has in recent years risen for all groups of households distributed by main income earner's age, and is highest for the under 40s. A steep fall in house prices and securities prices could result in large groups of households seeing the value of their assets fall below the value of their debt. This will in particular be the case for younger age groups who hold small financial buffers and high housing debt. Banks' mortgage security will be heavily impaired in the case of loans granted to the under 40s, and the value of homes will fall below the value of debt. A substantial interest rate hike will hit the youngest age groups, who have high debt and low income, hardest.

Negative effects of shocks affecting the Norwegian economy can be dampened by good risk management and prudent lending practices on the part of banks. The residential mortgage lending regulations are an important instrument in fostering prudent lending practices. Solid banks that meet minimum requirements on capital and capital buffers by an ample margin are also imperative. Banks will then be well placed to withstand unforeseen losses.

THEME II ANALYSIS OF NORWEGIAN NON-FINANCIAL GROUPS

INTRODUCTION

The steep fall in the oil price has brought a marked weakening of earnings and financial positions in oil-related industries. Developments ahead are uncertain. Several of the largest Norwegian banks are exposed to these industries. However, the exposures are not so large as to pose, on their own, a serious threat to the banks' financial soundness.[51] But if the negative effects of the oil price fall spread further to business and industry as a whole in Mainland Norway, the banks will face a greater challenge.

This theme chapter analyses the situation of Norwegian non-financial groups with a basis in consolidated accounting data up to and including the third quarter of 2016. Part 2 analyses the general trend, while credit risk in the most important industries is discussed in greater detail in part 3. The chapter closes with a summary of the chief findings of the analysis.

GENERAL PICTURE

OIL AND OIL-RELATED INDUSTRIES AND TRADITIONAL SHIPPING

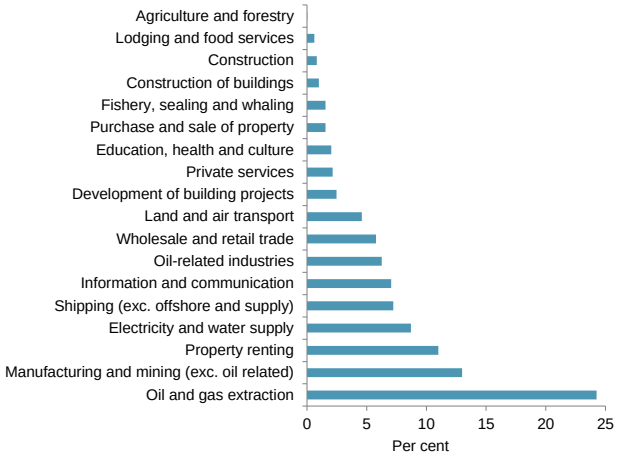
The financial results of groups in the *Oil and gas extraction* (oil groups) industry have been heavily impaired in recent years. Cost and investment levels were for many years geared to a high oil price and a high activity level. Although the oil price stood at around USD 100 per barrel from the start of 2011 to about mid-2014, oil groups' earnings relative to debt weakened as early as 2012.[52] The weakening has continued up to and including the third quarter of 2016.

About the survey sample and the projections

Selection

This theme chapter analyses the economic development and position of Norwegian-registered non-financial groups. Such groups may have operations both in Norway and abroad, and Norwegian banks' exposure to them may be large or minimal. Analyses based on consolidated data are a useful supplement to other economic analyses, for example traditional analyses based on non-consolidated company accounts. This is because analyses based on consolidated accounts capture the financial position of the group as a whole and include all group entities that are subject to consolidation.

II.1 Total debt in main sectors in per cent of total debt in Norwegian-registered non-financial groups. As at 31.12.2015



Source: Finanstilsynet

The survey sample in this theme chapter includes all Norwegian-registered non-financial parent companies that are obliged to submit consolidated accounts. Only the consolidated accounts of the topmost parent company in Norway are included. The topmost Norwegian parent may have a foreign parent. The number of groups in the sample has risen from about 1,200 in 2005 to 3,000 in 2016, while the groups' aggregate debt rose from NOK 960 billion to NOK 3,000 billion. Some groups have yet to deliver their accounts for 2015. Overdue accounts have on average proven to be weaker than those submitted within deadline.

Each group is included in the industry in which the bulk of its business resides. Hence some sub-groups are included in an industry other than the one in which they operate. For example, some hotel groups are included under *Property renting*. The industry *Oil and gas extraction* carries most debt (chart II.1). Much of the debt in this industry comprises debt to foreign banks and bond debt. *Oil and gas extraction* and *Oil-related industries* account altogether for a good 30 per cent of the survey sample's aggregate debt.[53] The property-related industries *Property renting*, *Purchase and sale of property*, *Construction of buildings* and *Development of building projects* account for about 16 per cent of the debt.

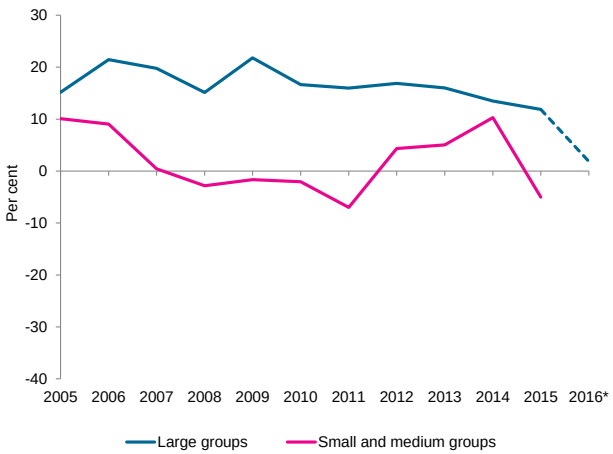
[51] Finansielle utviklingstrekk 2015 (Norwegian only).
[52] Earnings are defined as profit/loss after tax plus depreciation and amortisation of fixed assets and financial assets.
[53] Oil-related industries include the following industries: services related to extraction of oil and natural gas; construction of oil platforms and modules; fitting out and installation work carried out on oil platforms; test drilling, supply and other maritime transport services for the offshore industry; pipeline transport and other services related to pipeline operation

Table II.1 Listed groups' share of selected groups' total assets and operating revenues. Per cent

	Assets	Operating revenues
Oil and gas extraction	99	100
Information and communication	79	79
Fishery, sealing and whaling	58	64
Oil-related industries	47	56
Manufacturing and mining	31	30
Land and air transport	18	22
Construction	18	22
Property renting	13	2
Wholesale and retail trade	11	10
Private services	9	4
Other shipping	6	6
Electricity and water supply	5	9
Total (weighted)	40	35

Source: Finanstilsynet

II.2 Earnings in per cent of total debt. Oil-related sectors [53]. Weighted average



Source: Finanstilsynet

Projections

The consolidated accounts of the Norwegian-registered, listed parent companies are annualised based on the accounts for the first nine months of 2016.

The annualised figures are an indicator for the development for the full year 2016. The fourth quarter is thus assumed to replicate the average for the first nine months. It is assumed that the unlisted groups shadow the average trend for the listed groups in their respective industries. For example, if earnings of listed groups in *Manufacturing and mining* rise by 3 per cent on average in 2016, the earnings of all unlisted groups in this industry are assigned the same rate of growth. Other relevant profit/loss and balance sheet items apart from equity capital are projected in the same manner. Equity capital is projected by adding positive profit to, and subtracting negative profit from, equity capital. Dividend and contributed equity are set equal to the levels reported by the individual group for 2015. An exception is *Property renting*. Due to technical factors this industry cannot be projected in an adequate manner in 2016. Unlisted property groups in *Property renting* are therefore assumed to show no change from 2015 to 2016.

Listed groups account for 40 per cent of the survey sample's aggregate total assets and 35 per cent of operating revenues (table II.1). The percentages vary from one industry to the next. The uncertainty regarding the industry-by-industry projections of the unlisted groups consequently also varies from one industry to the next. In the case of *Oil and gas extraction* there is an approximately one-to-one connection and thus little uncertainty whereas for several of the other industries substantial uncertainty attends the projections.

In *Oil-related industries*, major[54] groups' earnings relative to total debt have declined gradually since 2009 (chart II.2). But it was only in 2016 that the decline turned dramatic. Most of the major groups show weak or negative earnings and heavy debt. The medium and small[55] oil-related groups have in general recorded weaker earnings relative to debt than the large groups throughout the analysis period. If the small and medium groups perform just as poorly as the large groups in 2016, earnings will be extremely negative. There is a risk that the year 2017 will be just as bleak as 2016. Great uncertainty attends the value of the assets, and hence the equity capital, of the oil-related groups.

The oil-related groups have initiated various cost-reducing measures, including employee dismissals and other efficiency enhancement measures. It is not certain how long it will take for the measures to translate into substantial cost reductions. The cost of goods fell relative to operating revenues in 2015 (table II.2), one reason being the strong US dollar and weak Norwegian krone in this period. While goods and services in oil-related industries are usually sold in US dollars, some goods and services are purchased in kroner. Despite dismissals, salary expenses rose relative to operating revenues in 2015. Gross interest and financial expenses also rose in 2015, both as a result of increased interest-bearing debt and higher nominal interest rates.[56] The chief reason for the sharp reduction in oil-related groups' profits in 2015 is higher depreciation and amortisation of vessels and rigs. There are reports of continued substantial overcapacity of vessels and rigs.

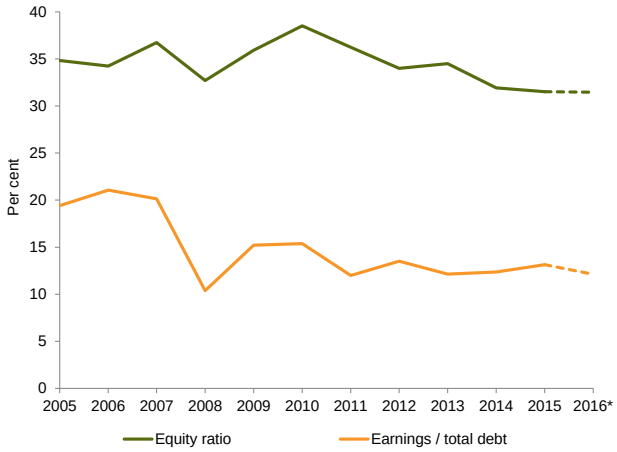
[54] Oil-related groups with total debt in excess of NOK 1 billion in 2016. This category includes 20 groups in 2015 and 2016.
[55] Oil-related groups apart from the major groups (see footnote 54). This category includes 74 groups in 2015 and 2016.
[56] The oil-related groups' interest and financial expenses in per cent of average overall debt rose from 5.9 per cent in 2014 to 6.8 per cent in 2015. These groups' interest-bearing debt rose from NOK 180 to 186 billion in the same period.

Table II.2 Operating revenues and expenses as per cent of operating revenues. Oil-related sectors. Weighted average

	2013	2014	2015
Operating revenues (NOKbn)	141.1	160.5	136.5
Cost of goods (per cent)	36.2	37.4	33.7
Salary expenses (per cent)	26.4	25.9	27.5
Other operating expenses (per cent)	15.0	13.8	13.9
Depreciation and amortisation (per cent)	9.6	14.0	25.4
Interest and financial expenses (per cent)	5.3	6.6	9.3
Interest and financial revenues (per cent)	2.4	2.7	2.7
Other net financial items (per cent)	0.2	-0.2	0.4
Profit before tax (per cent)	10.1	4.7	-6.8

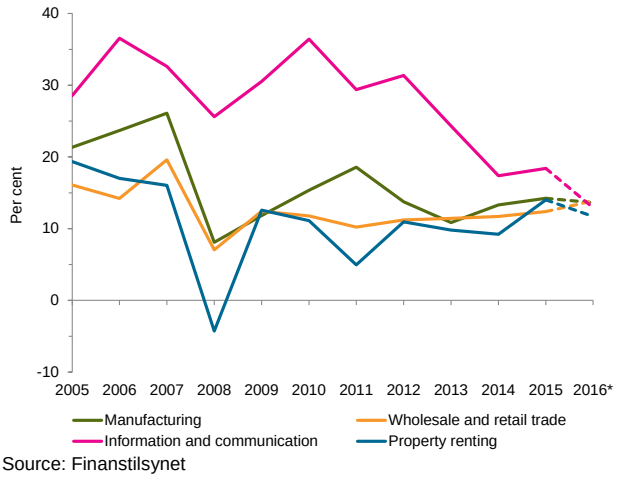
Source: Finanstilsynet

II.3 Equity ratio and earnings in per cent of total debt. Non-financial groups in Mainland Norway apart from oil-related sectors and traditional shipping. Weighted average



Source: Finanstilsynet

II.4 Earnings in per cent of total debt. Selected sectors. Weighted average



Source: Finanstilsynet

Hence it is not unrealistic to assume that depreciation and amortisation will show a further increase ahead.

NON-FINANCIAL GROUPS ELSEWHERE IN MAINLAND NORWAY

In south-western Norway some industries in addition to the oil industries have been hit by the oil price fall. Business and industry elsewhere in Mainland Norway appeared until recently to be little affected by the oil price fall. However, the number of bankruptcies and negative payment records has risen in 2016 (see Chapter 1, page 8). Many of the bankruptcies are in entities outside the oil and oil-related industries.

Several major rig and offshore supply groups remain in negotiations with creditors on debt restructuring. The outcome of the negotiations is uncertain. Many rig and offshore supply contracts expire in 2016 and 2017, and it is uncertain whether they will be renewed and, if so, at what prices. An intensified weakening of oil-related groups' demand could contribute to reducing demand for goods and services in other industries. As shown in chart II.2, it was only in 2016 that earnings in the oil-related groups started to weaken dramatically. Reduced demand from oil-related groups could impair profits elsewhere in business and industry in Mainland Norway in the next few years. Profitability in business and industry in Mainland Norway is influenced by factors in addition to developments in oil-related industries. For example, a stronger Norwegian kroner and weakened demand from other countries will reduce profits in many industries.

Non-financial mainland groups'[57] earnings relative to debt improved marginally from 2013 to 2015 (chart II.3). However, this ratio looks set to deteriorate in 2016. Earnings relative to debt will in that case not be appreciably better than during the financial crisis. The book equity ratio[58] has fallen by 7 percentage points since 2010, and is now lower than during the financial crisis.

Of the main industries, only groups operating in *Wholesale and retail trade* have improved their earnings relative to debt thus far in 2016 (chart II.4). All main industries, also those not shown in the chart, showed a sharp impairment in earnings relative to debt during the financial crisis. This indicates small diversification gains between the industries. The bases for earnings and equity ratios are now poorer than they were prior to the financial crisis in all main industries. See more about the industries below.

[57] *Oil-related industries* and *Traditional shipping* are not included.
[58] The book equity ratio is defined here as book equity capital minus intangible assets divided by total book assets minus intangible assets.

Table II.3 Operating revenues and expenses in per cent of operating revenues. Non-financial groups in Mainland Norway apart from oil-related activity and traditional shipping. Weighted average

	2013	2014	2015
Operating revenues (NOKbn)	1 799.6	2 073.2	2 219,1
Cost of goods (per cent)	50.9	51.4	51.7
Wage expenses (per cent)	19.6	19.6	20.2
Other operating expenses (per cent)	17.2	15.5	14.9
Depreciation and amortisation (per cent)	4.8	4.8	5.4
Interest and financial expenses (per cent)	3.6	3.7	3.6
Interest and financial revenues (per cent)	1.5	2.3	2.3
Other net financial items (per cent)	0.5	0.1	0.5
Profit before tax (per cent)	5.9	7.2	6.8

Source: Finanstilsynet

The mainland groups' cost of goods rose marginally relative to operating revenues in 2015 (table II.3). One reason was that the weak krone's contribution to costlier imports of goods. Salary expenses increased somewhat relative to operating revenues in 2015. Both interest and financial expenses and interest and financial revenues were stable relative to operating revenues from 2014 to 2015. Net interest and financial expenses account for a mere 1.3 per cent of operating revenues. This is nonetheless an important expense component for the groups since in many cases groups with a high debt ratio will be hardest hit by an interest rate hike.

Non-financial mainland groups' indebtedness has risen substantially in the last 10 years. The debt growth has helped to fund new investments capable of generating higher revenues. However, high debt also renders the groups more vulnerable to falling demand and prices, as well as to increased operating expenses and interest payments. Higher debt means a higher debt repayment requirement, which in turn increases the requirement on earnings.

TREND IN CREDIT RISK

This part of the theme chapter assesses the groups' credit risk using the risk classification method described below. The groups are divided into risk categories from 1 to 8, where 1 is the lowest and 8 the highest risk. Risk category 8 indicates very high credit risk. Groups in the highest risk category do not necessarily go bankrupt. However extensive restructuring, injections of fresh equity capital and/or remission of parts of the debt may be necessary. Earnings must also be improved, often substantially, if the groups are to survive in the longer term. An increase in credit risk is often gradual. Hence it is important to analyse the migration over time from low-risk categories to medium- and high-risk categories.

Norwegian groups' financial results during the financial crisis were in general weakest in 2008. That year is accordingly used as a reference to the financial crisis in charts II.5-II.12. The real economy in Norway was weakest in 2009.

Risk classification method

The risk classification used in the analysis is based on a method developed over many years.[59] Under this method three main factors are critical for credit risk, viz. debt servicing capacity, liquidity and financial soundness:

Debt servicing capacity: Indicates capacity to service long-term debt ("repayment debt") by means of the entity's own earnings. An entity's earnings are crucial to its ability to survive in the long term. In addition to servicing long-term debt, earnings over time must also cover dividend payouts, internal funds for new investment and parts of any increase in operating capital needs.

Liquidity: Indicates capacity to service short-term debt out of liquid funds. If the level of activity rises, liquid funds also as a rule need to rise to avoid impairing the liquidity position. Poor liquidity is often down to poor earnings. However, entities with good earnings may also experience liquidity deficits at times due to poor liquidity management.

Financial soundness: Indicates inter alia capacity to pay off outstanding debt through disposal of assets. An entity facing serious earnings and liquidity problems can nonetheless survive for a period if it is financially sound. Financial soundness, as measured here, is based on book values. Intangible assets (goodwill, licences, research and development etc) are deducted from equity capital and assets since they are often of little real value in an overstretched financial situation.

There is over time a close connection between earnings, liquidity and financial soundness which are all of significance for credit risk. The risk classification method groups companies into 18 risk classes based on various combinations of the three key ratios (table II.4).

The risk classes in table II.4 are divisible into risk categories that are used in the analysis (table II.5). Debt servicing capacity is the most important single indicator in the risk classification. Some entities may require a debt servicing capacity in excess of 20 per cent in order to be considered

[59] See Trond Eklund and Knut Knudsen: "Regnskapsanalyse: aktiv bruk av regnskapet." Gyldendal Akademisk, 2011. Some of the concepts in our analysis diverge somewhat from the concepts used in the book. Further, the numeration of risk categories is reversed so that high categories in our analysis indicate high risk.

Table II.4 Risk classification. Class 1 indicates lowest risk and class 18 highest risk

Debt servicing capacity[1)]	Liquidity[2)]	Equity ratio[3)]		
		> 20 per cent	0–20 per cent	< 0 per cent
Greater than 20 per cent of long-term debt	Good	1	3	4
	Poor	2	5	6
Less than 20 per cent of long-term debt, but greater than 0 per cent	Good	7	9	10
	Poor	8	11	12
Negative debt servicing capacity	Good	13	15	16
	Poor	14	17	18

Source: Eklund and Knutsen, see footnote 59

Table II.5 Risk categories. Category 1 indicates lowest risk and class 8 highest risk

	Risk class	Colour
Risk category 1	1	
Risk category 2	2	
Risk category 3	3 to 4	
Risk category 4	5 to 6	
Risk category 5	7 to 8	
Risk category 6	9 to 12	
Risk category 7	13 to 14	
Risk category 8	15 to 18	

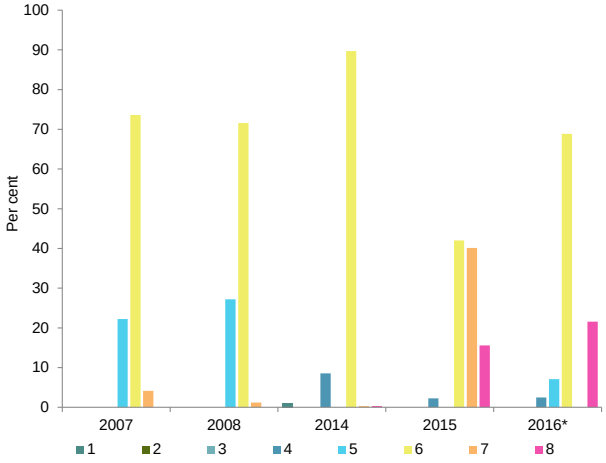
Source: Eklund og Knutsen, se fotnote 59

good, depending inter alia on the repayment structure of long-term debt. A debt servicing capacity of 20 per cent or more has on average proven to be satisfactory.[60] Financial soundness and liquidity are of course also important, but over time only an entity's own earnings can keep it alive.

The risk classification in 2016 is based on the projected accounts for 2016 (box 1). This year is therefore marked with an asterisk (*).

[60] For the groups in property renting and purchase and sale of property the cut-off value for debt servicing capacity in this analysis is set at 10 per cent instead of 20 per cent. This is because much of the property groups' book assets are in the form of site values. As a rule site values are not impaired in the same way as buildings, vessels, machines and other fixed assets. Hence repayment of loans related to site values is not necessary at the outset, and the earnings requirement is lower. However, site values may fall rapidly and by a wide margin, for example if a property bubble builds up and subsequently bursts, as observed in several countries during the financial crisis and in Norway at the start of the 1990s.

II.5 Debt in risk categories (1 = lowest and 8 = highest). Oil and gas extraction (apart from Statoil)



Source: Finanstilsynet

OIL AND OIL-RELATED INDUSTRIES AND TRADITIONAL SHIPPING

The Statoil Group dominates the *Oil and gas extraction* industry, accounting for almost 90 per cent of the industry's debt. Oil and gas extraction is not a risk-free activity. Disregarding Statoil, about 20 per cent of the debt in *Oil and gas extraction* is now in the highest risk category, while about 70 per cent is in risk category 6 (chart II.5). The debt in these two risk categories totals NOK 58 billion, which is more than one-third of the total debt held by the oil-related industries. In the futures market oil is priced at a good USD 60 per barrel 7-8 years forward in time. If the oil price does not rise higher than this, several oil groups could in time face major economic challenges. Further, stronger competition from oil producers in other countries and alternative energy sources could, along with possibly stricter safety and environmental requirements, heighten the challenges facing the Norwegian oil groups. It must be added that oil groups operating on the Norwegian shelf are eligible for tax reductions in the event of negative profits.

Many of the groups in *Oil-related industries* are struggling hard, and prospects in both the short and longer term are bleak. The negative trend started to become apparent as early as in 2014 when the proportion of debt in the three highest risk categories rose from 2 to 7 per cent. The negative development continued in 2015. In the course of that year 26 of the 94 oil-related groups in the sample were assigned to a higher risk category, and only 10 to a lower category. The share of debt in the highest risk category nonetheless fell in 2015 (chart II.6), mainly because parts of the debt in this risk category in 2014 were held by groups that saw a marginal, temporary improvement in debt servicing capacity in 2015. In addition, a large group exited the sample in 2015 as a result of bankruptcy in key companies within the group. In step with the pronounced impairment of earnings in 2016 (chart II.2), the share of

debt in the highest risk category increased to 21 per cent (NOK 33 billion) in that year. The share of debt in the next highest category rose to 15 per cent (NOK 24 billion).

Risk in the oil-related groups has risen steeply due to impaired earnings, uncertain vessel and rig values, as well as continued high debt. Even if the oil price were to rise substantially, it is not certain that this will be sufficient to bring earnings in many oil-related groups up to a sustainable level relative to debt. If debt is at the outset too high relative to realistic estimates for earnings, deferring instalment payments will merely postpone the debt servicing problems. Unless earnings in due course rise to a sustainable level relative to debt, the group concerned will need to dispose of assets or deplete its liquidity holding to repay parts of its debt, the owners will need to inject equity capital or launch a stock issue, and/or the creditors will need to remit parts of the debt. It is uncertain what combinations of these alternatives will materialise in the various instances.

Groups in *Traditional shipping* (i.e. shipping apart from supply-related activity) are also face a generally challenging situation. From 2010 to 2015 debt servicing capacity was on average weaker in this industry than in *Oil-related industries*. There are however fewer groups with a low or negative equity ratio in *Traditional shipping*. Hence the share of debt in the highest risk category is low in the case of Norwegian-registered shipping groups (chart II.7). However, much of the debt is in risk categories 5 and 6.

MAINLAND NORWAY APART FROM OIL-RELATED ACTIVITY AND TRADITIONAL SHIPPING

Manufacturing industry is important in Norway. Many jobs and investments are directly or indirectly connected to manufacturing activity. The share of debt in the highest risk category in *Manufacturing and mining* rose from 7 per cent in 2014 to 10 per cent in 2015 (chart II.8). This share fell to 7 per cent in 2016, mainly due to marginally improved earnings in some of the weakest groups. The share of debt in the highest risk category is nonetheless more than twice as high as during the financial crisis. However, almost half of the debt of manufacturing groups is in the three lowest risk categories, compared with about a third during the financial crisis.

In *Wholesale and retail trade* the share of debt in the highest risk category rose from 4 per cent in 2014 to 13 per cent in 2015 (chart II.9). This share is virtually unchanged in 2016, and is higher than during the financial crisis. Some of the groups in the highest risk category sell goods to oil-related industries. The traditional wholesale and retail trade groups carry in general low credit risk.

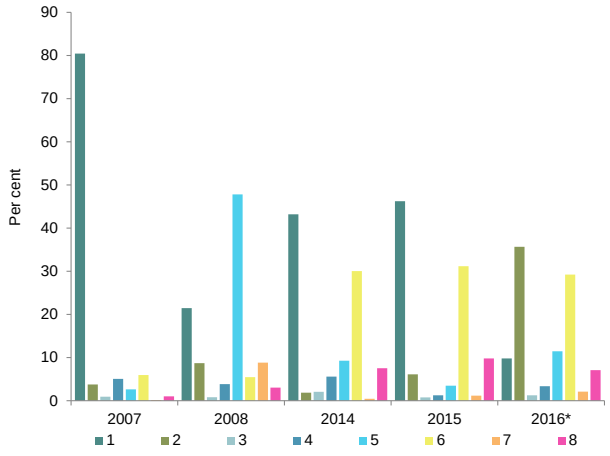
II.6 Debt in risk categories (1 = lowest and 8 = highest). Oil-related industries

Source: Finanstilsynet

II.7 Debt in risk categories (1 = lowest and 8 = highest). Traditional shipping

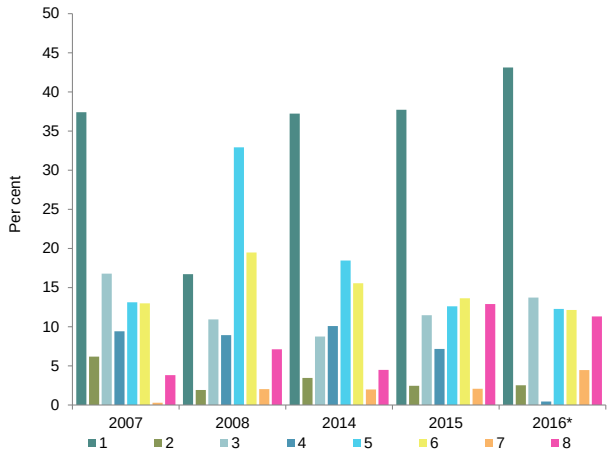
Source: Finanstilsynet

II.8 Debt in risk categories (1 = lowest and 8 = highest). Manufacturing and mining



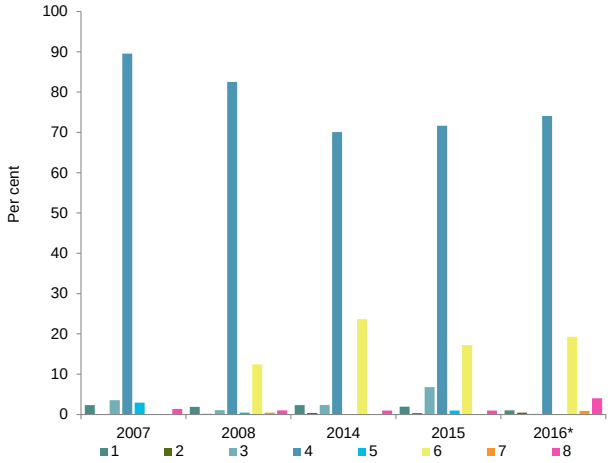
Source: Finanstilsynet

II.9 Debt in risk categories (1 = lowest and 8 = highest). Wholesale and retail trade



Source: Finanstilsynet

II.10 Debt in risk categories (1 = lowest and 8 = highest). Information and communication

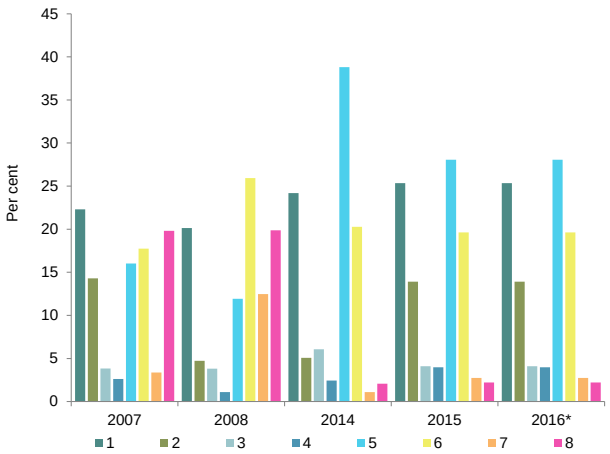


Source: Finanstilsynet

II.11 Debt in risk categories (1 = lowest and 8 = highest). Land and air transport

Source: Finanstilsynet

II.12 Debt in risk categories (1 = lowest and 8 = highest). Property renting



Source: Finanstilsynet

Information and communication is another important industry in Mainland Norway. It includes telecommunications, IT, media and publishing groups. The share of debt in the highest risk category was at a stable, low level of around 1 per cent up to 2015 (chart II.10). In 2016 the share rose to 4 per cent. While this share is relatively low, it is four times higher than during the financial crisis.

The share of debt in the highest risk category in *Land and air transport* fell sharply from 2014 to 2015 (chart II.11). Developments among the unlisted land-based transport groups thus far in 2016 are uncertain. Only one such group is listed and submits quarterly accounts. This group showed a virtually unchanged position in the first nine months of 2016. If this is also the case for the unlisted transport groups, there will continue to be almost no debt in the highest risk category. A substantial share of the debt is however in risk category 6 indicating relatively high credit risk.

In *Property renting* credit risk remains low. Only 2 per cent the debt is in the highest risk category (chart II.12). The unlisted property groups are for technical reasons not projected for 2016. The three listed property groups in the survey sample have shown a positive development in the first nine months of the year. This, combined with continued high rental prices across much of the commercial property market, indicates that the share of debt in the highest risk categories has not risen thus far in 2016, apart from in some groups in vulnerable regions.

However, the situation could change rapidly. During the financial crisis the share of debt in the highest risk categories in *property renting* increased rapidly and by a large margin. This was due mainly to a negative (for accounting purposes) value adjustment of the property

portfolio of some of the property groups. Among the reasons for the value adjustments were weaker economic prospects, expectations of higher vacancy rates, and higher yields. These factors could again affect property groups' accounts in the event of a turnaround in rental and selling prices in property markets.[61] Higher interest rates in themselves constitute a risk – not only by reducing earnings directly, but by making property investments less attractive than other long-term investments. This could in turn reduce the value of property groups' assets and book equity ratios.

The share of debt in the highest risk category is also low in the industries *Purchase and sale of property*, *Development of building projects*, and *Construction of buildings* (not shown in chart). Considerable risk may attend investments in new commercial, residential and recreational buildings. If the future buyers' or tenants' demand or ability to pay is impaired during the construction period, the building may be left completely or partly empty. Banks in many countries were hard hit by this phenomenon during the financial crisis. Building on speculation was also a key reason for the Norwegian banking crisis at the start of the 1990s. Risk can be reduced by setting a minimum requirement for pre-rental and pre-sale contracts and a requirement for the project owners to contribute a certain amount of equity capital before project launch. Since the banking crisis banks in Norway have in general set minimum pre-rental and pre-sale requirements along with equity capital requirements. Such requirements are not enshrined in law or regulations and implementation is therefore voluntary.[62] Even if buyers or tenants have committed themselves to a purchase or rental contract, this is to little avail if they go bankrupt or encounter serious financial problems in the interim. Risk will invariably attend property projects, particularly in periods of protracted strong growth in property prices and debt.

Among the industries that are not mentioned above there was an increase in the share of debt in the highest risk category in *Private services* and *Construction* in 2015. This share continued to rise in 2016. Minor changes were seen in *Electricity and water supply*; *Fishery and fish farms/aquaculture*; and *Hotels and restaurants*. There is almost no debt in the highest risk categories in these industries. In *Hotels and restaurants* recent years have seen a substantial increase in hotel capacity combined with a flat trend in room prices and relatively low occupancy rates. The hotel groups are therefore in general vulnerable to weakened demand. *Fishery and fish farms/aquaculture* is an industry that has fared well in recent years. The aquaculture industry is however vulnerable to disease (salmon louse et al.), growing competition from other countries and a stronger krone.

SUMMARY

The groups in oil-related industries face major challenges both in the short and longer term. Developments ahead are highly uncertain. The analysis indicates that credit risk has increased somewhat of late in parts of the wider business and industry sector in Mainland Norway. The share of debt in the highest risk category has risen in several of the main industries in addition to the property-related industries. Although the increase is not particularly large, the share of debt in the highest risk category is now higher than during the financial crisis in several property-related industries. These industries have shown a stable trend in recent years, with little debt in the highest risk categories. However, they are vulnerable to a turnaround in rental and selling prices in property markets and to higher interest rates. In the wake of the financial crisis Norwegian business and industry benefited from a very high oil price, high oil activity, strong domestic demand, low interest rates and in time a weak krone. It is uncertain how far these factors will contribute in the years ahead.

[61] The listed companies' consolidated accounts are kept under the international accounting standard, IFRS. (It is uncertain how many of the unlisted consolidated accounts are kept under I FRS). IFRS broadly attaches much importance to fair-value principles, whereas the Norwegian Accounting Act builds largely on historical-cost principles. This means inter alia that increased and reduced property prices alike can be reflected in accounts kept under I FRS both more rapidly and in larger measure.

[62] No official statistics exist on the incidence of pre-sale/pre-rental contracts. However, Finanstilsynet keeps a close watch on banks' practices in this area, inter alia when reviewing banks' internal credit guidelines and individual credit cases during on-site inspections. Finanstilsynet strongly recommends the banks to apply minimum pre-sale and pre-rental requirements and equity ratio requirements.

FINANSTILSYNET
Revierstredet 3
P.O. Box 1187 Sentrum
NO-0107 Oslo

Tel. +47 22 93 98 00
Fax +47 22 63 02 26
post@finanstilsynet.no
finanstilsynet.no