RISK OUTLOOK NOVEMBER 2017

SUMMARY

Cut-off date 28 November 2017.

SUMMARY

Global economic growth is picking up. According to the IMF, the risk related to economic and market developments has moderated somewhat since the previous assessment in spring 2017. Improved economic prospects and continued very low interest rates in most of the major economies have concurrently contributed to an increase in investors' risk propensity. Stock prices and property prices have risen significantly in many economies, and bond market risk premiums are low. Volatility in stock and bond markets is low throughout. There is concern that the rise in stock and property prices is higher than can be explained by changes in fundamentals.

After a period of weak growth in Norway's mainland (non-oil) economy since the oil price fall in 2014, the cyclical downturn now appears to be over. Low interest rates, a weak domestic currency and expansionary fiscal policy have helped to accelerate the rate of growth in the mainland economy. Unemployment has subsided.

High property prices and a high household debt burden render the Norwegian economy vulnerable to an economic turnabout. House prices and households' debt burden are historically high, and also high by international standards. House prices surged in 2016, but have fallen somewhat in the last half-year. The price fall is not dramatic, and the level of house prices remains high. The likely trend in the housing market ahead is uncertain. After a long period of steep house price growth, the possibility that we are entering a prolonged period of falling house prices cannot be ruled out. However, improved growth prospects and continued low interest rates could rekindle house prices.

Household debt growth continues to outstrip growth in household incomes. The turnabout in the housing market has thus far not translated into slower credit growth. Households' debt burden has accordingly risen further in 2017. Households' interest burden is low due to low residential mortgage lending rates. Norwegian borrowers have long preferred floating interest rates on their residential mortgages. This year's residential mortgage lending survey shows that the proportion of fixed-rate mortgages has fallen further, and is now as low as 4 per cent of new loans. Norwegian households will accordingly be hit rapidly by an interest rate hike, and this could have major negative repercussions for the Norwegian economy.

The Ministry of Finance tightened the residential mortgage lending regulations at the turn of 2017, after which banks have tightened lending practices. The residential mortgage lending survey shows that the requirements of a maximum loan-to-value ratio and a maximum debt-income ratio (capping mortgages at five times gross annual income) are binding for some borrowers. The maximum debt-income ratio appears to have had greatest effect in the Oslo area where house prices are particularly high relative to income levels. Finanstilsynet will advise the Ministry of Finance on possible amendments to the residential mortgage lending regulations by 1 March 2018.

Recent years have seen very high growth in consumer lending. Although consumer lending remains low in terms of households' overall debt, its rapid growth gives cause for concern. Many banks and finance companies market such loans very actively. Consumer lending rates are as a rule high, and the interest on such borrowing now accounts for about 14 per cent households' overall interest expenditure. Finanstilsynet has introduced guidelines for prudent consumer lending practices which financial institutions are expected to comply with as from the fourth quarter of the current year at the latest. Finanstilsynet has recently also tightened the capital requirements for consumer loan banks. The Storting (Norwegian parliament) has asked the Government to examine the possibilities of introducing an interest rate cap. Finanstilsynet will present its assessment to the Ministry of Finance by 1 March 2018.

Prices in some commercial property segments have risen markedly for several years, and at a faster rate

than the growth in the economy as a whole. Price growth has been particularly rapid in the case of upmarket properties in major urban areas across the country. The keen interest shown by foreign investors in recent years may have fuelled the price hike, as witnessed in many European cities. Commercial property is more in the nature of investment objects than are dwellings, and commercial property prices are influenced to a greater extent than house prices by the economic cycle and interest rates. Norwegian banks are heavily exposed to commercial property companies. In recent years banks have tightened lending practices by imposing stricter requirements on pre-sales and pre-leases as well as on equity capital when financing development projects. This has contributed to reducing the risk of losses. A steep fall in prices would nonetheless impair commercial property company earnings, reduce the value of banks' collateral and thus increase the banks' loss risk. Finanstilsynet has intensified its oversight of banks' exposure to commercial property, and conducts stress tests of banks' exposure to such property.

Well-functioning payment and settlement systems are crucial for financial markets. Norway's financial infrastructure has thus far proven itself to be robust, and confidence among actors is high. Thus far in 2017, however, a larger number of ICT events have been noted than in the whole of 2016. These events have been handled without significant consequences for the financial system. However, increased digitisation and interconnectedness among actors nationally and internationally require heightened awareness of the systemic risk attending ICT events. Were a systemically important financial institution, a key infrastructure undertaking or many banks simultaneously to be put out of commission for a period due to ICT systems' failure, financial stability could jeopardised. When events arise, Finanstilsynet monitors the institution's restoration of services and implementation of preventative measures with a view to pre-empting new events of a similar nature. The Financial Infrastructure Crisis Preparedness Committee (BFI), headed by Finanstilsynet, coordinates the national response to situations that pose a danger of major disruption to the financial infrastructure.

Norwegian banks have considerably expanded their equity capital since the financial crisis, largely due to substantial profit retention. The increase in capital ratios is due both to improved capitalisation and to the fact that residential mortgage lending, where risk weights are low, has grown more quickly than lending to corporates. In addition, the use of internal models (IRB models) has reduced average risk weights for several of the major banks. Finanstilsynet does not consider this reduction to be justified by a matching fall in risk, and a number of banks will be instructed to revise the assumptions underlying their models. Finanstilsynet is following up the banks' calibration of their IRB models.

Covered bonds (OMF) account for the largest share of the banks' market funding, The emergence of covered bonds has been of benefit to Norwegian banks. Covered bonds have thus far proven to be a secure and stable funding source. The high proportion of covered bonds is an important factor behind the increase in maturity of Norwegian banks' market funding. However, the increased issuance of covered bonds reduces the average quality of banks' remaining assets since a large proportion of the most secure residential mortgage loans are transferred to mortgage companies for inclusion in the covered bonds' cover pool. Since covered bond issuance is backed by residential mortgages, housing market developments are a significant risk factor. A house price fall could reduce the reserves available to banks for further covered bond issuance. A considerable portion of issued covered bonds is held by Norwegian banks and mortgage companies. The close interconnectedness brought about between actors through cross-ownership of covered bonds heightens the risk of contagion effects. The fact that all banks maintain a large holding of covered bonds as a part of their liquidity reserve could give rise to difficulties in a situation in which many actors are in need of liquid assets and are keen to divest covered bonds.

The banks have had ample access to market funding in recent years. Lower risk premiums have reduced funding costs. Banks' liquidity reserves exceed the minimum requirements by an ample margin, both in Norwegian and foreign currency. The banks are also well in excess of the minimum stable funding requirement whose introduction is proposed by the EU Commission from 2019 onwards.

The introduction of Solvency II in 2016 brought challenges for life insurers, mainly because it requires fair value measurement of liabilities and, to a greater extent than previously, sets capital requirements that reflect portfolio risk. Institutions have nonetheless, with one exception, thus far handled the transition to Solvency II through cost reductions, portfolio composition adjustments and changes in capital structure. Pension funds remain subject to the Solvency I framework, but are reporting stress tests based on fair value of assets and liabilities. Pension funds have strengthened their buffer capital in the first half-year, but several pension funds have buffer capital below the level considered necessary in stress tests. The financial position of pension funds with a high proportion of paid-up policies is particularly sensitive to the low interest rate level.

In Norway as elsewhere there is an awareness of the danger of renewed instability in financial markets bringing falling securities values, wider credit spreads and possible ensuing flight to government bonds. In such a scenario the risk-free interest rate will likely fall, accompanied by a rise in the value of insurance liabilities concurrent with falling market values of equities, non-government bonds and property.

Insurers' new sales are dominated by products without a guaranteed rate of return and without lifelong benefits, the corollary being that policyholders with a need to save for their pension are required to bear more of the risk themselves, which includes taking the consequences of their own investment choices. This places a major demand on policyholders' knowledge and understanding of the risk inherent in the products, and requires market actors to inform, and give sound advice to, customers on their investment choices. Both in Norway and across the EU, legislation is giving increasing prominence to consumer protection and to institutions' obligation to inform and guide the policyholder. Finanstilsynet monitors compliance with the information and advice requirements through thematic inspections and selective inspections at individual institutions.

PART I ECONOMIC BACKGROUND AND RISK AREAS

Growth in the Norwegian and global economies has picked up, and is expected to pick up somewhat further in the coming years. In its latest report the IMF considers the risk of financial instability in the short term to have moderated. In many economies there is a marked difference between the trend in asset prices and in the real economy which, despite improvement, continues to reflect idle reduction capacity. High indebtedness and high property prices pose a significant risk of financial instability. Chapter 1 contains an overview of the global and Norwegian real economies and financial markets.

Chapter 2 covers some factors that may threaten financial stability. The vulnerabilities in the Norwegian financial system largely relate to Norwegian households' substantial debt burden and to high property prices.

China accounts for about one-third of overall global growth in recent years. A steep build-up of private sector debt combined with strong growth in property prices and stock prices has heightened the risk of financial instability in China. A reversal could have major economic and financial consequences for the real economy and financial institutions across the globe.

Well-functioning payment and settlement systems are crucial for financial markets' ability to function properly. Thus far in 2017 a higher number of ICT events at financial institutions have been reported than in the whole of 2016. These events have been handled without significant consequences for the financial system. Increased digitisation and in interconnectedness among actors nationally and globally require heightened awareness of the systemic risk arising from the vulnerability of institutions' ICT systems.

CHAPTER 1 REAL ECONOMY AND FINANCIAL MARKETS

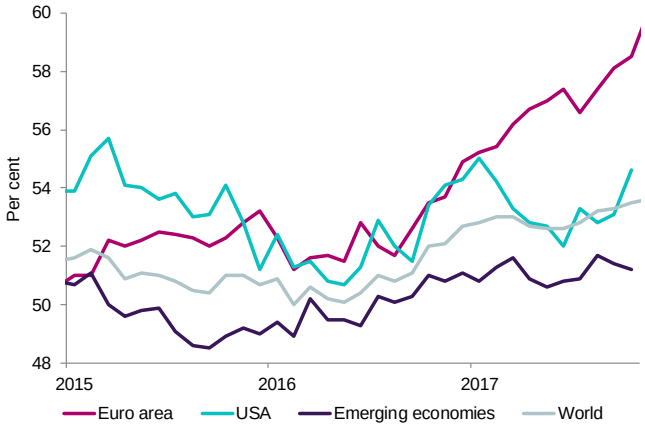
GLOBAL ECONOMY

Stronger growth in the global economy

Growth in the global economy picked up towards the end of 2016, and continued to do so in 2017. The upturn is now the strongest since 2010. In the first nine months of the current year the recovery above all in the euro area, the US and Japan has contributed to higher growth in the industrialised countries as a whole, while growth in the UK has slowed. Several emerging economies, led by China, also show quicker growth. An upturn is noted in manufacturing output, investments and international trade. Concurrently employment has risen, unemployment has fallen and consumption has picked up. Inflation remains low in many countries. Purchasing managers at industrial companies expect output to continue to expand ahead (chart 1.1).

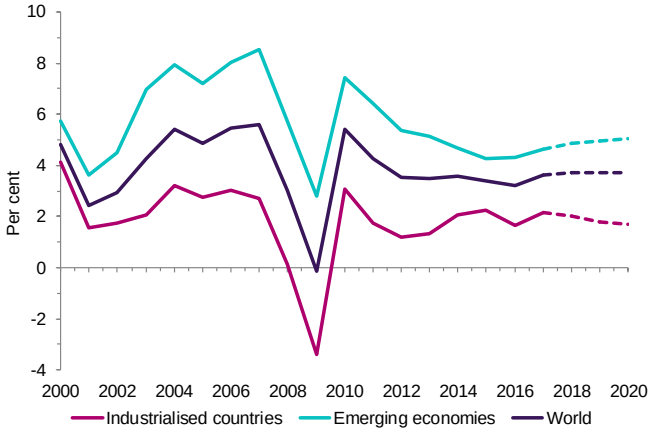
In 2016 output rose by 3.2 per cent (chart 1.2), and the IMF expects global growth of 3.6 per cent in 2017. This slight upward adjustment of the forecasts presented half a year ago is due mainly to higher expected growth in the euro area. Expectations of growth in the US are revised down somewhat because fiscal policy appears less expansionary than was assumed in spring 2017. In 2018 a further increase in growth is expected in the global economy, mainly on the back of quickening growth in emerging economies. Uncertainty about developments in the next two years or so has moderated, due in particular to the upswing in the euro area. In the somewhat longer term, however, considerable uncertainty attends the UK's withdrawal from the EU and the picture as regards US economic policy is unclear. In addition, structural factors such as weak growth in productivity and widening economic disparities may have negative effects.

1.1 PMI for manufacturing



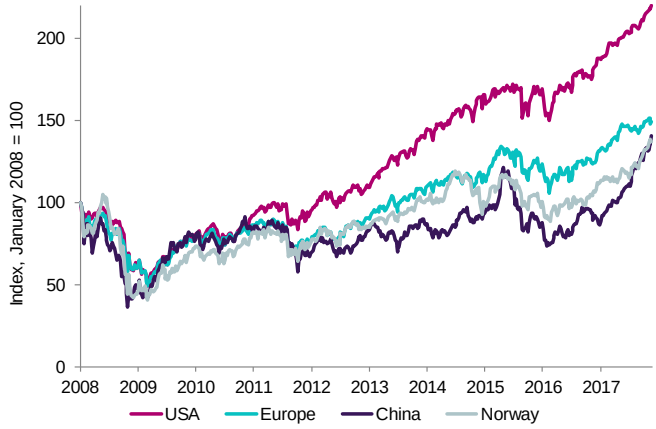
* PMI Manufacturing (Purchasing Manager Index) is an expectations indicator based on questionnaire surveys of purchasing managers in manufacturing companies. Values above 50 indicate growth in output. Source: Thomson Reuters

1.2 GDP growth



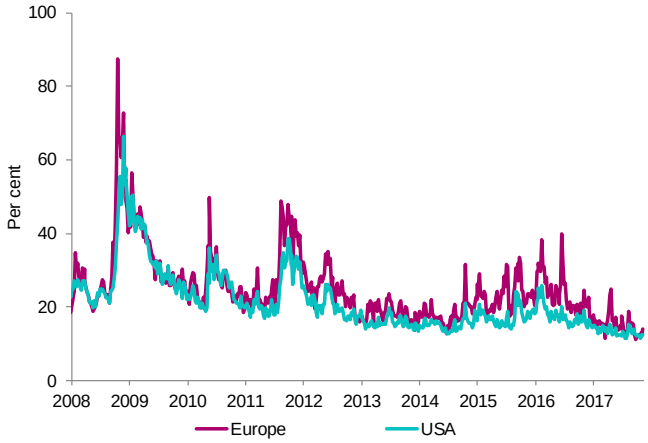
Source: IMF

1.3 Share indices (MSCI, Total Return)



Source: Thomson Reuters

1.4 Implicit volatility in the share market



Source: Thomson Reuters

1.5 10-year government bond yields

Source: Thomson Reuters

Higher equity, non-government bond and property prices

Equity prices have risen considerably since summer 2016 (chart 1.3). The same is true of property and other asset prices. Lower interest rates and search for yield have for a long period contributed to higher asset prices, lower risk premiums and reduced market volatility. Implicit volatility in the equity market is now at historically low levels (chart 1.4). At the same time the steep rise in prices of equities, property and other assets means that a reversal in the global economy could prove severe and long lasting.

Much attention focuses on whether, and when, central banks will normalise monetary policy by raising base rates and reversing the quantitative easing carried out by a number of central banks in the years following the financial crisis. The private sector debt burden is high, and rising, in many countries. Consequently many firms and households will be hit hard by higher interest rates and an economic setback. This calls for central banks to raise their base rates and reduce liquidity in the markets gradually, in small steps. Should interest rates remain low for a prolonged period, there is a danger that institutional investors and other market participants will step up the risk in their securities and property portfolios in order to achieve higher expected return. This could reduce risk premiums and lead to a further increase in the price of equities, non-government bonds and real property. Low interest rates and search for yield could thus bring a further increase in financial imbalances, thereby heightening the potential fall in the event of an economic reversal. Central banks face difficult trade-offs when aligning monetary policy in the years ahead.

Interest rate expectations revised up, but long-term rates to remain low

Market participants' expectations of the future interest rate level have risen somewhat over the course of the past year. This is consistent with a moderate increase in expected growth. The US Federal Reserve raised its base rate twice in 2017. In most industrialised countries only minor interest rate increases are expected in the years ahead. At the same time, central banks' securities purchases are expected to be gradually phased out as and when the various countries' economies undergo further improvement. Rates on bonds with long maturities remain low (chart 1.5). One reason may be market participants' continued expectation of low growth in the global economy. Another reason may be structural changes in investors' and savers' behaviour as a result of rising longevity.

Better prospects for banks and insurers, but considerable challenges remain

Prices of equities issued by banks and insurers fell considerably up to summer 2016. An important reason was concern about earnings and solvency as a result of very low long-term interest rates. After the rise in long-term rates, European bank and insurance shares

have shown a stronger rise in value than other sectors. However, sizeable holdings of non-performing loans continue to burden a number of European banks.

Developments in the funding markets have lowered financial institutions' funding costs. Although market interest rates have risen slightly, the reduction in risk premiums (chart 1.6) has more than compensated for the increase in the general interest rate level, thereby contributing to increased market values of bank and insurance shares. The real economic upturn in the euro area, and greater optimism among firms and households alike, have pulled in the same direction.

Higher prices of important commodities

The improvement in the global economy has contributed to higher commodity prices. The oil price rose through 2016, and so far this year has hovered on average just above USD 50 per barrel. Prices in the forward market suggest that the oil price will remain at around this level ahead. The international upturn has brought a sharp increase in the price of aluminium through 2017, which has improved the profitability of Norwegian export businesses. After rising steeply through 2016, prices of fresh and frozen salmon fell over the course of 2017.

NORWEGIAN ECONOMY

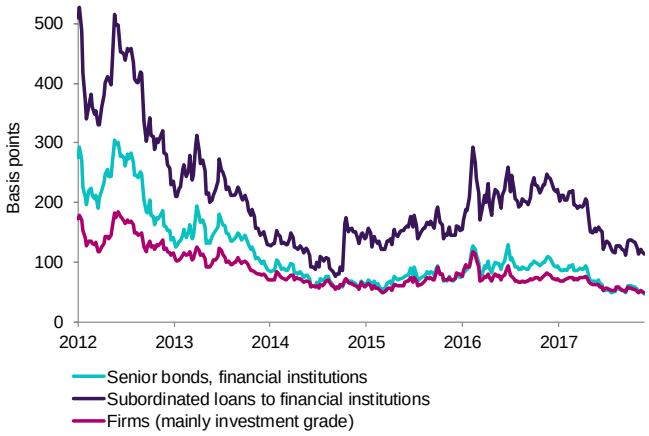
Moderate cyclical upturn in the Norwegian economy

The cyclical downturn in the Norwegian economy since 2014 is behind us. Unemployment has fallen in recent months – also in south-western Norway where the consequences of the petroleum industry slump after the oil price fall in autumn 2014 were particularly evident. Low interest rates, a weak Norwegian krone and expansionary fiscal policy have helped to sustain activity in the mainland (non-oil) economy. Statistics Norway, Norges Bank and the Ministry of Finance all expect growth in Mainland Norway's GDP to reach about 2 per cent in 2017 and between 2 and 2.5 per cent in 2018 (chart 1.7).

Stronger global economic growth and improved competitiveness for Norwegian firms as a result of recent years' krone depreciation are expected to contribute to increased exports of traditional goods and services. Despite a moderate oil price, profitability in the petroleum industry has risen as a result of cost cuts and productivity-enhancing measures taken in the industry. Petroleum investments, which fell markedly after the oil price fall in 2014, are expected to level out in the current year and next year, and to rise thereafter.

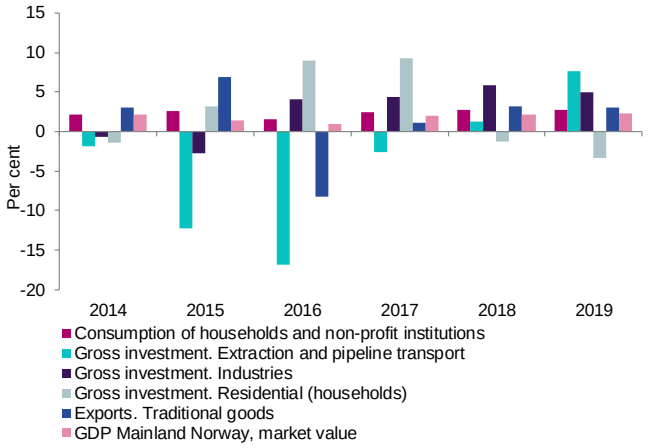
Business investments in the mainland economy are expected to pick up somewhat as a result of the cyclical upswing in Norway and elsewhere, continued low interest rates and a weak krone exchange rate. In

1.6 CDS prices for European bonds



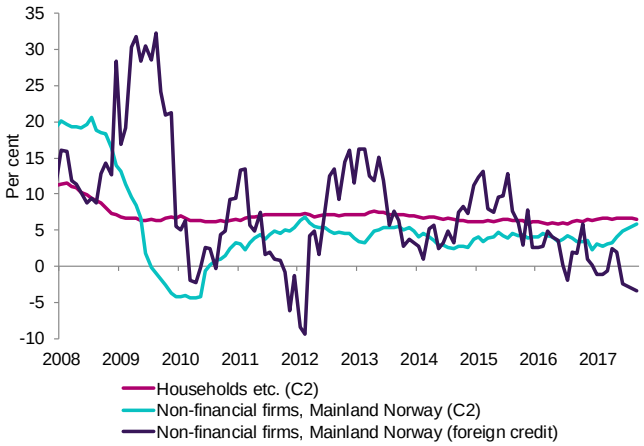
Source: Thomson Reuters

1.7 Growth in Mainland Norway GDP and important demand components*



* Observations up to and including 2016 are historical data, thereafter arithmetic averages of the three forecasting institutions' estimates for coinciding or almost coinciding variables. Sources: Statistics Norway, Norges Bank and Ministry of Finance

1.8 Twelve-month growth in domestic and foreign credit



Source: Statistics Norway

recent years of high house price growth and low interest rates, housing investments have risen markedly and been an important driver in the Norwegian economy. Housing investments are expected to subside slightly in 2018 and 2019. Growth in household consumption has been moderate in recent years, but picked up somewhat towards the end of 2016. Recent years' weaker wage growth has slowed growth in consumption, but low interest rates have the same time helped to sustain consumption. Quicker growth in real incomes and low real interest rates are expected to support continued growth in household consumption.

Less expansionary fiscal and monetary policy

The Government's 2018 National Budget incorporates, in light of the Norwegian economy's prospects after several years of increased use of oil revenues, a normalisation of fiscal policy in 2018. Measured by the change in the structural, oil-adjusted deficit, the Fiscal Budget for 2018 provides an impulse of just below 0.1 per cent of mainland Norway GDP. The use of oil revenues corresponds to 2.9 per cent of the capital in the Government Pension Fund – Global.

Norges Bank has kept the base rate unchanged at 0.5 per cent since March 2016. In September Norges Bank revised its interest rate path up towards the end of the forecasting period and signalled rate increases in 2019 and 2020. Higher capacity utilisation than previously assumed prompted the upward revision of the interest rate path. At its interest rate meeting in October, Norges Bank concluded that the prospects and risk picture for the Norwegian economy had not change significantly since the previous interest rate meeting.

Strong growth in household debt – more moderate debt growth among firms

The increase in overall credit to Mainland Norway (C3) has slowed somewhat in the past two years or so but remains higher than the growth in wealth creation in the mainland economy. Household debt, which consists mainly of residential mortgage loans, has risen markedly over several years (chart 1.8). House prices have fallen in recent months. A weak trend in house prices is expected to contribute to lower growth in household debt in the medium-to-long term. According to Norges Bank's loan survey, households' demand for residential mortgage loans in the third quarter of 2017 fell, and the banks expect a further decline in the fourth quarter. Risk associated with household debt and property prices is discussed in further detail in chapter 2.

Growth in domestic credit (C2) to non-financial firms in Mainland Norway has been moderate for most of the period following the financial crisis. This is related to a weak trend in business investments through much of the period. Twelve-month growth in non-financial firms' debt has quickened slightly since May 2017. Growth in foreign credit has been more volatile. Foreign credit accounts for about one-third of overall credit to non-financial firms in Mainland Norway. Norges Bank's loan survey for the third quarter of 2017 reports a slight increase in demand for loans from non-financial firms. According to Norges Bank's regional network, oil suppliers expect a slight decline in investments, while other sectors expect somewhat higher investments in the coming 12 months.

Risk premiums on Norwegian corporate bonds have fallen considerably in the last year and a half, and activity in the bond market has picked up. Issue activity has risen both for high yield bonds and for bonds with a good credit rating. Figures from Stamdata show that firms in the property, shipping

and supply segments accounted for 64 per cent of issues of Norwegian corporate bonds in the first three quarters of 2017. After the oil price fall in 2014, default rates in the seismic, rig and oil service sectors rose sharply up to 2016, but have fallen markedly in 2017.

CHAPTER 2 RISK AREAS

HOUSE PRICES AND HOUSEHOLD DEBT

The vulnerabilities in the Norwegian financial system are largely related to households' historically high debt burden and high house prices. More than half of bank lending goes to households, most of it secured on residential property. Falling house prices reduce banks' collateral, and the risk of losses on residential mortgage loans increases. However, losses on residential mortgages are not considered to be the greatest risk facing the banks. Historically speaking, the heaviest losses have been incurred on loans to corporates. When the debt burden is high, as at present, interest rate hikes or income lapses will trigger significantly stronger financial consolidation among households than when the debt burden is low. Reduced demand for goods and services will lead to lower earnings for Norwegian business and industry, an increase in defaults on firms' bank debt and higher loan losses for banks.

Strong price growth in the housing market over time heightens the risk of price corrections

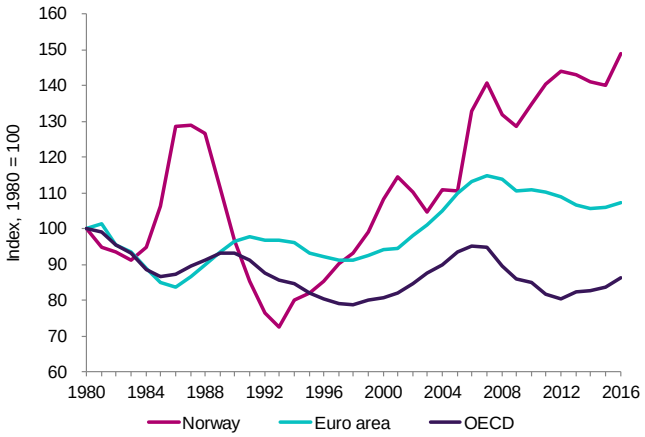
Measured in terms of disposable income per capita, house prices in Norway have risen more than in most other countries (chart 2.1). Much of the growth can be explained by a long period of low unemployment, strong wage growth, low interest rates and low property taxation.

What price level is sustainable in the housing market is highly uncertain. In its latest report on Norway (July 2017) the IMF presented its calculations of equilibrium prices in national housing markets.[1] Norway was one of the 20 OECD countries surveyed with largest difference between actual price and equilibrium price.

As at October 2017, house prices on a country basis, including seasonal adjustments, have declined in five of the last six months (chart 2.2). Thus far in 2017,

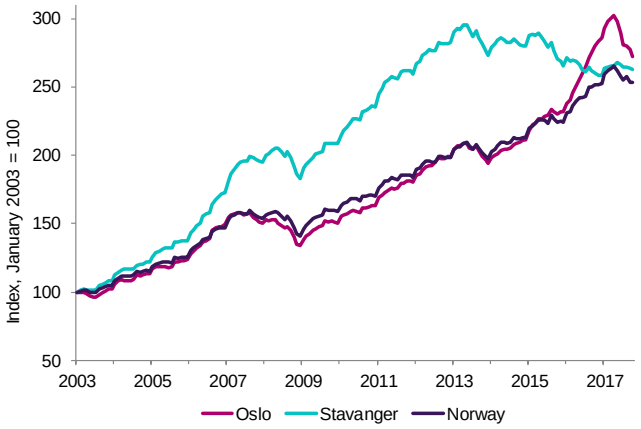
[1] IMF Staff Reports, Norway: Selected Issues, 5 July 2017

2.1 House prices measured against disposable income per capita



Source: OECD

2.2 Regional house prices



Sources: Eiendom Norge, Finn.no and Eiendomsverdi

turnover in the market for existing homes is approximately as in previous years measured in terms of number of transactions. The overall marketing and selling period has risen somewhat, but is not significantly longer than in previous years. The number of units put on the market was historically low in 2016, contributing to increased price pressures in the market. This was especially marked in the Oslo region. The balance between supply and demand appears to have improved through 2017. More properties were put on the market than in the previous year (chart 2.3). When prices fall, more homeowners are keen to sell their property before purchasing a new one, thereby contributing to an increased supply. Housing market psychology changes,

and housebuyers expect to need to pay less for a dwelling than previously.

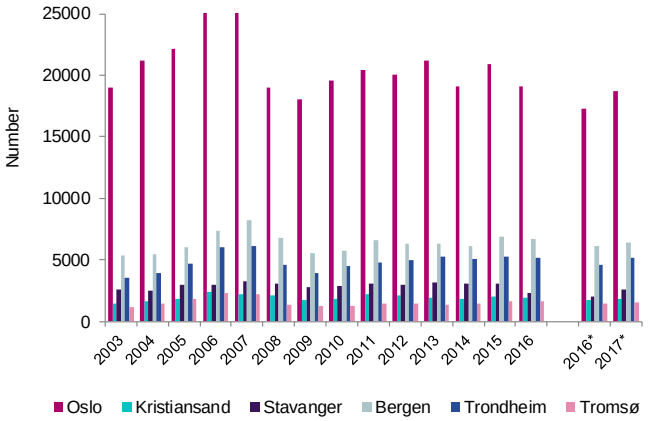
Lower price expectations are reflected in the actual bidding. The number of housing starts and completions has also picked up in recent years, contributing to the increased supply of properties. Concurrently the increase in the number of households has slowed somewhat (chart 2.4). Population growth in recent years has fallen as a result of lower net immigration. According to Statistics Norway, the population grew by just over 38,000 in the four quarters to end-September 2017. Population growth has been declining since 2014 when the corresponding four-quarter growth was just over 60,000. This contributes in isolation to lower growth in housing demand.

It is too early to tell whether price movements in the past half-year represent a correction after a long period of strong price growth, the start of a steep and long-lasting price fall or a pause in the growth in prices before price growth picks up once again. For Norway as a whole, the price fall over the last six months is roughly on a par with the first six months of falling prices in 2013. The levelling off of prices after a long period of strong growth will contribute to a more balanced trend in the housing and credit market.

High debt burden makes for increased household vulnerability

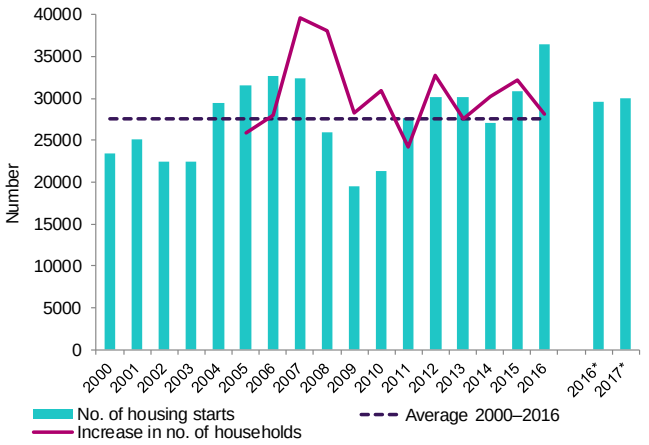
Debt relative to disposable income (the debt burden) has increased among Norwegian households since the beginning of the 1990s (chart 2.5). In the second quarter of 2017 Norwegian household debt averaged 222 per cent of disposable income, which is 2 percentage points higher than at the end of 2016. This is a historically high level by Norwegian standards, and also high compared with other OECD countries (chart 2.6). A large proportion of Norwegian households have a significantly higher-than-average debt burden; see discussion in theme chapter II.

2.3 Number of homes placed on the market



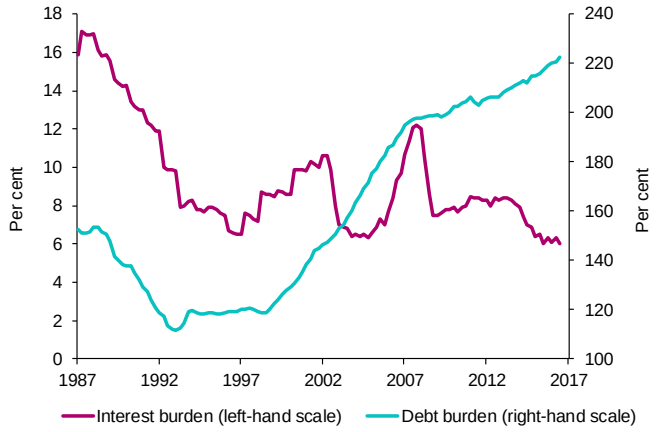
* Up to and including October. Sources: Eiendom Norge, Finn.no and Eiendomsverdi

2.4 Number of housing starts and increase in number of households



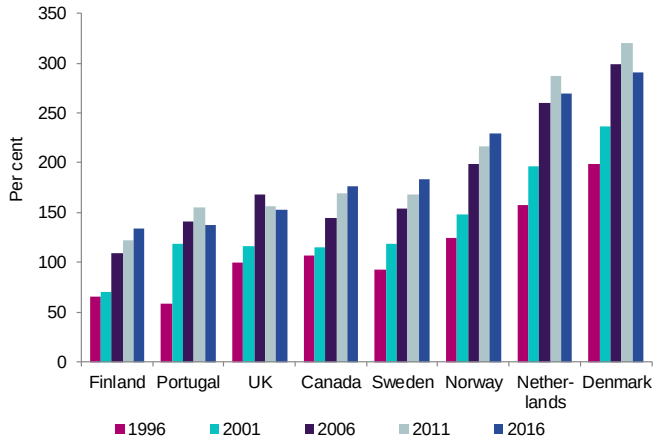
* Up to and including October. Source: Statistics Norway

2.5 Households' debt burden and interest burden



Sources: Finanstilsynet and Statistics Norway

2.6 Debt burden in selected OECD countries



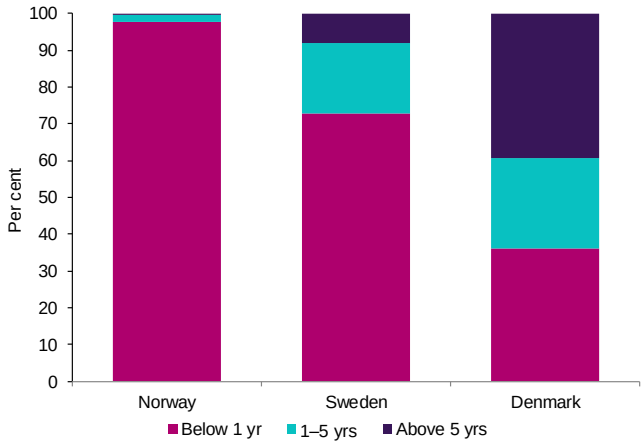
Source: OECD

Table 2.1 Percentage fall in household consumption from 2007-2009 by debt burden

Debt burden (LTI)	Norway	Denmark	UK
0 to 1	1,9	1,2	-1,4
1 to 2	-6,3	1,9	-4,2
2 to 3	-11,5	1,0	-7,0
3 to 4	-21,3	-2,3	-9,8
4 to 5	-28,9	-5,8	-12,6

Source: Bank of England Financial Stability Report, June 2017

2.7 Share of new residential mortgages by interest lock-in period. Weighted average January-September 2017



Sources: Finanstilsynet, Statistics Sweden and Statistics Denmark

As a result of the historically low interest rate level, households' interest burden fell from 8.4 per cent at end-2013 to 6 per cent in the second quarter of the current year (chart 2.5). Despite the high debt growth, the low interest rate level means that households spend a smaller share of disposable income on interest payments than previously. However, the high debt burden renders households more vulnerable in the event of an interest rate hike.

Households' liquidity position will weaken considerably even in the event of a minor interest rate increase, and a rate hike will therefore lead to stronger financial consolidation now than it did previously. Empirical analyses[2] show that households with a high debt-income ratio reduced their consumption considerably during and after the financial crisis. An analysis prepared by the Bank of England shows the effect to be more pronounced in Norway than in other countries. In Norwegian households where debt was more than three times disposable income, the fall in consumption was much stronger than for similar households in for example Denmark and the UK (chart 2.1). In Denmark a far larger share of residential mortgages carry fixed interest (chart 2.7). This may help to dampen the effect on private consumption in the event of an interest rate increase. According to Statistics Norway the proportion of fixed-rate mortgages[3] has fallen in recent years. As at the third quarter of 2017, fixed-rate mortgages accounted for 7.7 per cent of households' outstanding residential mortgage loans. The lock-in period for fixed-rate mortgages is generally short and, for more than half of overall mortgages, below three years.

Much of households' real wealth consists of residential property. The savings rate has been relatively high in recent years, but subsided somewhat in 2016. Households' liquid wealth consists mainly of bank deposits and mutual fund units. According to Statistics Norway's financial sector accounts, households' illiquid buffers averaged close to NOK 0.6 million at

[2] Norges Bank Staff Memo, 1/2016; see discussion in the Bank of England's Financial Stability Report, June 2017.
[3] Loans with an interest rate lock-in period above three months.

the end of the second quarter of 2017[4]. This compares with an average debt per household of NOK 1.4 million. Debt and wealth are very unevenly distributed across households.

Stable debt growth, marked growth in consumer lending

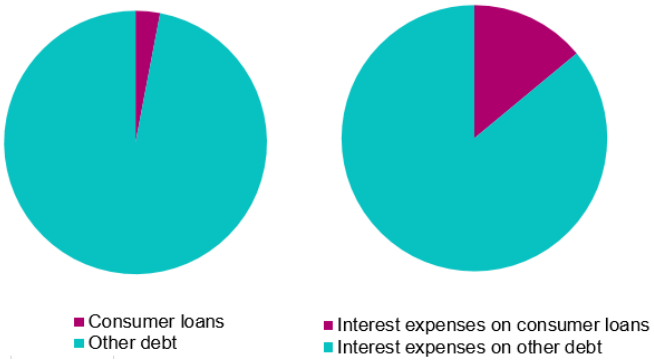
Twelve-month growth in household debt has in recent years hovered around 6.5 per cent. However, growth in consumer lending has been very high, and the twelve-month growth rate was 15 per cent at end-September 2017. These loans still account for a mere 3 per cent of households' aggregate debt, but their rapid growth gives cause for concern. The interest rate on consumer loans is in general very high. Interest expenses on consumer loans as a share of households' overall interest payments is thus significantly higher than consumer loans' share of households' overall debt, and accounted for about 14 per cent of households' overall interest payments in the third quarter of 2017 (chart 2.8[5]). For many households, consumer loans are in addition to other debt and make for a substantial aggregate interest burden. Finanstilsynet is keeping a close watch on consumer lending. New guidelines for prudent consumer lending practices were introduced in June 2017. Compliance with the guidelines is monitored as part of the supervision of financial institutions as from the fourth quarter of 2017.

House price fall has economic knock-on effects

Several factors could lead to a substantial fall in house prices. An unexpected interest rate hike, a weakening economy with rising unemployment and income lapse for households, or a change of sentiment in the housing market, are familiar examples.

High housing investments after several years of strong price growth have contributed substantially to the growth of the Norwegian economy in recent years. Housing investments generally shadow prices in the housing market, but with a time lag since the preparation and completion of housing projects takes time. A house price fall could bring a fall in housing investments and reduce activity in sectors directly affected by construction activity. It may also have knock-on effects to other areas of the economy in the form of lower investments and reduced consumption.

2.8 Consumer loans' share of total debt and interest expenses on consumer loans as a share of total interest expenses

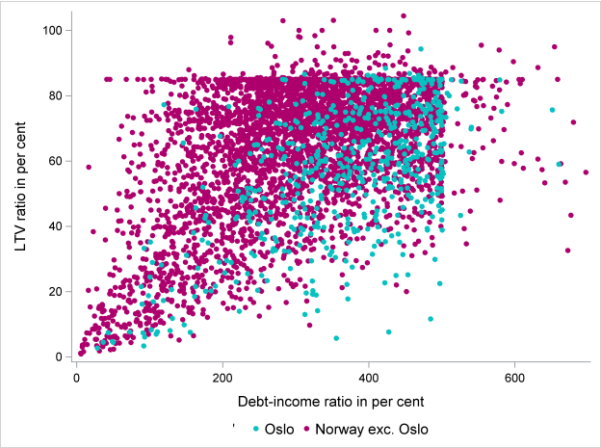


Sources: Finanstilsynet and Statistics Norway

A house price fall combined with high interest rates and lapse of household incomes, for example as a result of international turbulence and decline in world trade, would in all likelihood prompt financial consolidation among households thereby contributing to a further decline in demand for Norwegian-manufactured goods. The decline could be pronounced since household debt is very high, and lead to a negative spiral of weakening real economic growth, stronger decline in corporate earnings, a further fall in house prices and heavier loan losses at banks, as witnessed during the banking crisis at the end of the 1980s and start of the 1990s. A steep house price fall could also affect banks' liquidity position. The value of the cover pool of covered bonds (OMF) would be reduced, thereby weakening banks' reserves for further issuance of covered bonds; see Chapter 3 for further details. Expectations of an improved Norwegian economy and continued low interest rates could contribute to a continuing increase in house-

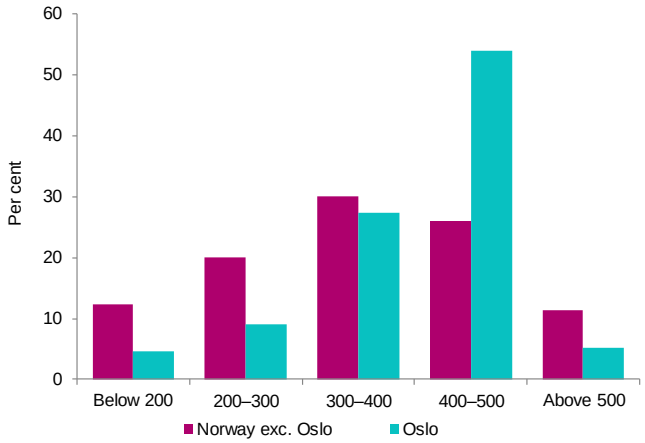
[4] The calculations are based on the number of households at the start of 2017.
[5] The distribution of interest rate expenditure on consumer loans and other loans is calculated by means of interest rate statistics from Statistics Norway. For consumer loans, households' average borrowing rate for overdraft, working capital and consumer credit facilities is used as an approximate interest rate level. For other loans, the average rate on overall lending to households is employed.

2.9 Loan-to-value ratio and debt-income ratio on repayment mortgages



Source: Finanstilsynet's residential mortgage lending survey

2.10 New residential mortgages, by debt-income ratio



Source: Finanstilsynet's residential mortgage lending survey

holds' debt burden and a resumption of house price growth. This could further heighten the potential fall.

Government measures

Finanstilsynet regularly analyses developments in household debt and house prices, and considers measures to mitigate the risk of financial instability.

The residential mortgage lending regulations, which were introduced in 2015 and tightened at the start of 2017, apply to the end of June 2018. The Ministry of Finance has asked Finanstilsynet to consider by 1 March 2018 whether the regulations should be continued in their present form or amended before expiring.

Finanstilsynet obtains quarterly information from a group of financial institutions to gauge their compliance with the residential mortgage lending regulations. Institutions have a 'flexibility quota' of up to 10 per cent of the value of mortgages granted each quarter (8 per cent for mortgages in Oslo). Reports for the third quarter of 2017 show that aggregate departures from the requirements of the regulations (i.e. use of the flexibility quota) were unchanged from the second quarter, but have declined slightly compared with the first quarter. The institutions report that the requirement that caps the borrower's overall debt at five times gross annual income is the most frequent basis for departure, especially in Oslo. Outside Oslo, high debt-income ratios and high loan-to-value ratios are approximately equally frequent causes of use of the flexibility quota.

Finanstilsynet receives yearly reports on all new residential mortgage loans granted by the largest banks in a given period. The 2017 residential mortgage lending survey shows that the banks have tightened their mortgage lending practices. A considerable reduction was noted in mortgages with a very high debt-income ratio. The share of repayment mortgages with a loan-to-value ratio above 85 per cent is also reduced. The same is true for the share of mortgages where the borrower falls short of the debt servicing capacity requirement after an interest rate increase of 5 percentage points. The survey shows that the proportion of mortgages where the debt-income ratio exceeds 60 per cent and where the mortgage is interest-only, has also reduced. See theme chapter I for further details of the residential mortgage lending survey.

The survey shows that a large proportion of mortgages have a loan-to-value or debt-income ratio close to the maximum permitted, see chart 2.9 which shows loan-to-value ratio and debt-income ratio for each individual repayment mortgage. The ceiling on debt-income ratios appears to have had greatest effect in the Oslo area where house prices are particularly high

relative to income levels. For mortgages secured on residential property in Oslo, 10 per cent were close to the maximum permitted debt-income ratio[6], while the corresponding share for the rest of the country was 3 per cent. The proportion of mortgages with a debt-income above 500 per cent was lower in Oslo than elsewhere in the country (chart 2.10).

COMMERCIAL PROPERTY

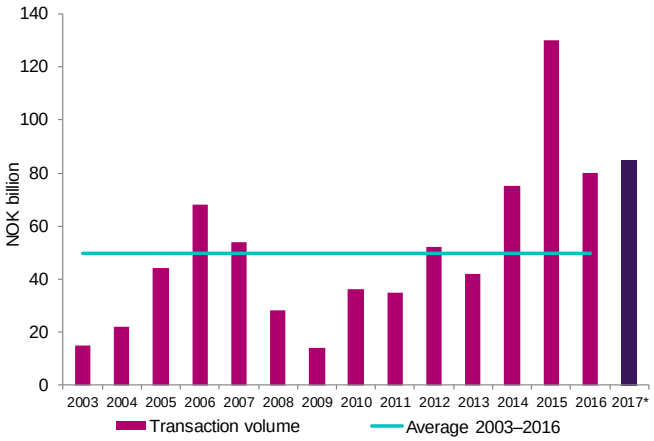
The market for commercial property is closely linked to the financial sector in Norway. Debt financing in this market is largely provided by banks. Bank lending to entities engaged in the management, leasing, planning and purchase/sale of commercial property accounts for 42 per cent of bank loans to non-financial firms. On the investor side, life insurers and pension funds are major actors. Experience from previous crises shows that commercial property prices are cyclically exposed. In periods of falling property values, prices of commercial property have proven to fall more than house prices. Some Norwegian banks were compelled to take heavy losses on loans to commercial property companies during the banking crisis at the start of the 1990s. Property companies are vulnerable to lapse of rental incomes and increased funding costs. Property prices in some segments have risen substantially in recent years.

Rental prices in some segments have shown a further increase

Expected future rental prices have a large bearing on commercial property values. Office properties represent the largest commercial property segment in the major towns. Office property rentals have risen in Oslo since the second half of 2016. In the other major towns rental prices have levelled off after falling during the downturn in the Norwegian economy in the aftermath of the oil price fall in 2014.

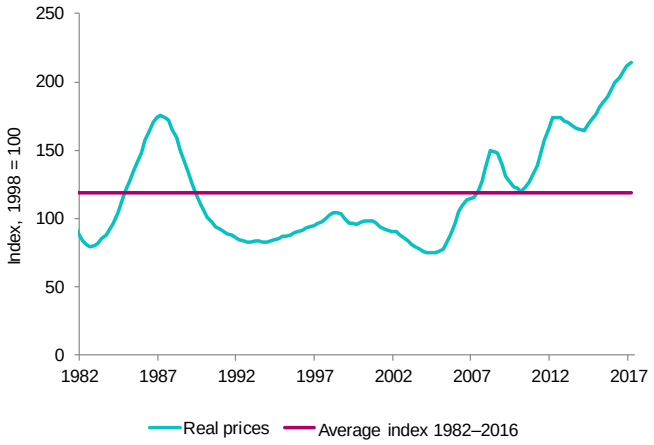
[6] These mortgages had a debt-income ratio between 490 and 500 per cent.

2.11 Transactions in commercial property



* Forecast for 2017. Source: DNB Næringsmegling

2.12 Estimated real prices, offices with high standard and central location (Oslo)



Sources: Dagens Næringsliv, OPAK, Statistics Norway and Finanstilsynet

Rental prices are influenced by the general level of activity in the economy and the supply of available property. Office vacancy rates have fallen in Oslo and in most other towns in the past year. According to DNB Næringsmegling (a commercial property broker), the office vacancy rate in Oslo is about 8 per cent and has shown a falling trend in recent years despite a period of reduced demand for office premises. Strong price growth in the housing market has contributed to increased conversion of office premises to housing and to the decline in the vacancy rate. In light of the weakening trend in the housing market, conversion to housing is expected to subside ahead. However, a low volume of new construction in the next two years

suggests that the office vacancy rate in Oslo will continue to fall somewhat in the years immediately ahead. In the other large towns office vacancy rates are expected to edge up gradually ahead.

High market activity

Activity in the commercial property market has been high through 2017. According to DNB Næringsmegling's estimates, turnover for 2017 will be higher than in 2016 (chart 2.11). The number of transactions will be the highest ever. The turnover has been broadly distributed across several segments. The office segment accounts for the largest share with about 40 per cent of the overall transaction volume. The market value of commercial property is dependent on expectations of future rental earnings and investors' required rate of return. Generally low interest rates and search for yield have prompted increased investments in commercial property. The demand for upmarket premises in Oslo has been particularly high for a long period, pushing investors' yield down and prices markedly up (chart 2.12).

Yield on upmarket property in major urban areas across the country now stands at just under 4 per cent. The yield required for this type of property investment has fallen more than funding costs over the last six years. At the start of the second half of 2017 the yield was marginally lower than the typical borrowing cost for property companies. The same is not true for other types of office property. For properties of somewhat lower standard and in less central locations the yield required is 1-2 percentage points higher. For most segments the yield is about 1 percentage point lower in Oslo than in other larger Norwegian towns.

Foreign investors increase the risk of price fluctuations in a small market

The low interest rate level and search for yield have contributed to falling yields and rising commercial property prices. The strong interest shown by foreign investors in recent years may have added to the price rise. In the period 2014-2016 foreign market participants accounted for about a quarter of overall acquisitions. According to DNB Næringsmegling foreign investors are the largest group of net purchasers in the Norwegian market so far in 2017.

The developments in the Norwegian market are not a phenomenon specific to Norway. Prices of upmarket property in European cities have risen steeply, and more so than prices in other segments. Market activity has been high, cross-border activities on the increase and the number of investors has risen. A rising proportion of mutual funds investing in commercial property may have intensified price fluctuations in the markets. Prompted by unease related to Brexit, substantial property fund redemptions were witnessed in the UK followed by a period of falling prices.

In the Norwegian market, foreign investors and lenders help to spread the risk across a larger number of market participants. However, this concurrently increases the risk of contagion effects from foreign markets. Problems in one market may cause foreign investors to opt, or be compelled, to also divest from the Norwegian market, which is small by global standards. Widespread divestment by international investors could trigger or intensify a price fall in the Norwegian market.

A cyclically exposed industry, but wide differences

Commercial property is more in the nature of an investment object than are dwellings. Often the willingness or ability to hold onto an investment through a downturn is less than in the housing market. In a cyclical downturn, demand for commercial property will diminish resulting in a rising vacancy rate and falling rental prices. Commercial property prices have proven to be far more cyclically sensitive than house prices, and in Norway as elsewhere prices have fallen steeply in economic downturns.

Cyclical fluctuations have affected property planning companies to a greater extent than property rental companies (chart 2.13). During the banking crisis at the start of the 1990s, at the start of the 2000s and during the financial crisis, planning companies' debt-servicing capacity (earnings relative to debt) was severely impaired. Rental companies were also

affected, but to a lesser extent than planning companies. In recent years, growth in rental income and property prices has contributed to an improvement in debt-servicing capacity. Average equity capital now stands at just under 40 per cent in property groups and at just over 30 per cent for groups in other industries.

Norwegian banks' exposure to commercial property

Growth in bank lending to commercial property companies has fallen somewhat in the last three years and was about 3 per cent in 2016. Property companies' funding structure has to a greater extent than other industries been dominated by financing provided by banks (chart 2.14). Bank debt makes up about 70 per cent of interest-bearing debt at institutions engaged in the management, leasing, planning and purchase/sale of commercial property. Recent years have seen a greater tendency for institutions to turn to the market for their funding, most visibly in the field of property rental and management services (chart 2.15). The market-funded share is, however, still relatively low: bond debt and commercial paper issuance account for about 7 per cent of institutions' interest-bearing debt.

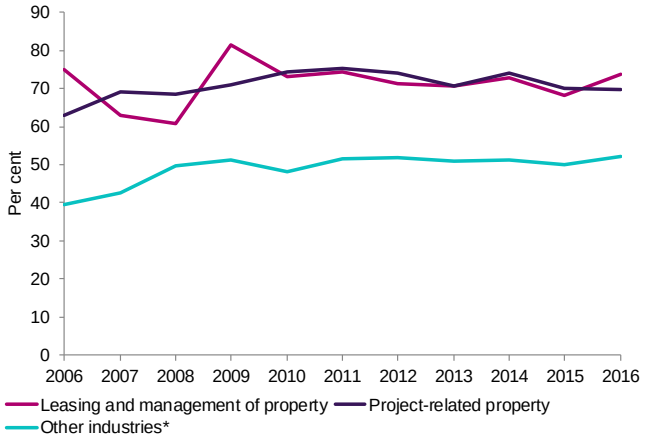
In the aftermath of the banking crisis the banks tightened lending practices by imposing stricter requirements on pre-sales and pre-leases and on the equity furnished in projects. According to Union Gruppen's bank survey, banks have recently raised the equity requirement for loans to upmarket properties in Oslo. This, along with institutions' broader-based funding structure contributes to mitigating banks' risk of loss.

Prices in some commercial property segments have for several years risen markedly and at a quicker rate than prices in the economy in general. The risk of a steep price fall in the event of an economic setback has risen. Higher yield requirements on the part of investors, as witnessed in periods of market turbulence, can have substantial price effects in this market.

2.13 Debt servicing capacity of Norwegian property companies (groups) and in other industries

*Exc. oil and gas. Source: Finanstilsynet

2.14 Bank debt as a share of all debt of property companies (groups) and in other industries

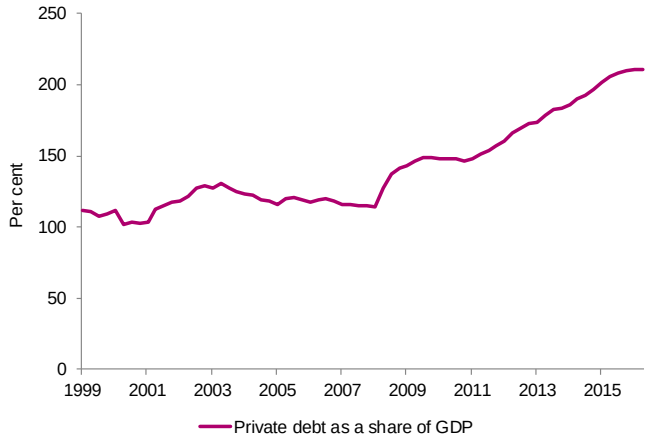


*Exc. oil and gas. Source: Finanstilsynet

2.15 Market funding as a share of all funding of property companies (groups) and in other industries

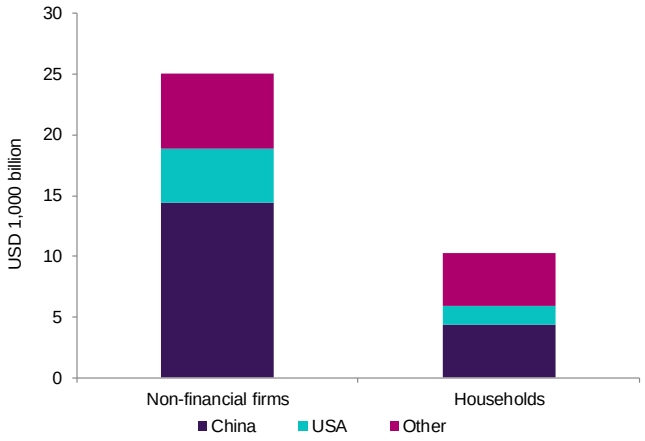
*Exc. oil and gas. Source: Finanstilsynet

2.16 Debt in China's private sector



Source: BIS

2.17 Change in gross private debt 2006–2016



Source: IMF

STRONG GROWTH IN PRIVATE DEBT IN CHINA

China is the second largest economy in the world, and in recent years has accounted for about one-third of aggregate global growth even though the country's annual rate of growth has receded from 12.7 per cent in 2006 to 6.7 per cent in 2016. This development has been part of the government's endeavour to achieve sustainable growth that is consumer-driven rather than investment-driven.

This period has been followed by a steep debt build-up in the private sector. In the last ten years debt as a share of GDP has risen from 150 to 210 per cent (chart 2.16). Firms are the main contributor to this trend, with corporate debt measuring 165 per cent of China's GDP in 2016. The corresponding figure for the US was 72 per cent. Household debt is relatively low compared with other countries, but has risen substantially in the last 10 years (chart 2.17).

Vigorous growth in the financial sector, in particular in the shadow banking system

The above development has brought a hefty increase in the size of the financial sector, both in the regular banking system and in particular in institutions and loan products that are subject to less regulation, the 'shadow banking system'. The financial system has accordingly become less clear-cut. The IMF points to the growing use of unstable, short-term funding both by ordinary banks and the shadow banking system which heightens the financial industry's vulnerability to liquidity problems.

Despite some regulatory easing in the last two years or so, Chinese banks have for a long period been subject to stringent lending restrictions. This is true of requirements on deposit-to-loan ratios, the ceiling on deposit and lending rates, what sectors credit can be granted to along with stringent capital requirements. The regime has led to a large share of lending migrating to the shadow banking system. However, this activity is either owned or facilitated by regular banks. The government has put in place measures to dampen lending growth in the shadow banking system.

Banks' earnings depend to a large degree on the above activity, both through the higher interest rates charged on unregulated lending and fees levied for arranging transactions. Transferring the lending activity from the shadow banking system to the ordinary banking system will therefore dampen earnings and banks' opportunity and desire to sustain credit growth.

The IMF has calculated that in the past eight years China's debt build-up has been steeper and more rapid than the average debt increase that has previously led to financial crises. Much of this credit is channelled to the property market, leading to massive overinvestment. Experience from previous crises shows that inflated property values are liable to give

rise to financial instability with ensuing contagion to the real economy. An economic setback in China will have major consequences for the world at large.

A Chinese setback would, in the event, arise at a time of global economic vulnerability

Were China to be hit by a financial crisis with real economic consequences, it could be against the backdrop of a global economy still struggling with the aftermath of the 2008 financial crisis. The public debt crisis that ensued in many countries has curbed opportunities for stimulation through expansionary fiscal policy. Nor is much room for manoeuvre left in monetary policy. In most industrialised countries base rates are very low or even negative, and quantitative easing has been employed to inject liquidity on a hitherto unprecedented scale. Low interest rates have led to very high private debt levels in many countries while values of residential property, equities and other asset items may have reached unsustainable levels. Should the most important driver of the world economy come to a halt, there will be an increasing risk of a global setback.

A setback in China will hit the Norwegian economy through various channels

Norwegian exports to China are modest, accounting for a mere 3 per cent of overall exports. The indirect effect of a halt to growth in China would however be larger due to the country's significance for overall global growth. China is also a very large importer of commodities. Slower growth in output will lower imports of inputs, and prices of oil and metals alike would decline as witnessed in the aftermath of the financial crisis. A lower oil price would be negative for the entire petroleum industry in Norway. A setback in China could exacerbate the credit risk posed to Norwegian banks by this sector.

As discussed in Chapter 1, financial markets are marked by compressed risk premiums and low volatility. It is safe to assume that, in a situation of financial crisis in China, risk premiums in fixed income markets and volatility will rise and stock prices will fall. Exchange rate movements may be substantial. Much of Norwegian banks' market funding is from foreign sources. Turbulence in global financial markets will heighten Norwegian banks' liquidity risk.

A financial crisis in China followed by rising risk premiums in global financial markets could be a factor triggering global financial stability problems which would also hit the Norwegian economy and Norwegian financial institutions.

DIGITAL VULNERABILITY AND FINANCIAL STABILITY

Robust payment and settlement systems and confidence among market participants are crucial for financial markets' ability to function properly. Norway's financial infrastructure has thus far proven robust, and confidence among participants is high. However, thus far in 2017 a larger number of ICT events have been noted than in the whole of 2016 (chart 2.18). In October 2017 services at a number of Norwegian banks were down for almost 24 hours due to operational failure at their shared sub-supplier EVRY, and earlier in 2017 DNB (Norway's largest bank) recorded events that left services unavailable for many hours.

Institutions are required to report significant[7] ICT events to Finanstilsynet. Finanstilsynet attaches importance to the individual institution's handling of ICT events with a view to restoring services and to its implementation of relevant, preventive measures. Event reporting must at the same time support the monitoring of risk levels in the financial sector in general and promote information exchange among financial institutions affected by related events.

ICT events have thus far been handled without significant consequences for the financial system. However, increased digitisation and

[7] A discrepancy causing a significant reduction in functionality as a result of a breach of confidentiality (protection of data), integrity (protection against unauthorised changes) or availability of ICT systems and/or data must be reported to Finanstilsynet. Reports should normally cover events which the institution itself categorises as very serious or critical, but may also cover other discrepancies in cases where particular vulnerabilities in an application, architecture, infrastructure or defences are brought to light.

interconnectedness among actors nationally and globally prompts growing awareness of the systemic risk posed by ICT events. Where a systemically important financial institution, a key infrastructural entity or many banks simultaneously are put out of commission for a period owing to failure of ICT systems, financial stability could ultimately be jeopardised.

Norwegian supervised institutions are subject to the ICT regulations. These require institutions to establish overarching goals, strategies and security requirements for ICT activities. The regulations also impose requirements on ICT security and system maintenance. They require institutions to have in place contingency plans to be initiated if ICT operations are cannot be maintained due to a crisis. The requirements also apply where the entire ICT activity or parts of it are outsourced. Finanstilsynet conducts on-site inspections where compliance with the regulations is assessed.

The Financial Infrastructure Crisis Preparedness Committee, headed by Finanstilsynet, coordinates the national response to situations that pose a danger of major disruption to the financial infrastructure. Norges Bank, the largest financial institutions, VPS, EVRY ASA, Nets Norge AS, Nordic Financial CERT, Finance Norway and the Ministry of Finance are members of the committee.

DIGITAL CRIME

ICT events may be due both to operational errors and digital crime (security events). 'Operational events' means in this context events resulting from unintended errors on the part of employees or service suppliers, errors due to deficient or faulty processes at the institution or at the institution's service suppliers, or faults in technical solutions that affect the systems' integrity, accessibility, confidentiality, authenticity and/or continuity. 'Security events' means in this context digital crime in the form of unauthorised access, use, disruption, modification or damage to systems; see Finanstilsynet's Risk and Vulnerability Analysis 2016 for examples of such events. As will be

2.18 ICT events reported to Finanstilsynet

Source: Finanstilsynet

clear from chart 2.18, security events represent a minority of the events reported to Finanstilsynet. The particular attention given to digital crime should be seen in context with concerns over the active and often malicious attempts of third parties to hit one, or several, institutions or an entire nation, and their constant development of new methods of attack. Sound defences against criminal activity require resources and ongoing updating of risk-mitigating measures and the ability to respond rapidly to an event. The frequency of reported security events in the financial industry in Norway has diminished in recent years. However, an increase in attempts to commit digital crimes and in the diversity of such attempts is noted. This, combined with indications that actors with ample resources are behind targeted attacks, gives rise to growing concern regarding digital crime.

In its report "Cyber Risk, Market Failures and Financial Stability" from August 2017[8], the IMF reports that cyber-attacks against financial institutions are becoming more common and more sophisticated. At the same time risk awareness has increased and firms are investing in cyber security. The report points to cyber risk as a source of systemic risk. The IMF also cites the close interconnectedness of the financial system and the multiple points of access to key parts of the infrastructure, which creates vulnerability.

[8] IMF: Cyber Risk, Market Failures and Financial Stability, August 2017

Vulnerability is growing due to a considerable concentration of risk at major, systemically important actors. The IMF also points to the high correlation of cyber risk and other risks – such as liquidity risk and market risk – in a stressed situation. A cyber event could give rise to operational failures causing some institutions to lose access to necessary liquidity and may also result in market failure due to loss of confidence among market participants.

CYBER INSURANCE

Institutions can reduce financial losses resulting from cyber-attacks by purchasing insurance. The market for cyber insurance is, however, still viewed as immature, and the basis for pricing this type of risk is limited. A report from Lloyds[9] draws attention to the need to understand risk associated with extreme events (tail risk) and the need to understand that risks in this area change rapidly over time. It states that the economic losses caused by a cyber-attack have the potential to be as large as those caused by a natural catastrophe.

Insurance may be an effective way to distribute the risk of economic loss from cyber-attacks. At the same time there is concern that insurers lack a deep understanding of the potential tail risk implicit in cyber coverage. Currently no data are available showing the extent of insurers' exposure to cyber risk.

[9] Emerging risks report 2017 "Counting the cost – cyber exposure decoded"

PART II: FINANCIAL INSTITUTIONS

Norwegian banks and insurers have improved their financial position in the years since the financial crisis. The institutions have fulfilled higher capital requirements through profit retention.

Chapters 3 and 4 cover financial position, profitability and risk among, respectively, Norwegian banks and life insurers and pension funds. Important challenges and risk areas for the institutions are discussed.

Chapter 5 gives an overview of key Norwegian legislation and of EU rules governing Norwegian financial institutions and financial markets.

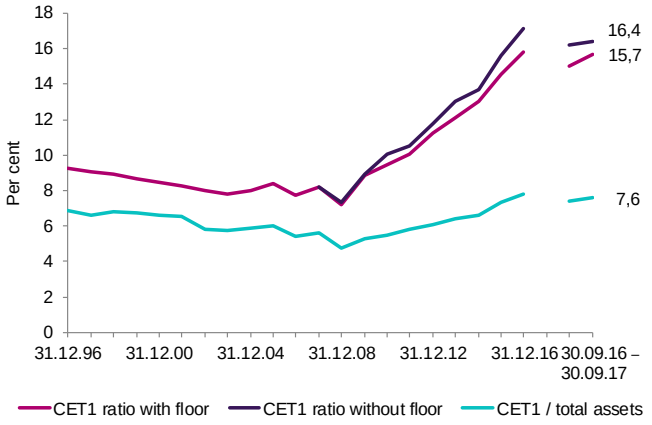
CHAPTER 3 BANKS

Sound earnings in the years following the global financial crisis have enabled banks to meet higher capital requirements through profit retention. Earnings have been sustained by improving the efficiency of operations and through low losses on loans. In recent years increased net interest revenues, on the back of reduced funding costs and some increase in lending margins, have also made a positive contribution to profitability. Improved capital adequacy ratios are explained partly by the particularly high growth in lending carrying low risk weights. This is especially true of residential mortgages, where growth has been high for many years. High earnings and improved financial positions have supported ample access to funding through the external capital markets. The proportion of long-term funding has risen in recent years, and banks have increased their short-term liquidity reserves in line with new requirements. A substantial portion of banks' short-term funding is from foreign sources. Turmoil in global financial markets could accordingly have rapid consequences for Norwegian banks. The significance of covered bonds (OMF) has risen, both because a large share of market funding is raised through covered bonds, and because covered bonds account for a large proportion of banks' liquidity reserves. Hence banks' liquidity risk is to a larger extent than previously associated with housing market developments.

FINANCIAL POSITION

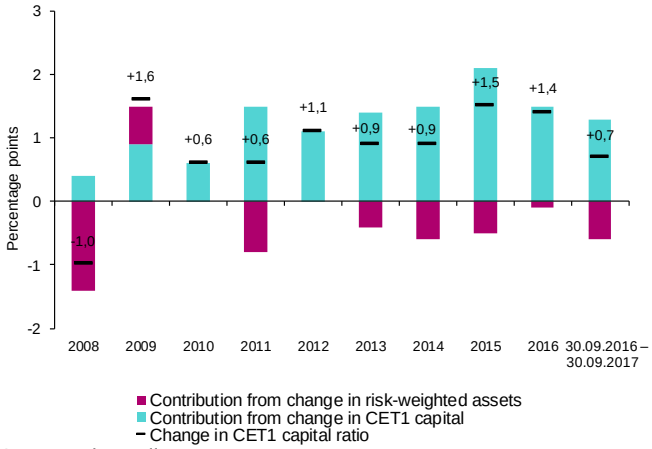
Norwegian banks have improved their financial position since the financial crisis. The CET1 capital ratio, which measures the highest quality capital as a share of risk-weighted assets, was 15.7 per cent at the end of the third quarter (chart 3.1). At the end of 2008 the CET1 ratio was just over 7 per cent. The increase in CET1 capital is essentially due to profit retention (chart 3.2). The increase in risk weighted assets has in isolation contributed to lower CET1 ratios.

3.1 CET1 capital ratio and CET1/total assets at Norwegian banks/banking groups



Source: Finanstilsynet

3.2 Changes in CET1 capital ratio of all banks/banking groups (decomposed)

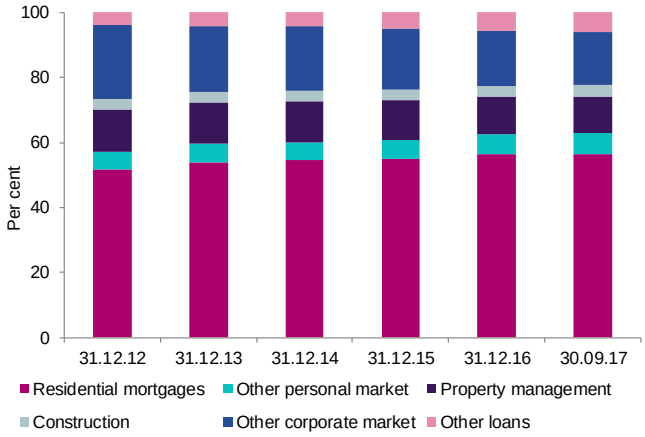


Source: Finanstilsynet

3.3 Total assets and risk-weighted assets for Norwegian banks/banking groups

Source: Finanstilsynet

3.4 Norwegian banks' loan portfolio



Source: Finanstilsynet

Banks' aggregate total assets have increased considerably for a long period, and the increase has each year since 2003 exceeded the increase in risk weighted assets (chart 3.3). The widening differential can to a large extent be explained by the introduction of internal models (IRB models) to compute credit risk, which have lowered average risk weights for several large banks. The IRB models' impact on the capital requirement is limited by the Basel I floor which prevents IRB banks' risk-weighted assets from falling below 80 per cent of risk-weighted assets under Basel I. As reported in Risk Outlook June 2017, several banks' risk weights have fallen considerably. Finanstilsynet does not consider the fall in risk weights to be supported by a corresponding fall in risk, and several banks have been instructed to recalibrate their models accordingly. In its follow-up of approved IRB models, Finanstilsynet conducts benchmark surveys to check whether model calibrations are reasonable compared to one another.

Leverage ratios (CET1 capital relative to total assets) have also risen in recent years but not to the same extent as CET1 capital ratios. The growing difference between these measures, as shown in chart 3.1, is due to the widening gap between total assets and risk-weighted assets. At the end of the third quarter of 2017, Norwegian banks' leverage ratio stood at 7.6 per cent. By way of comparison, the level at end-2008 was below 5 per cent, whereas in the mid-1990s it was about 7 per cent.

As from 1 January 2018, new accounting rules for losses on financial instruments, IFRS 9, are introduced for issuers of listed securities; see further discussion in Chapter 5. The likely impact of the changes is still uncertain, but there is reason to expect somewhat higher impairment write-downs among the banks. In the EU, discussions are in progress on including transitional measures in the capital adequacy framework to permit the impact to be phased in over a period of five years. The Ministry of Finance has signalled that corresponding transitional measures should be introduced in Norwegian legislation.

CREDIT RISK

Norwegian banks' loan portfolio dominated by lending to personal borrowers

After growing strongly for several years, lending to personal borrowers now accounts for 63 per cent of Norwegian banks' overall loans to customers (chart 3.4). Residential mortgages account for 90 per cent of loans to personal borrowers. In the corporate portfolio, property management is the dominant segment for most Norwegian banks. For the banks as a whole, loans to property management account for almost 42 per cent of total lending to domestic firms. Loans to the construction sector account for 12 per cent. A negative trend for these industries could therefore rapidly have considerable consequences for the profitability of Norwegian banks. See also the comments on commercial property in Chapter 2.

In the longer term there is a close connection between growth in lending to personal borrowers and the trend in house prices, but the turnaround in the housing market has so far not affected the lending growth. Norwegian banks' growth in lending to personal borrowers has been high for many years, far outstripping the growth in borrowers' incomes. The high growth in lending to personal customers has contributed to good profits, but its continuation increases banks' vulnerability.

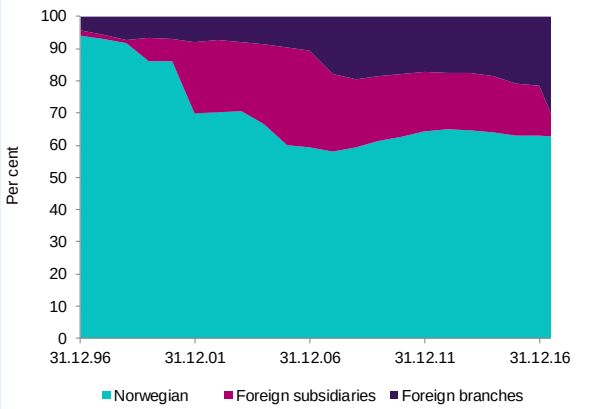
Foreign presence in the Norwegian loan market

Foreign banks play a major role in the Norwegian market. After Nordea's conversion to branch status in January 2017, three of the largest banks in Norway are now branches of major Nordic banks. Foreign branches are not subject to ordinary prudential supervision by Norwegian authorities. This responsibility rests with the particular bank's home country. The market conduct of branches in Norway is nonetheless subject to regulation and supervision. For example, compliance with the residential mortgage lending regulations is enforced, also in the case of actors operating in Norway through the branch of a foreign bank.

Foreign banks' significance in Norway gathered particular headway in 2001 with the sale of the second largest Norwegian bank, Kreditkassen, to the Nordic financial services group Nordea. In the ensuing years foreign banks further increased their market share, both through organic growth and through further acquisitions of small Norwegian banks. Through several years of particularly strong growth in lending to corporates, foreign actors' market share rose to almost 43 per cent in 2008 (see chart 3.A, covering all banks, mortgage companies and finance companies in Norway). In the years following the global financial crisis foreign banks' market share dropped substantially. In the last four years foreign banks have again increased their market share to corporates somewhat, to 37 per cent at end-September 2017. With Nordea Bank Norway's conversion to branch status as from 1 January this year, foreign branches' overall market share stands at 34 per cent.

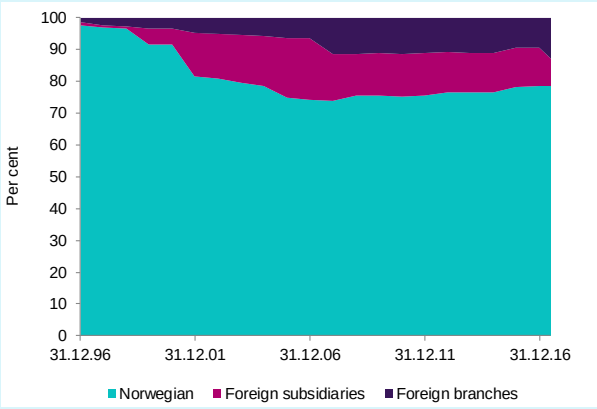
For loans to personal borrowers the situation has been more stable (chart 3.B). Foreign actors' market share to this customer group has fallen since 2007, and was 21 per cent at end-September. This fall in market share was influenced by Skandiabanken's change in status from branch of a foreign bank to Norwegian legal entity in 2015.

3.A Market shares of lending to Norwegian firms (up to end-Sept 2017)



Source: Finanstilsynet

3.B Market shares of lending to Norwegian personal customers (up to end-Sept 2017)



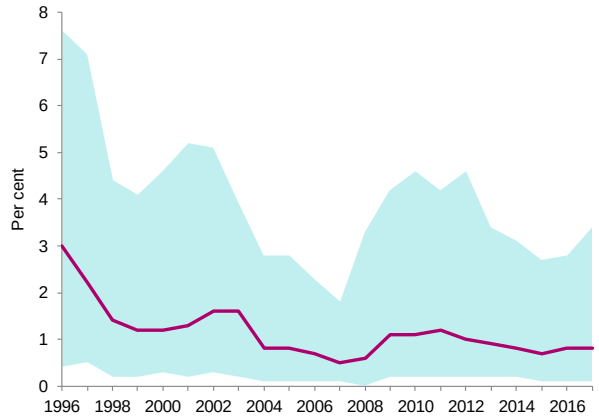
Source: Finanstilsynet

Low level of non-performance and losses on overall lending

Non-performance relative to overall lending has been at a stable low level for a long period, reflecting the positive trend in the Norwegian economy since the banking crisis at the start of the 1990s.[10] The distribution in chart 3.5 shows that even the banks with the highest proportion of non-performing loan show modest levels. Norwegian banks' portfolio quality is good compared with other European countries. In the EU member states the weighted

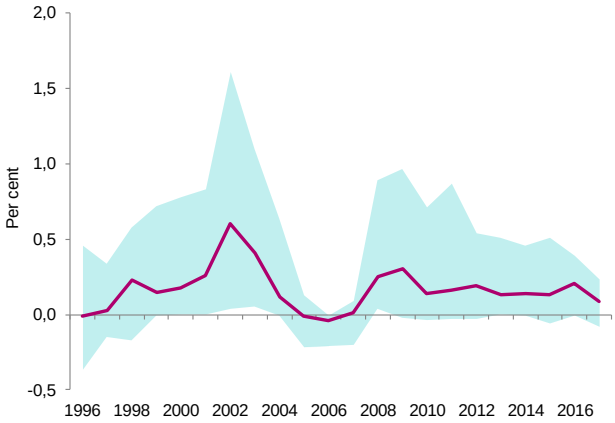
[10] In 2009 the definition of non-performance was changed to exposures 30 days, as opposed to 90 days, past due.

3.5 Non-performing loans as a share of all loans from Norwegian banks (exc. pure consumer credit banks). The pale blue field shows the interval for 90 per cent of the observations



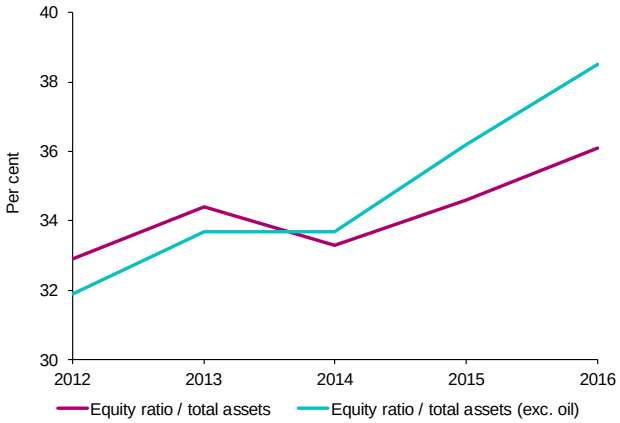
Source: Finanstilsynet

3.6 Credit losses for Norwegian banks (exc. pure consumer credit banks). The pale blue field shows the interval for 90 per cent of the observations



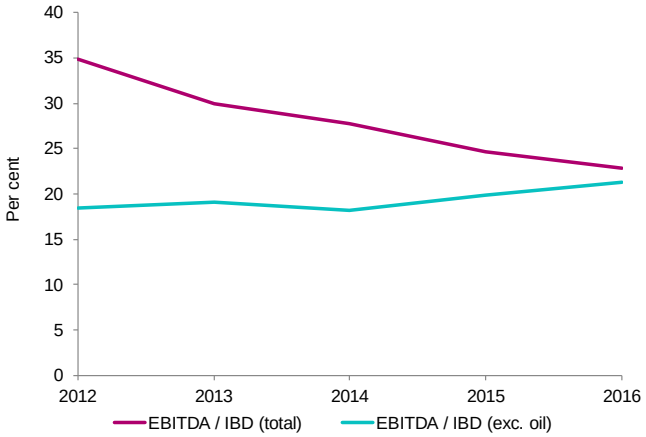
Source: Finanstilsynet

3.7 Norwegian firms' equity ratio



Source: Finanstilsynet

3.8 Norwegian firms' debt servicing capacity



"Exc. oil" excludes the oil-related industries and companies engaged in extraction of oil and gas. Source: Finanstilsynet

average for potential problem loans at the end of the first quarter of 2017 was 4.8 per cent, compared with 1.8 per cent in Norway.[11] The quality of Norwegian banks' portfolios is also reflected in the banks' loss ratio (chart 3.6). Losses on loans to personal customers have been very low for a long period. The variations in losses are mainly due to losses on exposures to the corporate market. The increase in 2016 is mainly down to a small number of large banks' increased losses on loans to oil-related industries.

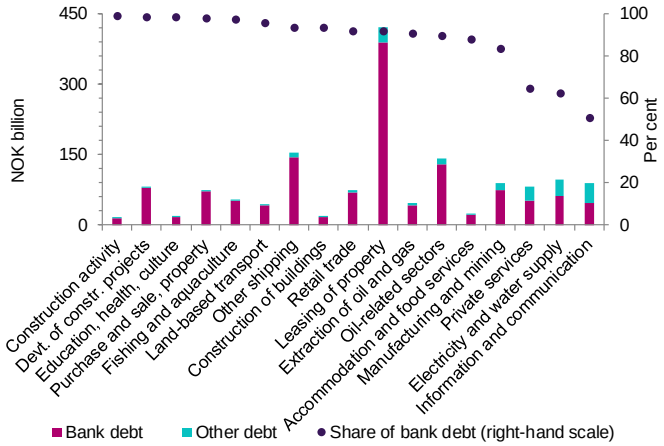
Small contagion effects from the oil-related sector to other customers in the corporate market

The proportion of loans to corporates in Norwegian banks' loan portfolio has risen over recent years (chart 3.4). If foreign counterparties are included, the proportion for Norwegian banks overall fell from about 39 per cent at end-2012 to 32 per cent at end-2016. The loan volume in the corporate market portfolio is virtually unchanged in the same period, standing at about NOK 900bn at end-2016.

Charts 3.7 and 3.8 show indicators for Norwegian banks' clients in the corporate market. Since the oil price fall in 2014, Norwegian institutions' debt

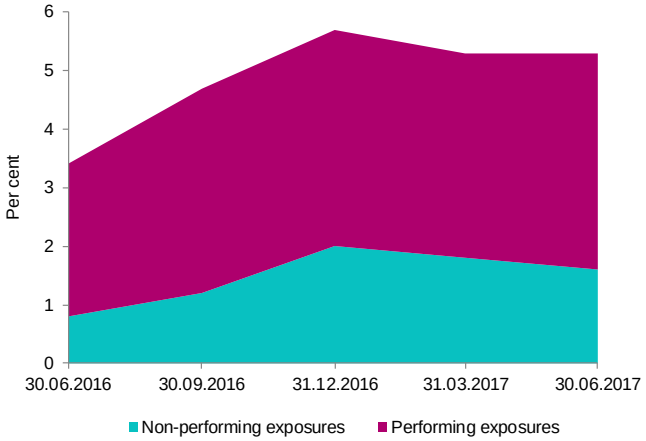
[11] EBA Risk Dashboard Q1 2017 comprises a selection of the largest banks in each country. In total close to 200 banks. Problem loans are defined as loans more than 90 days past due and/or individually written down.

3.9 Norwegian firms' funding structure



"Other debt" includes bond and short-term paper debt as well as convertible loans. The industry classification is identical to that used in Finanstilsynet's stress test model. Source: Finanstilsynet

3.10 Norwegian banks: shares of lending to firms granted forbearance



The sample is confined to the 25 largest banks. Problem loans are loans that are more than 90 days past due and/or individually written down. Source: Finanstilsynet

servicing capacity, measured by earnings before interest, taxes, depreciation and amortisation (EBITDA) relative to interest bearing debt (IBD), has fallen steeply (chart 3.8). The equity ratio has concurrently risen in the period (chart 3.7). If the oil-related sector is excluded from the analysis, debt servicing capacity remained stable throughout the period. This indicates that credit risk associated with the banks' Norwegian, non-oil-related customers has been stable since 2014. The largest Norwegian banks have substantial exposures to oil-related industries. At end-2016 these exposures accounted for just over 5 per cent of the value of Norwegian banks' overall exposures to the corporate market.[12] Moreover, the banks have substantial off-balance-sheet exposures in the form of commitments and guarantees.

Chart 3.9 shows the funding structure of the banks' Norwegian corporate clients.[13] This overview shows that a large proportion of Norwegian institutions' overall debt is debt to banks. For oil-related industries, where banks have granted extensive forbearance, the proportion of other debt stands at about 10 per cent.

[12] The exposure value refers to the highest consolidation level and includes foreign companies.
[13] Bank debt comprises overall bank debt on the institutions' balance sheets and therefore includes foreign banks' receivables. The analysis takes a basis in the institutions' consolidated financial statements, where these exist.

Increased volume of forbearance

The increase in banks' losses and volume of non-performance in recent years has been driven mainly by the larger banks' increased losses on loans to enterprises in oil-related industries (see Risk Outlook June 2017). An increased volume of forborne exposures in these industries also reflects the increased credit risk. A large proportion of these exposures are not non-performing or written down, and are therefore not included in the volume of problem loans (chart 3.10). Although the exposures are categorised as performing, their credit quality is highly uncertain. An increased volume of forborne performing exposures is an indication of increased future losses for the banks.

In response to the situation in the offshore sector, Finanstilsynet regularly conducts a survey of five banks' exposures to this sector.[14] At the end of the second quarter of 2017 overall exposure (EAD[15]) was about NOK 82bn, a reduction of about 8 per cent since the end of 2016.

A substantial share of the offshore portfolio has undergone or will undergo restructuring.

[14] Nordea is included in the sample.
[15] Exposure at Default: includes off-balance-sheet items where conversion factors are taken into account.

Restructuring often involves debt conversion or debt forgiveness as well as granting the borrower new repayment terms, including longer mortgage periods and postponement or reduction of instalment payments over a given period. At the end of the second quarter of 2017 the proportion of forborne loans in this portfolio was 55 per cent.

Overall write-downs including known losses total NOK 8.2 billion, an increase of NOK 1.8 billion since the turn of 2017. Overall write-downs break down to NOK 5.4 billion in individually assessed write-downs (including known losses) and NOK 2.8 billion in collectively assessed write-downs. At the end of the second quarter of 2017, overall write-downs (including known losses) measure 10.1 per cent of the portfolio. Close to one-third of the individually assessed write-downs are booked as known losses. Parts of the loan losses are attributable to conversion of debt in connection with restructuring.

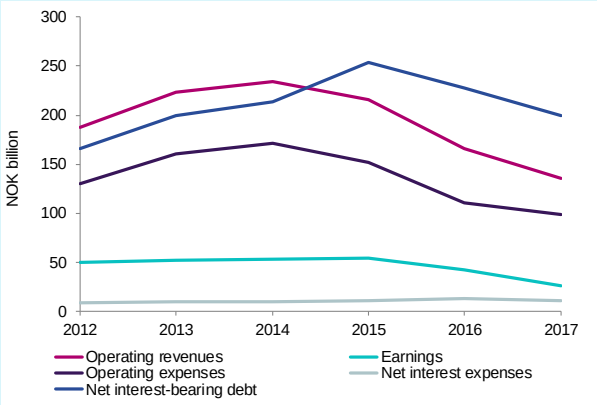
Oil services industry*

Markedly weaker demand in the aftermath of the oil price fall has caused operating revenues of listed oil services companies to fall from NOK 235bn in 2014 to NOK 135bn in 2017 (chart 3.D). Widespread lay-offs and other efficiency measures mean that operating expenses have also fallen, but by a smaller margin than operating revenues. Net interest expenses have risen by just over NOK 1bn, so that the earnings are NOK 27bn, or about 50 per cent, lower in 2017 than in 2014.**

*The analysis covers 28 listed companies (Oslo Børs) in the offshore-supply, rig, seismic and other oil service sectors. Companies engaged in oil and gas extraction are not included. The analysis is based on the companies' published group financial statements. Profit/loss items for 2017 are annualised.

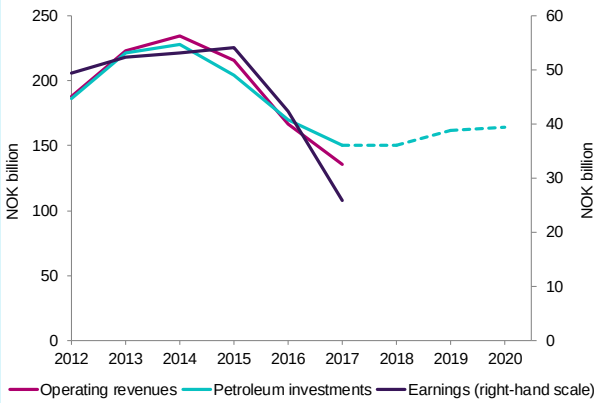
**Basic earnings are defined here as operating revenues minus operating expenses and net interest expenses. Depreciation, write-downs and valuation changes are not included.

3.D Operating revenues, operating expenses and net interest-bearing debt. Listed companies in the oil service sector (Oslo Børs)



Sources: Listed companies' published consolidated accounts and Finanstilsynet.

3.E Operating revenues and earnings. Listed companies in the oil service sector (Oslo Børs). Petroleum investments on the Norwegian shelf



Sources: The listed companies' published consolidated accounts, Finanstilsynet, Statistics Norway, Norges Bank and the Ministry of Finance

Many companies have undergone debt restructuring, and negotiations are still ongoing at several companies. Net interest-bearing debt is about 7 per cent lower than prior to the oil price fall. The reduction is due inter alia to bond debt write-offs or conversion of bond debt into share capital.

According to forecasts by the Ministry of Finance, Statistics Norway and Norges Bank, petroleum investments on the Norwegian shelf will increase somewhat in the coming years (chart 3.E*).

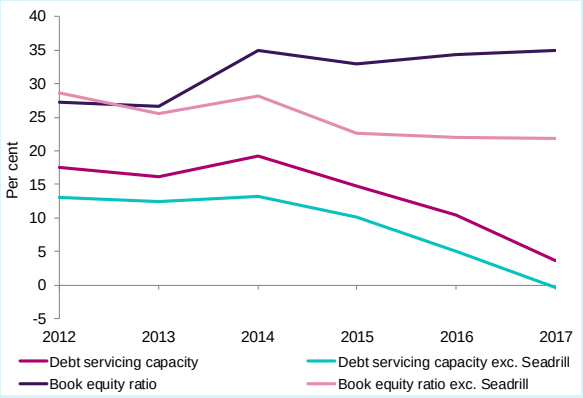
However, the investment estimates are far lower than the level of investments prior to the oil price fall. If the forecasts prove correct, and the correlation between investments and earnings is approximately on a par with recent years, earnings will be only about half as large as prior to the oil price fall. Should substantial parts of the cost reductions carried out prove to be permanent, the companies' earnings may increase even if petroleum investments do not return to the same high level as prior to the oil price fall. In addition to the uncertainty regarding the oil price and petroleum investments in the long-term, uncertainty also attends the substantial overcapacity of vessels and rigs.

Heavily reduced earnings combined with a limited reduction in net interest-bearing debt have brought a severe impairment of oil services companies' debt servicing capacity. The situation is most serious for companies carrying heavy debt. Chart 3.F shows the weaker half of the listed oil services companies in terms of debt servicing capacity. This sub-sample accounts for about 80 per cent of listed oil service companies' total net interest-bearing debt. An estimated 93 per cent of net interest-bearing debt is bank debt and about 7 per cent is bond debt.

Debt servicing capacity for the overall sub-sample weakened from 19 present in 2014 to 4 per cent in 2017. Seven of the companies have negative debt servicing capacity in 2017. It is difficult to establish precisely what level of debt servicing capacity is needed in order to be sustainable over time without detailed information on the particular company. Debt should over time be repaid approximately in step with the scrapping of the assets. The best available estimate of asset scrapping is probably the auditor-confirmed book depreciations and

*The Ministry of Finance, Statistics Norway and Norges Bank prepare independent forecasts for petroleum investments. The chart shows an unweighted average of the forecasts.

3.F Debt servicing capacity and book equity at the bottom 50 per cent of listed oil service companies in terms of debt servicing capacity



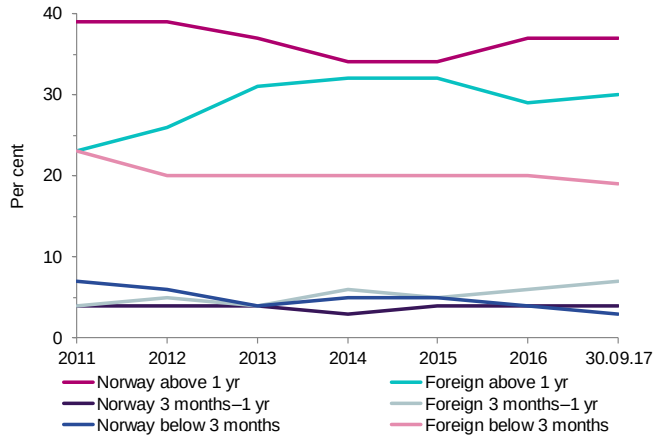
Sources: The companies' published consolidated accounts and Finanstilsynet

write-offs. In the period 1999-2016 the oil services companies' depreciations and write-offs averaged 16 per cent of net interest-bearing debt. Since earnings over time also have to cover tax, dividend and self-financing of investments, debt servicing capacity should probably be considerably higher than 16 per cent.

The fact that the company in the sub-sample with the second best debt servicing capacity, Seadrill, is now under bankruptcy protection in the US* is an indication of the inadequacy of oil services companies' debt servicing capacity. In the aftermath of the oil price fall fresh equity capital has been injected and parts of the bond debt have been converted into shares by several oil services companies. In order to pre-empt bankruptcy, many oil service companies have been granted forbearance several years ahead in time. Forbearance effectively entails longer maturity. This must be grounded in expectations held by both banks and companies that earnings will improve by a sufficient margin in the longer term. In the absence of such improvement, banks losses on these exposures can be expected to increase in the future.

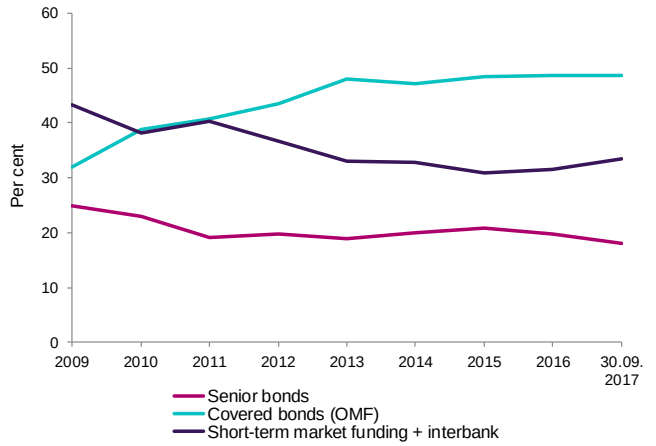
*Seadrill has a debt servicing capacity of 10 per cent in 2017, compared with a weighted average for the sub-sample of -0.3 per cent (3.F). Seadrill accounts for about one-third of the sub-sample's net interest bearing debt.

3.11 Market funding, banks and covered-bond issuing entities, distributed by maturity and Norwegian/foreign funding



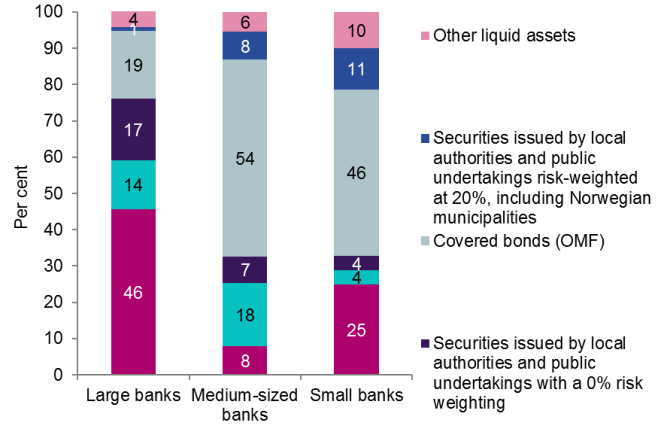
Source: Finanstilsynet

3.12 Composition of market funding



Source: Finanstilsynet

3.13 Composition of the liquidity reserve as at 30.09.2017



Source: Finanstilsynet

LIQUIDITY

Banks' funding consists mainly of customer deposits and market funding in the form of borrowings on money and bond markets. Customer deposits' share of Norwegian banks' overall funding has been stable at just over 40 per cent in recent years. Deposits have proven to be a stable source of funding for Norwegian banks also in periods of market turbulence. This is partly due to the Norwegian deposit guarantee scheme, which guarantees deposits up to NOK 2 million per customer per bank.

Banks' market funding consists of senior bonds, covered bonds and short-term market funding including interbank debt. In recent years market funding's share of total funding has been stable at just under 50 per cent (chart 3.11). Funding with a maturity above one year accounts for almost 70 per cent of Norwegian banks' market funding at the end of the third quarter of 2017. A high share of long-term funding reduces refinancing risk.

Just under 60 per cent of the banks' market funding is from foreign sources, a substantial share of which is funding with a maturity below three months. Foreign funding is used mainly to cover assets denominated in Norwegian kroner, and the banks therefore enter into currency swaps. Since the currency swaps entered into by the banks usually have shorter maturities than the funding, the banks are dependent on a well-functioning market for currency swaps. See Risk Outlook June 2017 for further details on the banks' currency risk.

Growing dependence on covered bonds

Covered bonds account for the largest share of the banks' market funding (chart 3.12). At the end of the second quarter of 2017 this share was 51 per cent – the highest share of covered bonds since Norwegian banks began to issue such bonds in 2007. In the third quarter of 2017 the share declined slightly, but remains high. Covered bonds also account for a large portion of banks' liquidity reserve (LCR). Medium-sized and small banks hold a particularly large share of covered bonds in their liquidity reserve (chart 3.13).

The emergence of covered bonds has been beneficial for Norwegian banks. Since their introduction in 2007 they have proven to be a relatively reliable, stable source of funding. The high share of covered bonds is an important reason why the maturity of Norwegian banks' market funding has risen, thereby helping to reduce refinancing risk. However, heavy dependence on covered bonds as a source of funding and as a liquidity reserve also poses a risk.

Reduced flexibility and increased risk for the banks' unsecured investors

Increased issuance of covered bonds reduces the average quality of the banks' remaining assets since a large share of the best residential mortgages is transferred to mortgage companies for inclusion in the cover pool of covered bonds. This increases the risk for banks' unsecured creditors, and reduces the potential for new transfers and issuance in a situation where this is needed.

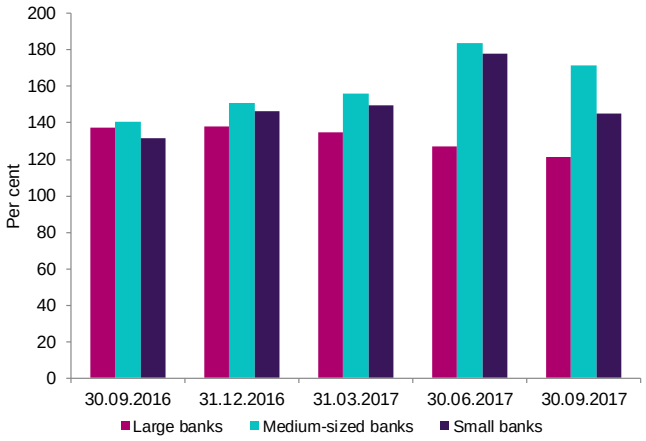
Banks' funding risk and liquidity risk are to a greater extent than previously tied to the housing market

Since residential mortgages are the collateral for covered bond issues, developments in the housing market are an important risk factor.

A fall in house prices will reduce the value of the cover pool of covered bonds, and the banks may, depending on the degree of over-collateralisation and the size of the house price fall, have to replenish the cover pool in order to remain compliant with the asset coverage requirement for the outstanding covered bonds. A house price fall will thus reduce the banks' potential for further covered bond issuance (mortgages ready for transfer, mortgages that can be made ready for transfer to covered-bond-issuing companies, and the covered-bond company's available cover pool).

In Finanstilsynet's annual overall risk assessment, banks are asked to estimate the effect on their own balance sheet and on the cover pool of a 30 per cent fall in house prices. The aim is to estimate the banks' potential for issuing new covered bonds in a stressed situation. The supposition is that the market for covered bonds will be more robust during a crisis, i.e.

3.14 Total LCR, weighted average



Source: Finanstilsynet

that it is easier/cheaper to obtain funding in the form of covered bonds than in the form of unsecured bonds (senior loans).

The results at year-end 2016 show that the large Norwegian banks are relatively robust to a 30 per cent fall in house prices, but the covered bond market in Norway is relatively new and has not been tested in a real situation of steeply falling prices. It is therefore not clear how easy it would be to issue new covered bonds in and after a situation of a sharp decline in house prices. A house price fall might make investing in covered bonds less attractive, which could reduce the potential for new covered bond issues.

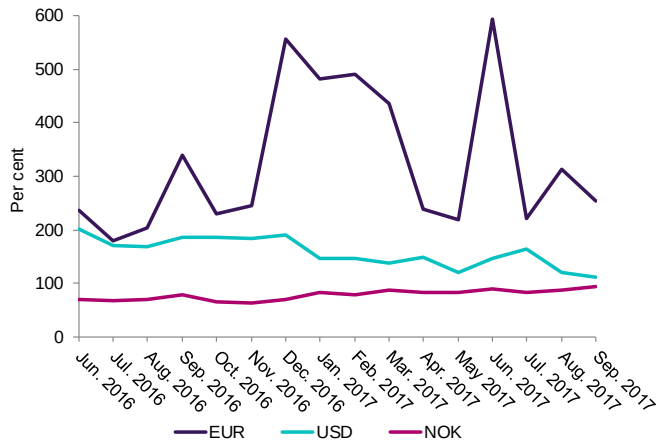
Increased systemic risk through cross-ownership

A large share of issued covered bonds is held by Norwegian banks and mortgage companies. The interconnectedness arising between market participants via cross-holdings of covered bonds increases the risk of problems at one entity spreading to others. The fact that many banks maintain a large holding of covered bonds in their liquidity buffer could also create problems in a situation in which all are in need of liquidity and wish to dispose of covered bonds.

Liquidity reserves reduce refinancing risk in the short term

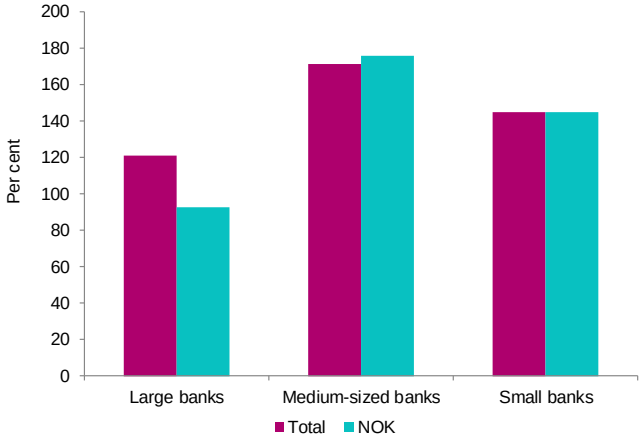
It is important that the banks maintain sufficient liquidity reserves to enable them to honour their commitments in a period of stress in the funding

3.15 LCR in selected currencies. Large banks



Source: Finanstilsynet

3.16 Total LCR and NOK-LCR, weighted average as at 30.09.2017



Source: Finanstilsynet

markets. The liquidity reserve requirement, LCR (liquidity coverage ratio), has been introduced in Norwegian legislation in line with the Capital Requirements Regulation (CRR) in the EU. The LCR entails a requirement on the size of the banks' liquid assets relative to estimated outflow (inflows less outflows) in the next 30 days under given stress assumptions.

Norwegian banks (banking groups) overall had an LCR (total liquid assets over total net outflows) of 125 per cent at the end of the third quarter of 2017 (chart 3.14). No bank was below the minimum requirement at the time of 80 per cent. Nine banks had an LCR below 100 per cent, which is the requirement applying from 31 December 2017 onwards.

Liquidity reserves in foreign currencies reduce vulnerability to turbulence in international financial markets

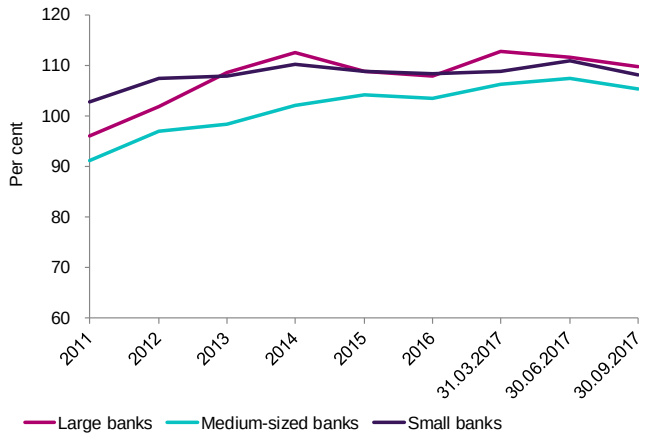
Banks' holdings of liquid reserves in currencies to which they are exposed reduce vulnerability to turbulence in global markets, because they are less dependent on a well-functioning market for currency swaps in order to honour their obligations.

The euro and US dollar are the two most important currencies for Norwegian banks' foreign currency funding. Norwegian banks have on average a relatively high LCR in these two currencies (chart 3.15). This is because the large Norwegian banks maintain large portions of their liquidity reserves in foreign currency, both in order to meet their liquidity needs in foreign currency and from a cost perspective. The substantial fluctuations observed for the EUR LCR are due to the fact that net outflows relate largely to the falling due of market funding.

The NOK LCR (total liquid assets in Norwegian kroner over total net ouflows in Norwegian kroner) is markedly lower than the aggregate LCR for large banks (chart 3.16). Medium-sized banks maintain smaller liquidity reserves in other significant currencies, while small banks have no significant currencies other than Norwegian kroner. Hence the NOK LCR approximately equals the aggregate LCR for these two groups. At the end of the third quarter of 2017, the NOK LCR was 107 per cent for the banks overall.

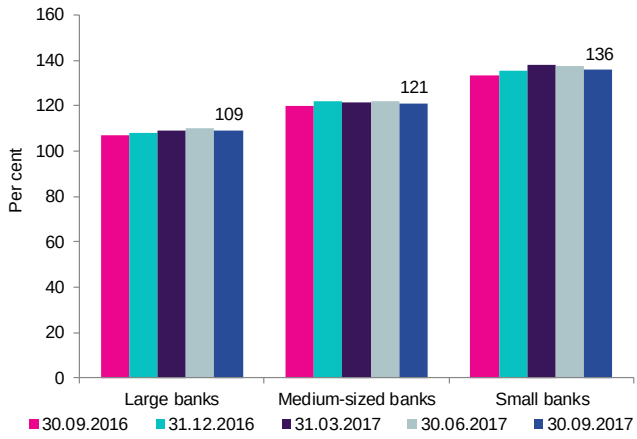
As from 30 September 2017 requirements also apply to the LCR in significant currencies. Currencies which account, each separately, for more than 5 per cent of an institution's total debt are considered to be significant currencies. For banks and mortgage companies having the euro or US dollar as a significant currency, a liquidity reserve requirement in Norwegian kroner of 50 per cent applies. For institutions that have neither euro nor US dollar as a significant currency, there is no minimum required liquidity reserve in Norwegian kroner. The liquidity requirement for all currencies in

3.17 Liquidity indicator 1, Norwegian banks



Source: Finanstilsynet

3.18 Total NSFR, weighted average



Source: Finanstilsynet

aggregate will apply irrespectively.

Norges Bank and Finanstilsynet have jointly developed a framework to stress test liquidity. The framework is an important supplement to the LCR and other existing liquidity monitoring tools, and can be used to compare liquidity risk in different banks (for example different business models), as a benchmark for groups of banks and, not least, to test a bank's vulnerability to balance sheet effects on different time horizons (sensitivity analyses).

Stable funding reduces refinancing risk in the longer term

A high share of stable funding is important in reducing refinancing risk in the longer term. Finanstilsynet uses several indicators in its assessment and supervision of banks' funding structure, including Liquidity Indicator 1 and the NSFR (Net Stable Funding Ratio).

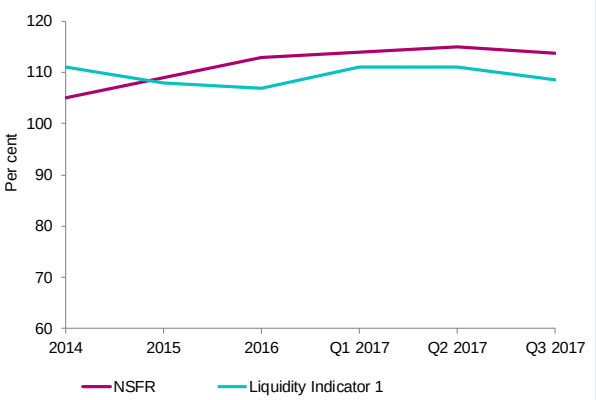
Liquidity Indicator 1 has risen for all groups of banks over the past seven years (chart 3.17), the main reason being that banks have increased own funds as a share of the balance sheet. The NSFR was 114 per cent for the banks overall at the end of the third quarter of 2017 (chart 3.18). The EU Commission has proposed the introduction of an NSFR requirement of 100 per cent as from 2019. In 2018 Liquidity Indicator 1 will be phased out and replaced by the NSFR. See the following box article for further details of similarities and differences between the two indicators.

Liquidity Indicator 1 and the Net Stable Funding Ratio – similarities and differences

Both Liquidity Indicator 1 (L1) and the Net Stable Funding Ratio (NSFR) are structural indicators that measure the degree of stable funding relative to outstanding loans, investments and other assets in a one-year perspective. The NSFR addresses the entire balance sheet, as well as some off-balance sheet items, and weights assets by degree of liquidity and funding by degree of stability. Liquid assets are assets that are considered easy to sell in the market. L1 measures the extent to which banks fund illiquid assets long term (residual maturity above one year), but without applying haircuts to balance sheet items included in the calculation.

Because the indicators view stability of funding in the same period of time, there are many similarities between L1 and the NSFR. The degree of stability of funding is based on the same underlying principles, but is more detailed in the NSFR rules. For example L1 does not differentiate between encumbered and unencumbered assets to the same degree, and mainly considers an asset's residual maturity. In the NSFR, assets are classified both in terms of residual maturity and the maturity of any encumbrance.

3.G NSFR and Liquidity Indicator 1, weighted average



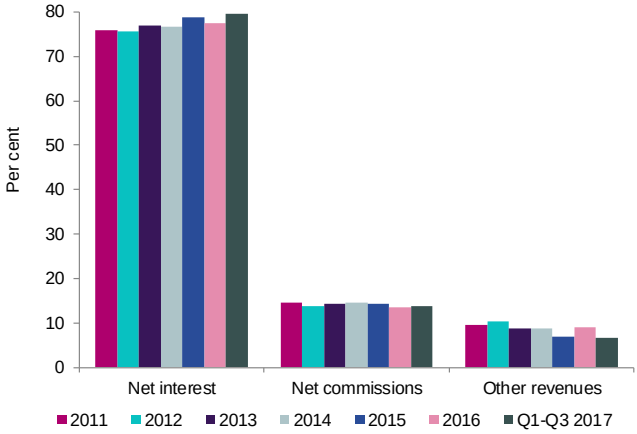
Source: Finanstilsynet

Chart 3.G shows values for L1 and the NSFR for all banks since the NSFR's introduction in 2014. Despite some differences, the level of the two indicators is quite similar. When introduced, the NSFR was lower than L1, but has remained slightly higher since 2015. To adjust to the new regulatory framework, the banks have built up their share of liquid assets in accordance with the definition in the LCR rules, which also underlies the NSFR. The increase in the NSFR may also be due to banks' increasing use of the NSFR as a stable funding management tool.

3.19 Profit and return on equity

Source: Finanstilsynet

3.20 Share of operating revenues, exc. capital gains



Source: Finanstilsynet

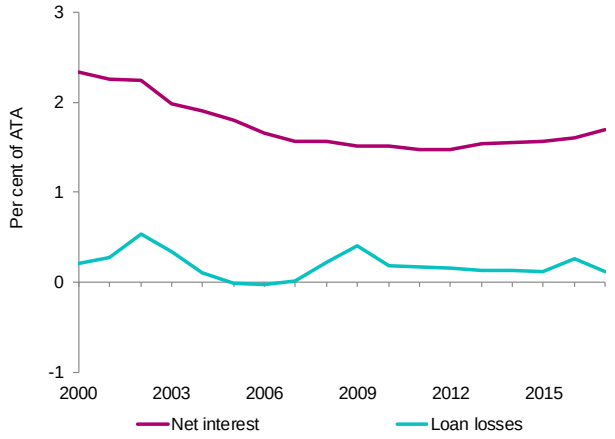
PROFITABILITY

A positive trend in the domestic economy has contributed to sound profits in the banking industry for many years. This has enabled the banks to increase their capital adequacy through profit retention. Good profits and capitalisation have also supported banks' ample access to equity capital and debt capital markets. The decline in oil-related activity since 2014 has not brought a major decline in profits, despite substantial credit losses on oil-related exposures at some of the largest banks (chart 3.19). Banks' return on equity has fallen slightly due to higher capital levels.

High dependence on net interest revenues

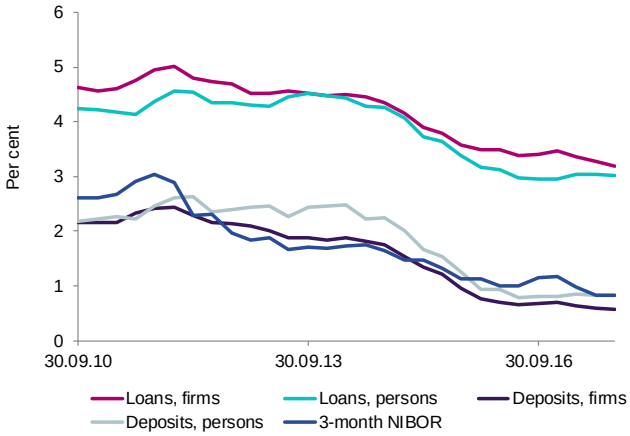
Norwegian banks' profitability is largely dependent on net interest revenues, i.e. the difference between revenues on interest-bearing assets and interest-bearing liabilities. As loans and deposits are now in some measure standardised off-the-shelf items, in particular in the retail market, banks are giving greater attention to sales of other products and services in addition to their pure lending and deposit business. Despite this, net interest revenues' share of banks' overall operating revenues has risen somewhat in recent years (chart 3.20). An important contributor is the strong growth in consumer credit. The high interest rates on such lending also boost bank's overall net interest revenues, even though consumer credit accounts for only a small share of banks' overall loan portfolio. If the pure consumer credit banks are

3.21 Net interest revenues and loan losses



Source: Finanstilsynet

3.22 Lending and deposit rates



Sources: Finanstilsynet and Oslo Børs

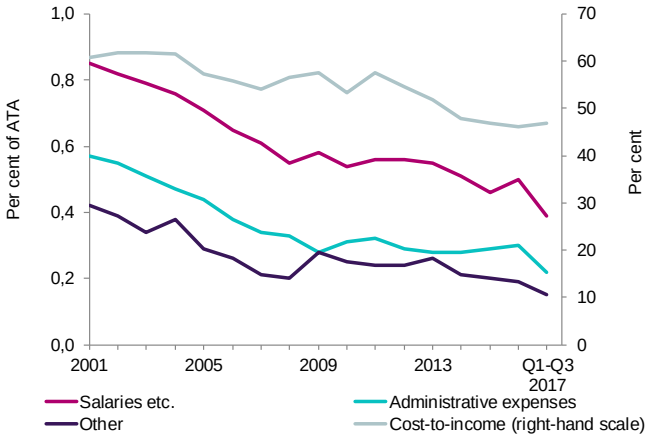
excluded, and consumer credit portfolios at traditional banks are adjusted for, net interest revenues as a share of operating revenues have declined slightly in recent years. The moderate trend in commission from sales of other products, advisory services etc., indicates that the banks have only limitedly increased the diversification of their revenue base. Norwegian banks' profitability thus remains vulnerable to impaired margins on loans and deposits.

Lower funding costs, both through falling interest rates and reduced risk premiums on securities financing, have contributed to somewhat higher net interest revenues in the last twelve months (chart 3.21). The average lending rate has been stable in 2017, concurrent with a falling money market rate. For loans to retail customers the interest rate is somewhat higher than at the end of 2016, but is nonetheless at a very low level in historical terms (chart 3.22). Interest rates on loans to non-financial companies have continued to fall over the year.

Profit gains through improved cost effectiveness

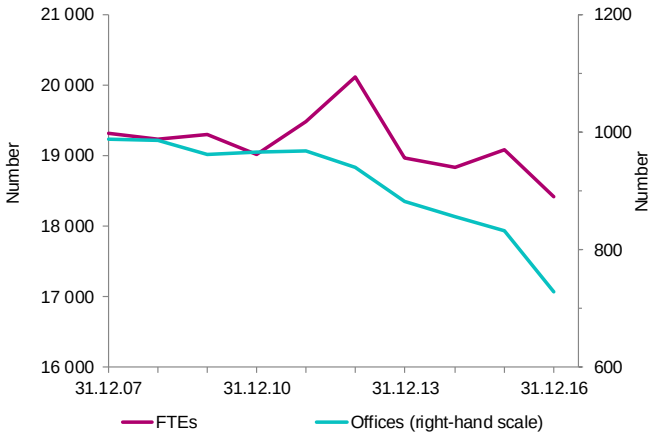
Improved cost effectiveness has been crucial for Norwegian banks' sound profits. As shown in chart 3.23, the cost level has declined markedly over many years, relative to both total assets and to toal operating revenues. The increase in wage costs from 2015 to 2016 is explained by one-time effects in 2015 caused by the switch from defined-benefit to defined-contribution pensions. The long-term decline in wage

3.23 Operating expenses



Source: Finanstilsynet

3.24 Number of FTEs and offices*



*Does not include subsidiaries abroad. Source: Finanstilsynet

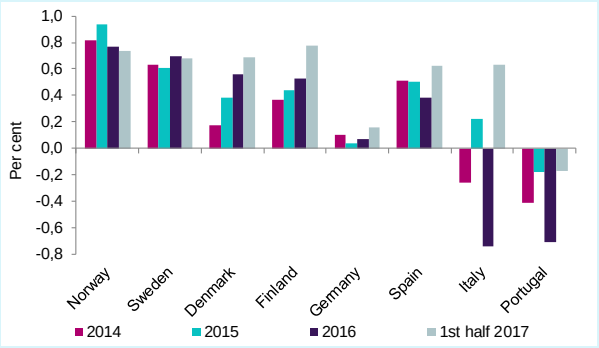
costs is closely related to cost effectiveness measures over many years, driven largely by evolving technology. Numbers employed in the industry rose up to 2012, but have thereafter fallen considerably (chart 3.24). Bank branches have concurrently fallen substantially in number. Despite substantial investments in new technology, and workforce reductions, wage costs still account for about half of banks' overall operating expenses, a figure that has remained stable since 2005.

Comparison of Norwegian and foreign banking industries

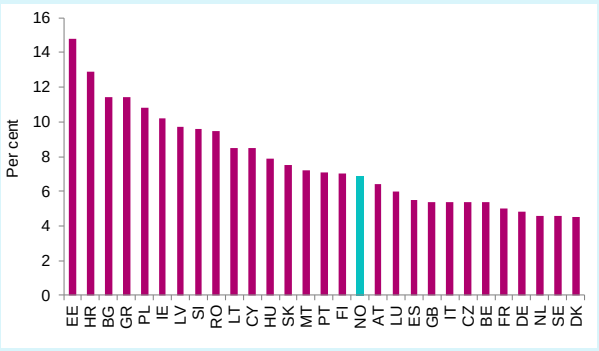
Norwegian banks managed fairly well during the global financial crisis, aided by a favourable macroeconomic climate and government measures to safeguard access to funding. In recent years Norwegian banks have continued to fare well compared with banks in other European countries. Figures from the European Banking Authority, EBA*, support this, both as regards profitability and capitalisation. Charts 3.H to 3.K show key figures for the largest banks in the respective countries, based on accounting data obtained from the EBA. Profits as a ratio of total assets have fallen for Norwegian banks in the past two years, but remain on a par with the other Nordic banks (chart 3.H). As shown in chart 3.I, Norwegian banks have a considerably higher leverage ratio than the Swedish and Danish banks, due in part to the substantial capitalisation of Norwegian banks in recent years.

As previously stated, Norwegian banks' profitability is highly dependent on net interest revenues. This is also evident in comparison with other countries (chart 3.J). In the present sample, net interest revenues account for almost 80 per cent of the total operating revenues of the Norwegian banks, whereas the other Nordic banks range from 48 to 58 per cent. In the case of banks in most other countries, charges and commission from products other than loans and deposits account for a far higher share of the revenue base

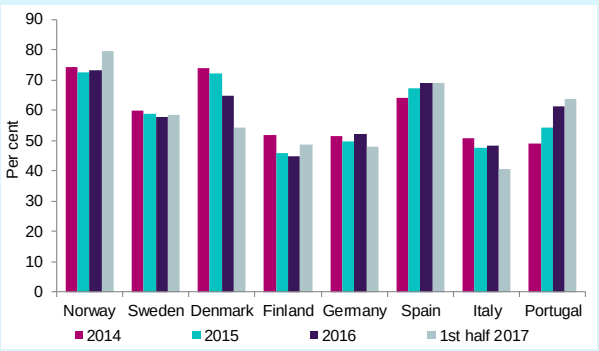
3.H Profit relative to total assets



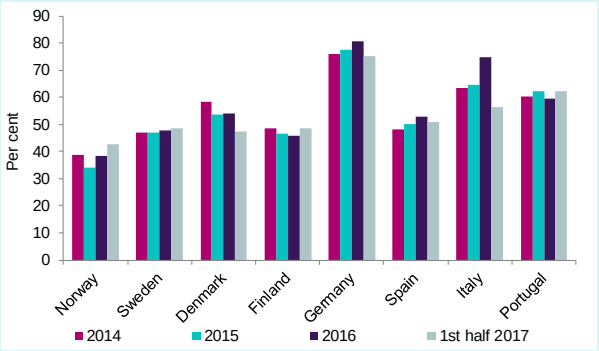
3.I Leverage ratio as at 30.06.2017



3.J Net interest revenues as a share of operating revenues



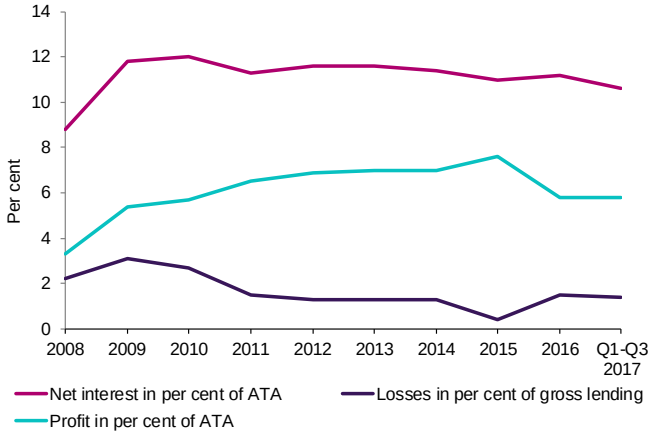
3.K Operating expenses relative to operating revenues



than for Norwegian banks. In the EBA's comparison of costs levels, value changes on financial instruments are included under operating revenues, in contrast to the case for Norwegian banks' total operating revenues in chart 3.22. On this definition, the major Norwegian banks showed a slight increase in cost level in the last two years or so, but the cost level was still considerably lower than in most European countries (chart 3.K).

*Source: EBA Risk Dashboard. Based on data for the largest banks in each country, totalling 189 banks. For Norway, DNB Bank, Sparebank 1 SR Bank and Sparebank 1 SMN are included

3.25 Consumer lending profits



Source: Finanstilsynet

CONSUMER LENDING

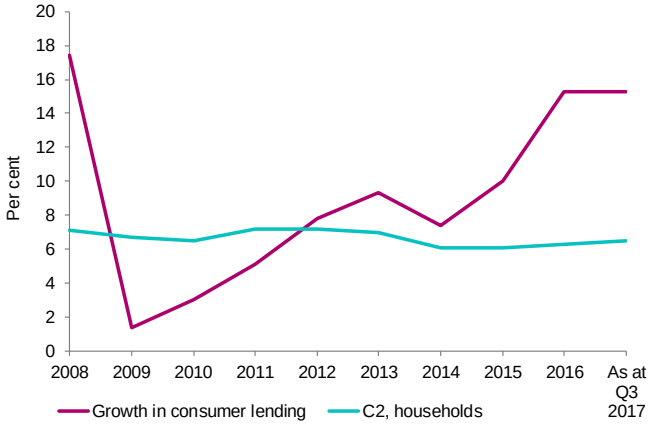
Consumer lending has shown strong growth in recent years. Consumer loans are offered in the form of various products, and include both credit card loans and other unsecured loans. The high interest margin on consumer loans compared with secured loans enables banks and financial institutions to absorb relatively high losses on consumer loans but nevertheless achieve sound profits. Although profitability in the consumer lending business has been very high for several years, there is a risk of consumer lenders underestimating the loss risk. Large numbers of new borrowers coupled with existing borrowers' expansion or refinancing of consumer loans entails a risk that inadequate servicing capacity will not come to light for a long period, in particular where new consumer loans are taken out to service other debt. Losses could rise substantially as more and more borrowers fail to have their loans expanded or refinanced. This is particularly true in the event of an economic setback and increase in unemployment.

Household debt is dominated by residential mortgages, and consumer loans account for no more than 3 per cent of households' overall debt. However, households' interest expenses on consumer loans account for a significantly higher proportion of their overall interest expenses. Borrowers' financial vulnerability may entail a need for consolidation and a concomitant reduction in demand for goods and services. In addition, reputational risk attending consumer lending may impair confidence in the individual financial institution and the financial industry as a whole.

Finanstilsynet conducts on a regular basis a survey of a selection of banks and finance companies engaged in consumer finance. The selection consists of 27 entities, and covers the bulk of the Norwegian market. Both Norwegian institutions and foreign branches in Norway are included. Consumer loans to Norwegian borrowers totalled just over NOK 100bn at the end of the third quarter of 2017, accounting for about 3 per cent of total household debt. Growth in consumer lending has far outstripped general growth in credit to households in recent years. Twelve-month growth in the Norwegian market was 15.3 per cent at the end of the third quarter of 2017, whereas annual growth in households' overall debt was 6.5 per cent in the same period (chart 3.26). Annual growth in consumer lending was on a par with the end of 2016, but somewhat lower than at the end of the first half of 2017.

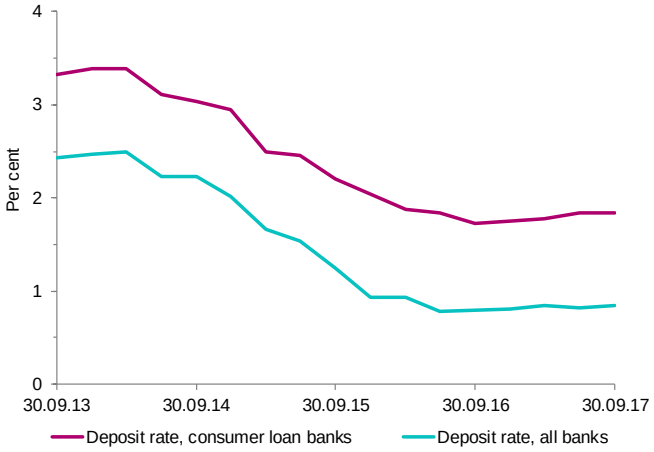
Credit card loans accounted for some 52 per cent of consumer loans to Norwegian households at the end of the third quarter of 2017 compared with about 57 per cent one year previously. Just over 70 per cent of credit card loans carried interest. The remainder are interest-free credit which banks normally offer for a

3.26 Growth in consumer lending and household debt (C2)



Sources: Finanstilsynet and Statistics Norway

3.27 Average deposit rate



Source: Finanstilsynet

period of 30-45 days and where most customers pay within the specified period. The bulk of consumer loans go to borrowers aged over 40. Defaults on consumer loans are generally higher than on other loans from banks and finance companies, and the default level has risen in the past year. Sound profits over a long period have made consumer lending an attractive segment for new providers. In addition, some established entities have given heavier focus to consumer lending than previously. New providers with consumer lending as their main business have generally recorded higher lending growth than traditional banks. Consumer loan banks consistently offer higher deposit rates to personal customers than traditional banks (chart 3.27).

Banks specialising in consumer lending have a high deposit-to-loan ratio, and are funded mainly by deposits guaranteed by the Norwegian Banks' Guarantee Fund. In June 2017 the Ministry of Finance presented a proposal (Proposition 159 L (2016-2017)) for new rules governing deposit guarantees and bank recovery and resolution. It recommends basing the calculation of contributions to the deposit guarantee fund on risk differentiation such that contributions correspond to the particular member's share of the deposit guarantee scheme's overall guarantee liability. Calculation can also take into account characteristics of the bank's funding structure, credit quality and business model. Proposition 159 L states that banks whose business is based largely on consumer lending may see a substantial increase in their obligation to contribute to the new deposit guarantee fund compared with today's guarantee fund levy. The new rules on deposit guarantees and bank recovery and resolution are expected to be implemented in the course of 2018.

Capital requirements on consumer loans

Financial institutions are subject to capital requirements designed to reflect the risks attending their business. Since consumer loans are considered to pose a greater risk than for example residential mortgages, they are given a larger weighting in the calculation of capital charges. The capital adequacy legislation requires, under the standardised approach under Pillar 1, that unsecured loans should be risk weighted at 100 per cent. About a quarter of consumer loans are granted by entities using the IRB approach where the risk weights depend on measured risk. If a portfolio of unsecured loans meets the requirements set for retail exposures, the portfolio may be risk weighted at 75 per cent under the standardised approach once the entity's management board has laid down internal guidelines for diversification. In comparison, well-secured residential mortgages carry a risk weight of 35 per cent. Overall minimum and buffer requirements for non-systemically important institutions are set at a CET1 ratio of 11.5 per cent (12 per cent as from end-2017). In addition, Pillar 2

requirements plus an add-on are levied by Finanstilsynet. Of late, consumer loan banks have been assigned Pillar 2 requirements of between 4.0 and 5.5 per cent. Licences granted to new consumer loan banks have set a capital requirement slightly above this level.

Measures to dampen the growth in consumer lending

A number of measures have been initiated in 2017 to regulate consumer lending. The Ministry of Justice adopted in April 2017 new regulation of the marketing of consumer loans. An act on the recording of individuals' debt (Debt Information Act) has entered into force, and Finanstilsynet's draft regulations on the invoicing of credit card debt were adopted by the Ministry of Finance in April 2017.

In addition, Finanstilsynet established guidelines for prudent consumer lending practices. The guidelines set requirements with regard to debt-servicing capacity, maximum overall debt-income ratio and instalment repayments. The guidelines are designed to promote consumer protection by reducing the risk of borrowers taking on debt obligations they are unable to service, and to contribute to well capitalised financial institutions and to public confidence in the financial industry. The guidelines apply to all Norwegian financial institutions and to branches of foreign financial institutions. All unsecured credit to consumers is covered by the guidelines, including credit associated with credit cards and debit cards. Finanstilsynet will monitor financial institutions with a basis in the guidelines from and including the fourth quarter of 2017.

CHAPTER 4 INSURANCE AND PENSIONS

Over the past six years the risk-free interest rate, measured by the ten-year government bond yield, has been below the annual rate of return guaranteed by life insurers. The stock market trend has nonetheless contributed to a return in excess of the guarantee, with some exceptions in brief periods. Moreover, institutions' bond portfolio has long shown a yield significantly higher than today's interest rate level, falling due some years ahead. Bonds falling due have been reinvested at lower rates of interest. Government authorities in Norway as elsewhere are concerned by the danger of renewed turbulence in financial markets, accompanied by falling securities markets, increased credit spreads and possible ensuing flight to government bonds. Should it materialise, this scenario would bring a fall in the risk-free interest rate and a rise in the discounted value of insurance liabilities concurrent with falling asset values: a double-hit effect. Both the IMF and the European Insurance and Occupational Pensions Authority (EIOPA) are concerned with this risk, which was highlighted by EIOPA in its stress test of European insurers in 2016.

Solvency II, which is far more risk-sensitive than the previous solvency regime, posed a particular challenge to insurers inasmuch as its introduction in 2016 coincided with a historically low interest rate level. The new framework accordingly included provision for transitional arrangements to ease somewhat insurers' challenges in complying with the requirements in the short term, and to allow a period for adjustment. Norwegian institutions have overall coped well with the transition to Solvency II.

The substantial transition from traditional defined benefit pensions providing a guaranteed rate of return to defined contribution pensions offering an investment choice has created new challenges. These products assign rate-of-return risk to the policyholders (pension scheme members) as opposed to the insurance companies and pension funds. This puts a heavy onus on policyholders' knowledge and understanding of the risk inherent in investment products, and requires market actors to inform and give good advice to their customers on the latter's investment choices.

INSURERS' SITUATION

LIFE INSURERS' FINANCIAL SOUNDNESS

Insurers' solvency coverage shows the ratio between own funds and the solvency capital requirement. The solvency capital requirement is calculated by aggregating capital requirements for market risk, non-life insurance risk, life insurance risk, health insurance risk, counterparty risk and operational risk along with an adjustment for the loss-absorbing capacity of deferred tax assets and technical provisions. Own funds are computed with a basis in the difference between the value of assets and liabilities, both measured at fair value.

Life insurers' solvency coverage was 227 per cent at the end of the second quarter of 2017 (chart 4.1). This increase of 5 percentage points since end-2016 reflects a rise of NOK 6 billion in own funds. Eight institutions have been given permission to apply the transitional rule to technical provisions. At the end of the second quarter the transitional rule had effect for five of these institutions. Without the transitional rule, the latter's solvency coverage would have been 191 per cent.

The solvency capital requirement for life insurers overall was NOK 74bn at the end of 2016[16]. Market risk accounted for the largest share of overall risk at 58 per cent of the basic solvency capital requirement before diversification effects (chart 4.2).

Equity risk, interest rate risk (risk of an interest rate fall) and credit spread risk are the dominant risks in the market risk module for life insurers overall (chart 4.3). Equity risk accounted for 35 per cent of overall market risk at the end of 2016, whereas the capital requirement for interest rate risk corresponded to 32 per cent of aggregate market risk before

[16] Calculation and reporting of solvency capital coverage is required on an annual basis only.

diversification. For the majority of life insurers, the effect of an interest rate fall is considerably higher than the effect of an interest rate increase. However, this does not apply to entities offering public service pensions. In the event of an interest rate fall, the latter can increase the interest guarantee premium by a margin corresponding to the effect of the interest rate fall. Entities with a large proportion of paid-up policies do not have this option since no premiums are payable on paid-up policies. For other private occupational pension products it is possible to increase the interest guarantee premium, but higher pension costs heighten the risk of closure of the defined benefit scheme, and more paid-up policies are issued.

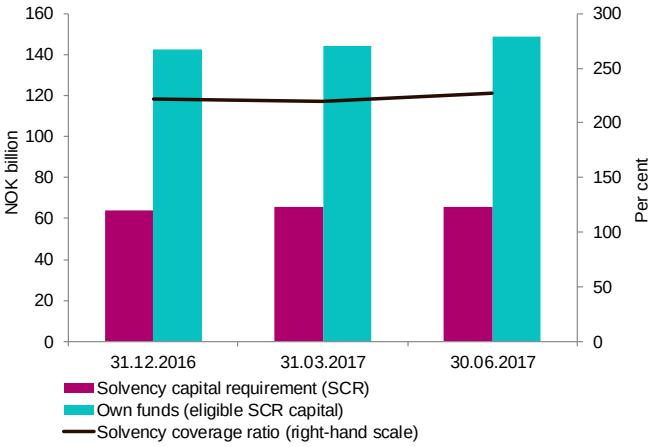
Technical provisions under Solvency II

Under the Solvency II regime, technical provisions (the value of insurance liabilities) are mainly computed as the best estimate plus a risk margin. The best estimate is computed as expected cash flows associated with the liabilities, discounted by an interest rate curve reflecting the risk-free market interest rate. The expected cash flows take account of payments to policyholders and costs related to management of the contracts, and premium paid by policyholders on existing liabilities.

The transition from the earlier solvency framework (Solvency I) to Solvency II has had differing impacts across different products. For non-life insurers, provisions are as a rule lower under Solvency II, partly because the repeal of fluctuation provisions that applied under Solvency I has a greater impact than the risk margin add-on under Solvency II. This has allowed non-life insurers in general to handle the switch to Solvency II without having to bring in capital or reduce risk and/or costs.

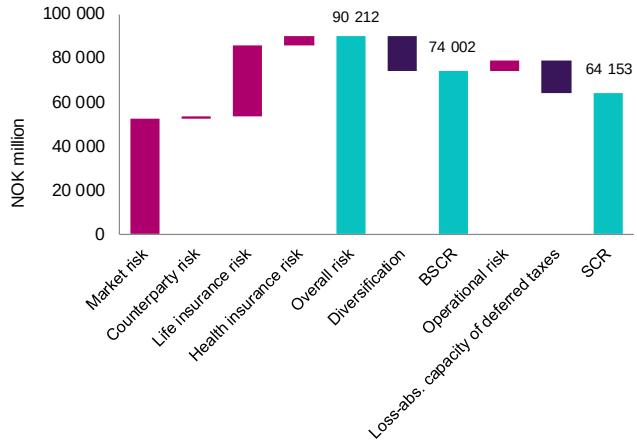
For life insurers, the consequences of the switch to Solvency II have varied depending on the insurers' product mix. However, the effect has been dampened by the transitional measure on technical provisions whereby any increase in value of insurance liabilities upon the switch to Solvency II is phased in gradually

4.1 Life insurers' solvency coverage ratio (incl. transitional measures)



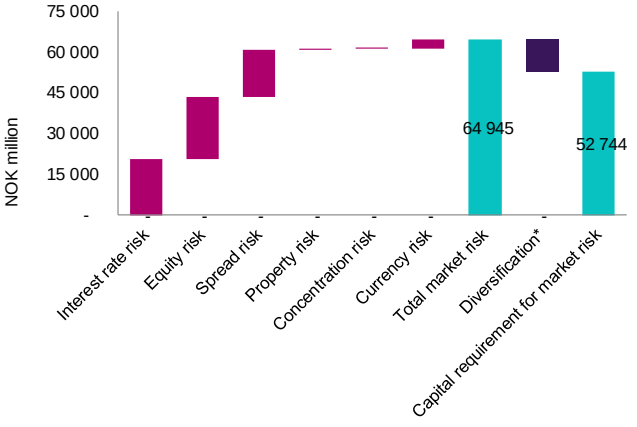
Source: Finanstilsynet

4.2 Life insurers' basic capital requirement* as at 31.12.2016



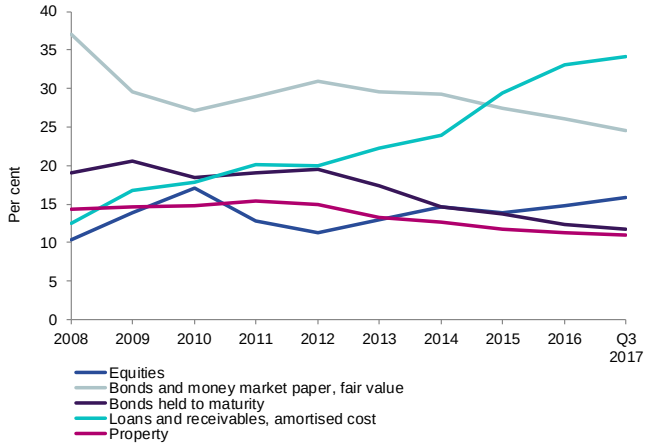
*Capital requirement before operational risk and loss-absorbing capacity of deferred taxes. Source: Finanstilsynet

4.3 Capital requirement for market risk as at 31.12.2016



*The diversification effect reflects the assumed correlation between the various risk categories. Source: Finanstilsynet

4.4 Investments in the collective portfolio



Source: Finanstilsynet

over a period of 16 years. For paid-up policies the switch has brought a substantial increase in provisions. This reflects the fact that the guaranteed rate-of-return is in part higher than the risk-free market interest rate and that institutions are unable to compensate for this by charging an interest guarantee premium or other premiums. For premium-paying defined benefit pensions in the private sector, the risk of contract closure and associated issuance of paid-up policies will also contribute to relatively high provisioning on these contracts under Solvency II. For unit-linked life insurance and pure risk cover without a savings element, however, provisioning could be lower than under Solvency I because expected earnings related to expected future premiums are larger than expected costs and claim payments. The expected earnings related to future premiums contribute to reduced provisions and thus to increased own funds, by an amount equivalent to about 20 per cent of life insurers' aggregate own funds.

The value of technical provisions is of great significance for insurers' own funds, and also affects the solvency capital requirement. Hence Finanstilsynet considers it important to monitor institutions' calculations on an ongoing basis, which includes assessing models and assumptions employed by institutions in their calculations. On-site inspections were conducted in 2016 and 2017 at the six largest life insurers, where the main theme was the calculation and validation of technical provisions and capital requirements under Solvency II. The inspections covered the system of governance, documentation and validation in general, in addition to more detailed issues related to methods, assumptions and data employed in the solvency calculations. After the inspections, the institutions have received or will receive feedback in the form of supervisory comments. Finanstilsynet will also summarise its experiences from the on-site inspections in an overall report.

Institutions' adjustments to the low interest rate situation and higher capital requirements under Solvency II

The need for stable return and a long-term perspective on investment has spurred a significant increase in life insurers' investments measured at amortised cost. Loans and receivables at amortised cost have risen from 12 per cent of the collective portfolio in 2008 to 34 per cent of the collective portfolio at the end of the third quarter of 2017 (chart 4.4). Together with the held-to-maturity portfolio of bonds, the share of the collective portfolio not measured at fair value was 46 per cent. An increase in residential mortgages from NOK 7 billion at the end of 2014 to NOK 45 billion at the end of the third quarter of 2017 has contributed to this increase. Institutions offering private occupational pensions carrying guaranteed benefits have in particular shown an increase in loans and receivables at amortised cost. The equity component of these institutions' collective portfolio was a mere 8 per cent, compared with 16 per cent for life insurers overall. No significant increase in search for yield by Norwegian life insurers is in evidence, apart from in the case of the portfolio of corporate bonds where a low rate of return has prompted reinvestment in somewhat riskier bonds. However, liquidity risk has risen among Norwegian institutions since investments in illiquid assets (which a portion of the investments at amortised cost are assumed to be) have also climbed.

Life insurers offering public service pensions can, as mentioned, factor an interest rate fall into the interest guarantee premium and do not face the risk of conversion to paid-up policies. Lower interest rate

risk, and thus lower capital charges, are a factor enabling them to assume higher risk in other investments, as reflected in a considerably proportion of equities in their collective portfolio.

Chapter 1 gives an account of current challenges in global financial markets. Although there is a tendency for somewhat higher interest rates in some countries, the rate level is expected to remain low. Equity and property prices have risen, but this could rapidly reverse. Developments in the macroeconomy and financial markets have a large bearing on life insurers' earnings and financial position. In the event of negative shocks in the macroeconomy, institutions may need to make further adjustments on the investment side to ensure financial soundness and customer return. Pertinent measures could be equity and property disposals, a reduction in the proportion of corporate bonds, and an increase in the proportion of government bonds. Life insurers are substantial investors in the financial market, and procyclical adjustment could contribute to further pressure on equity prices and interest rates.

Institutions' solvency coverage fluctuates with movements in financial markets. Falling equity prices and lower long-term interest rates will typically impair insurers' solvency coverage. In the event of major price movements, institutions may therefore be compelled, or choose, to carry out portfolio adjustments that intensify the initial price movements. Some elements of the Solvency II framework are designed to dampen a procyclical adjustment of this nature.

The volatility adjustment is intended to dampen the effect of interest changes in bond markets that are not considered to represent real changes in credit risk. Norwegian institutions apply this rule, which at the end of 2016 entailed an add-on of 0.29 percentage points to the risk-free interest rate curve. The volatility adjustment reduced overall technical provisions for life insurers by NOK 8.5 billion, corresponding to an increase of 18 percentage points in solvency coverage (disregarding the transitional measure for technical provisions).

The capital requirement for equity risk contains an adjustment mechanism that dampens the effect of short-term equity price movements. The rule only covers equities purchased prior to 1 January 2016, and applies solely to entities applying the standardised approach to calculate solvency capital coverage. After the introduction of Solvency II, the adjustment has had little effect on solvency capital coverage among Norwegian life insurers.

The challenges facing life insurers are not specific to Norway

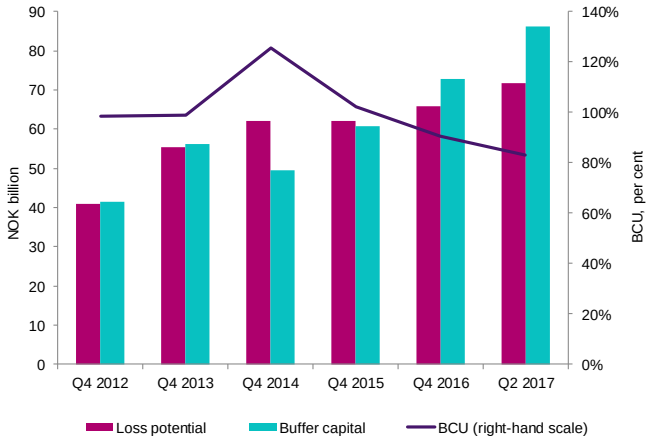
In its latest report on financial stability[17] the IMF highlights insurers' build-up of buffer capital in recent years as the result of sound return, despite low interest rates. A favourable trend in equity markets, reduction of the interest rate guarantee and a changed product mix have contributed to this trend. At the same time the IMF sees clear-cut challenges ahead, including an increase in credit risk among institutions (lower bond portfolio ratings) and increased liquidity risk due to investments in less liquid securities. The IMF highlights in particular the risk of a "double hit"; see the introduction to this chapter.

EIOPA's survey of investor behaviour in European insurance groups [18]

EIOPA conducted in 2017 a survey of investment behaviour in the largest European insurance groups from 2011 to 2015. The survey was designed to uncover how far search-for-yield behaviour among these groups might contribute to increased vulnerability to a negative trend in the markets. The report, which also includes data from 2016, concludes that some search for yield has been in evidence, such as increased investment in lower rating classes (credit quality) for corporate bonds, and some increase in illiquid assets such as unquoted equities. There has also been a slight increase in other investments, such as infrastructure, residential mortgages and other loans, along with property. The maturity of the bond portfolio has risen somewhat over the past five years. The findings of EIOPA's survey correspond to some

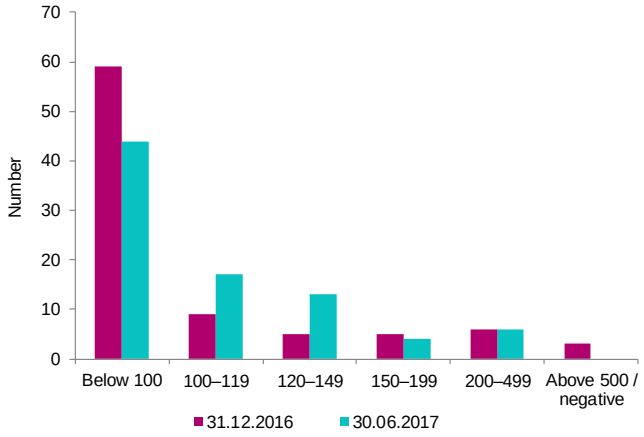
[17] IMF, Global Financial Stability Report, 3 October 2017
[18] EIOPA, Investment behaviour report, 16. november 2017

4.5 Buffer capital utilisation (BCU) at pension funds



Source: Finanstilsynet

4.6 Buffer capital utilisation at pension funds, variation



Source: Finanstilsynet

extent with observations made regarding Norwegian life insurers in the same period.

In Norway the Financial Institutions Act (2015) sets limits for life insurers' opportunity to invest in activities unrelated to insurance (including infrastructure). In June 2017, on commission from the Ministry of Finance, Finanstilsynet prepared a consultation document proposing removal of the limit on holdings in entities engaged in activities unrelated to insurance, which could open up for increased investment in infrastructure in Norway as elsewhere. The proposal to remove the quantitative ceilings was prompted by the full harmonisation requirement under the Solvency II Directive, and the forthcoming replacement of quantitative requirements by a requirement for generally prudent asset management. As pointed out in the discussion document, this type of investment may be associated with increased risk depending on the specific investment. This could for example be liquidity risk (infrastructure investments are by nature long term and illiquid), reputational risk and regulatory risk. The consultation stage is closed and the proposal is under consideration by the Ministry of Finance.

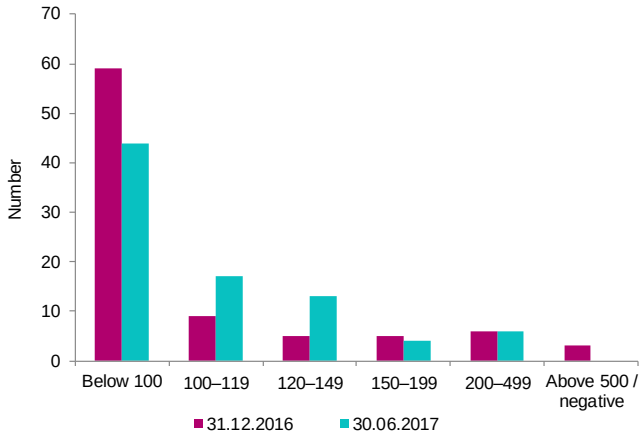
PENSION FUNDS' FINANCIAL SOUNDNESS – STRESS TESTS

Large pension funds report stress tests to Finanstilsynet on a quarterly basis, while smaller pension funds, which make up the majority, report semiannually. In one of the stress tests, methodology and assumptions conform to Solvency II and are based on fair value of assets and liabilities. The potential for loss for all relevant risks relative to available capital (buffer capital) is calculated. A buffer capital utilisation in excess of 100 per cent indicates that the pension fund's overall loss potential exceeds its buffer capital. Given the current low interest rate level, the value of liabilities with respect to contracts providing a guaranteed rate of return is higher in the stress test than under current solvency rules for pension funds. Higher liabilities make for lower value of capital.

Buffer capital utilisation among pension funds averaged 83 per cent at the end of the second quarter of 2017, an improvement from 90 per cent at the end of 2016 (chart 4.5). The improvement was mainly due to a NOK 13 billion increase in buffer capital in the first half of 2017, resulting partly from positive interim financial results and increased fluctuation reserves due to a stock market upturn in the first half-year. However, there are wide differences between pension funds. While most pension funds have a buffer capital utilisation below 100 per cent, several report a substantially higher figure (chart 4.6).

The financial position of pension funds with a high proportion of paid-up policies is particularly sensitive to low and falling interest rates since they cannot compensate for lower rates by increasing the interest

4.7 Investments in the collective portfolio – pension funds



Source: Finanstilsynet

guarantee premium. Forty-six of forty-eight private pension funds have paid-up policies in their portfolio. For private pension funds overall, paid-up policies accounted for 41 per cent of insurance liabilities (exc. supplementary provisions and fluctuation reserves) at the end of the second quarter of 2017, an increase of 5 percentage points since the end of 2016. The number of pension funds specialising exclusively in paid-up policies is rising. At the end of the second quarter there were five such pension funds. At a further two pension funds, more than 90 per cent of liabilities were in paid-up policies.

Overall, pension funds have ample buffer capital, and hence the financial strength needed to take risks in investment. This is reflected in the composition of investments which differs significantly from that of life insurers. The equity component of the collective portfolio was 36 per cent among pension funds overall, compared with 16 per cent among life insurers (chart 4.7). The proportion among pension funds has risen over the last six years.

PENSION PROVIDERS' PROFITABILITY

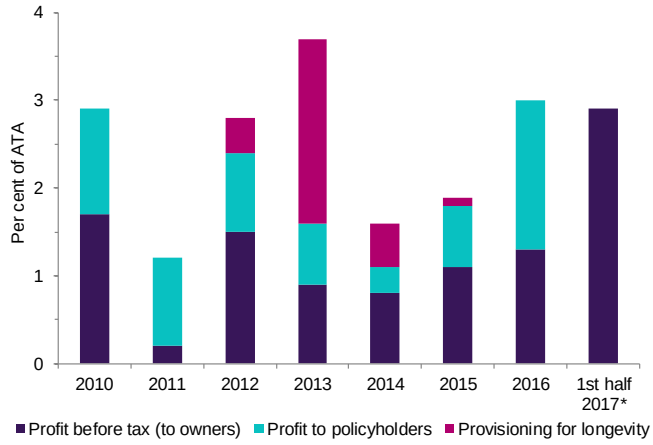
Life insurers and pension funds have in aggregate achieved good results in recent years.

In the first to third quarter of 2017 life insurers posted a pre-tax profit of 0.6 per cent of average total assets (ATA) (chart 4.8). This was approximately the same

4.8 Life insurers' profits

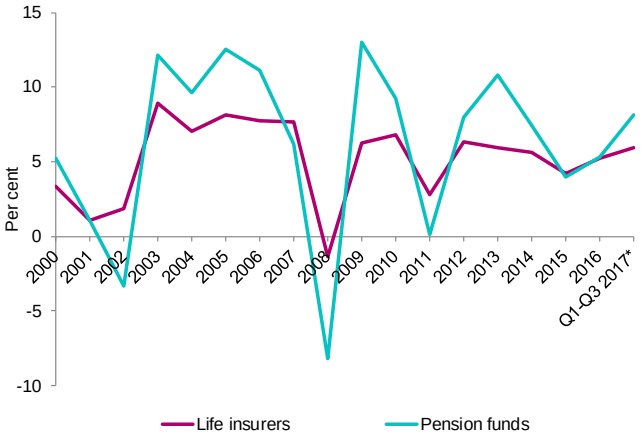
*Annualised. Source: Finanstilsynet

4.9 Pension funds' profits



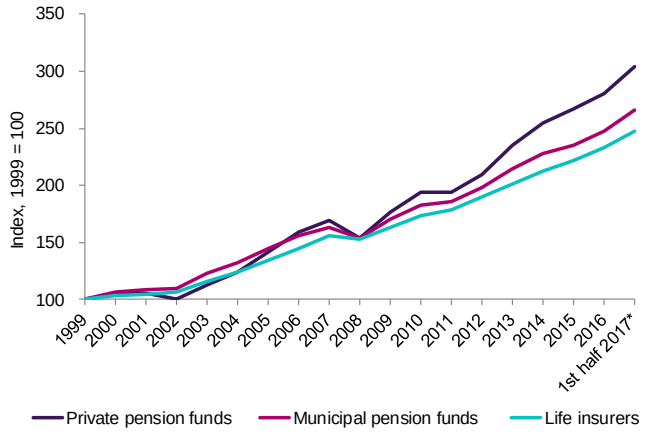
*Annualised. Most pension funds do not make preliminary allocations to policyholders in their interim reports. Hence only undistributed profit is shown for the first half-year. Source: Finanstilsynet

4.10 Adjusted return at life insurers and pension funds



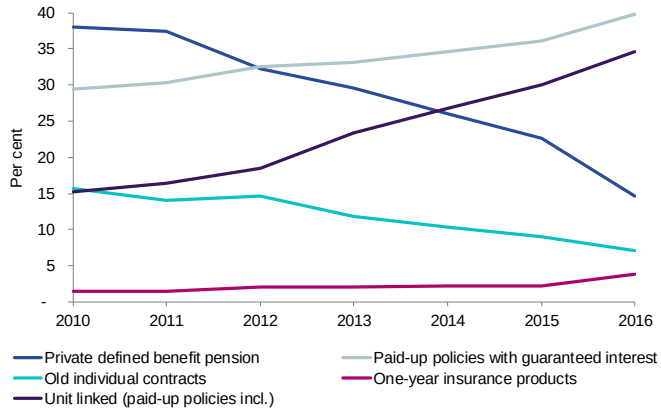
* Annualised. Source: Finanstilsynet

4.11 Accumulated adjusted return at life insurers and pension funds



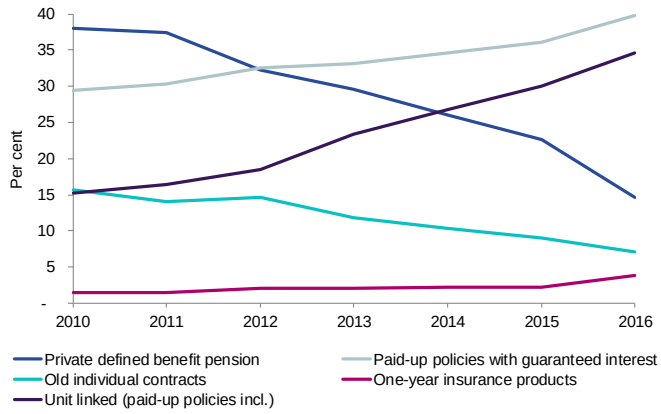
* Annualised. Source: Finanstilsynet

4.12 Insurance obligations, private pension schemes



Sources: Finanstilsynet and Finance Norway

4.13 Gross premium written in private collective, defined benefit and defined contribution pensions



Source: Finance Norway

level as in the same period of 2016. Surplus to policyholders (final allocation at year-end) amounted to 1.4 per cent of ATA, which was somewhat higher than in the same period of 2016. For pension funds the pre-tax profit in the first half-year measured 2.9 per cent of ATA (chart 4.9).

The upturn in stock markets has contributed to good return for life insurers and pension funds alike. Life insurers reported a book return on the collective portfolio of 5.0 per cent (annualised) in the first to third quarter of 2017. This is about the same level as in the same period of 2016, and well above life insurers' average guaranteed return of 2.8 per cent. Adjusted return, i.e. return before unrealised gains are transferred to the fluctuation reserves, was 6.0 per cent (annualised), compared with 5.4 per cent in the same period last year (chart 4.10). Pension funds' adjusted return was 8.1 per cent (annualised) in the first half of 2017. With a high proportion of equities on their balance sheet, pension funds have benefited from a buoyant equity market trend in the period. While a high equity component entails greater risk of loss, accumulated return shows that a high equity component has yielded a higher overall return over time (chart 4.11).

CHALLENGES FOR POLICYHOLDERS

Strong increase in unit-linked defined contribution pensions

As a result of increased costs and risk related to defined benefit pension schemes providing a guaranteed return, a clear-cut increase has been seen in recent years in unit-linked defined contribution pensions (chart 4.12 and 4.13). Virtually all new subscription to pension plans is defined contribution, and recent years have seen a substantial switch from defined benefit pensions to defined contribution pensions by firms and associated issuance of paid-up policies. Conversion of ordinary paid-up policies to unit-linked paid-up policies has thus far been moderate and is offered by only two undertakings, one of which on only a modest scale. The Ministry of

Finance requires paid-up policies to be subject to full technical provisioning prior to conversion to unit-linked status.

Now that future pensions and savings are based to a greater extent on the policyholder's individual choice, it is important to ensure that market participants do not exploit policyholders' lack of awareness of the risks inherent in investment products.

The substantial transfer of risk from institutions to policyholders (members of a pension scheme) through the increase in unit-linked defined contribution pensions is also seen in other European countries. The new situation accentuates the importance of regulation and supervision of institutions' information and advice in this area.

Finanstilsynet closely monitors the quality of entities' information and advice to policyholders

Finanstilsynet has for several years monitored Norwegian life insurers' sales of individual life insurance products where the policyholder makes the investment decisions, including capital insurance, annuity and pension insurance products and individual pension saving. As early as in 2012 Finanstilsynet conducted the first survey whose main object was to ascertain how institutions ensure that the policyholder receives mandatory information and advice on the insurance contract, on alternative investments and costs, and how they ensure that recommended products suit the policyholder's needs. In 2016 Finanstilsynet conducted a new survey based on information from the websites of eight Norwegian life insurers. An aim of the survey was to check whether matters to which attention was drawn in previous surveys had been addressed by the entities concerned. The survey was also prompted by several other countries' experience that entities were selling unit-linked products involving complexly structured underlying investments that were not readily understood by policyholders and that potentially entailed high risk and low liquidity. The survey showed that the Norwegian entities in the survey did not offer such products.

In 2016 Finanstilsynet also issued a circular[19] dealing both with general requirements on insurers' information and advice to policyholders, and with requirements on employers' (policyholders') information to employees/individual members. The circular also covered requirements on the information and advice given to holders of paid-up policies who are contemplating a switch to unit-linked paid-up policies.

In 2014 Finanstilsynet surveyed commission rebates and kickbacks from asset management companies to life insurers. Commission rebates and kickbacks received by life insurers varied widely also in respect of the same securities fund. In its report summary Finanstilsynet emphasised that remuneration received for distribution assignments for asset management companies should be in reasonable proportion to the services rendered, which does not appear to be the case. Finanstilsynet also pointed out that institutions are required to have in place clear policies and procedures for selection of assets and revision of portfolios in order to avoid conflicts of interest as regards receipt of commission rebates and kickbacks.

International efforts with regard to consumer protection

In the EU as well as in a number of non-EU member states this theme draws much attention. EIOPA has also conducted a survey of commission rebates.[20] Based on the survey, EIOPA will draw up an 'opinion' pointing inter alia to potential conflicts of interest. The EU Commission and EIOPA are also concerned by the return on and costs of typical consumer investments, such as insurance-based investment products and individual pensions. EIOPA has announced a further examination of this issue.[21]

The increased offering of complex savings products prompts a need for stricter regulation of the actors and markets. The PRIIPS Regulation (key information for

[19] Circular 14/2016: Information and advice provided to purchasers of unit-linked life insurance (Norwegian only)
[20] Report on thematic review on monetary incentives and remuneration between providers of asset management services and insurance undertakings
[21] EIOPA, News 20 October 2017

investment products) enters into force on 1 January 2018.[22] The background to the Regulation is the heavy losses incurred by non-professional investors on investments in complex savings products over the past 15 years. In many cases investors have not been aware of the risk inherent in these products, or the risk has been concealed. This has contributed to impairing consumers' confidence in providers of financial services. The PRIIPS Regulation is designed to strengthen consumer protection through requirements for improved information and increased transparency regarding packaged and insurance-based investment products. The Regulation harmonises information requirements for vendors of these products across the banking, insurance and securities sectors.

The EU has also adopted an Insurance Distribution Directive (IDD) due to take effect on 23 February 2018; see further details in Chapter 5. The directive's main purpose is to introduce an identical framework for the mediation and sale of insurances regardless of the sales channel, and to assure consumers the same level of protection regardless of differences between the distributors. The directive also covers insurers' own sales of insurance.

Pro-active sales by foreign insurers operating agency agreements in Norway

Finanstilsynet has initiated supervision of a number of insurance agents for foreign insurers that mediate unit-linked life insurance where the policyholder's investment choice is not limited to, for example, predetermined unit-linked portfolios and securities funds, and frequently has complexly structured underlying investments that are difficult to understand and may entail high risk and low liquidity. Inspections have revealed that some policyholders have invested heavily in these products, and several of the products have complex cost structures. Finanstilsynet investigates inter alia whether the agents have fulfilled the requirements as regards information and advice, and the requirements on risk management and internal control.

[22] Draft discussion document prepared by Finanstilsynet dated 31 October 2016

Finanstilsynet has also proposed restricting insurance agent firms' right to enter into agreements with sub-agents. This is because some insurance agent firms operate agreements with many sub-agents, and in some cases the activity of the sub-agent is more extensive than the activity of the agent both as regards the number of insurance intermediaries and the mediated premium.

New scheme for tax-favoured individual saving

New pension savings products have emerged that impose greater requirements on customers' knowledge of their investment choices. In conjunction with the passage of the Revised National Budget for 2017, it was voted to replace the previous arrangement for tax-favoured individual pension saving (IPS) with a new scheme. Little use was made of the previous arrangement. The pension saving scheme is at base a pure savings agreement but offers the opportunity to incorporate an insurance element. There are no restrictions on the customer's choice of investment medium or requirements on portfolio diversification. This will impose substantial demands on the customer's understanding of the risk in a portfolio, and heighten the need for information and advice. A separate provision on the obligation to provide information and advice on this product applies. The new rules entered into force on 1 November 2017.

CHAPTER 5 REGULATION

The Regulations establishing the European Financial Supervisory Authorities were incorporated into the EEA Agreement in 2016, and a number of EU rules in the financial markets area are now being integrated into that Agreement. Norwegian legislation is already aligned with the EU legislation in important areas, or is expected to become so in the near future, but the process of incorporating EU directives and regulations into the EEA Agreement will require a considerable regulatory effort in the coming years.

The Government presented in June 2017 draft legislation to transpose the Bank Recovery and Resolution Directive (BRRD) and the Deposit Guarantee Schemes Directive[23] (DGSD) into Norwegian law. The proposal builds on the Banking Law Commission's report (NOU 2016:23). New rules on accounting treatment of loan losses, IFRS 9, enter into force for listed companies from 2018 onwards. It is not yet clear when the new accounting standard will be given effect for unlisted entities and insurers. The revised Payment Services Directive (PSD 2) becomes law in the EU from 2018 onwards. Finanstilsynet has drafted a proposal for implementation of PSD 2 in Norwegian law. The proposal has been circulated for comment and is now under consideration by the Ministry of Finance. The EU adopted in June 2017 a Regulation on Money Market Funds which will enter into force in July 2018. Finanstilsynet is currently drafting, on commission from the Ministry of Finance, a consultation document containing a proposal for transposition of the Regulation into Norwegian law.

[23] Revised in 2014

Finanstilsynet's participation in the European system of financial supervision

A new institutional framework for financial supervision in the EU came into effect in January 2011 comprising an overarching macroprudential overseer, the ESRB, and the three sectoral supervisors: EBA (banking), ESMA (securities) and EIOPA (insurance and pensions). Finanstilsynet has since autumn 2016 participated as a member of the EU's three supervisory authorities with the same rights and obligations as the EU member states' national financial supervisors, but without voting rights. Finanstilsynet thus participates on a par with other members in all work of a non-binding nature, including supervisory collaboration and preparation of regulations. The EU's financial supervisors can make recommendations and provide guidance to authorities and private market actors in the EEA/EFTA member states. The EU's financial supervisors cannot however adopt decisions that are binding on authorities or market actors in the EEA/EFTA member states. Any supranational decisions can only be made by the EFTA Surveillance Authority (ESA). The ESA also participates in the EU's financial supervisory authorities.

RULES FOR BANKS ETC.

CAPITAL REQUIREMENTS – PILLAR 1

Norway's capital adequacy framework is aligned with the EU's Capital Adequacy Directive (CRD IV) and Regulation (CRR) which build on the Basel Committee's standards. The directive and the regulation are expected to be incorporated into the EEA Agreement in the near future. Incorporation of the CRR Regulation requires technical changes and the exercise of national discretion. The Ministry of Finance commissioned Finanstilsynet on 16 November 2017 to draw up by mid-April a consultation document and draft with a view to implementing the remainder of CRD IV and CRR.

The Basel Committee has in recent years proposed changes to several of the standards governing capital adequacy calculation. The changes to the standards are presented as the completion of Basel III, which was adopted in 2010 in the aftermath of the financial crisis. New standards are expected to be adopted in the near future and will include new standardised approaches to credit risk and operational risk along with a new output floor based on the revised standardised approach. The Ministry of Finance has announced that Finanstilsynet will be commissioned to draft Norwegian rules implementing a new floor requirement once the Basel Committee's recommendation is adopted.

Proposal for changes to CRR / CRD IV

The EU Commission published on 23 November 2016 proposed changes to CRR / CRD IV. The proposals are now under consideration in the EU (Parliament and Council).

The Commission proposes:

- a Pillar 1 leverage ratio requirement of 3 per cent
- 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 permit the use of current methods of calculation
- changes in the Pillar 2 rules to harmonise practices internationally
- changing the capital measure for large exposures (from own funds to Tier 1 capital)
- rules allowing the effect of the transition from IAS 39 to IFRS 9 to be phased in gradually over a five-year period

Table 5.1 Minimum and buffer requirements on CET1 capital, Tier 1 capital and total capital (figures in per cent) for banks, mortgage companies and finance companies

	30.06.2017		31.12.2017	
	Systemically important institutions	Other entities	Systemically important institutions	Other entities
CET1 capital ratio	13.5	11.5	14	12
Tier 1 capital ratio	15	13	15.5	13.5
Total capital ratio	17	15	17.5	15.5

Source: Finanstilsynet

Banks, mortgage companies and finance companies are required under the Financial Institutions Act 2015 to maintain (measured against risk weighted assets) a minimum of 4.5 per cent CET1 capital, 6 per cent Tier 1 capital and 8 per cent own funds. Institutions are also required to 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 also required to maintain a buffer of 2 per cent. The buffer requirements must be met by CET1 capital.

The countercyclical capital buffer requirement is set by the Ministry of Finance each quarter. In December 2016 the requirement was set at 2.0 per cent with effect from 31 December 2017. The countercyclical capital buffer requirement is entity-specific, and is a weighted average of the rates applying in each country in which the particular entity has credit exposures.

Each year the Ministry of Finance decides which financial institutions are to be designated as systemically important in Norway. In June 2014 it was decided that DNB ASA, Nordea Bank Norge ASA and Kommunalbanken AS were to be regarded as systemically important institutions required by law to comply with a specific buffer requirement. Nordea Bank Norge ASA was converted into a branch of Nordea Bank AB with effect from 2 January 2017.

Table 5.1 shows the overall capital requirements under Pillar 1 for, respectively, systemically important institutions and other banks, mortgage companies and finance companies. The requirements apply at entity

level and at consolidated level. Institutions can use internal models to compute the capital requirements. Nine banks, eight mortgage companies and two finance companies have permission to use internal models (IRB) when computing the capital requirement for credit risk. Under Norwegian rules, risk weighted assets computed using internal models cannot be below 80 per cent of risk-weighted assets under Basel I.[24]

Requirement for consolidation of assets in collaborating institutions

According to the Financial Institutions Act 2015, financial institutions participating in a cooperating group shall, when applying rules on capital requirements and other capital adequacy and prudential requirements, consolidate their assets in jointly owned entities on a pro rata basis independently of the size of the asset. This entails widening the consolidation obligation compared with the rules up to and including 2016. The requirement applied as from 1 January 2017 to institutions with assets of between 10 and 20 per cent in jointly owned entities. As from 1 January 2018 the extended requirement will also apply to assets below 10 per cent. The rule change affects among others a number of banks with owner interests in mortgage companies.

CAPITAL REQUIREMENTS – PILLAR 2

The CRD IV Directive sets requirements for institutions' own assessment of risk and capital needs (ICAAP - Internal Capital Adequacy Assessment Process) and requirements for the supervisory authorities' review (SREP – Supervisory Review and Evaluation Process). The directive permits supervisory authorities to set requirements (Pillar 2 requirements) for adjustments to business or capital over and above the minimum requirements and buffer requirements of Pillar 1. The SREP feedback contains Finanstilsynet's decision on a Pillar 2 requirement, which is legally binding decision, and an assessment of the capital need in a forward-looking perspective. The decisions are published successively on Finanstilsynet's website.

[24] See the Capital Requirements Regulations section 2-1(3)

Finanstilsynet's Circular 12/2016 describes the main elements in the SREP process. The circular builds on guidelines published by the European Banking Authority (EBA) in December 2014 and on clarifications given by letter dated 17 March 2016 from the Ministry of Finance to Finanstilsynet.

CAPITAL REQUIREMENTS – LEVERAGE RATIO REQUIREMENT

Acting on the EBA's recommendation, the EU Commission has proposed the introduction of a leverage ratio requirement of 3 per cent as from 1 January 2018.

Banks, mortgage companies, finance companies and holding companies in financial groups that are not insurance groups and investment firms that are licensed to provide specified investment services have been subject to a leverage ratio requirement of 3 per cent as from 30 June 2017. All banks are also required to maintain a buffer of at least 2 per cent. Systemically important banks are required to maintain an additional buffer of at least 1 per cent.

The numerator in the leverage ratio (capital measure) consists of Tier 1 capital as defined in the regulations on the calculation of own funds. The denominator in the leverage ratio (exposure measure) corresponds to that set out in Commission Regulation (EU) 2015/62. Institutions that fail to comply with the leverage ratio requirement must submit to Finanstilsynet a plan for strengthening that ratio.

LIQUIDITY REQUIREMENTS

EU rules set two quantitative liquidity requirements: for liquidity buffers (liquidity coverage ratio, LCR) and stable funding (Net Stable Funding Ratio, NSFR). The LCR rules came into effect in the EU on 1 October 2015, with a gradual phase-in up to 2018. The EU Commission presented its proposal for the design of the NSFR requirement in November 2016. It is not yet clear when the NSFR, apart from applicable reporting requirements, will be introduced.

The liquidity coverage requirement (LCR) was included in the Norwegian CRR/CRD IV regulations

with effect from 31 December 2015. Systemically important institutions and mortgage companies that are subsidiaries of such institutions must comply with the liquidity coverage requirement at a minimum of 100 per cent. For other institutions, the LCR must be at least 80 per cent as from 31 December 2016 and at least 100 per cent as from 31 December 2017.

The Ministry of Finance adopted amendments to the Norwegian CRD IV regulations section 8 on 26 June 2017. LCR requirements were set in each significant currency corresponding to the level in effect for all currencies combined, with the exception of Norwegian kroner. For banks and mortgage companies with the euro and/or US dollar as a significant currency, a liquidity reserve requirement of at least 50 per cent has been set. For entities with neither the euro nor US dollar as a significant currency, a minimum liquidity reserve requirement in Norwegian kroner applies. The liquidity requirement for all currencies combined will apply irrespectively.

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 model for impairment accounting. The standard will apply from 2018 onwards.[25] For European institutions (including listed Norwegian institutions), use of the standard will be mandatory from the same point in time; see Commission Regulation 2016/2067.

Under current accounting rules (based on IAS 39), loans are written down only when there is objective evidence of a loss event. Significant financial difficulties of the debtor are an example of such a loss event. The new standard also requires new, performing loans to be loss provisioned by making an impairment write down for expected credit losses arising from an expected default in the next twelve months. For loans where credit risk has risen significantly since their establishment, expected credit losses are written down over the term of the loan.

Finanstilsynet has proposed by letter of 12 December 2016 to the Ministry of Finance that banks, mortgage companies and finance companies that have not issued securities on a regulated market (unlisted institutions) should take IFRS into use as from 1 January 2019. For listed institutions the standard comes into effect on 1 January 2018, as mentioned above.

The EBA published on 12 May 2017 guidelines on institutions' credit risk management practices and accounting for expected credit losses (ECL). The guidelines are designed to assure sound credit risk practices associated with implementing and applying an ECL accounting model. The guidelines contain eight principles specific to credit institutions and three principles specifically addressed to supervisory authorities. Comments are also provided on some themes in IFRS 9. The guidelines will apply as from 1 January 2018. Finanstilsynet has communicated to the EBA its intention to follow the guidelines.

In the EU transitional CRR rules have been proposed allowing the effect of the transition from IAS 39 to IFRS 9 to be phased in gradually over a five-year period. On 2 November 2017 the Ministry of Finance commissioned Finanstilsynet to draft transitional rules in keeping with the EU rules.

CRISIS RESOLUTION AND DEPOSIT GUARANTEE

The Government presented on 23 June 2017 Proposition 159 L proposing statutory provisions to implement the Recovery and Resolution Directive and the Deposit Guarantee Directive in Norwegian law. The proposal builds on the Bank Law Commission's report, NOU 2016: 23.

The Recovery and Resolution Directive's rules on insolvency and administration by public authorities of institutions in the banking sector entail new rules and functions for institutions and public authorities alike. The most important new elements are (1) the rules governing recovery plans and resolution plans, (2) the

[25] Insurers can defer using the standard until 2021

rules governing the write down or conversion to equity of own funds and eligible liabilities (bail-in), and (3) the establishment of a national resolution fund.

The proposition designates Finanstilsynet as Norway's resolution authority while decisions of significance for financial stability rest with the Ministry of Finance.

In preparation for subsequent drafting of regulations, the Ministry of Finance asked Finanstilsynet by letter of 17 June 2016 for an account of aspects of the Recovery and Resolution Directive's rules on minimum requirements for own funds and eligible liabilities (MREL). Finanstilsynet responded to the approach by letter and memorandum of 28 February 2017 to the Ministry of Finance.[26]

COVERED BONDS

The Ministry of Finance asked Finanstilsynet by letter of 14 February 2017 to assess aspects of the legislation on covered bonds. Finanstilsynet communicated its assessment to the Ministry of Finance by letter and memorandum of 1 September 2017[27]. In Finanstilsynet's assessment the legislation is robust and in all essentials conforms to the EBA's guidelines for covered bonds. Finanstilsynet recommended deferring possible amendments to the legislation until a new body of rules is in place in the EU. It also made no recommendation to revise the overcollateralisation requirement or mortgage companies' capital requirements. In recognition of the risk posed by parent banks' and mortgage companies' interconnectedness, Finanstilsynet proposed including in regulations a new provision requiring parent banks to disclose information on their risk exposure. The Ministry of Finance has circulated the proposal for comment with the deadline for response set at 12 January 2018[28].

[26] Ministry of Finance, news release of 8 March 2017
[27] Finanstilsynet's letter to the Ministry of Finance of 1 September 2017
[28] Ministry of Finance: Consultation – covered bonds and special rules on information disclosure, dated 30 October 2017.

NEW DEBT INFORMATION ACT

A new Act on Debt Information entered into force on 1 November 2017. The act permits private actors to obtain a licence to establish debt information firms able to mediate debt information between banks and other credit providers for use in creditworthiness assessments. The scheme is confined to unsecured consumer credit and is one of several measures presented in Financial Markets Report 2016-2017 with a view to countering household debt problems. The new act was accompanied by new regulations detailing what information financial institutions should disclose to debt information firms, and how frequently.

ASSESSMENT OF THE RESIDENTIAL MORTGAGE LENDING REGULATIONS

Regulations setting requirements for new residential mortgage loans (the Residential Mortgage Lending Regulations) entered into force on 1 January 2017 and will apply up to 30 June 2018. The Ministry of Finance asked Finanstilsynet by letter of 6 November 2017 to review developments in house prices and Norwegian households' indebtedness, and to gauge the impact of the above regulations on banks' lending practices and the impact of those requirements that were specific to Oslo. Finanstilsynet will obtain assessments and data from Norges Bank to this end. Finanstilsynet will consider whether the regulations should be lifted or continued either in their present or in a modified form. Finanstilsynet will communicate its response to the Ministry of Finance by 1 March 2018.

CONTRIBUTION TO REPORT ON INTEREST RATE CEILING

The Ministry of Finance presented in Financial Markets Report 2016-2017 a number of measures to counter household debt problems. The ministry has received a request from the Storting (Parliament) to consider the merits of introducing an interest rate ceiling. The ministry aims to respond to the Storting in next year's Financial Markets Report and requested inputs from Finanstilsynet by letter of 6 November 2017. Information is requested on the consumer lending market in Norway, and from other countries

suitable for comparison that have introduced an interest rate ceiling. Further, an assessment is requested of the appropriateness of an interest rate ceiling with regard to the overall use of policy instruments in this area. The ministry requested Finanstilsynet's response by 1 March 2018.

PAYMENT SERVICES

The Payment Services Directive (Directive 2007/64/EC, hereafter termed PSD 1) was implemented in Norwegian law in 2010. The revised Payment Services Directive (Directive 2015/2366, hereafter termed PSD 2) supersedes the first Payment Services Directive and enters into force on 13 January 2018 in the EU.

The overarching object of PSD 2, along with the Regulation on Interchange Fees[29] and the SEPA Regulation[30], is to assure modern, efficient and cheaper payment services, and to protect customers. PSD 2 aims to promote competition by facilitating innovation and opening the market to new actors. This applies in particular to mobile and internet payments services.

The Payment Services Directive regulates providers of payment services, which are mainly credit institutions, e-money institutions and payment institutions. PSD 2 brings two changes of significance for the payments services area: it sets the stage for two new payment services and regulates the interaction between service providers, including access to the payer's account.

The two new payment services are payment initiation services and account information services. A payment initiation service is a service to initiate a payment order at the request of the payment service user with respect to a payment account held by an account service payment service provider. An account information service consists in providing the service user with an overall digital overview over all his or her payment accounts with account service payment service providers. Both services require the payment service provider to be given access to the payer's account. PSD 2 regulates the interaction between the various payment service providers, including secure connection to the customer's account service payment service providers.

The two new payment services can be provided by existing regulated payment service providers. In addition, payment initiation services can be provided by a new type of payment service provider with the proposed Norwegian designation "betalingsagent". Similarly, accounts information services can be provided by a new type of payment service provider with the proposed Norwegian designation "opplysningsagent".

Finanstilsynet has on commission from the Ministry of Finance drawn up a consultation document containing a proposal for implementing PSD 2 in Norwegian law. The deadline for response was 18 August 2017.

Finanstilsynet's assignment and consultation document are confined to those parts of the directive that prompt changes in the area regulated by the Financial Contracts Act. Changes in the area regulated by this act are included in the Ministry of Justice and Public Security's consultation document for a new Financial Contracts Act that was circulated for comment on 7 September 2017 with the deadline for response set at 15 December 2017.

RULES FOR INSURANCE AND PENSION CAPITAL REQUIREMENTS ETC.

New rules on capital requirements etc. for insurers were established in the Solvency II Directive in force as from 1 January 2016. The new rules are implemented in Norwegian legislation in the Financial Institutions Act 2015 and the Solvency II Regulations of 25 August 2015. The EU has in conjunction with the Solvency II Directive adopted a Regulation (2015/35) which

[29] Regulation (EU) 2015/751 of the European Parliament and of the Council of 29 April 2015 on interchange fees for card-based payment transactions. Implemented in Norwegian law as the Interchange Fees Regulations.
[30] Regulation (EU) No 248/2014 of 26 February 2014 which amends Regulation (EC) No 260/2012 establishing technical and business requirements for credit transfers and direct debits in euro. SEPA (Single Euro Payments Area) lays down common rules for executing payments in euro.

elaborates the overarching provisions of the directive. Finanstilsynet adopted the Regulation as Norwegian national regulations on 21 December 2015, with an adjustment in respect of exposure to municipalities etc.[31] Finanstilsynet adopted on 21 December 2016 amendments to the above regulations to bring them into line with EU Regulation 2016/467. The amendments introduce special rules for infrastructure investments when computing capital requirements.

The EU has in Regulation 2017/1542 adopted further changes including with regard to infrastructure corporates. These changes have thus far not been implemented in Norwegian legislation.

The EU Commission has asked the European Insurance and Occupational Pensions Authority (EIOPA) to draft changes to the Solvency II framework. EIOPA forwarded on 30 October 2017 an initial set of proposed regulatory changes in a number of areas. EIOPA recommended inter alia applying the look-through approach also to investments in related undertakings, so that insurance undertakings' investments in property through subsidiaries are treated as property risk in the calculation of the solvency capital requirement at entity level. EIOPA also recommends lower capital requirements for exposures to regional and local authorities without a credit rating that are not treated as exposures to the central government, matching the adjustment already adopted in the Norwegian regulations supplementing the Solvency II regulations. In November EIOPA circulated the draft version of a second set of regulatory changes for comment, and the final proposal will be forwarded to the Commission in February 2018. The Commission will in the course of 2018 present its proposal for regulatory changes which will thereafter be considered by the Parliament and the Council.

[31] Exposure to regional and local authorities that are not rated by an approved rating agency is to be treated as exposure one credit quality step higher than the credit quality step indicated by the rating of the central authority in the state in which the authorities concerned are domiciled.

OWNERSHIP RESTRICTION RULES

The Financial Institutions Act 2015 section 13-1 prohibits insurers and pension undertakings from engaging in business other than insurance and pensions. According to section 13-9, the prohibition against business other than insurance does not apply to "holdings carrying limited liability that represent up to 15 per cent of the capital or the votes of institutions" engaged in such business other than insurance. The Ministry of Finance asked Finanstilsynet by letter of 5 April 2017 to consider removing the 15 per cent limit. The ministry stated that Solvency II introduces capital requirements that are more risk-sensitive, thereby calling into question the need for the limit. By letter of 1 June 2017 Finanstilsynet recommends removal of the above provision. The Ministry of Finance circulated this recommendation for public consultation with the deadline for response set at 7 September 2017.

INSURANCE DISTRIBUTION DIRECTIVE (IDD)

The Insurance Distribution Directive (IDD) regulates all distribution of insurance. The directive entered into force on 23 February 2016 and will apply in the EU's member countries as from 23 February 2018. Compared with the current Insurance Mediation Directive (IMD), the new directive expands the scope of regulation to include insurers' direct sales – not merely agents' and brokers' distribution. The directive is designed to enhance consumer protection, strengthen policyholders' confidence, strengthen the single market and ensure a level playing field for distribution channels. In August and September 2017 the EU adopted three Regulations supplementing the rules of the IDD.

The Ministry of Finance asked Finanstilsynet by letter of 9 January 2017 to draft a consultation document proposing provisions (for inclusion in an Act or regulations) to implement the IDD, and any other necessary adjustments. Finanstilsynet forwarded a draft consultation document to the Ministry of Finance on 23 June 2017.

IFRS 17 – INSURANCE CONTRACTS

The IASB published on 18 May 2017 a new standard for insurance contracts, IFRS 17. This standard, which supersedes IFRS 4, will apply as from January 2021. Early application is permitted. IFRS 17 brings significant changes in the valuation of insurance contracts and in the presentation of an institution's financial position. Assuming approval by the EU, the standard will be made applicable to consolidated financial statements prepared under IFRS.

IFRS 9 – FINANCIAL INSTRUMENTS

Finanstilsynet forwarded to the Ministry of Finance on 19 September 2017 a consultation document containing a proposal for changes to the accounting rules for insurers and pension undertakings. The proposal was prompted by the replacement of IAS 39, the international accounting standard for the recognition and measurement of financial instruments, by IFRS 9. Finanstilsynet recommends retaining IAS 39 for the company accounts of life insurers and pension undertakings up to and including the fiscal year 2020. Where non-life insurers company accounts are concerned, Finanstilsynet proposes permitting entities to choose between IAS 39 and IFRS 9 up to and including the fiscal year 2020, and to require all insurers and pension undertakings to apply IFRS from 2021 onwards. The consultation document also contains a proposal to change disclosure requirements as a result of IFRS 9, and a proposal for some technical amendments to the regulations.

PENSION UNDERTAKINGS

The Ministry of Finance adopted on 9 December 2016 new regulations on pension undertakings bringing together previous regulations. The new regulations represent an alignment with the Financial Institutions Act 2015 and entail differing regulation of pension undertakings and life insurers. The regulations cover requirements on provisioning and capital, requirements on asset management, requirements on governance along with requirements on actuaries.

The current solvency requirement (Solvency I) is retained for pension undertakings in 2017.

Finanstilsynet proposed in January 2016 the introduction of a simplified Solvency II requirement for pension funds as from 1 January 2018, and a consultation document and draft provisions on new capital requirements for pension funds were duly forwarded in September 2016. The proposal is under consideration by the Ministry of Finance.

Pending new rules, the Ministry of Finance adopted in June 2016, acting on a proposal from Finanstilsynet, an amendment to the asset management regulations that imposes on pension undertakings an obligation to consider taking action should risk analyses based on fair value give cause to believe that a pension undertaking's future financial position will be vulnerable.

SECURITIES AREA

MARKET FOR FINANCIAL INSTRUMENTS

The Government appointed in 2015 a law committee tasked with proposing provisions to implement new EU rules in the securities area. The committee presented on 20 January 2017 its second interim report containing a proposal for rules to implement expected EEA rules mirroring MiFID II and MiFIR. The committee proposes assembling the regulation of investment firms, regulated markets and stock exchanges in the Securities Trading Act, and thus to revoke the Act on regulated markets (Stock Exchange Act). See also the account in Risk Outlook autumn 2016.

REGULATION OM MONEY MARKET FUNDS

The EU adopted in June 2017 a Regulation on money market funds that are established, managed or marketed in the EEA area. The Regulation addresses all types of money market fund products. It establishes detailed requirements on diversification, sufficiently liquid assets, independent credit quality assessment and stress testing. The object of the Regulation is to pre-empt future systematic risk and to strengthen investor protection by making money market funds more robust to substantial redemption requests in times of crisis.

The Regulation will enter into force in the EU in July 2018, and all existing money market funds will need to apply for a licence under the new rules by January 2019. On commission from the Ministry of Finance, Finanstilsynet is drafting a consultation document on the Regulation and a proposal for implementation in Norwegian law.

REFERENCE VALUES IN THE FINANCIAL AREA

See the account in Risk Outlook autumn 2016 on the Reference Interest Rate Act with regulations.

EU Regulation 2016/1011 lays down rules on the determination of reference interest rates and other indices used as benchmarks in financial instruments and contracts or to measure the performance of investment funds. The requirements enter into force in the EU on 1 January 2018. The Regulation lays down rules on the party who sets benchmarks (the administrator), the contributors to a benchmark and the use of benchmarks. The object is to ensure that benchmarks in the financial area are accurate, well-founded and not exposed to undue influence.

The Regulation is EEA-relevant and will be transposed into Norwegian law. A proposal to achieve this by widening the scope of the Reference Interest Rate Act is currently under consideration by the Ministry of Finance.

RULES ON GOVERNING MORE THAN ONE TYPE OF SUPERVISED INSTITUTION

RULES ON OTC DERIVATIVES, CENTRAL COUNTERPARTIES AND TRADE REPOSITORIES (EMIR)[32]

EMIR, adopted by the EU in July 2012, introduces mandatory clearing and other risk-reducing measures for OTC derivatives, mandatory reporting of derivative trades to trade repositories and common European rules for central counterparties and trade repositories. See the account in Risk Outlook autumn 2016.

EMIR is implemented in the Securities Trading Act section 13-1 subsection (1) and entered into force on 1 July 2017. Amendments to EMIR made after 2012 have so far not been incorporated in the EEA Agreement but are expected to be incorporated on an ongoing basis and subsequently transposed into Norwegian legislation. The same applies to the EU Commission's supplementary provisions to EMIR. A number of a number of equivalence decisions concerning particular trading venues in third countries and rules on central counterparties from third countries have already been incorporated in the EEA Agreement and enshrined in regulations.

However, Finanstilsynet expects supervised entities and other relevant actors to act in accordance with the rules that apply at any and all times in the EU and bases its supervisory practice on this expectation from 1 January 2018 onwards. Finanstilsynet published on 4 July 27 a circular (Circular 6/2017) which sets out the main features of EMIR and its implementation in Norway. The circular applies to a large group of supervised entities and to entities that trade in derivatives.

NEW PROSPECTUS REGULATION

The Prospectus Regulation (2017/1129/EU) was published on 30 June 2017. The Regulation enters into force for the most part on 21 July 2019, although certain exemptions from prospectus requirements in connection with admission to trading on regulated market have already entered into force. One of the intentions of the new Regulation is to ease requirements on listed companies in keeping with the EU's capital markets union (CMU). The CMU is an initiative designed to increase European companies' opportunity to raise capital and gain admission to trading on regulated markets. The Prospectus Regulation replaces the Prospectus Directive of 2003. The Securities Law Committee will draft a proposal for the implementation of expected EEA rules mirroring the new Prospectus Regulation.

[32] Regulation (EU) No. 648/2012 on OTC derivatives, central counterparties and trade repositories.

MONEY LAUNDERING

The Ministry of Finance appointed on 6 February 2015 a law committee to consider amendments to the anti-money laundering legislation. The anti-money laundering committee delivered its first interim report on 6 November 2015. This report primarily considered the question of how the supervision of new and existing groups of reporting entities that are not otherwise subject to supervision should be organised and who should be the supervisory authority. The Ministry of Finance presented on 31 March 2017 draft proposals for amendments to the Anti-Money Laundering Act; see Prop. 76 L (2016-2017). The proposals involve the introduction of a maximum cash payment of NOK 40,000 to dealers in goods and the establishment of an authorisation and supervisory arrangement for trust and company service providers, with Finanstilsynet proposed as the supervisory authority. The Ministry of Finance's proposed amendments were adopted by the Storting (Parliament) in Act of 16 June 2017 and entered into force on 1 July 2017.

The Anti-Money Laundering Committee's second interim report was presented on 16 December 2016. The report proposes new anti-money laundering legislation to implement the Fourth Anti-Money Laundering Directive. The law proposal brings changes in a number of areas. The committee also recommends designating new groups of reporting entities. It further recommends rules on the establishment of a register of ultimate beneficial owners of legal persons and foreign trusts and corresponding legal structures, with associated obligations for such legal persons and the managers of the structures. The report has been circulated for comment. Finanstilsynet published on 23 December 2016 a circular (Circular 24/201627) giving guidance on how some anti-money laundering rules are to be understood. The circular applies to financial institutions, investment firms and asset management companies. The circular will be adapted to new legislation as and when this enters into force.

PRIIPS

See the account in Risk Outlook autumn 2016. On commission from the Ministry of Finance, Finanstilsynet has drafted a proposal for implementation in Norwegian law of European Parliament and Council Regulation (EU) 1286/2014 on key information documents for packaged retail and insurance-based investment products (PRIIPs). The Regulation, generally termed the PRIIPs Regulation, is expected to be incorporated into the EEA Agreement. The Regulation requires standardised product information to be prepared using a fact sheet, a 'key information document', which must be made available to non-professional investors before any agreement on the sale of such products is entered into. The requirements on preparation of key information documents apply to the banking, insurance and security sector. The Ministry of Finance circulated Finanstilsynet's proposal for circulation with the deadline for response set at 20 August 2017.

The Commission adopted on 8 March 2017 a Regulation (2017/653) that provides supplementary and detailed rules on the presentation, review etc., of the key information to be provided. The Regulation is expected to be incorporated into the EEA Agreement.

IPS

The Ministry of Finance adopted on 24 October 2017 regulations on a new scheme for tax-favoured individual saving for pension following the circulation for comment of a draft version with the deadline for response set at 1 September 2017. The regulations entered into force on 1 November 2017. Contributions of up to NOK 40,000 per year to the scheme by personal taxpayers are tax-deductible. Pensions disbursed under the scheme are taxed as ordinary income. Contributions to the scheme are exempt from wealth tax and returns will not be taxed on a continual basis. The regulations impose no restrictions on what the customer can choose to invest in, or requirements as to diversification of the portfolio, which places heavy demands on customers' comprehension of risk inherent in the portfolio, and heightens their need for information and advice. An agreement may be entered

into with a bank, life insurer, pension undertaking, investment firm or securities fund management company. An agreement may only be entered into as a pension saving agreement and not as a pension insurance agreement, which entails that the right to the pension capital does not lapse upon the death of the customer. The opportunity to tie insurances to savings agreements is limited to insurances conferring the right to exemption from payment of contributions in the event of disability. An agreement may also include a guaranteed return. The customer may draw retirement pension upon reaching the age of 62 at the earliest. Retirement pension shall be paid for a fixed number of years from commencement of drawdown of pension up to at least 80 years of age, but in no case for less than 10 years. The regulations set rules on institutions' information obligation and on the content of an individual pension saving agreement, including the remuneration for administration, management and, if applicable, insurance attached to the agreement. The regulations permit the customer to transfer an individual pension saving agreement and associated funds to another entity.

REVISION OF THE FINANCIAL CONTRACTS ACT

The Financial Contracts Act, which was passed in 1999, regulate certain types of financial services, including payment services, credit agreements and suretyship. The act also regulates financial assignments, including the activity of finance brokers, financial agents and financial advisers. The Financial Contracts Act also lays down rules on payment settlements and other matters related to claims.

Parts of the act have been revised previously to transpose into Norwegian law the Payment Services Directive and the Consumer Credit Directive, and the merging of the earlier Credit Purchase Act with the Financial Contracts Act in 2010. The Financial Contracts Act also incorporates the EEA Regulation on cross-border payments and the EEA Regulation on direct debits in euro. In addition the act implements parts of several other EEA Directives including the Consumer Rights Directive.

Three EU directives – the Payment Services Directive (PSD 2, see foregoing description), the Payments Accounts Directive and the Mortgage Credit Directive – are to be transposed into Norwegian law in the financial area. Implementation of these directives necessitates wide-ranging amendments to the Financial Contracts Act. The Ministry of Justice and Public Security proposes further amendments to the act in that context. The amendments proposed by the ministry were circulated for comment with deadline for comment set at 15 December 2017.

THEME 1: SURVEY OF RESIDENTIAL MORTGAGE LENDING PRACTICES

Finanstilsynet's residential mortgage lending survey, conducted each year since 1994, is designed to capture developments in banks' residential mortgage lending. In the autumn 2017 survey, the 30 largest banks (Norwegian and foreign), measured by share of the residential mortgage market, reported data on close to 8,000 new repayment mortgages and lines of credit secured on residential property granted after 15 August 2017. The banks in the survey have an overall market share of about 90 per cent of mortgages secured on residential property in Norway.

New regulations setting requirements on new loans secured on residential property (residential mortgage lending regulations) entered into force on 1 January 2017. The regulations aim to encourage a more sustainable trend in household debt and house prices. All financial institutions that grant mortgages secured on residential property in Norway are covered by the regulations. This includes foreign providers. The regulations brought some changes compared with the previous regulations; see Risk Outlook June 2017 for a fuller account. The main changes were:

- Introduction of a maximum debt-income ratio: a mortgage that causes overall debt to exceed five times gross annual income should not be granted
- Instalment payments now mandatory on mortgages in excess of 60 per cent of property value as opposed to the previous 70 per cent
- Introduction of limits for mortgages secured on residential property in Oslo: a maximum loan-to-value (LTV) ratio of 60 per cent for second homes, and a maximum of 8 per cent of the value of mortgages granted per quarter allowed to exceed one or more of the criteria set in the regulations (10 per cent elsewhere in Norway).

Table I.1 Purpose of financing, repayment mortgages

No. of mortgages granted in per cent	2014	2015	2016	2017
House purchase	36	30	35	32
– Of which, purchase of second home	2	2	2	2
Other purposes, including refinancing	55	60	53	58
Refinancing of mortgages from other banks	9	10	12	10

Source: Finanstilsynet

Table I.2 Proportion of non-conformant repayment mortgages

Percentage of loans granted	2014	2015	2016	2017
LTV ratio above 85 per cent	19	16	15	12
LTV ratio above 85 per cent incl. additional collateral	10	7	5	3
Insufficient debt servicing capacity (5 pp interest rate increase)	4	2	4	1
Interest-only above 60 per cent LTV ratio*	12	9	8	4
Leverage ratio above 500 per cent	8	6	9	3

*For the year's prior to 2017: The share of interest-only loans above 70 per cent LTV. Maximum debt relative to income was not regulated by regulations prior to 2017. Source: Finanstilsynet

Table I.3 Proportion of non-conformant lines of credit

Percentage of no. of loans	2014	2015	2016	2017
LTV ratio above 85 per cent	12	13	11	12
LTV ratio above 60 (70) per cent incl. additional collateral	8	6	4	5
Insufficient debt servicing capacity (5 pp interest rate hike)	2	1	1	1
Leverage ratio above 500 per cent*	5	4	6	1

* Maximum debt relative to income was not regulated by regulations prior to 2017. Source: Finanstilsynet

MAIN FINDINGS

Compared with the 2016 survey, the 2017 survey shows a lower proportion of mortgages with a high LTV ratio and a lower proportion of instances of inadequate debt servicing capacity on the part of the borrower. The decline was particularly clear for younger borrowers (below age 30), although this group still accounted for a far larger proportion of

mortgages with a high LTV ratio compared with older borrowers. The survey also shows a considerable decline in the number of mortgages with a very high debt-income ratio.

THE PURPOSE OF REPAYMENT MORTGAGES

Loans for house purchase accounted for 32 per cent of all repayment mortgages in the survey. Purchase of a second home accounted for 2 percentage points of this figure, on a par with preceding years (table I.1). Purchase of a second home includes house purchase for the borrower's children. Refinancing mortgages made up 68 per cent of the portfolio. Refinancing covers both transfer of mortgages with the same collateral from one bank to another and instances in which the customer retains the mortgage in the original bank but agrees changes in mortgage terms. In the case of refinancing mortgages, the amount granted rose by an average of 15 per cent from the existing amount borrowed.

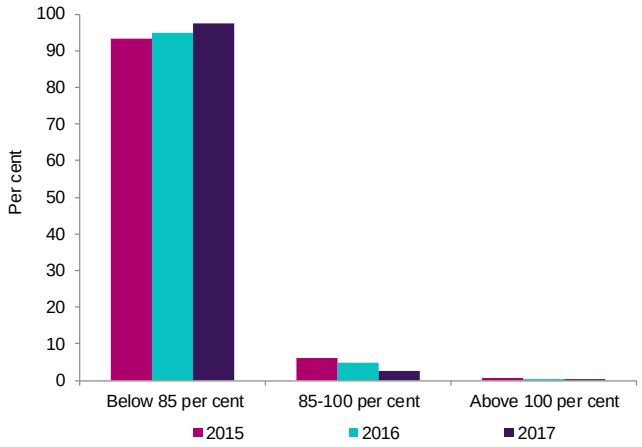
Persons below age 30 accounted for 14 per cent of repayment mortgage borrowers. This was 1 percentage point lower than in the previous year's survey. In the case of mortgages for house purchase, younger borrowers made up 25 per cent of mortgage applicants compared with 24 per cent in the 2016 survey.

LOAN-TO-VALUE RATIO

The average LTV ratio for repayment mortgages was 66 per cent, i.e. 1 percentage point lower than in 2016. When additional collateral is taken into account the average LTV ratio was 54 per cent, a decline of 7 percentage points. For mortgages taken out for house purchase, the LTV ratio was 72 per cent, or 64 per cent when additional collateral is taken into account. For younger borrowers the average LTV ratio for house purchase mortgages was 78 per cent. When additional collateral is taken into account, the LTV ratio was 73 per cent.

For new lines of credit, taking additional security into account, the average LTV ratio was 45 per cent, which is 7 percentage points lower than in 2016. For younger

I.1 Repayment loans by LTV ratio including additional collateral



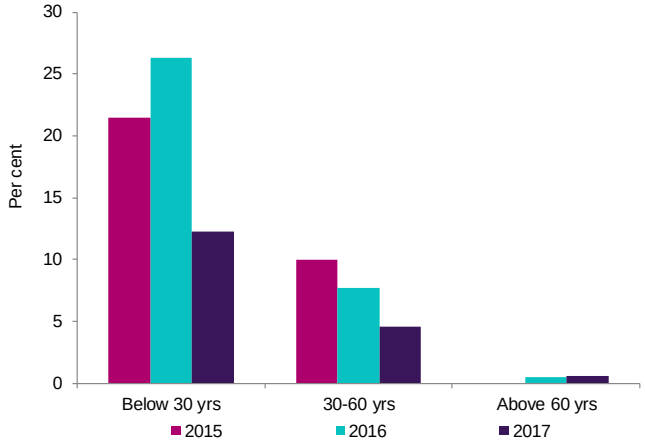
Source: Finanstilsynet

borrowers too, a considerable decline was seen, from 61 to 51 per cent. These changes should be viewed in light of the revision of the residential mortgage lending regulations as from January 2017 which capped interest-only mortgages at 60 per cent of property value.

The volume of mortgages with a high LTV ratio has declined slightly in recent years. This trend continued for repayment mortgages in the 2017 survey, while a slight increase was noted in the case of lines of credit (tables I.2 and I.3). In the case of repayment mortgages the proportion of repayment mortgages with an LTV ratio above 85 per cent was now down to just under 3 per cent (based on the number of such mortgages), account being taken of additional collateral (chart I.1). Despite a pronounced fall in the volume of loans with a high LTV ratio to younger borrowers in the last twelve months, this group still has a large proportion of loans with a high LTV ratio. For loans taken out for house purchase, the volume of loans with an LTV ratio in excess of 85 per cent was more than halved compared with the 2016 survey, and accounted for 12 per cent of mortgages going to younger borrowers (chart I.2).

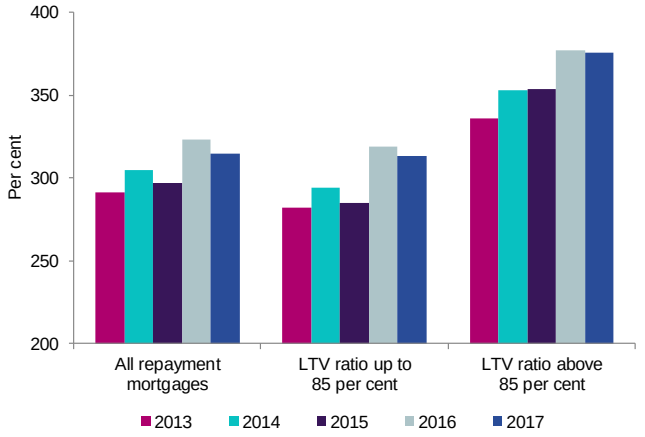
About 5 per cent of the lines of credit in the survey had an LTV ratio, including additional collateral, above 60 per cent. In 2016 the figure was 41 per cent, although this must be seen in light of the fact that the maximum LTV ratio set in regulations was 70 per cent prior to

I.2 Repayment loans for house purchase, share with LTV above 85 per cent (incl. additional collateral)



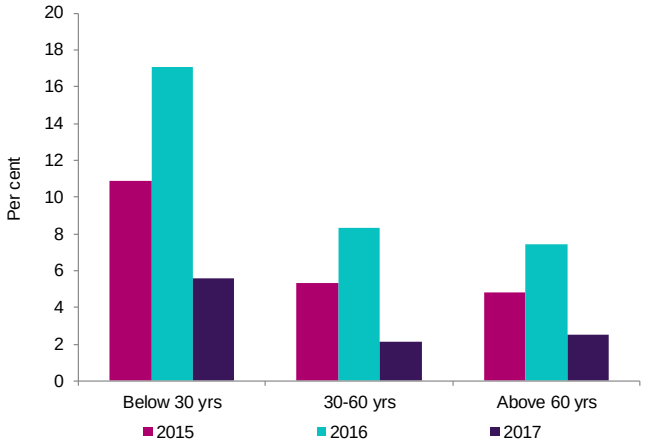
Source: Finanstilsynet

I.3 Debt-income ratio, repayment mortgages



Source: Finanstilsynet

I.4 Shares with debt higher than five times gross annual income, repayment mortgages



Source: Finanstilsynet

the change effective as from January 2017. In the 2016 survey, 4 per cent of mortgages had an LTV ratio above 70 per cent.

DEBT-INCOME RATIO

Growth in household debt has outstripped growth in household incomes for many years. In consequence the debt-income ratio has risen to a historically high level. The residential mortgage lending regulations effective as from 1 January 2017 imposed a new maximum permitted debt-income ratio to prevent a mortgage being granted if the mortgage would result in the borrower's overall debt exceeding five times his/her gross annual income.

The average debt-income ratio, measured as overall debt relative to gross income, declined somewhat from the previous year, from 323 to 315 per cent for borrowers who took out repayment mortgages secured on residential property (chart I.3). For mortgages with a high debt-income ratio, a slight decline was most evident among younger borrowers, from 410 to 389 per cent. The decline for younger borrowers with a high debt-income ratio was particularly pronounced in cases where the mortgage was taken out for house purchase, with a reduction in the debt-income ratio of 28 percentage points, to 398 per cent.

In 2016, 17 per cent of younger borrowers who took out a repayment mortgage had overall debt in excess of five times gross annual income. In the 2017 survey this figure had fallen to 6 per cent (chart I.4). In the case of mortgages for house purchase the share was far higher, but here too a sharp decline was noted, from 22 to 7 per cent of younger borrowers (chart I.5). The decline in the proportion of cases with a high debt-income ratio was strongest for age groups over the age of 30.

For all items covered by the residential mortgage lending survey (total repayment mortgages and lines of credit), 2 per cent of borrowers had a debt-income ratio above 500 per cent. In the 2016 survey this share was 8 per cent.

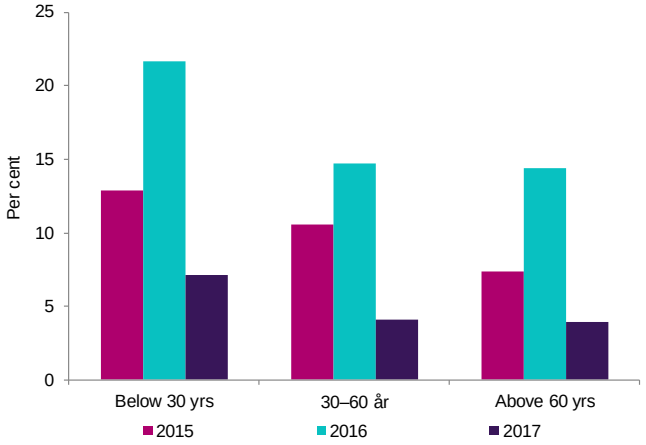
There are considerable geographical variations in levels of LTV ratios and debt-income ratios. Mortgages secured on residential property in Oslo had on average a far lower LTV ratio and a higher debt-income ratio than residential mortgages elsewhere in Norway (table I.4). In Oslo, 10 per cent of mortgages were close to the maximum permitted debt-income ratio[33], whereas the corresponding share for the rest of Norway was 3 per cent. The proportion of mortgages with a debt-income ratio above five, on the other hand, was lower in Oslo than elsewhere in the country. Further, the volume of additional collateral was comparatively low in Oslo. This indicates that maximum permitted debt-income ratio has a more binding effect than the maximum permitted LTV ratio at high house prices. In cases where the debt-income ratio is binding and the house purchaser is required to adjust accordingly, the LTV ratio will also be reduced. This could explain the relatively low level of LTV ratios in Oslo.

DEBT SERVICING CAPACITY

The residential mortgage lending regulations require banks to assess a borrower's ability to service the mortgage applied for, based on information on the borrower's income and all relevant expenses. This assessment must factor in an interest rate increase of 5 percentage points. If the borrower lacks sufficient funds to meet normal living expenses after such an interest rate increase, the mortgage should not be granted. The proportion of cases in which the borrower failed this assessment was far lower in the 2017 survey than in preceding years. 1 per cent of all mortgage applicants in the survey had inadequate debt servicing capacity compared with 3 per cent in the 2016 survey. A particularly marked improvement was noted for repayment mortgages going to younger borrowers. 1 per cent of this borrower group had inadequate debt servicing capacity compared with 6 per cent in the 2016 survey.

[33] These mortgages had a debt-income ratio between 490 and 500 per cent.

1.5 Shares with debt higher than five times gross annual income, all repayment mortgages for house purchase



Source: Finanstilsynet

Table I.4 LTV ratio and debt-income ratio in and outside Oslo

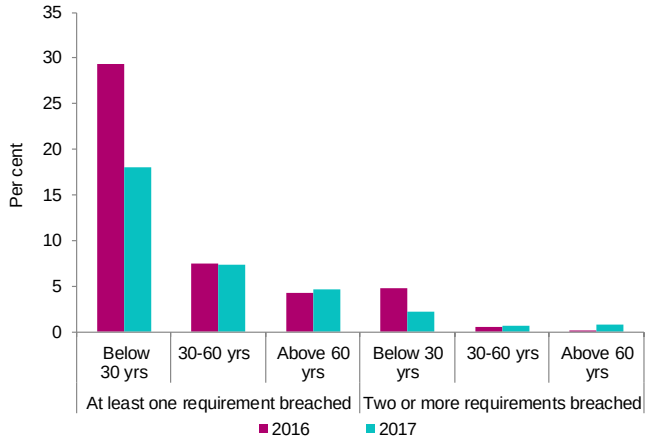
	LTV ratio incl. additional collateral	LTV ratio exc. additional collateral	Debt-income ratio
Oslo	58 %	60 %	374 %
Rest of Norway	65 %	69 %	309 %

Source: Finanstilsynet

I.6 Share of interest-only mortgages and average interest-only period

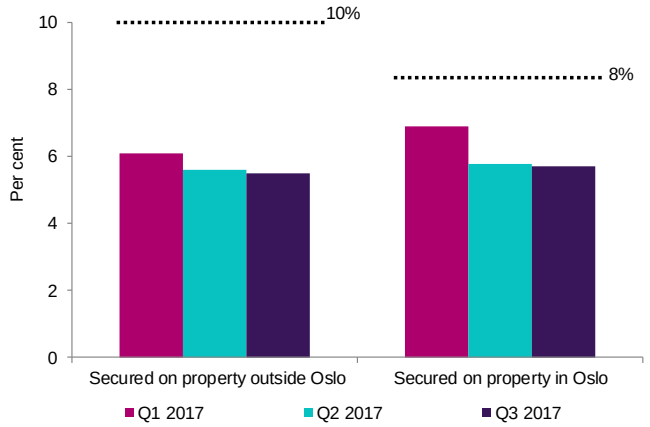
Source: Finanstilsynet

I.7 Share of mortgages not complying with one or more of the regulations' requirements, by borrower age



Source: Finanstilsynet

I.8 Share of non-compliant mortgages by location



Source: Finanstilsynet

I.9 Share of non-compliant mortgages by cause

Source: Finanstilsynet

REPAYMENT MORTGAGES: INTEREST-ONLY PERIOD AND MATURITY

Interest-only mortgages make for a reduced liquidity burden in the agreed period, and can encourage some households to take out a larger mortgage than they would otherwise have done. The residential mortgage lending regulations require instalment repayments on mortgages that exceed 60 per cent of property value. This represented a tightening compared with previous years when the threshold for mandatory instalment repayments was 70 per cent. The volume of interest-only mortgages declined in the 2017 survey, from 11 per cent in 2016 to 8 per cent in 2017 (chart I.6). For mortgages in excess of 60 per cent of property value, 4 per cent were interest-only. When instalment-repayment mortgages are included, but where the agreed size of instalment is below that required by the regulations, the share is 5 per cent.

The average term for new repayment loans has risen somewhat in recent years, and was 23.9 years in the 2017 survey. The volume of fixed-rate mortgage contracts showed a further fall, and was at just under 4 per cent of all repayment mortgages in the survey.

USE MADE OF THE FLEXIBILITY PERMITTED BY THE REGULATIONS

The residential mortgage lending regulations permit up to 10 per cent of mortgages granted in any quarter to diverge from one or more of the quantitative requirements set in the regulations. For mortgages secured on residential property in Oslo, the figure is 8 per cent. It should be noted that this scope for discretion applies to the volume of mortgages granted in an entire quarter. A proportion of mortgages in the survey are granted for a far shorter period, and the survey is not a check on banks' compliance with the regulations.

The residential mortgage lending survey conducted in autumn 2017 shows that banks have tightened lending practices since 2016. A higher proportion of mortgages fulfil all of the quantitative requirements, and a higher proportion of mortgages meet the criteria under each individual requirement than was the case in 2016.

Overall, 6.5 per cent of mortgages were in excess of one or more of the requirements. For younger borrowers the number of non-compliant mortgages was in excess of 18 per cent (chart I.7). The same age category also accounted for the largest share of mortgages that were non-compliant with two or more requirements.

The 2017 survey shows that 2.3 per cent of borrowers carried debt in excess of the new maximum permitted level of five times gross income. Younger borrowers consistently account for a larger proportion of mortgages that are non-compliant with the quantified limits set in the regulations. For debt-income ratios the share is 3.9 per cent. About one-third of these mortgages are also non-compliant with limits other than debt-income ratio. Compared with the 2016 survey, the share of repayment mortgages going to borrowers with total debt in excess of five times income has fallen from 9 to 2 per cent. This is despite the fact that the number of mortgages going to younger borrowers was somewhat higher in 2017 compared with the 2016 survey.

The residential mortgage lending regulations require institutions to report quarterly to their board of directors, or to the management in the case of foreign branches, on the share of mortgages granted that are non-compliant with at least one of the requirements of the regulations. Finanstilsynet has defined minimum requirements on the content of such reporting, and obtains on a regular basis reports from the largest banks on their compliance with the regulations. As shown in chart I.8, a slight decline was noted in non-compliant mortgages in the two preceding quarters. In the third quarter of 2017, 5.7 per cent of value of mortgages secured on residential property in Oslo diverged from one or more of the quantitative criteria set in the residential mortgage lending regulations. In the case of residential mortgages elsewhere in Norway, the figure was 5.5 per cent. For residential mortgages in Oslo, the largest divergence, 3.7 per cent, refers to the criterion limiting overall debt to five times gross annual income (chart I.9).

THEME II: HOUSEHOLDS' FINANCIAL VULNERABILITY

Household debt has grown faster than household incomes almost continuously for close to two decades, and households' vulnerability has risen considerably in this period. An interest rate hike and income lapse will hit households harder now than 20 years ago, and the decline in consumption could be considerable. Reduced consumption makes for lower corporate earnings. For the banks, problem loans and loan losses could mount.

There are wide differences between households in terms of size of income, assets and indebtedness. Many households carry little or no debt, and will cope with an interest rate increase or income reduction better than the average of households. However, a large number of households carry very high debt and small buffers, and will face major challenges in honouring their debt commitments in the event of a marked interest rate increase or income reduction.

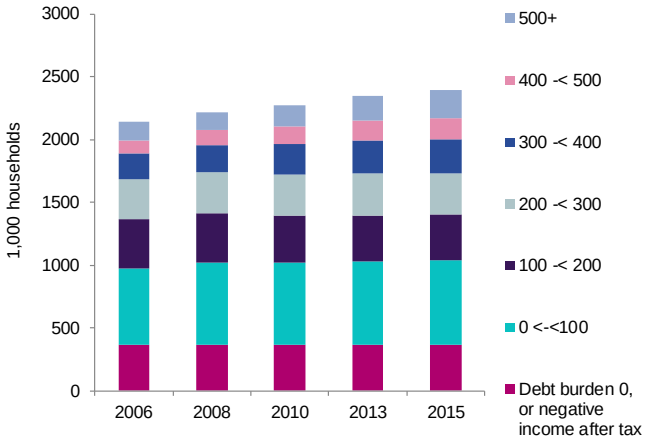
This theme chapter addresses financial vulnerability for various groups of households with a basis in disaggregated data for the period from 2004 to 2015. The analysis makes use of data from Statistics Norway's income and wealth statistics for households which include information drawn from private individuals' income tax returns.

HOUSEHOLDS' FINANCIAL POSITION

Strong increase in the number of households with a high debt burden

There were close to 2.4 million households in Norway at the end of 2015, of which about 2 million were indebted. In the past decade the number of households with a high debt burden[34] has risen, and among households with a high debt burden the share with low or medium income has increased. The number of households with the debt burden above 300 per cent increased from 2008 to 2015 by 41 per cent, from 459,000 to 671,000 households (chart II.1), i.e. 28 per cent of all households. Of these, 225,000 had a debt burden higher than 500 per cent, which is an increase of 85,000 households since 2008. The number of households with the debt burden between 400 and 500 per cent came to about 175,000 in 2015 – an increase of 52 per cent from 2008.

II.1 Number of households by debt burden



Source: Statistics Norway

From 2008 to 2015 the share of households in the income decile[35] 2 to 7 with a high debt burden (above 300 per cent) rose by 4.6 percentage points. In the same period the share of households in the lowest income decile (decile 1) with a high debt burden fell by 2.3 percentage points.

[34] Debt burden is defined as debt in per cent of disposable income. Disposable income is defined here as the sum of the following items: earned income, gross unearned income and transfers less the following items: assessed tax and negative transfers (which covers maintenance payments under public agreement, habitation benefits, premium and contributions paid to private and public occupational pension schemes), interest expenses and realised capital losses. A high debt burden is defined here as a debt burden in excess of 300 per cent. A debt burden larger than 500 per cent is referred to here as a very high debt burden.

[35] Households are divided into income deciles based on post-tax income per consumer unit. The first adult family member is assigned a weight equal to 1.0, the second adult is assigned a weight equal to 0.5 and each child is assigned a weight equal to 0.3. Each decile contains about the same number of persons.

Households in income decile 1 with a debt burden above 500 per cent numbered almost 40,000 (or 18 per cent of households with a debt burden above 500 per cent) in 2015 (chart II.2). This is markedly higher than the average for the other income deciles. There are many students in the lower income deciles, many of them with study loans and low income.

Households' average disposable income was NOK 530,000 in 2015. In the lowest income decile (decile 1) disposable income averaged NOK 140,000 (II.3). This is close to one-tenth of the level in the highest income decile (decile 10), where disposable income averaged NOK 1,350,000 in 2015. In income decile 1 debt averaged was NOK 350,000, and in income decile 10 debt averaged NOK 2,850,000 (chart II.4).

Debt and debt burden higher for all age groups

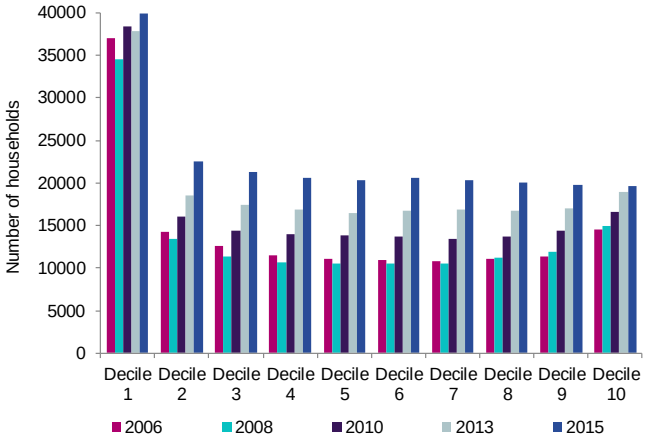
From 2004 to 2015 the debt burden rose for all household groups distributed by age of the main income earner (chart II.5). The strongest increase was in the age group 30-39, with an average increase of 86 percentage points. The debt burden was significantly lower for older households. For all households combined, the debt burden averaged 237 per cent in 2015.[36],[37]

Recent years' increase in the debt burden reflects the strong growth in household debt. Up to a main-income-earner age of 40 to 50, average debt rises with age – in the first instance as a result of entry to the housing market – and falls gradually thereafter. Measured in NOK, debt growth was strongest in the

[36] The account here and elsewhere in this theme chapter gives average figures for groups of households. A large number of households in each group will have a significantly higher or lower debt burden than the average for households in the group. This is illustrated in chart II.1 which shows that 671,000 households had a debt burden in excess of 300 per cent in 2015, while the average for all household groups was 237 per cent.

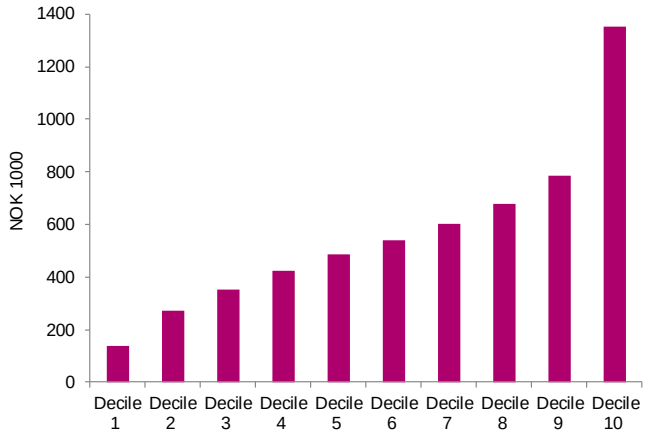
[37] The debt burden reported here is higher than the debt burden stated in chapter 2. The difference is due both to higher household debt and lower income here than in chapter 2. Household debt in the C2 statistics (utilised in chapter 2) includes loans from financial institutions, state loan institutes and the Government Pension Fund, whereas the debt reported in income tax returns (utilised in this instance) also includes, for example, loans from employers and family members and loans from foreign sources. Households' taxable income (utilised here) includes, in contrast to the national accounts (utilised in chapter 2), for example, non-computed housing services.

II.2 Number of households with debt burden larger than 500 per cent by income decile



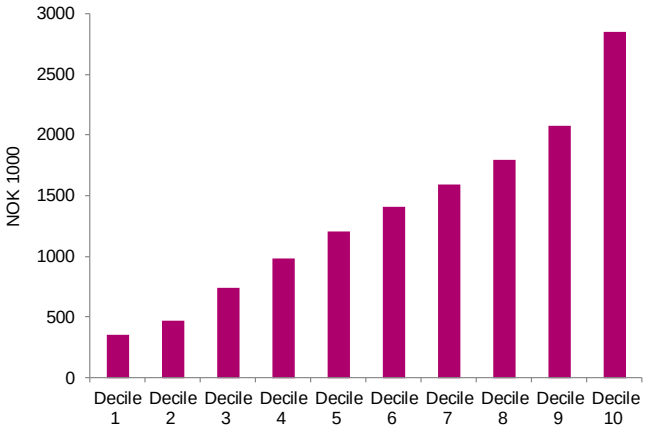
Source: Statistics Norway

II.3 Average disposable income in 2015 by income decile



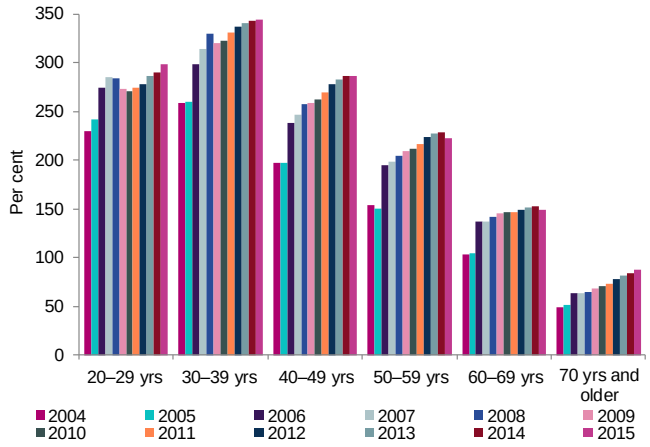
Source: Statistics Norway

II.4 Average debt in 2015 by income decile



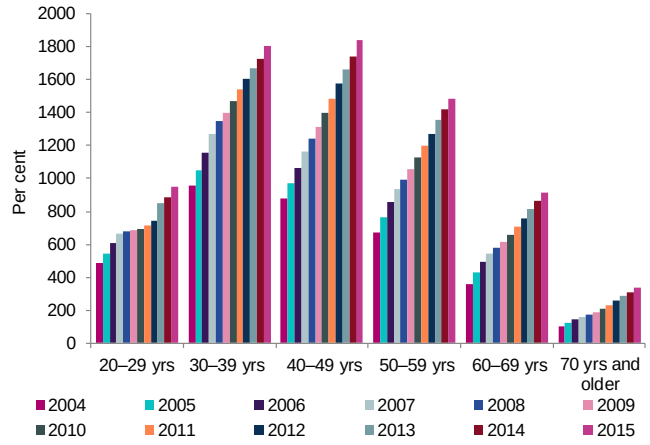
Source: Statistics Norway

II.5 Household debt burden by age



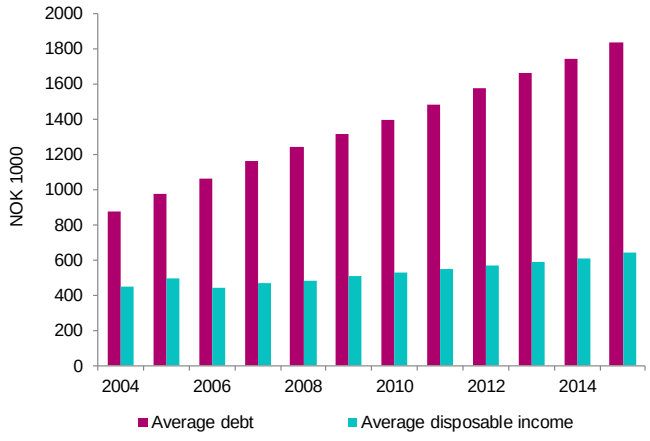
Sources: Statistics Norway and Finanstilsynet

II.6 Household debt by age



Source: Statistics Norway

II.7 Average disposable income and debt from 2004 to 2015 for age group 40-49



Source: Statistics Norway

age range 30 to 50 (chart II.6). In the group of households with the main income earner aged between 40 and 49, average debt rose by NOK 960,000 (109 per cent) from 2004 to 2015, while average disposable income rose by NOK 195,000 (44 per cent), (chart II.7). Relatively speaking, average debt growth was strongest among households with main income earners aged 70 and above (228 per cent). For all household groups combined, debt growth averaged 106 per cent from 2004 to 2015. Average income growth in the same period was 55 per cent.

More than one-third of overall debt is taken out by high income groups aged 30 to 59

Aggregate household debt totalled NOK 3,020 billion at the end of 2015. A large portion of the debt is held by households aged between 30 and 59 with a high income (decile 8 or higher), (table II.1). These groups accounted for 37 per cent of overall household debt in 2015. The average debt burden in these household groups varied from 204 to 391 per cent.

Debt burden rises with income

A general feature is that the debt burden rises with income when households with the lowest incomes (decile 1) and the highest incomes (decile 10) are disregarded. The average debt burden rose for all income groups from 2004 to 2015 (chart II.8). With the exception of the two lowest income deciles (decile 1 and 2), the average debt burden is highest for the age range 30-39. For most income deciles, this age group has an average debt burden approaching and exceeding 350 per cent, which is significantly higher than the average for all households. Households in the age range 30-39 are in the market-entry phase and have taken out mortgages to finance education and house purchase, little of which has been repaid.

Moreover, these households probably have widespread expectations of rising incomes in the year ahead. However, their vulnerability to income lapse and rising interest rates is substantial. The highest average debt and interest burden is reached in income decile 1 in the age range 50-59 and in income decile 2 in the age range 40-49.

Table II.1 Household debt by age and after-tax income, 2015. Per cent

	Below 20yrs	20–29yrs	30–39yrs	40–49yrs	50–59yrs	60–69yrs	70yrs and older	Total
Decile 1	0	1.4	0.7	0.7	0.5	0.3	0.2	3.8
Decile 2	0	0.8	1.2	1.2	0.7	0.4	0.5	4.7
Decile 3	0	0.9	1.7	1.7	0.9	0.5	0.6	6.2
Decile 4	0	1	2.2	2.1	1.1	0.6	0.5	7.6
Decile 5	0	1.2	2.6	2.6	1.3	0.7	0.5	8.8
Decile 6	0	1.3	2.9	3	1.6	0.7	0.4	9.9
Decile 7	0	1.3	3.2	3.4	2.1	0.9	0.4	11.1
Decile 8	0	1.3	3.4	3.8	2.6	1.2	0.4	12.5
Decile 9	0	1.2	3.6	4.2	3.5	1.8	0.3	14.6
Decile 10	0	0.8	3.7	5.8	6.2	3.7	0.6	20.7
Total	0.1	11.2	25.2	28.4	20.3	10.6	4.3	100

Source: Statistics Norway

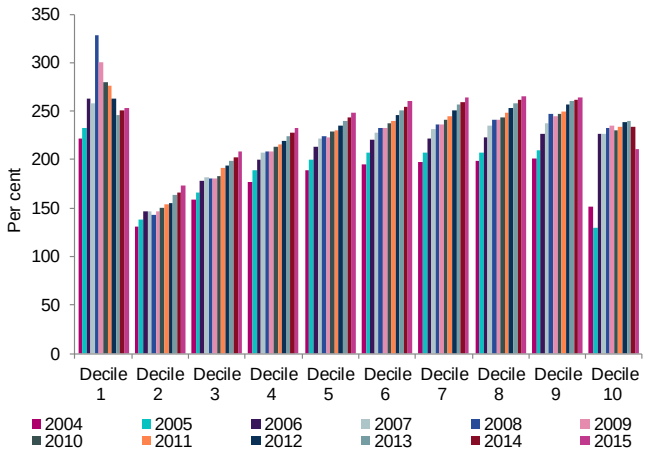
Interest burden is low due to low interest rates

The interest burden distributed by age largely conforms to the same pattern as the debt burden distributed by age (chart II.9). This is because the interest rate path is fairly identical for all age groups. The interest burden for all age groups rose markedly from 2005 to 2008 due to the interest rate hikes prior to the financial crisis in 2008, but declined substantially after the interest rate cuts in the wake of the crisis. With the exception of the oldest age group, the interest burden for all groups was lower in 2015 than in 2010. This decline took place in spite of the heavy debt increase (as mentioned above), and is ascribable to the interest rate decline from 2014 to 2015. The historically high debt level entails that households' interest burden is highly sensitive to an interest rate upturn. This vulnerability is illustrated later in this chapter.

Large transfers dampen the consequences of income lapse

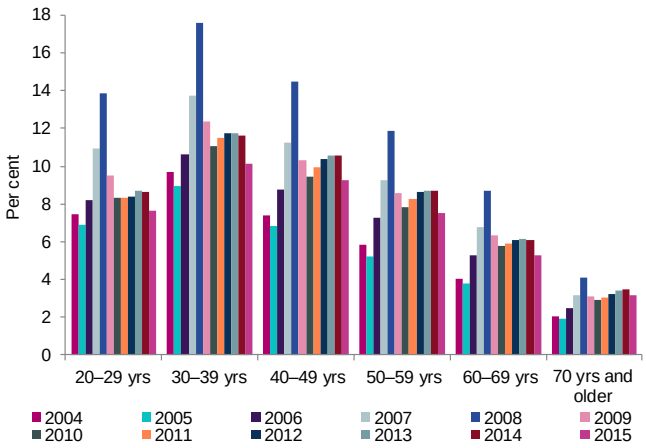
In all income deciles, apart from the highest (decile 10), households' average gross income rises up to and including the age range 40-49. It falls thereafter. This should be viewed in light of declining labour force households in income decile 10 the average income rises from age group 60-69 to 70 and older (chart II.10). This is attributable to the high average gross

II.8 Household debt burden by after-tax income



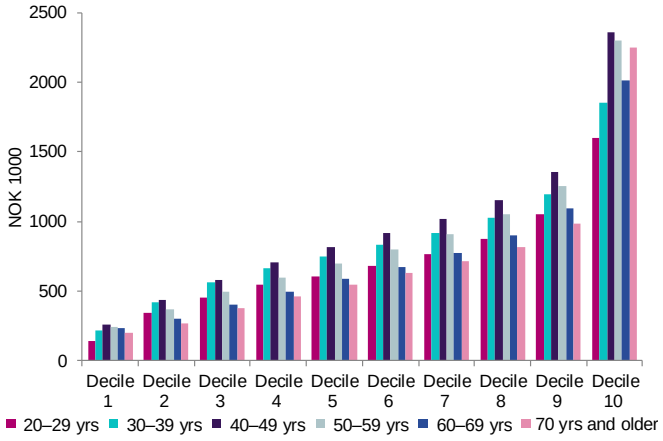
Sources: Statistics Norway and Finanstilsynet

II.9 Household interest burden by age



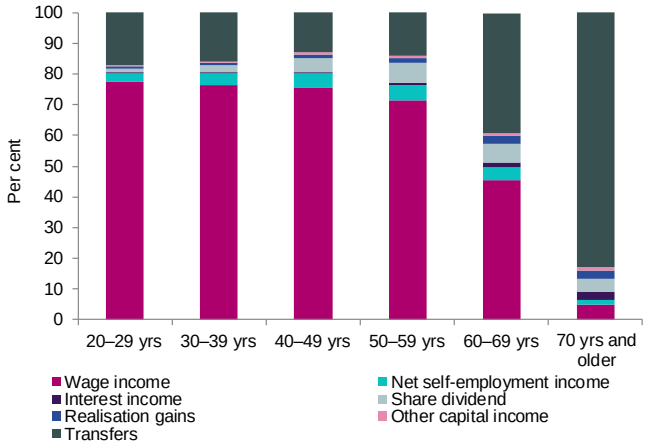
Sources: Statistics Norway and Finanstilsynet

II.10 Household average gross income in 2015 by age and income



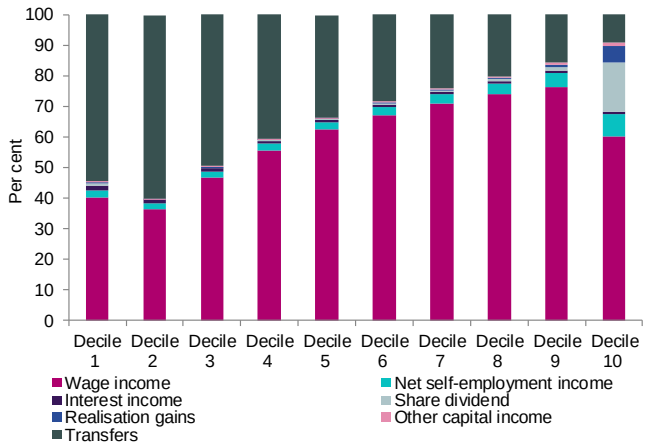
Source: Statistics Norway

II.11 Composition of household gross income in 2015 by age



Source: Statistics Norway

II.12 Composition of household gross income in 2015 by income



Source: Statistics Norway

participation among the older worker cohorts. For wealth of the age group 70 and older in income decile 10 (chart II.13). Households' average disposable income shows largely the same distribution as gross income.[38]

Employment income is the clearly most important income source for the age groups 20 to 59, accounting for shares in excess of 70 per cent of households' gross income. In the same age range transfers[39] are also important, with shares between 13 and 17 per cent, while the significance of net self-employment income and share dividends rises to, respectively, 4.9 and 6.4 per cent for the age range 50-59 (chart II.11). For the age ranges 60-69 and 70 and over, the significance of employment income falls sharply, net self-employment income declines and transfers rise in importance.

Among households in the lower income deciles, transfers account for a large portion of households' average gross income is (chart II.12). This should be viewed in light of the large element of older people in these income deciles. The high share of transfers, which are in large measure independent of cyclical factors, helps to make average households in the lowest income deciles less vulnerable to economic downturns and unemployment. Employment income accounts for about 40per cent of gross incomes for households in decile 1, and 36 per cent in decile 2. Employment income's share of gross income rises with income up to decile 9, where employment income accounts for 76 per cent of gross income. Net self-employment income, share dividends and realised capital gains all rise sharply from decile 9 to decile 10, where they in combination account for 28 per cent of households' gross income. This distribution of capital income, whereby decile 10 receives 78 per cent of overall gross capital income, is reflected in the distribution of households' gross wealth (chart II.13).

[38] The difference between gross income and disposable income comprises interest expenses, realised capital losses, assessed tax and negative transfers.
[39] Transfers include inter alia pensions from National Insurance, occupational service pensions, contractual early retirement pension, sickness benefit, child benefit, housing benefit, student grants, social assistance, basic and supplementary benefit, and cash for parents of small children.

With the exception of households in income decile 1, gross wealth rises with both income and age.

Most households are heavily exposed to the housing market

Residential property accounts for a large portion of households' wealth (chart II.14). For the age group 30-39 it accounts for 80 per cent of gross wealth. This share falls to 65 per cent for the two oldest age groups. The share of bank deposits and cash rises in the three oldest age groups, while holdings of securities carry greatest weight in the age range 40-69. Households in these age groups that are in the uppermost income decile account for almost 74 per cent of households' overall holding of securities.

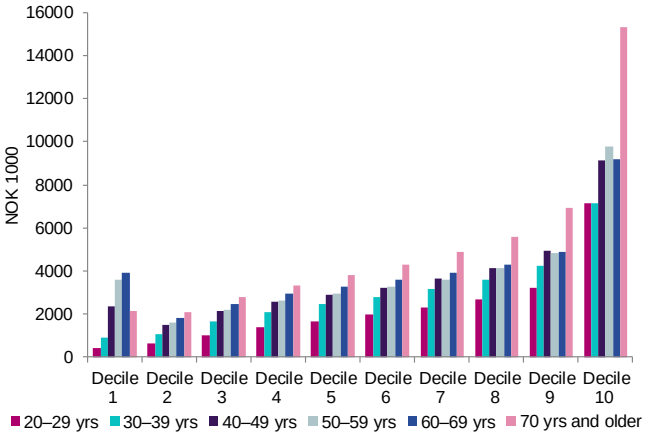
High income is accompanied by substantial housing wealth and substantial investment in second homes

In general terms households' average property value rises with both income and age (chart II.15). Households in the two uppermost income deciles (decile 9 and 10) account for a larger share of the value of households' second homes than their share of households' overall housing capital (chart II.16).

Younger borrowers' debt is on average almost equally as high as the property value

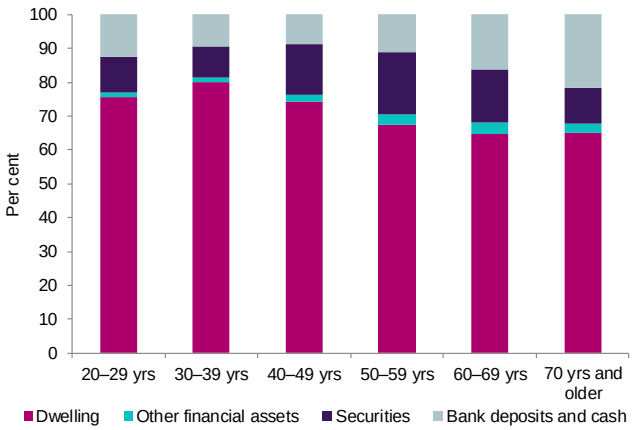
Households' average debt as a share of housing wealth recedes with rising age. Lower debt as a share of housing wealth makes households more robust to a fall in house prices and other asset prices. For creditors this entails lower risk of loss on mortgages secured on residential property. For households in the age group 20-29 in income decile 1 and 2, average debt as a share of housing wealth exceeds 100 per cent (chart II.17). For the age groups 20-29 and 30-39 the ratio is 99 and 84 per cent respectively. The relatively low share of debt relative to gross wealth for households in income decile 10 reflects the high average gross financial asset position of these households (chart II.18).

II.13 Household average gross wealth in 2015 by age and income



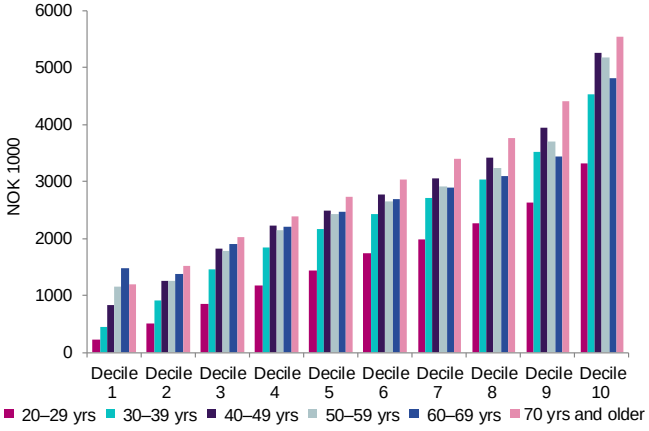
Source: Statistics Norway

II.14 Composition of household gross wealth in 2015 by age



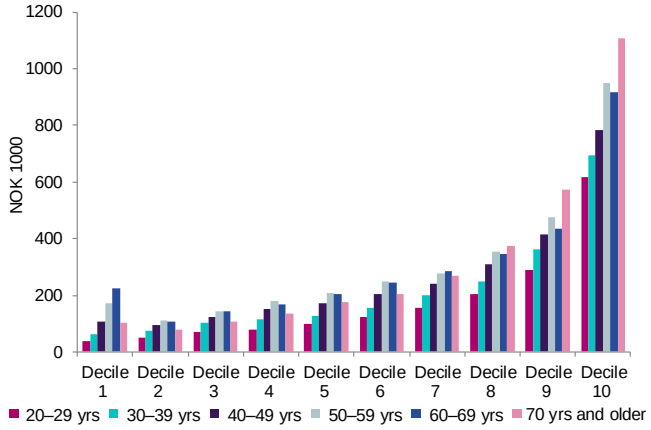
Source: Statistics Norway

II.15 Average estimated market value of households' housing capital (primary and second home) in 2015 by age and income



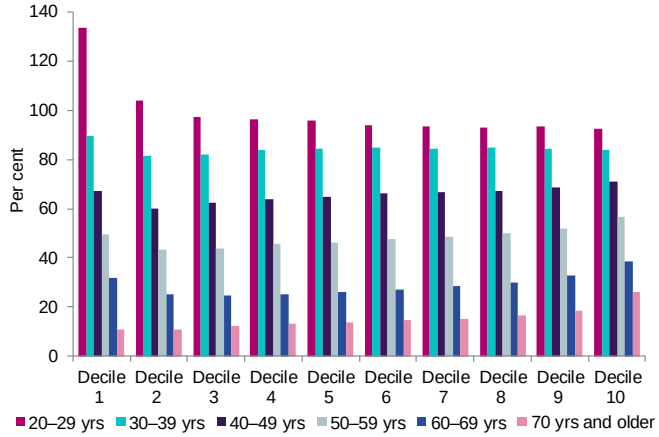
Source: Statistics Norway

II.16 Average estimated market value of households' second homes in 2015 by age and income



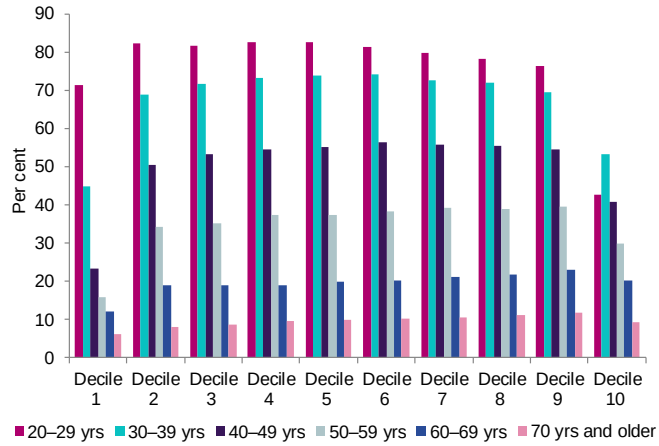
Source: Statistics Norway

II.17 Household debt as a share of market value of dwellings in 2015 by age and income



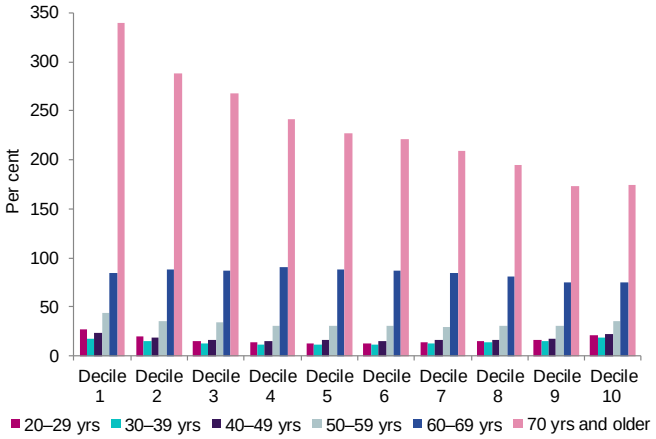
Source: Statistics Norway

II.18 Household debt as a share of gross wealth in 2015 by age and income



Source: Statistics Norway

II.19 Household bank deposits and cash as a share of debt in 2015 by age and income



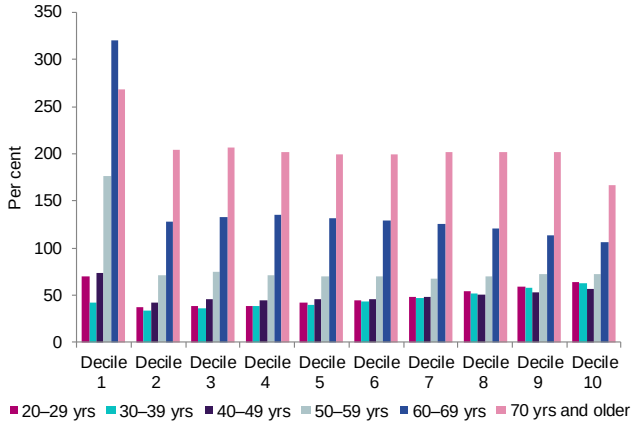
Source: Statistics Norway

For most households bank deposits are small relative to debt and income

The most important liquid buffer for households is bank deposits and cash. For the age groups 20 to 59 bank deposits are however small relative to debt. Securities – in particular mutual fund units and quoted equities and fixed income securities – can as a rule also be converted to cash rapidly and without major costs. Households' average holdings of bank deposits and cash measured in relation to debt depend little on income and age. An exception, however, is the group of households whose main income earner is aged 70 or more, where bank deposits and cash as a share of debt on average recede with rising income (chart II.19). The pattern is similar when securities are included in the portfolio of liquid assets. Households with the lowest and highest incomes (decile 1 and decile 10) have, however, on average far larger holdings of bank deposits, cash and securities as a share of debt than households in the intervening income deciles.

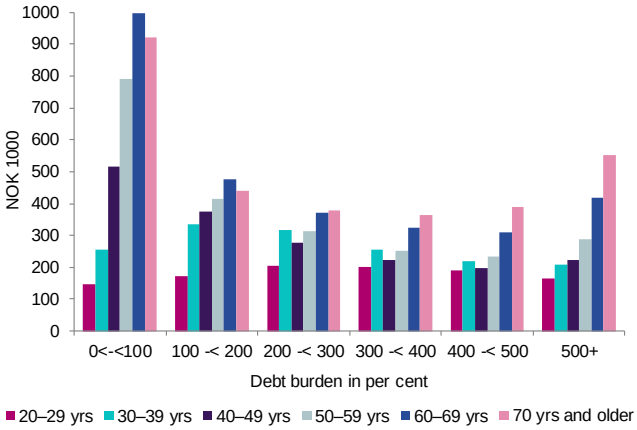
On average, bank deposits are smaller than a single year's income. The ratio of bank deposits to disposable income largely mirrors the ratio of bank deposits to debt. The differences between both the various age groups and the income deciles are, however, smaller in the case of bank deposits as a share of disposable income than in the case of bank deposits as a share of debt. This should be viewed in light of the fact that income is distributed more evenly between age groups

II.20 Household bank deposits and cash as a share of disposable income in 2015 by age and income



Source: Statistics Norway

II.21 Households' average bank deposits and cash in 2015 by age and debt burden



Source: Statistics Norway

and income groups than is debt. Bank deposits account for about 50 per cent of disposable income for the age groups 20-59.

Households' average holding of bank deposits and cash measured as a share of disposable income appears in general to rise slightly with rising income in the case of younger age groups (20-49) and to recede with rising income in the case of older age groups (60 and over), (chart II.20).

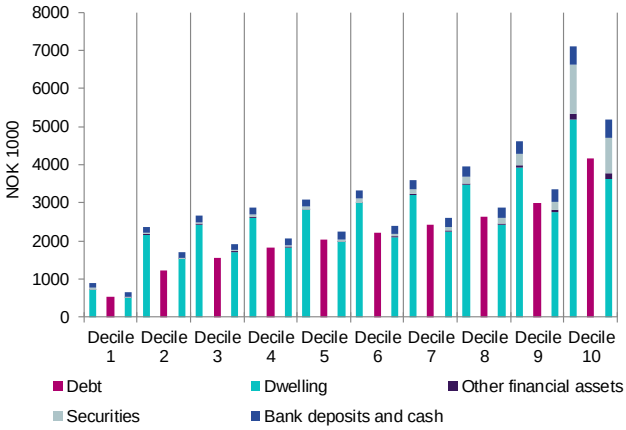
Higher debt burden, lower liquid buffers

In the age groups 40-59, holdings of bank deposits and cash decline with debt burden up to a debt burden of between 400 and 500 per cent (chart II.21). Holdings of bank deposits and cash are larger among households with a debt burden above 500 per cent than among households with a debt burden between 400 and 500 per cent. This is particularly true of older groups of households. The youngest households (age group 20-29) have on average smaller liquidity buffers in the form of bank deposits and cash than older household groups with the same debt burden.

IMPACT OF FALLING ASSET PRICES, RISING INTEREST RATES AND LOSS OF INCOME

Financial vulnerability in the household sector is illustrated here through two numerical examples, each of which entails a sharp, but not unrealistic, deterioration of households' financial situation. In the first

II.22 Assets and debt for a household with a debt burden between 300 and 400 per cent before and after a 30 per cent fall in house prices and securities values, distributed by income [40]

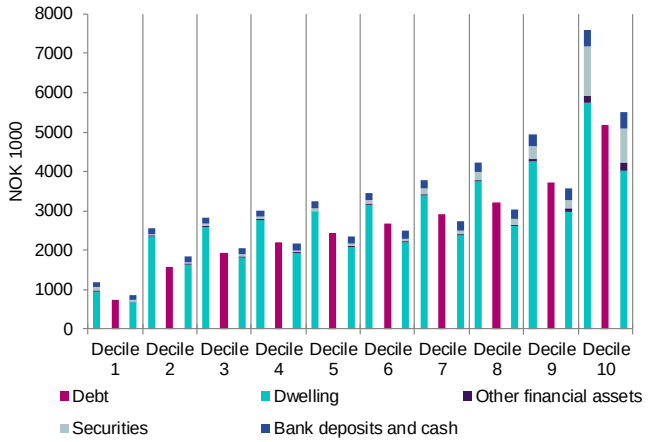


Sources: Statistics Norway and Finanstilsynet

example house prices and stock values fall by 30 per cent, while in the second example the general interest rate level rises by 4 percentage points and households are hit by a loss of 20 or 30 per cent of disposable income. Data on the socio-economic group "Employed and economically inactive persons" are employed since this group is assumed to be more homogenous than the group "All households," which also includes self-employed persons.

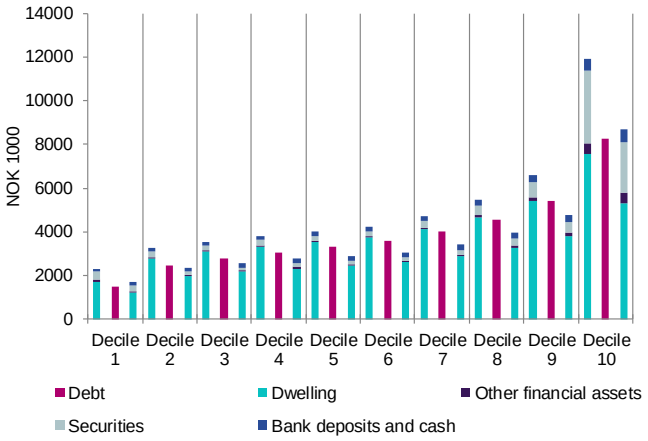
[40] For each decile the left column shows the composition of the household's wealth before the fall in house prices and securities values, the middle column shows the size of debt, and the right column shows the composition of wealth after the fall in house prices and securities values.

II.23 Assets and debt for a household with a debt burden between 400 and 500 per cent before and after a 30 per cent fall in house prices and securities values, distributed by income [40]



Sources: Statistics Norway and Finanstilsynet

II.24 Assets and debt for a household with a debt burden above 500 per cent before and after a 30 per cent fall in house prices and securities values, distributed by income [40]

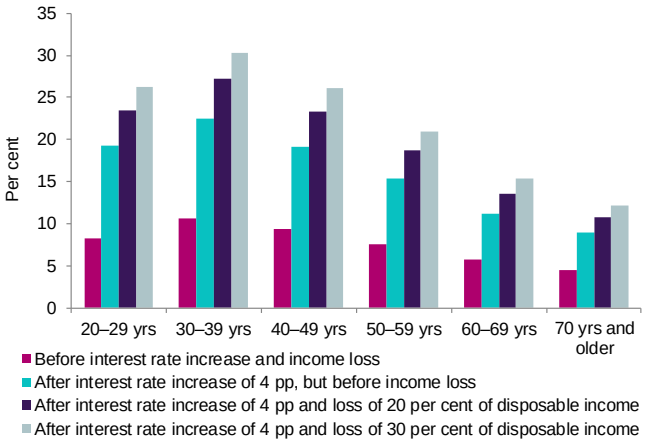


Sources: Statistics Norway and Finanstilsynet

Households are sensitive to a steep decline in asset prices

In the first numerical example the impact on households' financial position of a 30 per cent fall in house prices and stock prices is computed based on the average wealth position in 2015. The calculations are done for households with a debt burden (i) between 300 and 400 per cent, (ii) between 400 and 500 per cent, and (iii) above 500 per cent.

II.25 Effect on interest burden under various assumptions as to interest rate increase and income loss, by age



Sources: Statistics Norway and Finanstilsynet

Average debt in all three household groups is at the outset lower than gross wealth, i.e. the overall value of housing, bank deposits, holding of securities and other financial assets (charts II.22, II.23 and II.24). After a 30 per cent fall in house prices and securities prices, overall wealth is seen to be lower than debt (negative net asset position) for almost all groups of households with a debt burden above 500 per cent. Exceptions are the average households in income deciles 1 and 10. Among households with a debt burden between 400 and 500 per cent, average households in income deciles 4 to 9 will have debt in excess of gross assets after the fall in house prices and securities prices. In the remaining income deciles the average household will continue to hold higher gross assets than debt. Average households in all deciles in the group of households with a debt burden between 300 and 400 per cent will continue to hold positive net assets after the fall in asset prices.

Household groups whose gross assets are on average lower than debt after a 30 per cent fall in house prices and securities prices comprise close to 272,000 households, i.e. 11 per cent of all households. Their debt makes up 30 per cent of households' overall debt. For many households the development in net assets will be worse than the average in each decile, so that net assets become more negative.

A fall in house prices will impair the collateral supporting banks' loans to households. About 85 per cent of household debt comprises mortgages secured on residential property. Prior to the house price fall, property values average more than 85 per cent of debt held by all household groups with a debt burden above 300 per cent. After the 30 per cent fall in house prices, property values average less than 85 per cent of debt for average households in all income groups with a debt burden above 500 per cent. This is also true of the average households in income deciles 5 to 10 with a debt burden between 400 and 500 per cent. About 324,000 households are involved, i.e. close to 14 per cent of the total. These households account for 37 per cent of overall household debt.

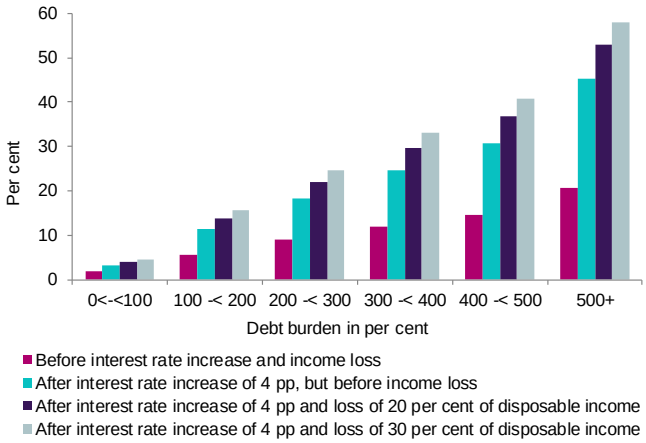
Interest rate increase and income loss impact heavily on younger households and heavily indebted households

The second numerical example illustrates the impact on households' interest burden of a marked increase in interest rates on debt and bank deposits and a substantial income lapse. It refers to a hypothetical household with average income, debt and assets in 2015. The impact on the household's interest burden in three different scenarios is calculated: (i) an interest rate hike of 4 percentage points, (ii) an interest rate hike of 4 percentage points and loss of 20 per cent of disposable income, and (iii) an interest rate hike of 4 percentage points and loss of 30 per cent of disposable income.[41]

In the absence of an interest rate hike or income loss, the average interest burden for households in the age range 30-39 is 11 per cent (chart II.25). The average interest burden for households with a debt burden in excess of 500 per cent is 21 per cent in the absence of an interest rate hike or income loss (chart II.26). In other words, just over one-fifth of what remains of the average household's income after tax, but before interest payments, goes to paying interest expenses on debt.

[41] An income loss of this size could arise if one or more income earners in the household are subject to, for example, unemployment or disability.

II.26 Effect on interest burden under various assumptions as to interest rate increase and income loss, by debt burden



Sources: Statistics Norway and Finanstilsynet

An interest rate increase is of consequence for anyone carrying debt. If interest rates on bank deposits and debt rise by 4 percentage points, the interest burden will rise markedly. For a household with average income, assets and debt in the age group 30-39, an interest rate hike of 4 percentage points will cause the interest burden to rise from 11 to 23 per cent. For a household with average income, debt and assets in the group of households with a debt burden above 500 per cent, the same interest rate hike will cause the interest burden to rise from 21 to 45 per cent.

Some households experience income lapse due to unemployment or disability. The impact on a household's interest burden of an income lapse of both 20 and 30 per cent will be significant. Where the household has income, debt and assets in line with the average for households in the age group 30-39, a lapse of 30 per cent of disposable income and an interest rate increase of 4 percentage points will result in an interest burden of 30 per cent. For a household with income, debt and assets in line with the average for households with a debt burden above 500 per cent, the interest burden will rise to as much as 58 per cent, i.e. almost 6 of every 10 kroner of after-tax income goes to paying interest expenses on debt.

Households with "employed and economically inactive persons" and a debt burden above 500 per cent

numbered about 210,000 in 2015, accounting for about 25 per cent of households' overall debt. About 406,000 households were in the category "employed and economically inactive persons" in the age group 30-39. These accounted for 24 per cent of households' overall debt. About 60,000 households were in both groups, and their debt accounted for 8 per cent of households' overall debt.

While unemployment or disability have specific impacts and are primarily a challenge to households that are directly affected, interest rate hikes are of consequence for a large portion of households. Many households in each household group have lower debt and/or higher income than the average for the group, and will therefore be in a better situation than outlined above. Even so, a large proportion of households will experience major challenges in the event of a marked interest rate hike.

In the event of an interest rate hike or substantial increase in unemployment, households will need to reduce consumption in order to pay interest and instalments on debt. An experience drawn from the banking crisis in the early 1990s was that financial consolidation among households, for example as a result of a large increase in unemployment and higher debt interest rates, is likely to contribute to a negative trend for parts of Norwegian business and industry and to lead to higher losses on banks' loans to the corporate sector.

SUMMARY

There are wide differences in debt, assets, interest expenses and income between different groups of households. Much of the debt is carried by households with very high debt compared to income. Recent years have seen a strong increase in the number of households with a high debt burden. Debt growth in excess of income growth has on average resulted in an increased debt burden for households. This applies to all age groups. Debt burden rises with income, and more than one-third of overall debt is accounted for by high-income groups (income deciles 8-10) whose main income earner is aged 30 to 59.

Most households are heavily exposed to the housing market. This is particularly true of younger households whose debt is on average almost as high as the property value. Housing wealth rises with income, and household groups with high income account for a large proportion of overall investments in second homes.

Many households are vulnerable to an interest rate hike, income lapse or steep fall in asset prices. A steep fall in house prices and stock prices could cause large groups of households to see the value of their assets fall below their debt. The interest burden is low due to a historically low interest rate level. In the event of an interest rate hike, the interest burden will rise markedly as a result of the high indebtedness. Households have in general small liquid buffers to withstand large interest rate hikes and income loss. However, transfers dampen the consequences of income lapse. This is particularly true for older household groups and low-income groups. Moreover, in most groups of households bank deposits are small compared to the debt.

The analysis employed data for the period from 2004 to 2015. Growth in household debt has remained strong after 2015, and is significantly higher than growth in household incomes, thereby exacerbating households' financial vulnerability.

Norwegian banks have traditionally incurred low losses on loans to households. However, an experience drawn from the banking crisis in the early 1990s is that financial consolidation among households, for example as a result of increased unemployment and higher interest rates on debt, can contribute to a negative trend for parts of Norwegian business and industry and lead to increased losses on banks' loans to the corporate sector.

THEME III: MACROPRUDENTIAL SUPERVISION

INTRODUCTION

Systemic risk denotes the risk of disruptions to the financial system with potential negative macroeconomic consequences.[42] Systemic risk in the financial sector has at least two dimensions. The first is the danger of financial imbalances and vulnerabilities over time (the time dimension). Financial cycles are often significantly longer than traditional economic cycles, and are characterised by self-augmenting spirals that affect the financial system and the financial economy's interaction with the real economy. An example is strong growth in credit and asset prices over a long period that is not well-founded in fundamentals. Experience shows the real economic consequences of financial crises to be far-reaching and long-lasting. The second dimension of systemic risk is concentration of risk in the financial system at a given point in time and the danger of a somewhere in the system feeding through to the rest of the system (the cross-section dimension). This risk depends inter alia on the complexity of group structures and financial instruments, shadow banking, mutual interdependence between various types of institutions and markets and vulnerability to the same type of shock. Periods of strong debt growth are often followed by growth in banks' market funding so that financial imbalances give rise to stronger interlinkages within the financial system. The time dimension and cross-section dimension thus operate in tandem, augmenting the systemic risk.

Macroprudential supervision or macro surveillance denotes supervision of systemic risk in the financial system. The concept of macroprudential supervision became current after the global financial crisis in 2008. However, the risk, and consequences, of a collapse of the financial system had been analysed in the economic literature, and drawn government authorities' attention, long before the global financial crisis. In Norway the authorities and the banks learned a lot from the banking crisis in the 1990s. Prudential supervision is often confined to supervision of individual institutions and to mapping entity-specific risk. Such a demarcation appears to serve little purpose. Assessments of earnings, financial position, liquidity and risk in individual institutions must be carried out within a framework that also takes systemic risk into account. Macroprudential and microprudential supervision are closely linked.

The period up to the global financial crisis in 2008 (the "Great Moderation") was characterised by low interest rates, low and stable inflation, high growth, high employment and in due course a strong increase in house prices and debt in western economies. The low interest rate level spurred strong growth in debt and asset prices. The prevailing belief in rational actors and efficient markets in trendsetting economic milieus probably contributed to the fact that many central banks, whose focus was on inflation, and other authorities overlooked the build-up of systemic risk.[43] In the period since the financial crisis, central banks have kept base rates low and introduced quantitative easing to support economic growth and reduce the likelihood of deflation. However, this policy entails a risk of excessive borrowing, of property and stock prices rising more than justified by long-term economic fundamentals, and of risk premiums in securities and credit markets being pushed down. This is an example of a potential conflict between the objectives of monetary policy and macroprudential supervision, and points to a need to coordinate these two policy areas.

The long-term objective of monetary policy and macroprudential supervision is to contribute to

[42] The Financial Stability Board (FSB) defines systemic risk as follows: Systemic risk is defined as a risk of disruption to financial services that is (i) caused by an impairment of all or parts of the financial system and (ii) has the potential to have serious negative consequences for the real economy".

[43] See for example George A. Akerlof & Robert J. Shiller, Animal Spirits, 2009, Princeton and Viral V. Acharya & Matthew Richardson (editors), Restoring Financial Stability, 2009, NYU Stern.

economic stability and sustainable economic growth over time. The policy instruments in both areas operate mainly by influencing the financial system.[44] Monetary policy instruments are primarily the central banks' base rate and open market operations, which affect the short-term interest rate level, and purchases and sales of securities, with a bearing on long-term interest rates. The interest rate influences exchange rates, asset values, consumption, investments and inflation.

In macroprudential supervision, attention focuses on tail risk and external influences that are not priced into markets, and which may lead to contagion effects and self-augmenting spirals. One example is where house price and credit growth reinforce one another such that the level of house prices and household debt becomes disconnected from underlying fundamentals such as the economy's capacity for growth and household incomes. Another is where institutional investors, for example due to low interest rates, change portfolio compositions to achieve higher return and thus contribute to pushing asset prices up and risk premiums down. In both cases an economic turnabout could lead to a negative spiral with falling prices and negative credit growth. In macroprudential supervision, policy instruments address particular aspects of the economy such as capital and liquidity requirements on banks, provision of collateral in securities markets or banks' lending practices. In monetary policy attention focuses in the first instance on the most probable outcomes for economic growth, employment and inflation. Policy instrument use, chiefly the setting of interest rates, has effects across a broad front.[45]

In Norway the Ministry of Finance, Finanstilsynet and Norges Bank have collaborated for a long time on important issues with regard to financial institutions, markets and the financial system as a whole. Regular meetings are held between the institutions. The collaboration has worked well, and there is consensus on the importance of monitoring financial markets and of the significance of well capitalised, liquid financial institutions. The close contact and collaboration between the three institutions helped the Norwegian financial market and Norwegian financial institutions to emerge from the financial crisis in good shape, and to curb the knock-on effects to the wider economy. One of the conclusions of the IMF's Financial System Stability Assessment for Norway from September 2015 was that "This organizational structure has not resulted in "inaction bias", and the authorities have introduced macroprudential measures to address systemic risks."

INSTRUMENTS OF MACROPRUDENTIAL SUPERVISION

Macroprudential instruments are largely variants of microprudential instruments. The primary medium-term objective of macroprudential supervision is to build resilience into the financial system and to promote prudent bank behaviour, including sound credit practices for loans to households and firms. This is achieved through requirements on capitalisation, liquidity position, long-term funding, credit practices and settlements and clearing in the securities and derivative markets. Macroprudential measures can also influence asset values and credit growth.[46]

Macroprudential instruments may be divided into structural and time-varying instruments. Structural instruments will be stable as long as there are no significant changes in structural conditions. Examples are the systemic risk buffer, the buffer for systemically important credit institutions and requirements on liquidity reserves. The countercyclical capital buffer is an example of a time-varying instrument.

In determining the countercyclical capital buffer, account must, under EU rules, be taken of the relationship between credit and GDP, and how this diverges from the long-term trend. Other possible indicators are credit indicators for segments

[44] See Donald Kohn, FRB Boston Conference 2 October 2015, Implementing Macroprudential and Monetary Policies: The case for two committees.
[45] Donald Kohn: Implementing Macroprudential and Monetary Policies.
[46] See for example Kohn and BIS, Basel III: A global regulatory framework for more resilient banks and banking systems, June 2011.

(distributed for example on households and non-financial firms), developments in house prices and in securities markets (volatility, co-variation, risk premiums), banks' market funding distributed by maturity, households' and firms' debt-servicing capacity and results from stress testing of banks' results and capital adequacy etc. The level of the countercyclical buffer must, under EU rules, be reviewed each quarter.

A countercyclical capital requirement contributes to increased resilience among banks and reduces the likelihood of a negative shock being intensified through the banking system. The buffer puts the banks in a better position to absorb losses and thereby extend credit to creditworthy customers in downturns. This is the key object of the framework. In addition, a higher countercyclical capital buffer requirement may to some degree help to dampen credit growth in upturns by inducing capital scarcity among the banks. Little experience has been gained with regard to whether – and in the event to what extent – changes in the countercyclical buffer requirement impact on banks' credit offering.

Systemic risk buffers are grounded in the cross-section dimension. They are intended to make banks more resilient to negative effects that may accompany mutual interconnectedness and/or exposures to the same risk factors. Examples of exposure to the same risk factor are banks' exposure to residential mortgages and the housing market and to loans to commercial property companies and commercial property markets. Examples of interconnectedness are banks' funding of one another through the interbank market and the market for covered bonds.

Buffers for systemically important banks are intended to reduce the risk of large banks being compelled to cease operations and to reduce the moral hazard resulting from implicit state guarantees ("too big to fail"). Systemic risk buffers and buffers for systemically important banks are at base structural, but over time interconnectedness and mutual exposures and relative importance will change. This could in turn lead to changes in the buffer requirements.

There is a need to coordinate the various capital requirements. When a bank no longer fulfils the overall buffer requirement, it is asked under EU rules to draw up a recapitalisation plan. Supervisory authorities can impose restrictions on dividend payouts, bonus payments and repurchase of Treasury shares. The need for coordination applies to the capital requirements per se, and to the authorities' enforcement of the requirements on the banks. This also includes the supervisory authority's approval and follow-up of IRB models, which are important in measuring banks' capital adequacy.

The purpose of residential mortgage lending guidelines and regulations is often three-pronged. They are intended to contribute to financial stability, curb institution-specific risk and safeguard the individual borrower (consumer protection). This type of regulation covers several measures with the potential to reduce the risk of financial stability. Loan-to-value (LTV) ratio and instalment repayment requirements help to dampen financial vulnerability and to reduce banks' credit risk. It is uncertain whether, and in the event how far, the LTV requirement will serve to dampen credit growth. In periods of rising house prices, banks' ability to grant more credit and households' ability to step up their borrowing also increase, which in turn can kindle further house price increases in a self-augmenting spiral. A financial accelerator of this kind works in the opposite direction in a downturn, tending to intensify the downturn. A maximum permitted debt-income ratio (total debt relative to gross income) and a minimum requirement on debt servicing capacity are likely to have a larger effect on credit and house price growth than a maximum permitted LTV ratio since minimum requirements on debt-income ratios and debt-servicing capacity are unaffected by house price changes.

This type of restriction serves first and foremost to curb the build-up of financial imbalances. Maximum

permitted LTV and debt-income ratios may vary over time, and are tightened in periods of particularly strong credit growth.

Requirements on liquidity reserves and long-term funding of illiquid assets help to reduce liquidity risk both for the individual institution and for the system as a whole. The requirements are often structural, but may also vary over time. In the systemic risk context they operate in the cross-section dimension by reducing the risk of contagion between entities. Liquidity reserve requirements aim to ensure that banks have sufficient liquid funds to cover liquidity outflows under stress. Requirements on long-term funding of illiquid assets may help to limit the need to sell illiquid assets in a crisis. Asset sales in such a situation could lead to a negative price spiral, intensifying the crisis.

A number of countries have established (or are considering the introduction of) leverage ratio requirements, reserve requirements, limits on interbank exposure and concentration risk (for example ceilings on loans for house purchase and to commercial property companies), requirements on a minimum deposit-to-loan ratio, sector-specific capital requirements, limits on open foreign exchange positions, margin requirements for securities and derivative positions and repurchase agreements. This type of requirement helps to make both the individual financial institution and the system as a whole more robust.

Use of macroprudential instruments is relatively new. The international body of rules was largely drawn up in the years after the financial crisis. Hence the empirical basis for judging the effects of these instruments is limited. It is also difficult to calculate the effect of various instruments on, for example, credit growth and house prices. While the instruments promote a more robust banking and financial system, it is difficult to quantify this for example in terms of reducing the likelihood of a systemic crisis.

A study conducted by the BIS[47] examined whether the introduction of various policy instruments, including macroprudential instruments, helps to stabilise credit growth and house prices. The study covered 57 countries over a period of more than three decades. Its authors conclude inter alia that imposing limits on interest and instalment payments as a share of household income contributes to a statistically significant reduction in credit growth. The data indicated that limits on debt-income and loan-to-value ratios could dampen credit growth. The study also showed that house price growth is dampened by the introduction or increase of housing taxes. The effect of a number of other instruments on credit and house prices was not statistically significant.

A wide-ranging study by the IMF[48] examined the effect of twelve different macroprudential instruments on credit growth. The study covered 119 countries in the period from 2000 to 2013. It included a number of emerging and developed economies. One of the conclusions from the study was that ceilings on loan-to-value ratios have a negative effect on credit growth, particularly in emerging economies, but that credit growth to households in developed economies is also dampened. Further, the IMF found that ceilings on debt-income ratios curb households' debt growth in both emerging and developed economies. The authors conclude that the results from this study confirm results from earlier studies to the effect that direct restrictions addressing borrowers can curb credit growth. A further conclusion is that restrictions on foreign currency borrowing have helped to dampen credit growth.

There is considerable uncertainty regarding the link between capital requirements and banks' supply of credit.[49]

[47] BIS Working Papers No 433, Can non-interest rate policies stabilise housing markets? Evidence from a panel of 57 economies, Kenneth N Kuttner & Ilhyock Shim, November 2013.
[48] IMF Working Paper WP/15/61, The use and effectiveness of macroprudential policies: New evidence, Eugenio Cherutti,Stijn Clæssens, & Luc Laeven, 2015.
[49] See P. Alessandri & F. Panetta, The coordination of micro-and macroprudential supervision in Europe: "The nature of the linkage

MACROPRUDENTIAL SUPERVISION AT FINANSTILSYNET

BASIS

The statutory basis for Finanstilsynet's activity is set out in the Financial Supervision Act and in provisions of special legislation in the financial area. The Financial Supervision Act requires Finanstilsynet to ensure that the institutions it supervises operate in an appropriate and proper manner in accordance with law and provisions laid down pursuant to law and with the intentions underlying the establishment of the institution, its purpose and articles of association. The Act also requires Finanstilsynet to oversee conduct in the securities market, to combat unlawful licensable activity and to ensure that the institutions it supervises attend to consumer interests and rights in their activities.

Finanstilsynet's strategy document for the period 2015-2018 highlights financial stability as crucial to a stable real economy and to the ability of financial markets to service consumers and businesses in a beneficial manner. The plan sets out Finanstilsynet's main goal: to promote financial stability and well-functioning markets. The operational goals also underlay Finanstilsynet's activity in previous strategy periods.

The Ministry of Finance's annual letter of allocation to Finanstilsynet states that the main goal of Finanstilsynet's activity is to contribute to financial stability and well-functioning markets, and Finanstilsynet's tasks as Norway's macroprudential supervisory authority are highlighted. The letter of allocation for 2017 states inter alia: "In addition to supervising the individual financial institutions, Finanstilsynet shall attach importance to macroprudential supervision and macroeconomic surveillance, and to ensuring that there is sufficient competition in the financial market."

between capital requirements and credit supply is of course hard to gauge and has been intensely scrutinized over the last few years." See also: Stephen G. Cecchetti, The jury is in, Policy Insight No. 76, Centre for Economic Policy Research, December 2014. The latter argue strongly that the socio-economic gain of high capital adequacy is significantly larger than its cost.

ESTABLISHMENT AND SCOPE OF MACROPRUDENTIAL SUPERVISION AT FINANSTILSYNET

A macroeconomic surveillance programme was established at Finanstilsynet in the mid-1990s based on experience gained from the Norwegian banking crisis. An important lesson learned from the crisis was that a sharp distinction cannot be drawn between macroprudential and microprudential supervision. Finanstilsynet accordingly monitors cyclical developments, markets, households' and firms' financial position, along with changes in financial market structure and in banks' and insurers' conduct and strategies.

Macroeconomic surveillance, on-site inspections and off-site supervision are an integrated regime at Finanstilsynet. Information from ordinary inspections and thematic inspections is channelled back to the macroeconomic surveillance and off-site supervision units. The assessments from macroeconomic surveillance are a part of the basis for special analyses and background information in the on-site inspection context. This applies to thematic inspections and ordinary inspections alike.

The assessments of banks' capital needs include evaluations of the risks facing the individual bank and the risk inherent in the economy as a whole. Importance is attached both to the risk facing the banks as a result of developments in the macroeconomy, and systemic risk generated by the banks' adaptions.

Life insurers are substantial investors in the securities and property markets, and have been subject to Finanstilsynet's macroeconomic surveillance since the start-up of the programme. Finanstilsynet supervises financial institutions (including banks and insurers), investment firms, real estate agents, debt collection agencies, external accountants and auditors, clearing and settlement houses and securities markets. Finanstilsynet accordingly has ample access to data on developments among Norwegian financial institutions, investment firms, markets and the real economy in

Norway and internationally. This enables Finanstilsynet to identify and monitor various sources of systemic risk build-up, and to consider suitable policy instruments in the proportions appropriate to each circumstance.

FINANSTILSYNET'S POLICY INSTRUMENTS

Finanstilsynet plays its part in the development of Norwegian regulations, and in its enforcement of the regulations it attaches importance to systemic risk considerations. In aggregate, the legislation and its enforcement have contributed to limited complexity, a high degree of transparency in the financial system, and counteracted the emergence of shadow banking. This serves to promote financial stability.

Finanstilsynet has long experience with monitoring systemic risk and financial stability related to developments in the housing market and households' financial vulnerability. This is reflected inter alia in the residential mortgage lending guidelines which were established in 2010 and tightened in 2011, and in Finanstilsynet's recommendation to the Ministry of Finance on the residential mortgage lending regulations which were introduced in 2015, and subsequently tightened as from 1 January 2017 based on Finanstilsynet's recommendation.

Banks' lending for residential purposes is monitored through off-site supervision and on-site inspections of the banks, at which assessments of risk management and internal control are at centre stage. Each year Finanstilsynet conducts a survey of banks' practices regarding mortgages secured on residential property. In the autumn 2017 survey the 30 largest banks (including foreign branches) reported data on close to 8,000 new repayment loans and lines of credit secured on dwellings granted after 15 August 2017. These banks accounted for a combined market share of about 90 per cent of residential mortgages in Norway; see theme chapter I on the residential mortgage lending survey.

Through its on-site inspections and off-site supervision Finanstilsynet monitors banks' lending activity, assesses individual institutions' risk management, credit practices and exposures to the corporate and personal markets.

Each quarter Finanstilsynet communicates its assessment of the level of the countercyclical capital buffer to the Ministry of Finance. Each year it conducts an assessment of what banks are to be deemed systemically important, and forwards a recommendation to the Ministry of Finance.

After a long period of sound development in the Norwegian economy and low loan losses, there is a risk that the banks' internal models, which are based on historical data, understate the risk present in the loan portfolios. All Norwegian banks are heavily exposed to mortgage borrowers and thus also to the housing market. This entails considerable systemic risk to the financial system. In order to mitigate this risk, the LGD for residential mortgage lending models was raised in 2014 and further tightening was carried out in the models in 2015. The upshot is a significant increase in average risk weights for residential mortgages.

Finanstilsynet conducts annual assessments of the banks' internal models where risk weights on other types of loans are also reviewed. This has helped to make capital requirements more robust.

Under the Financial Institutions Act 2015, Finanstilsynet is required to assess all risks to which banks and mortgage companies are or may become exposed, and the risk that these institutions represent for the financial system. Pursuant to the same Act, Finanstilsynet may issue a blanket order to a group of institutions exposed to the same type of risk, or that pose the same type of risk to the financial system.

Stress tests of banks' financial results and capital adequacy are an important aspect of Finanstilsynet's macroprudential supervision. Stress tests are also important for Finanstilsynet's assessment of capital needs at individual banks. Banks are required under the capital adequacy framework to carry out stress tests of their capital adequacy and liquidity. These are

central elements in the banks' internal capital assessment process. Finanstilsynet is required under Article 100 of Directive 2013/36/EU to conduct its own stress tests of each bank. These stress tests, together with the banks' own stress tests and other risk assessments, are included in Finanstilsynet's overall risk assessment of the banks.

In its feedback on capital needs (Supervisory Review and Evaluation Process), Finanstilsynet has urged the banks to build up capital above the minimum requirement under Pillar 1.

It is difficult to draw a distinction between macroprudential and microprudential policy instruments, in part because most macroprudential instruments also operate at the micro level and vice versa. Finanstilsynet has for many years monitored, and issued guides for, banks' management of liquidity and refinancing risk. Requirements on risk management, liquidity reserves and long-term funding help both to mitigate risk related to the individual institution and to make the banking system as a whole more robust.

INSTITUTIONAL SET-UP AND POLICY INSTRUMENT USE IN INTERNATIONAL MACROPRUDENTIAL SUPERVISION

There is much discussion internationally concerning macroprudential policy instruments and the institutional organisation of macroprudential supervision. An important aspect of the discussion relates to the effect of the instruments; see the foregoing account. There is a consensus that higher capital adequacy and large liquidity buffers contribute to a more robust financial system. However, a debate is also ongoing on how well the IRB system measures real risk, and whether the strong increase in banks' regulatory capital adequacy in the period following the global financial crisis indicates that banks are significantly sounder financially than they were in the early 2000s.[50] It is discussed whether, and to what extent, the various measures can contribute to dampening the build-up of financial imbalances, in particular in periods of strong growth in private debt, property and securities prices and reduced risk premiums, and whether macroprudential measures can dampen the negative consequences of an economic reversal.

In some countries financial stability committees have been established drawing representatives from the central bank, finance ministry (and other ministries) and the supervisory authority. They are often advisory. In other countries the mandate and powers have been assigned to the central bank or the supervisory authority. There are examples of countries where the basis for decision-making is prepared by one authority, while control over the policy instruments rests with another authority. There are also cases where the basis for decisions is prepared by a number of institutions, whereas the final decision on policy instrument use is delegated to a single authority. A factor in any discussion about the institutional framework is the importance assigned to the macroprudential supervisory authority's independence from political authorities. In monetary policy, independence has been justified in terms of reduced opportunity for political interference in interest rate setting, and increased credibility. An inflation target acts as a nominal anchor contributing to monetary stability, and it is simple to assess whether or not the central bank has achieved its aim. In macroprudential supervision, the instruments are more complex. Both individually and in aggregate, the design and dimensioning of instruments is largely a matter of judgement. Some macroprudential instruments, such as regulation of lending practices, may have a major bearing on other policy goals. Moreover, goal achievement is influenced by the financial stability of many other policy areas such as tax policy and fiscal policy, which are determined with a basis in policy objectives additional to financial stability. It is important to ensure that the institutional framework for macroprudential supervision has a broad footing and that it supports the principle of democratic legitimacy.

[50] See John Vickers: Banking reform nine years on, 18 September 2017.

In countries suitable for comparison with Norway the norm is to assign macroprudential competence either to the financial supervisory authority or to its superior government department if the country has a separate financial watchdog that is not part of the central bank. In countries that have assigned macroprudential competence to the central bank, the banking supervisory authority is also assigned to the central bank. See the annex to Finanstilsynet's consultative statement on the central bank act committee's proposal for Norges Bank's organisational set-up for an overview of the organisation of macroprudential supervision in selected countries.[51]

[51] Finanstilsynet's consultative statement dated 16 October 2017, annex