FINANSTILSYNET
THE FINANCIAL SUPERVISORY
AUTHORITY OF NORWAY

RISK OUTLOOK 2013

THE FINANCIAL MARKET IN NORWAY

The report gives an account of the situation in financial institutions in light of economic and market developments, and assesses trends that may give rise to stability problems in the Norwegian financial system.

RISK OUTLOOK 2013

Cut-off date: 19 April 2013

SUMMARY AND ASSESSMENTS

Imbalances in public finances, with high debt and large deficits, continue to permeate the industrialised countries' economies and international financial markets. In Norway, however, capacity utilisation and growth in the mainland (non-oil) economy are high, driven in part by heavy demand from the petroleum sector and households. In a period of economic expansion featuring a high oil price, international uncertainties and low interest rates it is particularly important for government authorities and banks alike to apply a long-term perspective to their risk assessments.

ECONOMY AND SECURITIES MARKETS

Growth in the world economy slowed towards the end of 2012. The IMF revised its growth estimate down somewhat in the latest quarter. Substantial differences persist between the various regions. GDP is expected to grow far quicker in emerging economies than in the industrialised world. The pattern of growth reflects the fact that the international financial crisis developed into a sovereign debt crisis with hefty real economic consequences in many OECD countries. Developments are particularly negative for the euro area, where overall production fell in 2012. Unemployment is very high and on the increase. In several emerging economies, too, growth rates have slowed considerably in the wake of the financial crisis.

Growth in Mainland Norway's GDP in 2012 was the highest since 2007. However, the slowdown in the international economy affected the Norwegian economy, and growth receded towards year-end. Norges Bank and Statistics Norway expect the cyclical upturn to continue in the years immediately ahead, but forecasts are revised down somewhat as a result of the weaker international climate. Norway has a two-track economy. Growth in Mainland Norway GDP is expected to be pulled down by export-oriented activity, which largely faces stagnating markets and has impaired cost competitiveness. Domestic demand will make a positive contribution.

Macroeconomic conditions are affecting developments in the securities markets. Market turbulence receded somewhat in 2012 as a result of strong stimuli from central banks in the United States, the euro area and the United Kingdom. Stock markets have risen substantially in the past year. Government bond yields are extremely low for countries with presumptively strong government finances, but remain high for the debt-burdened euro countries. Risk premiums in money and bond markets are down, although the uncertainty sparked by the collapse of Cypriot banks led to turbulence.

RISK FACTORS

The Norwegian economy is solid and prospects are good. However, should the world economy prove weaker than expected, the Norwegian economy stands to be affected. The favourable trend seen in Norway over the past three years is due in part to a sharp improvement in the terms of trade. Norwegian commodity-based exports, in particular oil, command high prices on the world market. Import prices have fallen in step with new producer countries' entry to the markets for consumer goods.

The Norwegian economy is vulnerable to a weakening of the terms of trade. Many firms are already struggling with a high cost level and a stronger Norwegian currency in stagnating markets, while the petroleum sector and sub-suppliers to this sector are enjoying buoyant earnings. The oil price is of particular significance. A lasting decline in the oil price will result in low activity in the petroleum sector, and will hit Norwegian firms that deliver goods and services to the petroleum industry both on the Norwegian shelf and abroad. Lower international demand and a lower oil price will weaken corporate earnings and increase banks' loan losses. Impaired corporate earnings may in turn lead to higher unemployment and reduced consumption, which will further intensify the decline in corporate earnings. A pronounced cyclical downturn will severely compromise corporate debt-servicing capacity and bring a substantial increase in banks' loan losses.

Since the financial crisis in 2008 international interest rates have been extremely low. International rates are expected to remain low for some time, as reflected in the Norwegian rate level. Low unemployment, strong income growth and low interest rates have contributed to record-high house prices and household indebtedness. The growth in house prices and debt continues to outstrip growth in household incomes. A significant portion of household debt is interest-only, and the great majority of mortgages granted carry a floating interest rate. These factors render households vulnerable both to increased unemployment and higher interest rates. An interest rate hike will significantly increase households' interest burden. Very many households would need to devote a large portion of their income to interest and instalment payments.

Households' expectations of lasting low interest rates, high employment, a high oil price and strong income growth could readily turn to pessimism and economic setback. Weakened confidence in the Norwegian economy could lead to a fall in house prices or intensify an incipient decline, triggering substantial financial consolidation in the household sector. Knock-on effects to the wider economy may be substantial, and banks' loan losses will rise. In recent

years substantial labour immigration has increased the demand for housing. Developments elsewhere in Europe show that large numbers of labour immigrants are mobile and relocate in response to changing economic conditions. Such development in Norway could trigger or exacerbate a negative trend in the housing market.

In many countries there is concern that banks, partly as a result of higher capital requirements and loan losses, will tighten their creditworthiness assessments and thereby intensify the economic decline. At the same time substantial risk attaches to investments in the securities markets. Fluctuations in equity markets are substantial, and the general interest rate level is very low. Internationally the profitability of banks, pension managers and other institutional investors is under pressure. Low rates of return in money and bond markets may prompt these institutions, and also households, to assume higher investment risk in order to achieve higher return. Risk premiums on many money market instruments and bonds may have fallen by a larger margin than the economic uncertainties would suggest. In the longer term the search for yield may heighten the risk of a mismatch between return and risk. Should such a situation persist for several years, the risk of a setback and falling prices in securities markets will increase.

There is much uncertainty in the world economy in general, and particular uncertainty attends the banking sector in several countries. Growing international turbulence and intensified uncertainty regarding banks' economic position may lead to liquidity problems among international banks. Such a development would immediately heighten Norwegian banks' liquidity risk, as witnessed in autumn 2008.

BANKS

EARNINGS, FINANCIAL SOUNDNESS AND FUNDING

Norwegian banks posted good performances in 2012, as previously. Net interest revenues were stable, cost levels were reduced and loan losses were lower than in 2011. Much of the net profit was retained, and this, along with stock issues, strengthened banks' financial positions in 2012. All Norwegian banks fulfil the target of a minimum common equity tier 1 ratio of 9 per cent, and only a minority were below the 10 per cent mark. Norwegian banks have been little affected by the turbulence in European loan markets in the period following the financial crisis. Since the breakdown of international money and capital markets in autumn 2008 Norwegian banks have had access to market funding, although credit spreads on bond yields have at times been high. Bank debt maturities have lengthened. Covered bonds have become a highly important funding source for Norwegian banks.

Thus far Norwegian banks have not experienced problems of note. High activity in the Norwegian economy and low interest rates are curbing loan losses. In boom conditions with a high oil price, along with international uncertainty and low interest rates it is particularly important for government authorities and banks alike to apply a long-range perspective to their risk assessments. Banks' assessments of borrowers' creditworthiness must make allowance for a future cyclical turnaround and interest rate hike.

Finanstilsynet conducted a large number of on-site inspections of banks and finance companies in 2012. Particular attention was given to credit and liquidity risk at these inspections, and a close look was taken at segments and portfolios affected by the financial crisis. Norwegian banks have substantial exposure to shipping and commercial property, and these segments along with acquisition finance received special attention.

HOME MORTGAGE LENDING PRACTICE

Finanstilsynet's guidelines for home mortgage lending, introduced in 2010, were tightened in 2011. The object of the guidelines is threefold: to protect the individual consumer, to protect the individual institution and to contribute to financial stability. The guidelines require lenders to conduct comprehensive, thoroughgoing assessments of borrowers' creditworthiness. Loans for residential purposes should not as a rule be granted unless the borrower has the funds needed to cover normal living expenses after an interest rate increase of five percentage points, and loans should not normally exceed 85 per cent of property value. Instalments should be paid where the loan-to-value ratio is higher than 70 per cent. Finanstilsynet checked compliance with the guidelines in 2012 by way of on-site thematic inspections and surveys, and banks have largely adjusted to the guidelines. There is still room for improvement, however, and Finanstilsynet will check banks' compliance with the guidelines for prudent lending practice in the period ahead.

FURTHER STRENGTHENING OF FINANCIAL POSITIONS TO MAKE BANKS MORE ROBUST

The lending and property bubble of the mid-1980s and the ensuing banking crisis underscored the importance of viewing bank supervision and the macroeconomy in conjunction. A lesson learned was the need to build buffers in good times. In the period since the international financial crisis, authorities and banks' lenders have increased their requirements on banks' solidity. This poses a challenge to countries in recession since it may cause banks to tighten their creditworthiness assessments in order to trim their balance sheet, thereby exacerbating the economic downturn. In countries enjoying boom conditions and rapid credit growth, such as Norway, on the other hand, higher capital requirements will contribute to economic stability.

Bank regulation is largely harmonised across the EEA, and the process will continue further once the new capital and liquidity requirements are adopted by the EU. Agreement has been reached in the EU on the new capital adequacy framework (CRD IV). The Ministry of Finance has on this basis proposed new statutory rules on capital requirements for Norwegian banks with a view to entry into force on 1 July 2013 and a gradual step-up in the period to 2016. There will be scope for national adjustments to accommodate specific national characteristics and economic conditions. This applies in regard to requirements on systemic risk buffers, which can be set for groups of institutions; to capital requirements for systemically important banks; to increases of the risk weights used in banks' models; and to supervisory authorities' determination of capital requirements through pillar 2. This scope will be utilised by Finanstilsynet to foster well capitalised, liquid Norwegian banks.

Finanstilsynet has stressed the need for banks to adjust their business to the capital and liquidity requirements of CRD IV at an early stage, in part to avoid too abrupt a switch to the new rules when they take effect. In Finanstilsynet's assessments of banks' capital need (pillar 2 process), the risk present in the individual bank and the risk in the economy as a whole are taken as a basis. An assessment is made of whether banks' capital adequacy and future capital planning ensure the financial soundness needed to maintain normal lending activity across an economic downturn lasting several years. Future macroeconomic developments and the associated uncertainty are therefore central to these assessments. In 2012 Finanstilsynet asked a series of banks to raise their common equity tier 1 ratio. At several of these banks the board of directors was asked to reduce dividend payouts for 2012. Further, a number of banks were asked to establish a minimum common equity tier 1 ratio.

Internationally there has been a wide-ranging discussion on macroprudential supervision and suitable policy instruments, including a countercyclical capital buffer. The primary purpose of a countercyclical buffer is to strengthen banks' financial position in periods of strong credit growth so that they are better positioned to withstand an ensuing downturn accompanied by increased loan losses without being compelled to cut lending. Systemic risk often builds up over long periods of time. In its enforcement of pillar 2, Finanstilsynet has for a long time taken into account the risk factors underlying the introduction of a countercyclical buffer. An overall assessment of banks' capital need called for account to be taken of the risk posed by strong credit growth.

The banking industry is preoccupied with a level playing field across the EEA, particularly in the Nordic region, and that requirements on capitalisation and liquidity in Norway should not be stricter than those imposed in other Nordic countries. Relative competitive conditions are an important issue in assessments of regulatory measures and supervisory practices. However, this does not mean that any single element of the framework conditions must be identical across countries. Needs and basic premises vary from one country to the next. Robust financial and liquidity positions will in the long run be a competitive advantage, not a disadvantage.

LOW RISK WEIGHTS ON HOME MORTGAGE LOANS AND REQUIREMENTS ON UNWEIGHTED CAPITAL RATIO

Banks are making increasing use of internal models to estimate risk-weighted assets, which are used to measure a bank's capital adequacy. In its approval of internal models, Finanstilsynet requires a broad database and robust estimates of model parameters. Risk weights for home mortgage loans are low in the case of banks that use internal models. This is because the data underlying the models reflect the sound trend in the Norwegian economy. However, Finanstilsynet requires the banking crisis of the early 1990s to be reflected in the models. On that occasion the direct losses on loans to households were substantially lower than losses on loans to firms. It is by no means certain that this will be the case in future crises. Losses may be higher if future crises prove longer lasting than the banking crisis of the 1990s. In that event the negative effects on the economy will also result in higher unemployment and larger income decline for households.

Risk weights are unlikely to capture systemic risk. Moreover, regardless of the soundness and robustness of estimation techniques, the models used will not make allowance for structural changes or future events that are not reflected in historical data. After reviewing the models in 2012, Finanstilsynet sees the need for adjustments to banks' risk models. Risk weights will in consequence increase. Finanstilsynet has provided the Ministry of Finance with assessments of possible approaches to increasing risk weights under CRD IV.

Finanstilsynet considers it important to continue the transitional floor on the risk weighted assets used for measuring minimum capital requirements, which entails that risk-weighted assets cannot be set lower than 80 per cent of what they would have been using the standardised risk weights under Basel I (50 per cent on well secured on residential loans and 100 per cent on corporate loans). International efforts are under way on measures to prevent the system for calculating capital requirements from impairing actual financial soundness. The introduction of a leverage ratio requirement is such a measure. Banks' unweighted equity ratio is included in Finanstilsynet's ongoing assessments of banks' financial soundness.

ROBUST FUNDING AND COVERED BONDS

Norwegian banks have financed substantial parts of their operations in the money and bond markets. The short-term portion of this funding consists mainly of bank CDs and borrowings in interbank markets, while most of the long-term funding stems from bond issues. A substantial part of the overall market funding is from foreign sources. When the international loan markets collapsed in autumn 2008, the turbulence immediately fed through to Norwegian banks' market funding, which proved to be vulnerable. The importance of robust funding and good liquidity was also a lesson for Norwegian banks and authorities. Moreover, sound capital ratios served to reduce banks' liquidity risk and eases access to robust, long-term funding.

Finanstilsynet has introduced institutional reporting of two new ratios, the liquidity coverage ratio (LCR) and the net stable funding ratio (NSFR), as from 2011. Finanstilsynet's long-term liquidity indicator, which has major features in common with the new funding indicator, has been used to monitor banks' liquidity risk since 2002. The need for larger liquidity buffers and long-term, stable funding is pressed home at on-site inspections, in risk assessment of banks and in the Authority's publications.

Covered bonds have provided Norwegian banks with more stable market funding. The covered bond market will continue to be important ahead. However, there is a risk that heavy dependence on covered bonds could intensify credit contraction in bad times. There is also a danger that the combination of low risk weights on home mortgage loans, access to favourable funding in the covered bond market and strong price growth in the housing market may further intensify credit and house price growth in good times. Finanstilsynet expects Norwegian financial institutions to apply prudential considerations to their transfers of home mortgage loans to covered-bond-issuing entities. If, in the Authority's view, too high a proportion of mortgage loans is transferred, the question may arise of instructing individual institutions to limit their transfers of home mortgage loans to residential mortgage companies or of imposing higher capital charges. Such assessments will take both institution-specific risk and systemic risk into account.

LIFE INSURERS

The positive trend in international financial markets brought improved profit performances for Norwegian life insurers and pension funds in 2012. The return on products carrying a guaranteed minimum annual rate of return was higher than the guaranteed minimum, and fluctuation reserves and other buffer capital were strengthened. A large portion of net profits recorded in 2012 was used to strengthen reserves, putting insurers in a better position to meet increased insurance liabilities resulting from improved longevity.

Although life insurers and pension funds increased their buffer capital in 2012, they still face major challenges in terms of low interest rates, rising longevity and a high proportion of pension products carrying a minimum annual guaranteed rate of return and lifelong benefits.

Finanstilsynet is keeping a close watch on risk present at life insurers and pension funds through on-site and off-site supervision. Companies must regularly prepare stress tests illuminating their ability to meet current solvency requirements. The introduction of an international solvency framework (Solvency II) is taking time, and will be implemented in 2015 at the earliest. Finanstilsynet is following the companies' adjustment to the new regime, in part through stress tests tailored to the new framework.

With a view to ensuring that life insurers and pension funds have reserves sufficient to meet the increased obligations resulting from improved longevity, Finanstilsynet in March 2013 established new mortality tariffs. The rules allow the build-up of reserves to take place over time, but the build-up should not have a duration beyond five years. Surplus returns on policyholders' insurance assets can be used to increase insurance reserves, but a minimum of 20 per cent of the shortfall in reserves should be met by pension institutions' equity.

CONSUMER PROTECTION

Consumer protection is at centre-stage of the regulation of the financial market and of the supervision of various providers of financial services such as banks, insurance companies and investment firms. Well capitalised, liquid financial institutions and well-functioning financial markets are crucial both to society and the individual consumer. At the same time it is important for consumers to be well protected when purchasing or selling financial products and property, and to be able to base their decisions on good information and impartial advice. The consequences of different investment choices may be vague and of major financial significance for the individual consumer. Investment advice is therefore regulated by law and is a licensable business subject to supervision.

The international financial crisis underscored the need for consumer protection. Loan bubbles and bank crisis have inflicted heavy losses on society and individuals. Moreover, many private individuals have lost money on investments in complex financial products after receiving poor investment advice and inadequate information on costs, risk and return.

Finanstilsynet's mortgage lending guidelines are designed to protect the individual borrower. Households should not

take out loans larger than they are able to service in the wake of a steep interest rate hike. Finanstilsynet is keeping an eye on banks' compliance with the guidelines through thematic inspections, ordinary on-site inspections, and through banks' comprehensive reporting on their granting of home mortgage loans.

In a situation of low deposit rates and low interest rates on money market instruments and bonds, there is a risk of ordinary consumers assuming excessive risk in the quest for higher return. There is also a danger that financial institutions will market more risk-prone products. Finanstilsynet is keeping a close watch on developments in this area, in part by checking compliance with the rules governing the provision of information and advice.

In life insurance a gradual switch to defined contribution schemes is under way. In these schemes the policyholder bears the risk posed by the investment. Schemes with a high equity component may achieve a high long-term return, but they are also risky. Finanstilsynet expects insurers to inform policyholders of the expected rate of return, risk, the link between equity component, risk and age, and management costs. Advice given must be impartial and be based on the policyholder's income and wealth position in general and number of years to retirement age. Compliance with the requirements with regard to information and advice is particularly important where scope is given to convert existing paid-up policies to new unit-linked products.

1 ECONOMIC TRENDS AND MARKETS

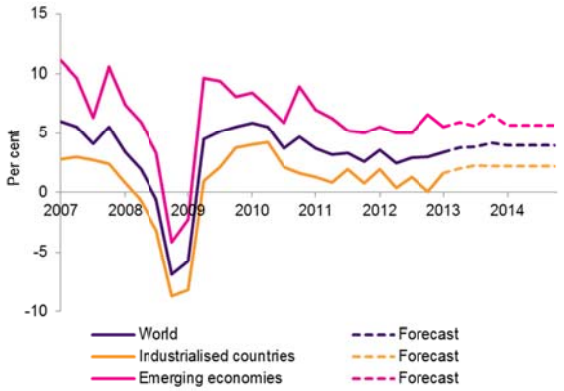
Growth in the world economy subsided towards the end of 2012, but is expected to pick up again in 2013. Growth in the industrialised countries remains low. The euro area is in recession. The oil price remains high, partly due to continued high growth in emerging economies. International interest rates are very low owing to strong monetary policy stimuli in the industrialised countries. The Norwegian economy is little affected by the weak trend in the industrialised world. Capacity utilisation is high and continued substantial growth is expected in the mainland economy. A high oil price, low interest rate and continued heavy borrowing in the household sector are key drivers of the Norwegian economy.

INTERNATIONAL ECONOMY

Growth in the world economy subsided towards the end of 2012. According to the IMF's April 2013 World Economic Outlook Report, global growth is expected to increase in 2013 although estimates are marginally revised down from the previous report. The IMF expects global growth of 3.3 per cent in the current year (chart 1.1). Considerable disparities persist between the various regions: whereas GDP in emerging economies as a whole is expected to climb 5.3 per cent, growth in the industrialised countries looks to be a weak 1.2 per cent in 2013. Developments reflect the fact that the international financial crisis has become a sovereign debt crisis with hefty real economic consequences across many OECD countries. Large public sector budget deficits are prompting fiscal policy retrenchments. Monetary policy is highly expansionary, but its effectiveness is curbed by high rates of saving and debt repayment in the household sector and surplus capacity in the business sector. High, and rising, unemployment is also damping consumption. A substantial slowdown in growth has been seen in many emerging economies in the wake of the financial crisis.

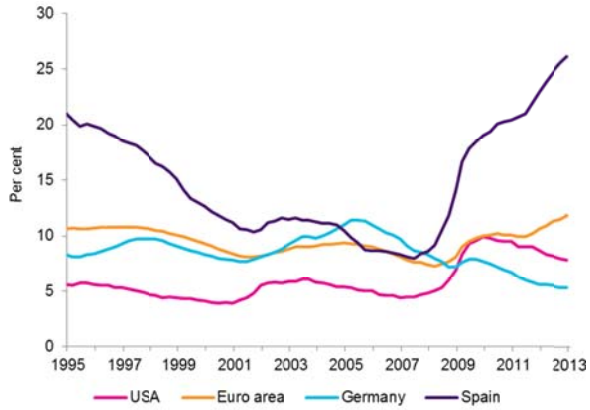
According to preliminary national accounts figures, US GDP rose by 2.2 per cent in 2012. The main contributors to the increase were private consumption, private investment and exports, while general government consumption pulled down growth. The IMF expects growth to subside somewhat in 2013 and to pick up in 2014 (table 1.1). Previously adopted budget tightening, combined with future cuts, will weaken demand. The labour market remains weak with around 3 million fewer employed than in 2007. The unemployment rate has declined in the past two years to 7.6 per cent in March (chart 1.2). Much of the decline is due to a weakening of the labour force caused by many having given up finding a job. The housing market showed signs of

1.1 GDP growth for the world, industrialised countries and emerging economies



Source: IMF World Economic Outlook, April 2013

1.2 Unemployment in selected countries



Source: Thomson Reuters Datastream

improvement through 2012 and sales of existing and new dwellings alike rose. House prices also rose in the past year.

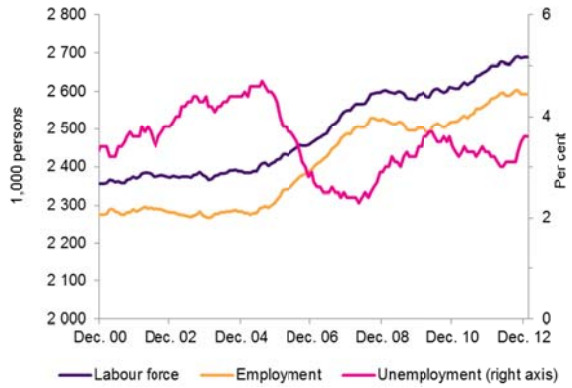
The IMF has revised down prospects for the euro area in the current year, and expects a 0.3 per cent decline in overall GDP (table 1.1). In 2012 production fell by 0.6 per cent, and falls were seen in both private consumption and investment. Policy steps have been taken to reduce budget deficits in the most exposed countries, but the tightening action taken is delaying an upturn. Aggregate GDP for the euro zone fell for the fifth quarter running, with a decline of 0.6 per cent from the third to fourth quarter. The production fall was particularly large in Portugal, Italy and Spain, and activity levels were also down in Germany and France. This is reflected in high unemployment which in February measured 12 per cent for the euro area as a whole. There is a large spread between the countries (chart 1.2). Whereas unemployment in Greece and Spain stands at more than 26 per cent, the figure for Germany is just over 5 per cent. Youth unemployment stands at 55-60 per cent in Spain and Greece. EU countries outside the eurozone are also on a

Table 1.1 Key macroeconomic variables. Forecasts for 2013 and 2014

	USA			Euro area			China		
	2012	2013	2014	2012	2013	2014	2012	2013	2014
GDP	2.2	1.9	3.0	- 0.6	- 0.3	1.1	7.8	8.0	8.2
Inflation	2.1	1.8	1.7	2.5	1.7	1.5	2.6	3.0	3.0
Unemployment*	8.1	7.7	7.5	11.4	12.3	12.3	4.1	4.1	4.1

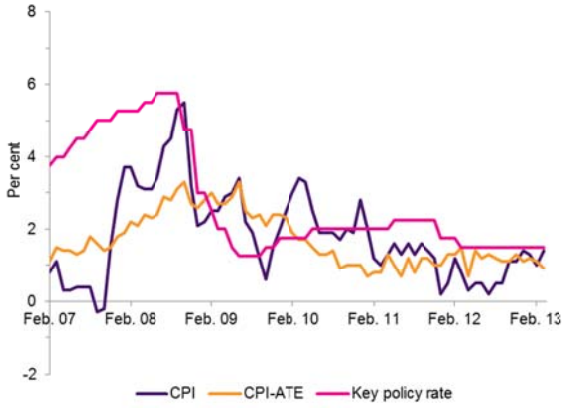
Percentage change from previous year, except as otherwise stated. *Level. Source: IMF World Economic Outlook, April 2013

1.3 Labour force, employment and unemployment



Source: Statistics Norway

1.4 Inflation and key policy rate



Sources: Statistics Norway and Norges Bank

weak trend. GDP fell in both the United Kingdom and Denmark in 2012, and activity in Sweden slowed sharply towards the end of the year.

The emerging economies are still growing more quickly than the industrialised countries (chart 1.1), a development largely due to the high growth rate in China. After slowing at the start of 2012, growth in the Chinese economy picked up towards year-end, only to falter somewhat in the first quarter 2013. GDP growth continues to be largely investment led, and it remains to be seen whether steps taken to spur consumption growth will work. In many other large emerging economies growth slowed considerably in 2012. The IMF anticipates rising activity levels towards 2014, but with growth rates of 3-4 per cent expected in Brazil, Russia and South Africa. Growth of just over 6 per cent is expected for India.

NORWEGIAN ECONOMY

The weak trend in the industrialised economies is expected to bring low demand from abroad in the next couple of years. At the same time international interest rates are expected to stay low for a long period. This will contribute to holding down Norwegian interest rates and to maintaining domestic demand.

In 2012 Mainland Norway (non-oil) GDP rose by 3.5 per cent, the largest increase since 2007. Petroleum production held up, contributing to a 3.2 per cent increase in aggregate GDP. The key growth components on the demand side were private consumption and housing investment along with investments in the petroleum sector, which were supported by a high oil price. Investment in the mainland economy and exports dampened growth. A tight labour market and good profitability in parts of the Norwegian business sector brought high wage growth again in 2012 (table 1.2). Unemployment rose towards year-end (chart 1.3). Growth in the Norwegian economy declined markedly in the fourth quarter of 2012. Manufacturing output was particularly weak due to the slowdown in the international economy.

Price inflation was very low in the past year (chart 1.4), the immediate cause being a fall in electricity prices. But price growth is low and stable also when adjusted for taxes and energy is excluded. Economic contraction abroad and a strong domestic currency prompted Norges Bank to lower the key policy rate to 1.5 per cent in March 2012.

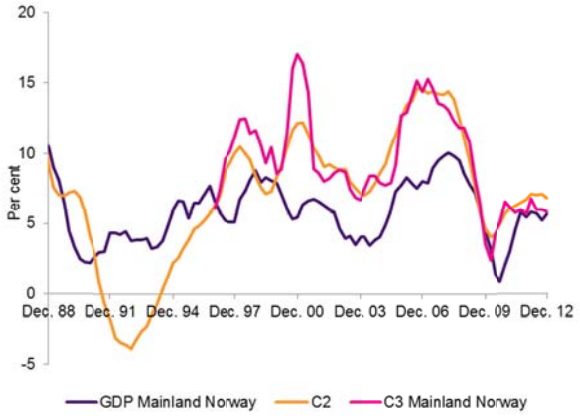
Both Norges Bank and Statistics Norway expect the cyclical upturn to continue in the years immediately ahead, but forecasts have been revised down somewhat as a result of the deterioration in the international economy. Mainland Norway's GDP growth is expected to decline, in particular in the current year (table 1.2), but will continue to exceed the

Table 1.2 Key macroeconomic variables for the Norwegian economy. Forecasts 2013-2016

	2012	2013		2014		2015		2016	
	Accounts	Statistics Norway	Norges Bank	Statistics Norway	Norges Bank	Statistics Norway	Norges Bank	Statistics Norway	Norges Bank
Private consumption	2.9	3.3	3 ¼	4.2	3 ½	3.7	3 ½	3.3	3
Gross fixed investment, Mainland Norway	3.9	5.2	4	5.1	6	4.1	..	3.1	..
Housing investments	7.4	6.5		4.7		3.5		1.6	
Traditional exports	2.6	-0.2	½	1.8	¼	2.6		3.8	
GDP Mainland Norway	3.5	2.6	2 ¾	3.1	3	2.8	2 ½	2.8	2 ¾
Unemployment - Statistics Norway's Labour Force Survey*	3.2	3.4	3 ¼	3.4	3 ¼	3.4	3 ½	3.3	3 ¾
Annual pay	4.0	3.8	4	3.9	4 ¼	4.1	4 ½	4.5	4 ¼
Consumer price index (CPI)	0.8	1.5	1 ½	1.4	1 ½	1.8	2	2.4	2
House prices	6.7	6.0		6.1		5.1		4.7	2
Household saving rate*	8.7	9.4		9.3		8.4		7.7	

Percentage change from previous year, except as otherwise stated. *Level. Sources: Statistics Norway, Economic Survey 1/2013 and Norges Bank, Monetary Policy Report with financial stability assessment 1/2013

1.5 Twelve-month growth in credit and nominal GDP, Mainland Norway



Sources Statistics Norway and Finanstilsynet

trend rate of growth of around 2.5 per cent. The main driver of higher output is domestic demand. Export-oriented activity must fight for market share in largely stagnating markets and with impaired Norwegian cost competitiveness.

The petroleum sector has been a particularly important driver of growth in the past couple of years. Statistics Norway and Norges Bank expect investments to remain high ahead, but the growth rate to be lower. Demand from the petroleum industry will nonetheless be sufficient to maintain the upturn in the Norwegian economy. Forecasts point to an upswing in business investment ahead. Uncertainty regarding the future market trend, producing lower demand, combined with higher risk premiums on business loans and somewhat poorer access to funding mean that investments in mainland industries are not expected to pick up to the same extent as in previous cyclical upturns.

Despite Norwegian households' high income growth in 2012, private consumption rose relatively weakly. Real incomes are expected to increase further in the current year, likely contributing to higher growth in consumption ahead. However, the upturn is expected to be dampened by continued high saving; see Theme III for an account of household saving.

Good income growth, low interest rates, greater population concentration in urban areas and expectations of further price increase have led to a marked rise in house prices.

This has in turn stimulated housing investment which rose by 22 per cent in 2011. In 2012 growth subsided to 7.4 per cent, and Statistics Norway expects a further decline in growth in the next few years (table 1.1). Growth in house prices is also expected to edge down through the forecasting period. Despite sound growth in Mainland Norway GDP, unemployment is expected remain relatively stable over the next three years. This must be viewed in light of the expectation that Norwegian and international economic conditions will continue to contribute to substantial labour immigration ahead with employment growing in step with the labour force.

CREDIT MARKET

Overall credit growth quickened somewhat in the second half of 2012, and remains higher than growth in the mainland economy (chart 1.5). Growth in domestic sources is behind the upswing, whereas debt to foreign sources has had the opposite effect. The bulk of foreign debt is raised by non-financial firms, with households accounting for 58 per cent of domestic debt. Debt from foreign sources fluctuates more than debt raised from domestic sources.

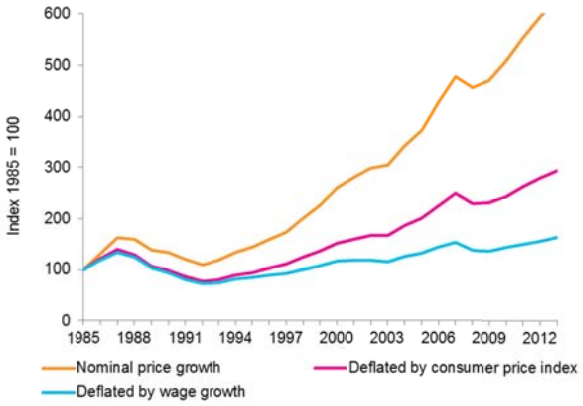
Business sector borrowing has declined substantially in the past half-year. Households' debt growth in the same period has stood at just over 7 per cent on a twelve-month basis, whereas local authorities' credit growth has been a little higher (chart 1.6).

The latest forecasts by Norges Bank and Statistics Norway point to somewhat higher growth in investment in Mainland Norway in the next couple of years. This will probably bring continued growth in credit to firms. Although house price growth is expected to decline somewhat in the period to 2016, dwellings will continue to sell at higher prices, contributing to prolonged growth in household indebtedness. The introduction of tighter home mortgage lending practice pulls in the opposite direction, however. Overall the stage is set for a continued build-up of non-financial private sector indebtedness, but at an expectedly lower rate than the average for the last ten years.

1.6 Growth in domestic credit to firms, households and local authorities

Sources: Statistics Norway and Finanstilsynet

1.7 House prices, nominal and deflated, 1985-2013



Sources: NEF, EFF, Pöyry, Finn.no, Statistics Norway and Finanstilsynet

1.8 House prices, 12-month growth, 2002-2013

Sources: NEF, EFF, Pöyry, Finn.no

PROPERTY MARKETS

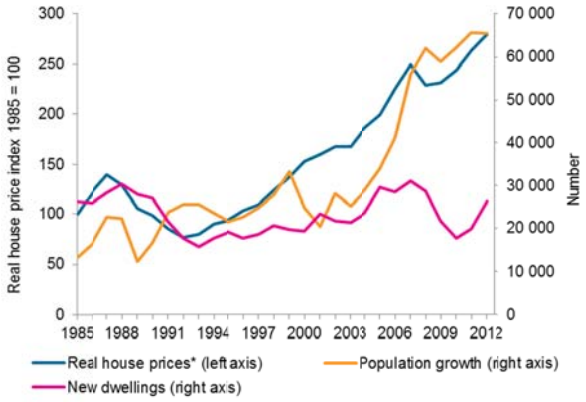
HOUSING MARKET

House prices are record high and in the past 25 years have risen twice as much as consumer prices and 20 per cent than wages; see chart 1.7. Since the previous peak in 2007 house prices have risen by 31 per cent. Throughout virtually all last year and into 2013 the 12-month growth rate in house prices has hovered slightly over the average 12-month growth in the period 2003-2013 (7.4 per cent); see chart 1.8. Price growth has been strong in all housing segments in recent years. Since 2011 prices for apartments have risen somewhat quicker than prices for detached and semi-detached houses.

The trend in housing turnover and house prices often coincides. Apart from in 2008, turnover has risen annually since 2002. In 2012 the growth in turnover halted while price growth continued. However, this was also seen early in the period from 2002. Turnover in the first quarter of 2013 was lower than in the same period last year.

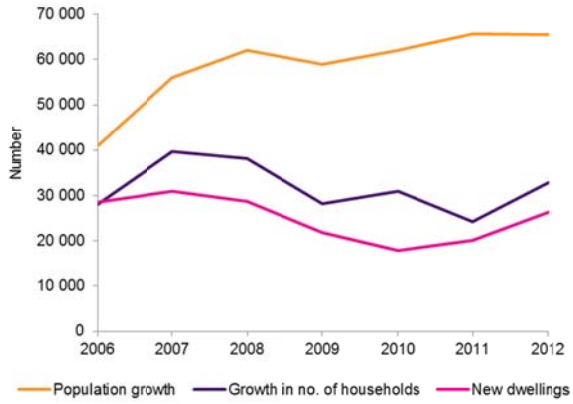
Housebuilding and the population trend over time are of significance for house prices. 1990 was preceded by a long period in which the number of new houses exceeded population growth. In 1987 house prices began to fall,

1.9 House prices, population and housing construction



*House prices deflated by consumer price index. Sources: Statistics Norway and Norwegian Association of Real Estate Agents (NEF)

1.10 Households, population and new dwellings



Source: Statistics Norway

contributing to the setback in the Norwegian economy. From 1993 onwards house prices picked up again at the

same time as population growth exceeded the number of housing completions; see chart 1.9. The trend for population growth to outstrip dwelling growth combined with rising house prices lasted more or less throughout the 2000s. The brief periods in the 2000s when house prices did not rise coincided with periods of small divergence between population growth and dwelling growth.

Recent years' strong population growth has been driven largely by high net immigration (immigration less emigration). This is related to the enlargement of the European Union which several eastern and central European countries joined in 2004. High net immigration from the new EU member states has accounted for as much as 60 per cent of Norway's population growth in the period 2000-2012. Given immigrants' cross-border mobility, aneconomic setback in Norway or a strong recovery abroad will have considerable consequences for the population trend. A major decline in net immigration could entail a housing surplus in Norway. See theme article III for a closer discussion of immigration and the housing market.

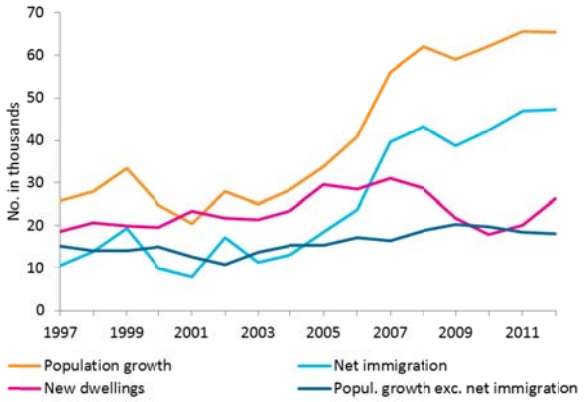
The development in the number of households may be a better explanatory factor for price trend than overall population growth. It is households, not individuals as such, that make up the demand side in the housing market. In the period 2006-2012 the trend in number of households diverged somewhat from the population trend; see chart 1.10. In 2007 growth in the number of households started to edge down.

Comparison of number of households and dwellings alone does not give a complete picture of demand and supply conditions in the housing market. Households' ability and willingness to pay, developers' costs and site availability have crucial significance for house prices. Factors such as interest rates, income and demography affect willingness to pay for housing. Demography plays a part since housing preferences vary with age, education and country of origin. Recent years' house price growth was in a period when the number of households grew significantly slower than the population. Actual building costs may have increased more than shown in the building cost statistics. An explanation for the relatively limited increase in building costs may be that site costs, which account for a substantial portion of building costs, are not reflected in the building cost statistics. A large increase in site prices in urban pressure areas may help to explain the regional price variations. On the demand side there are relatively sure signs of increased ability to pay and hence potential willingness to pay. High income growth, low house taxation and low borrowing costs due to low interest rates have contributed to high demand.

Immigration and housing market

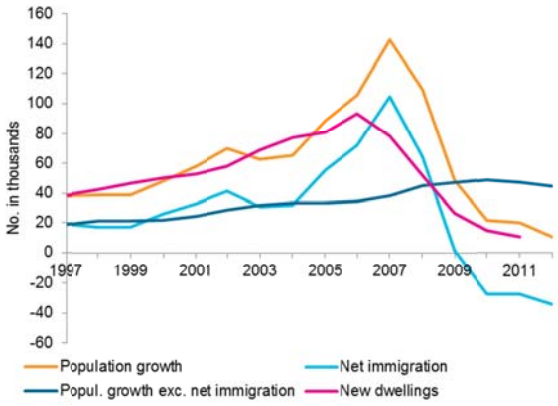
The ratio of population growth to the number of new dwellings changes considerably if net immigration is deducted from population growth. Whereas overall population growth has exceeded the supply of new dwellings in recent years, population growth minus net immigration has been lower than the supply of new housing; see chart 1.11. Accumulated over the period 1997-2012, the differences are substantial. Whereas housing completions were 300,000 fewer than overall population growth from 1997 to 2012, housing completions were 100,000 in excess of population growth minus net immigration in the same period. The number of households

1.11 Population and new dwellings in Norway



Source: Statistics Norway

1.12 Population and new dwellings in Ireland



Sources: Central Statistics Office Ireland and Department of the Environment, Community and Local Government

could be considerably reduced by a reversal of net immigration. The upshot could be many vacant dwellings on the Norwegian market. Despite record-high overall population growth, the number of households has increased considerably less than the overall population. Without the net immigration, household growth would probably have been even lower and substantially lower than the growth in new dwellings.

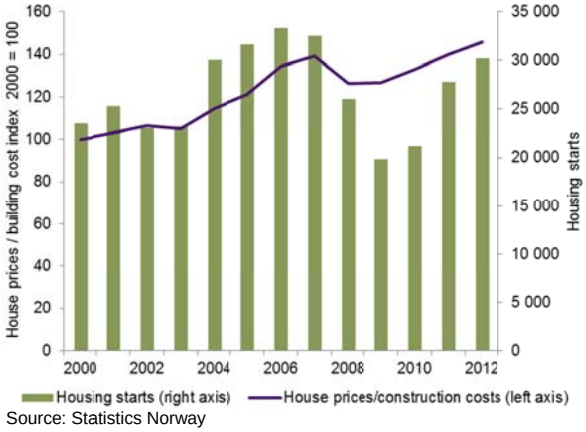
The Norwegian economy is in a special position with its large petroleum sector. In the event of a downturn specific to Norway, net immigration could change rapidly. During the financial crisis net immigration to Norway fell even though the country's economy was faring better than the economy of most other countries. A rapid reversal of immigration flows upon reversal of economic prospects has been observed in a number of countries. Ireland had substantial net immigration prior to the financial crisis. After net emigration up to 1995, net immigration contributed almost 60 per cent of overall population growth in the period 1995-2007. The very high population growth in this period accompanied a fairly stable trend in the non-immigrant population, while household growth was substantially lower than overall population growth. This resembles the population trend in Norway today. Ireland differs from Norway in that housing completions far exceeded household growth.

Post-financial crisis developments in Ireland show that net immigration can change dramatically in a short space of time in the event of a cyclical turnaround; see chart 1.2. After the financial crisis the stable trend in the non-immigrant population continued, whereas net immigration changed substantially. From constituting almost three quarters (more than 100,000) of overall population growth in Ireland in 2007, net immigration started to fall steeply. Net immigration halved in the space of one year and after two years was down to zero. The net emigration seen since 2010 has brought a sharp slowdown in population growth. In five years the change in net immigration played a large part in reducing annual population growth from 140,000 to 10,000. Housing completions increased far more quickly than the non-immigrant population and at a somewhat slower pace than the overall population prior to the financial crisis.

There are evident, and significant, differences between the Norwegian and the Irish situation. In Ireland the growth in new dwellings was almost as high as overall population growth. In Norway housing growth is substantially lower than overall population growth. In Ireland an average of some 60,000 new dwellings were built annually from 1997 to 2007, whereas the population in the same period rose by about 70,000. In Norway the period 1997 to 2012 saw an average of about 25,000 housing completions built per year, whereas population growth averaged about 40,000 a year in the same period. Both countries have about 5 million inhabitants. Further, Ireland suffered a serious banking crisis followed by a severe recession.

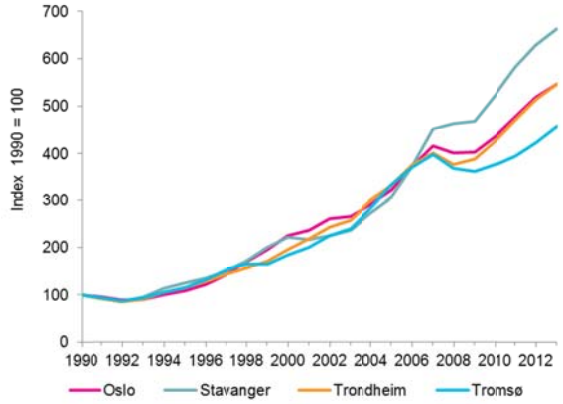
Since the financial crisis, growth in house prices in relation to building costs has contributed to high growth in housing starts in Norway. But the number of starts in 2012 is still below the level in 2007; see chart 1.13. House price growth in excess of building cost growth favours continued high housing construction. Construction order volumes also indicate high housing construction in the period immediately ahead. Housing starts follow order backlog and order supply with a time lag. Both order backlog and order supply are at historically high levels.

1.13 Housing starts and house prices in relation to construction costs exc. site costs



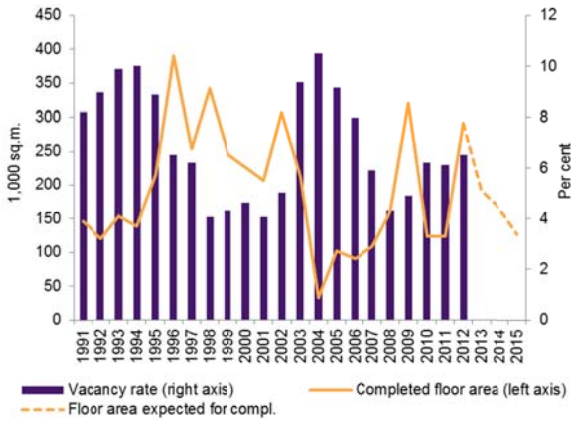
Source: Statistics Norway

1.14 Regional house prices 1990-2013



Sources: NEF, EFF, Pöyry, Finn.no and Statistics Norway

1.15 Office buildings in Oslo, Asker and Bærum. Completed floor area (incl. major renovations) and vacancy rate



Source: Eiendomsspar, Oslostudiet spring 2013

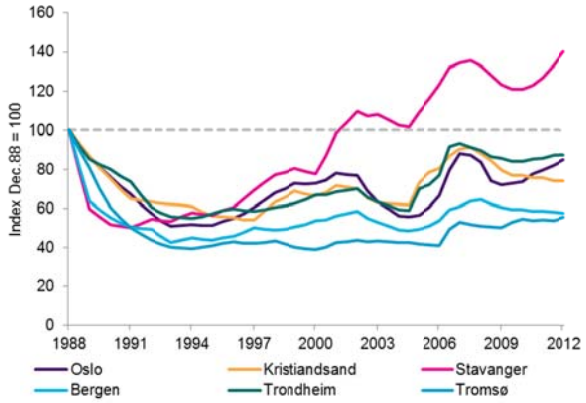
Housing starts, measured against levels in 2000, have in recent years risen most in Oslo, in western Norway and in mid-Norway. North Norway has seen the lowest growth in starts. 2012 saw a fairly flat trend in eastern and southern Norway compared with growth in mid-Norway and western Norway. Despite a fall in starts in 2012 in Oslo, markedly higher growth has been seen since 2000 in housing starts in Oslo than in the other regions. The absolute level of housing starts is still highest in western and eastern Norway, and lowest in the northernmost part of the country.

House price growth has been geographically broad-based in recent years; see chart 1.14. Of the major towns, Stavanger has had highest price growth, and Tromsø the lowest. Differences between towns increased up to 2007 when house prices fell in the major towns apart from Stavanger. The resilience of house prices in Stavanger is due to the town's connection to the oil industry, which is less sensitive to changes in the mainland (non-oil) economy. In the last two years or so house price growth has been fairly evenly distributed in geographical terms. The geographical distribution of house price developments correlates to some degree with the growth in population: major towns with the highest population growth have also seen the highest house price growth.

COMMERCIAL PROPERTY

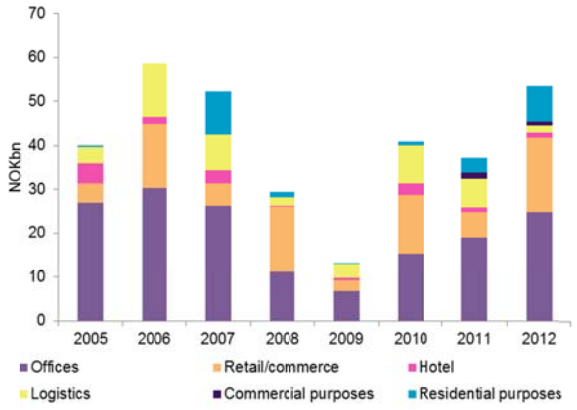
The market for commercial property was on a stable trend in 2012. Consumption growth and consumer confidence among Norwegian households picked up further over the year, providing good framework conditions for commerce and trade and commercial properties. Demand from Norwegian and foreign customers also picked up in the hotel segment. Employment growth was strong, increasing the need for office premises in the Oslo-Akershus region. However, vacancy rates for office buildings rose slightly due to marked growth in the number of building project completions (chart 1.15). The rise was dampened partly by the greater need for office space in the wake of the terrorist attack of 22 July 2011 and partly through the conversion of existing office premises to housing projects. A substantial reduction in completions is expected in the period to 2015 which, together with continued good employment growth, will bring lower vacancy rates provided new construction does not pick up sharply. The level of rental prices rose in most larger towns, but declined somewhat in Bergen and Kristiansand (chart 1.16).

1.16 Rental prices for office premises in the six largest towns



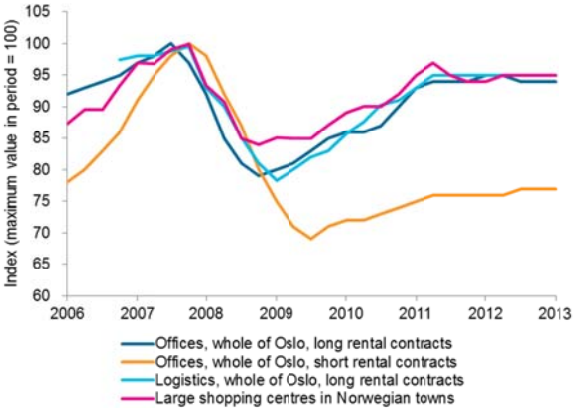
Sources: Dagens Næringsliv, Statistics Norway and Finanstilsynet

1.17 Property transactions above NOK 50m*



* There will inevitably be non-registered transactions since some actors do not wish to publish purchase prices. The figures should be viewed as minimum figures. Source: UNION Markedsrapport: Winter 2012

1.18 Akershus Eiendom's property value index. Real values*



* The basis for the indices is a rolling selection of properties which are valued annually or quarterly. Source: Akershus Eiendom

According to Statistics Norway the number of property transactions has remained relatively stable in recent years. However, there is reason to believe that a greater number of large transactions (over NOK 50m) were executed than previously (chart 1.17). This is probably related to the fact that demand is strongest for properties with long, secure rental contracts, which are also the properties that are priced highest. Interest in development property and commercial buildings suitable for residential conversion has also increased. This must be viewed in light of recent years' steep house price upturn which has made it profitable to convert outdated commercial buildings in attractive residential areas into dwellings.

Demand for offices, commercial property and housing-related property is holding up (chart 1.17). Investors in property syndicates, property companies and life insurers in particular were active buyers of commercial property in Norway in 2012 whereas foreign investors continued to exit the property market. This picture is unchanged from 2011.

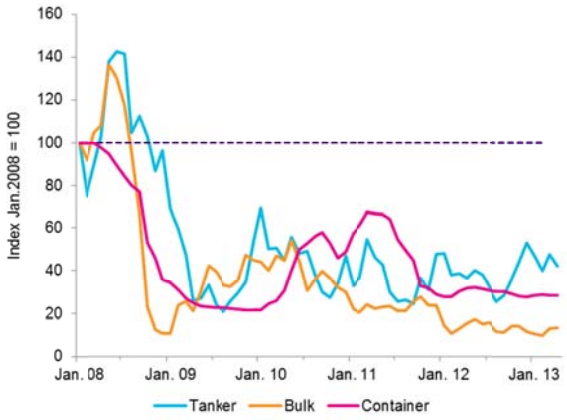
Banks have tightened their credit practices with regard to loans to commercial property. Bank margins have increased and more banks wish to stabilise or reduce exposure to commercial property. Although several large property actors have obtained better funding terms in the bond market, traditional bank funding is still by far the most widespread option. The interest rate fall and high demand for quality properties caused prices on low-risk properties to pick up rapidly after the steep price fall in 2008 and 2009. A similar price trend has not been observed in the case of more outdated office property with short rental contracts. In this segment valuation is still considerably lower than at the previous price peak in 2008. Tighter credit practices among banks may have dampened the trend in commercial property values in recent years (chart 1.18).

SHIPPING AND OFFSHORE MARKETS

2012 was another demanding year for traditional shipping, with declining capacity utilisation and generally low(er) freight rate levels. This is due primarily to an overall fleet increase of more than 7 per cent, leading to a strong increase in vessel supply. Weak economic growth and low demand also contributed to keeping down rates in several segments (chart 1.19).

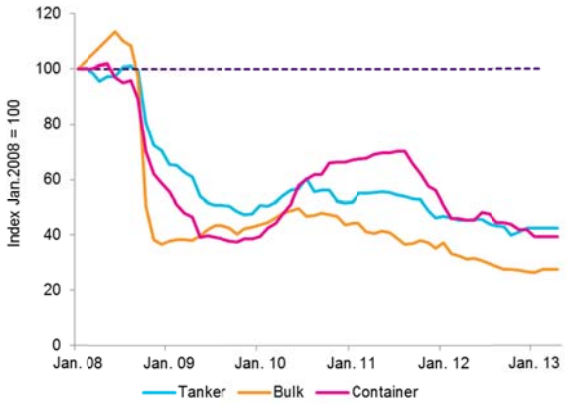
Today's freight rates barely cover current operating expenses. Companies have widely introduced slow steaming in order to reduce both capacity and operating expenses. Falling rates in most segments, along with the addition of new, more energy-efficient ships, have further reduced ship values for older tonnage (chart 1.20). This applies in particular to tanker and bulk. Order books for the most risk-exposed segments – dry bulk, tanker and container – have been further reduced but still represent 11, 16 and 21 per

1.19 Freight rates in the tanker, dry bulk and container market



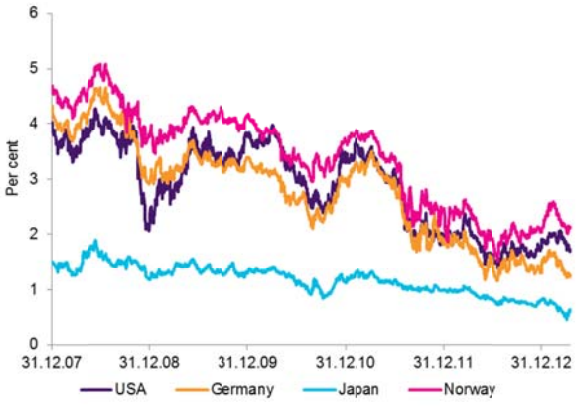
Source: Clarkson Research Services Ltd., Clarksea Index

1.20 Sales values in the secondary market. Five-year-old ships



Source: : Clarkson Research Services Ltd., Clarksea Index

1.21 Ten-year government bond rates in the US, Germany, Japan and Norway (synthetic)



Source: Thomson Reuters Datastream

cent respectively of the existing fleet. Many of these vessels are to be delivered in the course of 2013 and 2014. Market actors expect a weak market trend ahead with rates continuing at today's levels. Rates have risen slightly during the first quarter of 2013 in the container and bulk segments alike, but have fallen somewhat in the tanker segment.

Oil-related shipping (offshore) moved along two different tracks in 2012. Whereas the rig segment is still marked by optimism, with a relatively high utilisation ratio and generally high rates, the supply market weakened considerably over the year. If earnings remain weak in the supply market, some companies may have difficulties servicing their debt. High contracting activity for supply ships and rigs alike has substantially raised capacity in recent years. Fleet growth is expected to remain fairly high in the years ahead, which may put pressure both on utilisation ratios and rate levels. The industry itself expects rates in 2013 to be fairly volatile, with average rates on a par with 2012, but the risk of lower rates is high. Demand for oil-related shipping is influenced by investments and oil companies' oil exploration budgets.

SECURITIES AND FOREIGN EXCHANGE MARKETS

The debt crisis in the euro area and great uncertainty with regard to economic developments has contributed to turbulent markets in recent years. Interest rates have been low whereas share prices have risen. Turbulence has gradually declined especially after the European Central Bank in August 2012 presented a programme for direct purchase of government bonds (Outright Monetary Transactions: OMT) as part of its monetary policy operations. However the markets continue to show clear signs of turbulence in response to negative market events, and in March new tensions arose in markets over the banking crisis in Cyprus.

After an upturn in January 2013, long government rates in the US, Germany and Norway alike have again fallen somewhat (chart 1.21). Declining government bond rates in the US and Germany since February are due both to prospects of weaker economic growth and high demand for secure, liquid investment options.

The bifurcation of the European fixed income market continues, but at a somewhat dampened pace compared with the most turbulent periods of 2011 and 2012 (charts 1.22 to 1.23). The OMT programme has made the greatest contribution here. Both short and long euro interest rates have declined over the past few months. However, any sign of increased uncertainty with regard to debt-burdened euro countries' ability to comply with their debt obligations has had immediate and sometimes severe impacts in the fixed income markets. One example is the rise in short

government bond rates in Italy in the confused situation following the parliamentary election in February. In March new market turmoil was triggered by the crisis in Cyprus, and by the Cypriot authorities' and the EU's handling of the crisis. Yield on US Treasury bills remains low.The US dollar weakened against the euro during the second half of 2012 and into 2013, but has appreciated as from February. This development reflects both the relative growth prospects in the US and the euro area, and market actors' disquiet regarding the euro and the prospects for the euro collaboration in this period. A desire for safety may underlie the appreciation of the Norwegian currency through 2012 (chart 1.24).

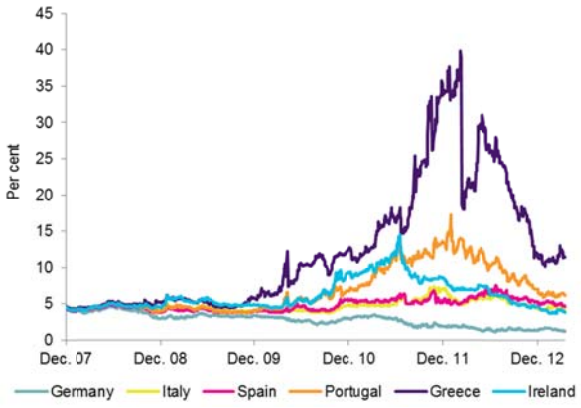
The upswing in international equity markets continued into 2013 (chart 1.25). Since the turn of the year return in international equity markets has averaged 9 per cent. The market trend appears strong viewed against fundamentals. Companies' results are approximately in line with investors' expectations, but the growth picture is weak. At the same time government signals of a continued expansionary monetary policy stance may also help to explain the trend. This is especially true for Japan where the equity market has climbed 34 per cent since the turn of 2013. Oslo Børs's benchmark index largely shadows the international trend in equity prices and changes in the oil price.

Rates of return on Norwegian quoted bank and finance shares from 2012 to March 2013 are above the trend in the benchmark index (chart 1.26). Return on German bank shares relative to the general return on equities rose markedly after the announcement of the OMT programme, suggesting an improvement in market actors' confidence in the stability of the German banking system. However, the first quarter of 2013 saw a negative development.

OIL MARKET

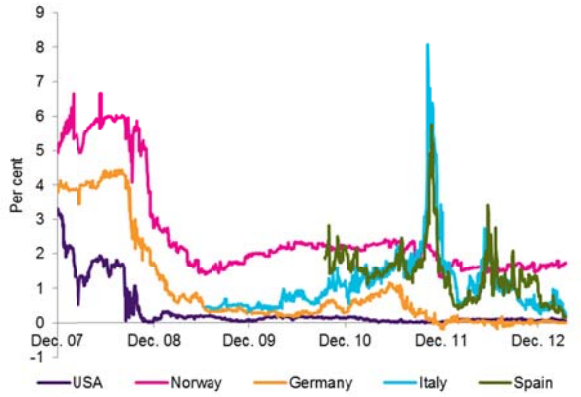
The oil price is highly important for the Norwegian economy. It has largely remained at levels above US 100 per barrel since the end of 2010, when uncertainties arose following political turmoil in several oil-producing countries in Northern Africa (chart 1.27). The decision of the US, EU and other countries to ban oil imports from Iran caused the oil price to rise to USD 128 per barrel in March 2012. In May and June the oil price fell below USD 100 per barrel due to prospects of slowdown of economic growth and lower demand for oil in the OECD and China. A new oil price upturn came after the breakdown of negotiations between Iran and a number of international actors and intensified tensions between Iran and Israel/US. This, in combination with declining production in Saudi Arabia, led to an oil price between USD 110 and 120 from August 2012 to March 2013. In April, weak labour market figures from the US and lower growth in China caused the oil price to fall below USD 100 per barrel. IMF forecasts suggest a weak decline in the oil price in the run-up to 2014.

1.22 Ten-year government bond rates in selected euro countries



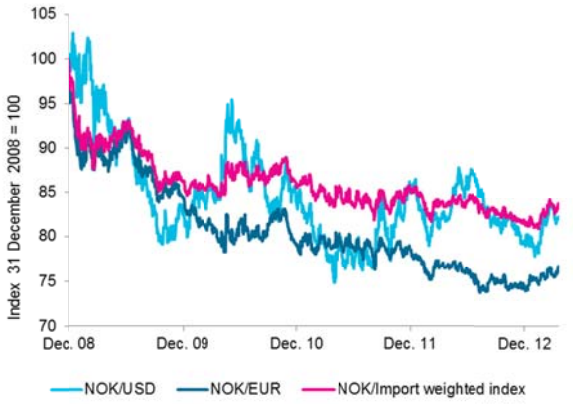
Source: Thomson Reuters Datastream

1.23 Three-month Treasury bill yields



Source: Thomson Reuters Datastream

1.24 Norwegian krone exchange rate

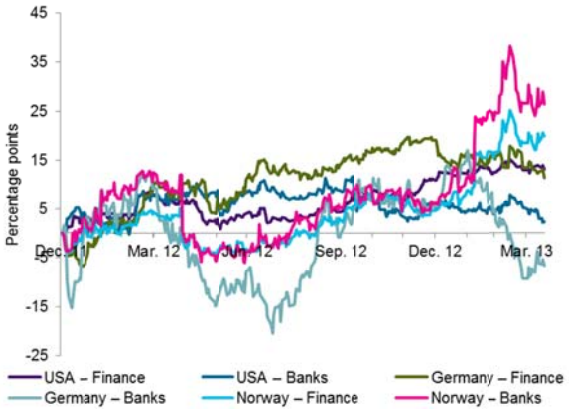


Source: Thomson Reuters Datastream

1.25 Return on shares: US (S&P 500), euro area (Euro STOXX), Japan (Topix 500), Norway (OSEBX) and global (MSCI World Index)

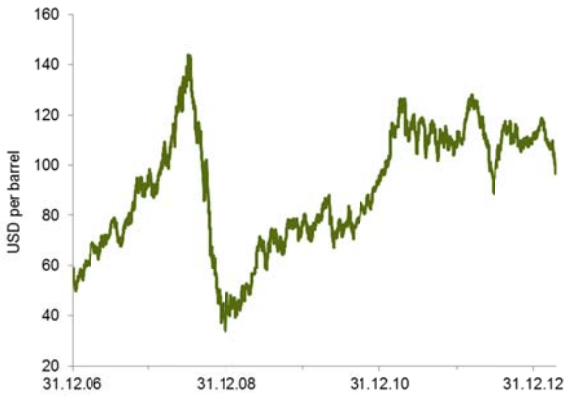
Source: Thomson Reuters Datastream

1.26 Excess return on finance and bank shares compared with stock market in general since 31 December 2011



Source: Thomson Reuters Datastream

1.27 Crude oil price (North Sea)



Source: Thomson Reuters Datastream

RISK FACTORS

Risk in the international economy remains substantial, forecasts are being revised down and the upturn pushed forward in time. The major cuts in the US owing to absence of agreement in Congress will reduce GDP in 2013 and contribute negatively to already weak global growth. The debt situation in the euro area and some other major industrialised countries is still regarded as the largest uncertainty. In financial markets risk premiums were reduced through 2012. At the same time the real economy of the hardest-hit countries has proven weaker than expected. High, and rising, unemployment is contributing to social disquiet, and several countries are politically unstable.

European banks are in the process of increasing their capital adequacy to become more robust. Concurrently profits are under pressure as a result of weaker economic growth and rising losses. This could prompt tighter credit assessments and reduced lending, which will intensify the downturn. In mid-March the EU and IMF granted a crisis package to Cyprus which involved compelling depositors to pay up to 9.9 per cent of their deposits in a one-off tax levy. The package was rejected by the Cypriot parliament. At the end of March a renegotiated support package was adopted entailing that all deposits below EUR 100,000, which is the cap for the EU's deposit guarantee, are fully covered, whereas coverage above this cap will be substantially curtailed. The solution averted worries that guaranteed bank deposits in debt-burdened euro countries would be eligible for a corresponding levy, and uncertainty in the markets subsided. There are nonetheless concerns that the deposit guarantee scheme may be revised in a crisis situation.

Capital flows between countries have changed substantially in the wake of the international financial crisis. Investors' desire for safe investments has led to high demand for government bonds issued by presumptively solid states, thereby pushing down interest rates to historically low levels. The low rate level has caused institutional investors and private individuals to search for higher yield. Some have invested in less safe corporate bonds. Concurrently capital has flowed to emerging markets where risk is traditionally higher than in more mature markets. This may have given rise to bubble tendencies in some markets, with a risk of heavy capital losses if interest rates and risk premiums again rise. Capital flows between countries have proven volatile historically. Should capital flows reverse and flow out of the emerging economies, there could be negative consequences for the world economy.

The weak growth in many countries and imbalances in international trade have prompted governments to seek to improve competitiveness through devaluation. Since not all countries can devalue their currency at the same time, fears

of a "currency war" have arisen. This led the G20 countries in February to issue a joint declaration to the effect that the exchange rate will not be used as an instrument of economic policy. Even so the possibility that some countries will take steps to devalue their currency cannot be ruled out. This increases the risk of protectionism and lower global growth.

The recession in the wake of the financial crisis has caused several central banks to institute extraordinary measures. Interest rates are being kept very low, and markets are supplied with very large volumes of liquid funds. The scale means that previous experience cannot be drawn as a guide to what will happen when these measures are reversed. Both the size and timing of the reversal are uncertain.

Emerging economies have played an increasingly central role in the international economy in recent years. Thanks to its export structure, Norway has benefited from high growth in emerging economies, in particular China. If growth in these countries is not maintained, there will be a negative impact on the oil price and other commodity prices that are important for the growth in the Norwegian economy.

Norway's economy is solid, and forecasts indicate a continuing upturn. However, there is considerable uncertainty. A weaker than expected development of the world economy would also weaken the Norwegian economy, in the first instance through lower demand and prices for Norwegian goods. Recent years' favourable trend in Norway is due inter alia to a hefty improvement in the terms of trade. Norwegian commodity-based exports, in particular oil, are selling at high prices on the world market. Import prices have fallen in step with new producer countries' entry to the markets for consumer goods. The Norwegian economy is vulnerable to a weakening in the terms of trade. Many firms are already struggling with high costs and a strong krone, and Norway is marked by a two-track economy. The petroleum sector and sub-suppliers to this sector are earning well. The oil price is of particularly large significance, and the Norwegian economy's dependence on the petroleum activities is growing. A lasting fall in the oil price will result in low activity in the petroleum sector and will hit Norwegian firms that deliver goods and services to the petroleum business both on the Norwegian shelf and abroad. The knock-on effects to the mainland economy may be substantial. Lower demand will weaken corporate earnings. Weakened corporate earnings may in turn bring increased unemployment and reduced consumption, which will further intensify the decline in corporate earnings.

Of domestic factors, the high house prices and the unprecedented debt burden of Norwegian households represent the greatest risk. Forecasts suggest a further increase in house prices and debt alike in the years immediately ahead, and debt is growing faster than incomes. This trend is related to households' expectations of low interest rates, high employment, a high oil price and strong income growth. Optimism could cause households to underestimate the danger of an economic setback. A setback could trigger a loss of confidence which may lead to a fall in house prices. Households' high and growing indebtedness heightens their vulnerability to an interest rate hike.

Norway has seen considerable labour immigration in recent years. This has eased pressures in the economy but at the same time led to heavier demand for housing. In urban pressure areas starts have in periods not kept up with population growth, thereby further pushing up house prices. The high demand and the rising house prices may prompt a steep increase in housing construction. This could pose a risk given the fact that some 60 per cent of the population increase is due to immigration. Experiences from other European countries show that large sections of labour immigrants relocate when economic conditions change. Any reversal of net immigration could bring a housing surplus and falling prices in Norway.

Commercial property accounts for the bulk of lending by Norwegian banks to corporates. Persistent buoyant growth in consumption and employment provides good framework conditions for commercial property. Should international growth prove substantially weaker than expected, demand for Norwegian-produced goods will fall, employment growth will slow and unemployment may rise. The upshot could be lower consumption, which would reduce activity among consumer goods and services producers and impart negative impulses to the commercial property sector.

The two largest banks in Norway have sizeable loans to Norwegian and foreign firms in the shipping industry. Some of the largest savings banks also have exposures to this industry. The market situation in traditional shipping has been highly demanding for the past four years, with falling capacity utilisation and freight rates. Although forecasts suggest an upswing in world trade ahead, the market is fundamentally weak after several years of high tonnage increment. For oil-related shipping (offshore) too, risk is significant. High contracting activity both for supply ships and rigs in recent years has raised capacity in the market by a sizeable margin. Fleet growth is expected to remain relatively high in the years ahead. This could put pressure on utilisation ratios and rate levels alike. A lasting lower oil price may prompt oil companies to reduce their investments on the Norwegian continental shelf. This will reduce demand and result in weaker earnings in oil-related shipping.

The securities markets are of vital significance to Norwegian banks and insurers. The largest banks have substantial

market funding, and insurers have invested much of their portfolio in securities. The substantial uncertainties in the world economy make for nervous securities markets, latterly when Cyprus was compelled to seek financial support from the EU and the IMF. Market turbulence and the increased uncertainty often lead to higher risk premiums in money and bond markets and declining equity markets. This may worsen access to, and raise the cost of, funding for the banks, and bring a decline in insurers' earnings.

2 SITUATION FOR THE BANKS

Banks' core functions are deposit-taking, lending and payment transmission. In providing credit, banks convert short-term deposits into long-term loans. Deposits are liquid, whereas loans are tied up for a long time. Banks' core business exposes them to credit, liquidity, interest rate and operational risk and binds the banking sector closely to the wider economy. Hence banks' profitability and loss-bearing capacity need to be viewed in light of the trend in the economy and markets discussed in chapter 1. Chapter 2 summarises banks' results and capital adequacy in 2012 and goes on to discuss risk factors that may affect their earnings and financial soundness.

EARNINGS

For the European banking sector 2012 was another year under the sway of the international financial crisis. Losses on loans and securities, squeezed earnings and a difficult liquidity situation marked many banks. After several rounds of wide-ranging government measures the situation started to improve in the second half of 2012. Norwegian banks were little affected by international conditions, and kept up good results with limited loan losses.

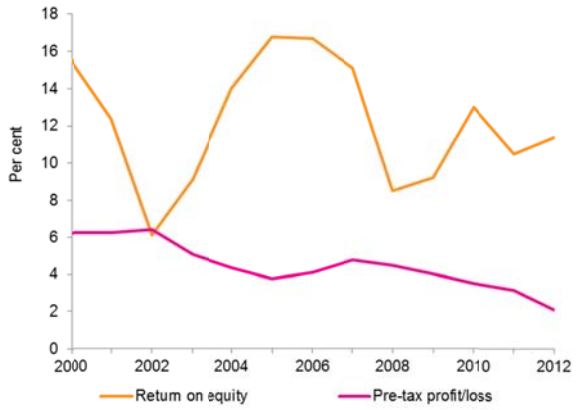
Norwegian banks (consolidated group figures) achieved a pre-tax profit of NOK 37bn in 2012, up 13 per cent from the previous year. The post-tax profit was NOK 28bn, compared with NOK 24bn in 2011. In terms of average total assets (ATA) the pre-tax profit was 0.92 per cent (chart 2.1). Profit in per cent of ATA has remained relatively unchanged over the past three years, when adjusted for one-time effects. Post-tax return on equity was 11 per cent, which is about 1 percentage point better than in 2011 (chart 2.2). Compared to the risk-free interest rate, measured by 10-year government bonds, the results for equity holders have in the period 2000-2012 produced an average additional return of 7.7 percentage points. The return in 2012 was 9.3 percentage points over the risk-free rate.

Net interest revenues accounted for 69 per cent of the banks' total revenues in 2012. The average lending rate edged down, but the lending margin (the difference between the average bank lending rate and the money market rate) increased somewhat in 2012 due to the fall in the money market rate through the year. Strong competition for customer deposits squeezed the deposit margin (the difference between the money market rate and average deposit rate), which was negative for parts of the year (chart 2.3). The total interest margin accordingly changed little in 2012. The banks fund themselves only partly in the

2.1 Loan losses and pre-tax profit/loss

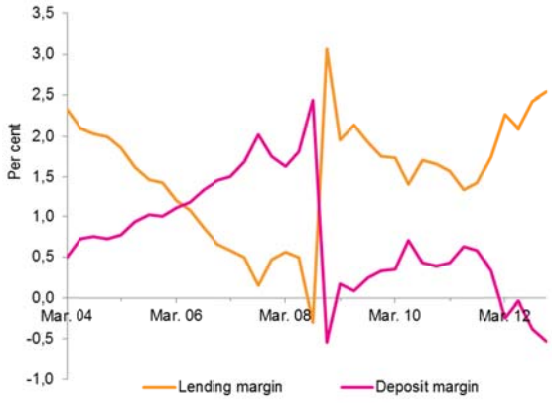
Source: Finanstilsynet

2.2 Return on equity



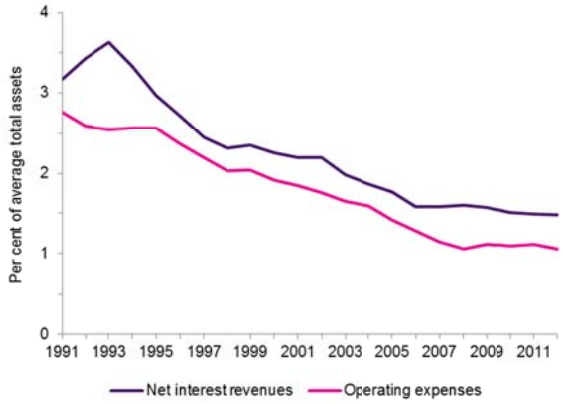
Source: Finanstilsynet

2.3 Interest margins measured against three-month NIBOR



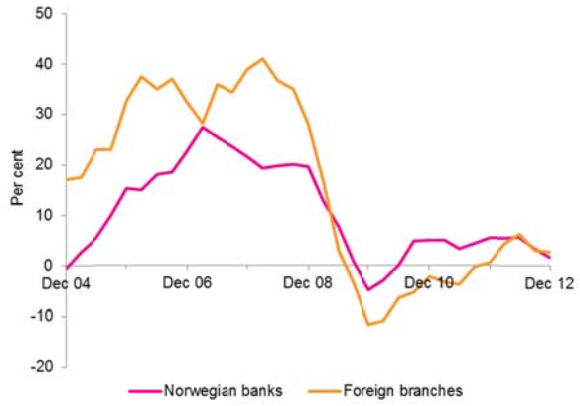
Source: Finanstilsynet

2.4 Net interest revenues and operating expenses



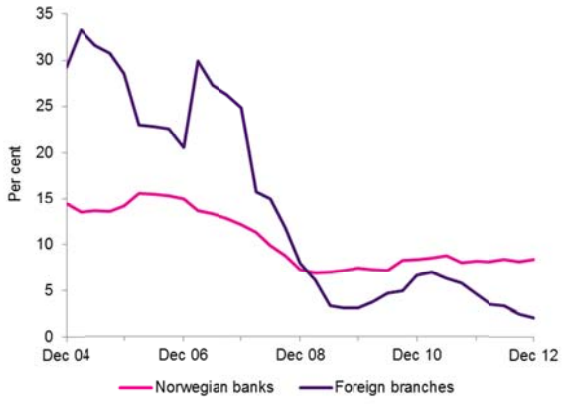
Source: Finanstilsynet

2.5 Growth in lending to private domestic firms



Source: Finanstilsynet

2.6 Growth in lending to retail customers



Source: Finanstilsynet

short money market, and actual borrowing costs may diverge substantially from, and vary in relation to, the money market rate. The lending and deposit margin measured as the difference from the money market rate does not therefore provide an adequate picture of the profitability of deposits and loans. Net interest revenues, which are the difference between actual interest revenues and expenses have for a long period grown more slowly than banks' total assets. Measured against ATA, net interest revenues edged down from 1.49 per cent in 2011 to 1.48 per cent in 2012 (chart 2.4).

Banks substantially reduced their costs up to 2008 in order to offset the decline in net interest revenues and maintain satisfactory profits. Thereafter costs grew somewhat more than total assets, but in 2012 growth in operating expenses was again lower than the growth in total assets and revenues. The cost/income ratio was reduced by 3 percentage points in 2012, to 53 per cent.

Loan losses are of great significance for banks' results. Loan losses rose somewhat after the international financial crisis of 2008, then fell back again. Sound earnings were maintained, and return on equity stayed above 8 per cent. From an already low initial level, banks' loan losses were further reduced in 2012, to 0.16 per cent of ATA. Loan defaults also fell, and measured 1.5 per cent of outstanding loans.

For a detailed review of banks' results, see Report for Financial Institutions (Norwegian only) published quarterly on Finanstilsynet's website.

CREDIT RISK AND LOAN LOSSES

Credit risk denotes the risk faced by a credit institution that loans or other claims will not be repaid or the risk of credit guarantee losses. If customers fail to comply with their obligations as borrowers, the ensuing losses will reduce banks' profitability and weaken their financial position. Loan losses are greatly influenced by the trend in unemployment, the housing market and the profitability of non-financial firms. Credit risk is largest risk factor facing Norwegian banks as a whole.

At the end of 2012 loans to customers accounted for 74 per cent of banks' aggregate total assets (including the banks' mortgage companies). After a strong increase in 2011, growth in banks' overall lending almost halved in 2012 to an annual growth rate of 4 per cent. The main factor behind the fall was a decline of 4 per cent in lending to private firms. This was in turn a result of reduced lending to foreign corporates, whereas loans to domestic corporates rose by about 2 per cent (chart 2.5). Growth in lending by Norwegian banks to retail customers has been stable for several years, and was 8.3 per cent in 2012 (chart 2.6). Growth in lending by foreign branches, on the other hand,

has declined in recent years, from 27 per cent in 2007 to 2 per cent in 2012.

HOUSEHOLD SECTOR

High income growth, low interest rates and low unemployment are contributing to good debt servicing capacity among households. However, household debt has in the 2000s grown more rapidly than incomes, heightening the sector's vulnerability. The debt burden[1], defined as the ratio of debt to disposable income, is record high both historically and in an international perspective (chart 2.7). The growth in debt is related to a rapid rise in house prices. Thanks to low interest rates, the interest burden is low despite the high level of debt. The increase in the debt burden applies to a majority of households, according to Statistics Norway. According to their figures, the share of households without debt, or with debt below or equal to total income, fell from 56 per cent in 2004 to 51 per cent in 2011. The share of households with debt larger than three times total income concurrently rose from 9 per cent to 15 per cent. High debt combined with floating interest rates renders households vulnerable to interest rate hikes. Even moderate rate increases can substantially reduce households' purchasing power; see the sensitivity analysis of households' interest burden under Theme III. Lower demand resulting from households' reduced purchasing power affects corporate earnings. With such a development, corporate debt servicing capacity is reduced and the risk of bank losses increases.

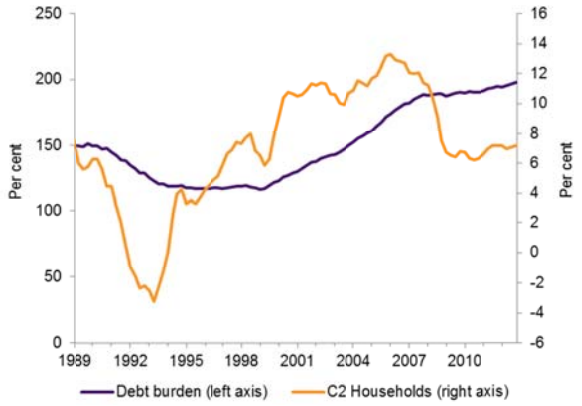
High saving in liquid financial assets such as bank deposits can function as a buffer in the event of interest rate hikes or income lapses. Recent years have seen high household saving without a strengthening of the sector's financial buffer, the reason being that most saving has been in dwellings. Bank deposits as a share of debt have been stable in recent years. See Theme III for a closer account of households' financial vulnerability.

CORPORATE SECTOR

Norway's economy is faring well. However, GDP growth dampened substantially towards the end of 2012, partly due to slower growth in household consumption and lower exports of goods and services. This is reflected both in the profit trend in the corporate sector and in market actors' assessment of the state of the economy. Profit growth levelled off, and actors became less optimistic on future prospects towards year-end (charts 2.8 and 2.9). Clear differences persist between actors in the various sectors with regard to the current market situation and future earnings potentials.

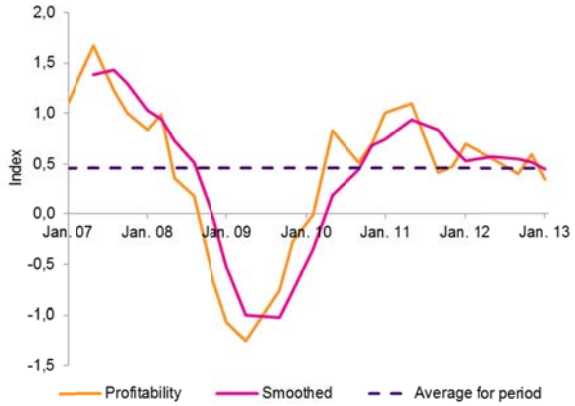
[1] In determining debt burden, Norges Bank uses disposable income, whereas Statistics Norway uses total income. Disposable income is gross income less tax and interest expenses. Due to differing income concepts, debt burden figures produced by the two institutions are not comparable.

2.7 Households' debt burden and debt



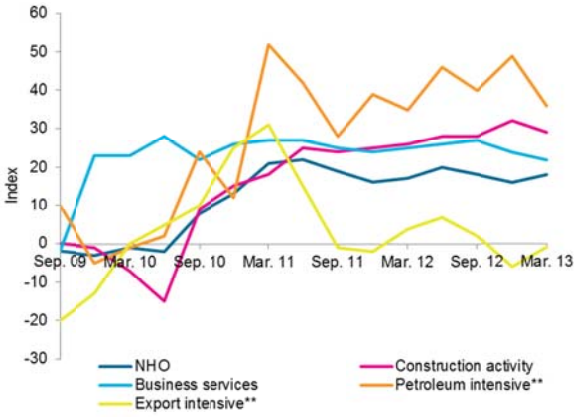
Sources: Norges Bank and Statistics Norway

2.8 Growth in corporate profitability. Change in operating margin in the latest three months compared with same period of previous year*



* The index extends from -5 to +5, where -5 indicates a steep fall while +5 indicates steep growth Sources: Norges Bank's regional network, 03/ 2013

2.9 Confederation of Norwegian Enterprise (NHO) market index. Assessment of the general market situation at the moment



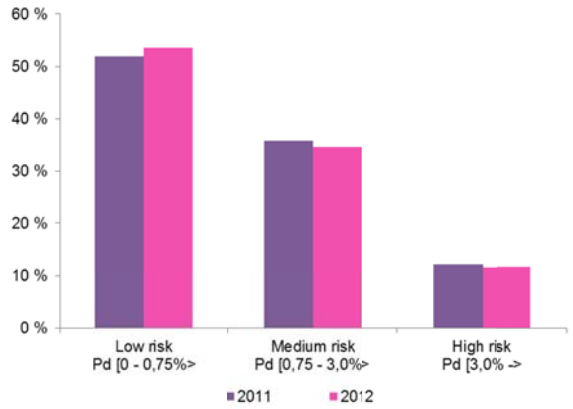
[1]* The difference between firms that are positive and negative. ** Firms with at least 25 per cent of sales to petroleum industry or for export respectively Source: NHO, Næringslivets konjunktur-barometer, mars 2013

Table 2.1 The 18 largest banks in Norway; exposures to commercial property. Q3 2012

	Loans granted		Volume drawn down		Loans granted in % of
	NOKbn	12-month growth (%)	NOKbn	12-month growth (%)	common tier 1 capital
	Q3 2011	Q3 2012	Q3 2012	Q3 2012	Q3 2012
18 largest	524 632	2 %	444 494	4 %	259 %
- 6 largest	441 212	1 %	366 609	3 %	262 %
- 12 remaining	83 420	11 %	77 884	9 %	248 %

Source: FInanstilsynet

2.10 Commercial property. Granted loans by risk category



Source: Finanstilsynet

Corporate sector debt growth receded markedly towards year-end, so overall debt rose only moderately in 2012. Debt incurrence, along with strong growth in corporate wage costs, has in isolation weakened debt servicing capacity in the corporate sector. However, higher operating revenues and somewhat lower borrowing rates pull in the opposite direction. The share of defaulted bank loans to corporates was relatively stable across the year, whereas the fall in the number of bankruptcies levelled off.

The latest forecasts for the Norwegian economy point to continued good, but dampened, growth in the years ahead. However, assessments of the Norwegian economy ahead are two-track, possibly entailing disparate trends in bank borrowers' financial position. Large parts of those sectors that produce for the domestic market (sheltered sector) have good market prospects due to growth in housing investments and in private and public consumption. The oil supplier industry will continue to benefit from high oil investments on the Norwegian shelf and in the oil industry across the globe, although, here too, Norwegian manufacturing faces ever greater international competition. At the same time the market situation for much of the traditional export industry is demanding due to declining demand on the continent and lower export prices. Impaired cost competitiveness owing to high wage growth and a strong domestic currency will put further pressure on exports firms' margins and profits in the period ahead.

The risk of weakened earnings in the corporate sector remains substantial owing to major uncertainty regarding the international economy ahead. Should the international economy prove significantly weaker than expected, there will also be a considerable adverse effect on the earnings of firms in the sheltered sector. However, recent years' trend in mainland Norwegian firms' equity ratio suggests that Norwegian firms' financial soundness is good overall, which will reduce vulnerability in the event of a decline in earnings; see the analysis of non-financial firms in Theme IV.

BANKS' EXPOSURES TO COMMERCIAL PROPERTY AND SHIPPING

Commercial property and shipping account for more than a half of Norwegian banks' loans to the corporate market, and have a major bearing on banks' future credit risk. Finanstilsynet asked the 18 largest banks in Norway to report their credit exposures to commercial property and shipping broken down on sub-segments and risk categories as of the third quarter of 2012. The banks also reported write-downs on their exposures. Exposures included in the categories low, medium and high risk are based on the banks' internal risk classification systems and assessments. Exposures with a probability of default (PD) between 0 and 0.75 per cent are regarded as low risk, a PD between 0.75 and 3 per cent as medium risk, while a PD above 3 per cent is recorded as high risk.

Commercial property

Bank loans granted to commercial property totalled NOK 525bn at the end of the third quarter of 2012, of which NOK 444bn was drawn down volume (table 2.1). Loans granted measured 259 per cent of banks' common equity tier 1 capital. The six largest banks as a whole are in relative terms more exposed to commercial property than the remaining twelve banks included in the selection. Banks are

particularly exposed to the commercial and office segment which altogether accounted for about 45 per cent of the commercial property portfolio. Exposures to housing-related property (housing co-operatives, co-operative housing associations and development projects in the housing field) are also substantial, accounting for a little over 20 per cent of the portfolio.

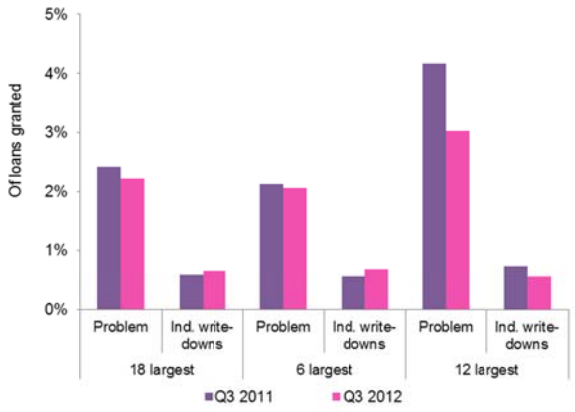
Twelve-month growth in lending to commercial property (loans granted) was 2.3 per cent at the end of the third quarter of 2012, as compared with growth of 4 per cent in loans drawn down. The main contributor to the growth was lending to commercial and office property along with housing development projects. Lending growth varied widely between banks. Three banks reported negative lending growth (loans granted), while seven banks had lending growth in excess of 10 per cent. This may be an indication that smaller banks are replacing the supply from some large banks which have signalled a desire to stabilise or reduce exposure to commercial property.

Banks' reporting shows that risk in the property portfolio as a whole has been reduced in the past year (chart 2.10). Exposures regarded as low risk have increased somewhat, whereas exposures regarded as medium risk have declined. The proportion of high-risk exposures is unchanged. The reduction in portfolio risk should be viewed in light of the trend in the Norwegian economy, along with more stringent credit practices. Lending margins and equity requirements have risen, and new loans are offered with shorter terms than previously. This means that fewer high-risk property projects obtain bank funding. However, there are clear-cut differences between banks. Whereas portfolio quality improved at the six largest banks, it weakened somewhat for the remaining 12 banks combined. At the same time the volume of potential problem loans and defaults declined by 6 per cent, while individual impairment write-downs rose by 17 per cent (chart 2.11). This indicates that some larger problem exposures where write-downs have been low have been given a clean bill of health. See chapter 1 for further details of developments in the commercial property market.

Shipping

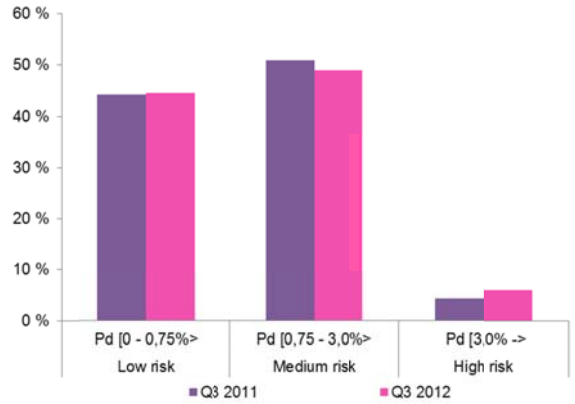
The two largest banks in particular have large loans to the shipping industry, although some mid-size banks also have substantial exposures. Altogether loans granted by banks totalled NOK 276bn at the end of the third quarter of 2012, of which NOK 200bn was drawn down volume (table 2.2). Loans granted measured 136 per cent of common equity tier 1 capital.

2.11 Commercial property. Problem loans and individual write-downs



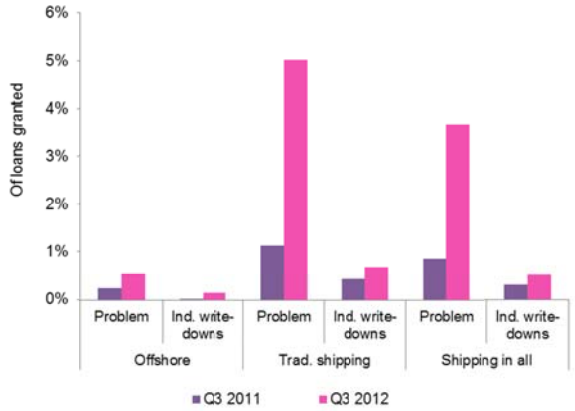
Source: Finanstilsynet

2.12 Shipping. Granted loans by risk category



Source: Finanstilsynet

2.13 Shipping. Problem loans and individual write-downs



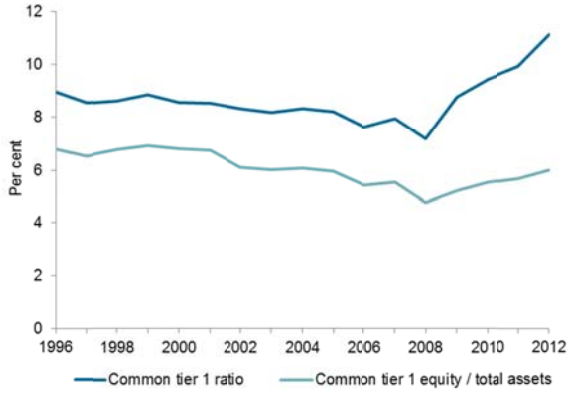
Source: Finanstilsynet

Table 2.2 Norway's 18 largest banks' exposures to shipping by sub-segment, Q3 2012

	Loans granted		Volume drawn down		Loans granted in % of common tier 1 capital
	NOKbn	12-month growth (%)	NOKbn	12-month growth (%)	
	2011 Q3	2012 Q3	2012 Q3	2012 Q3	2012 Q3
Dry bulk	30 499	-8 %	24 423	-4 %	15 %
Tankers	24 766	-6 %	20 765	5 %	12 %
Containers	26 977	-7 %	20 262	-6 %	13 %
Chemicals and product	25 095	-6 %	21 070	1 %	12 %
Gas	31 653	6 %	21 076	-1 %	16 %
Other shipping	53 964	-7 %	34 831	-15 %	27 %
Trad. shipping	**192 955**	**-5 %**	**142 427**	**-5 %**	**95 %**
Rigs	26 646	49 %	19 309	62 %	13 %
Supply	27 001	4 %	20 905	10 %	13 %
Other offshore	29 447	-44 %	16 943	-51 %	15 %
Offshore	**83 093**	**-14 %**	**57 157**	**-13 %**	**41 %**
Shipping in all	**276 048**	**-8 %**	**199 584**	**-7 %**	**136 %**

Source: Finanstilsynet

2.14 Common equity tier 1 ratio and unweighted capital share



Source: Finanstilsynet

The banks are particularly exposed to the offshore segment, which accounted for 30 per cent of aggregate loans granted to the shipping industry. The offshore segment includes platform rigs and supply vessels. Exposures to more traditional shipping segments such as dry bulk, crude oil carrier, container, chemical and product tanker and gas stood at around 10 per cent to each segment. Lending to shipping fell by 7 per cent from the third quarter 2011 to the third quarter 2012. The growth rate is affected by the strength of the Norwegian krone and the actual fall in lending growth is therefore somewhat smaller since shipping loans are mainly granted in the US dollar. The major shipping banks have signalled a desire ahead to reduce exposure to shipping in general, and to switch their portfolio from traditional shipping to the rig and supply segment in particular.

Banks' reporting shows that risk in the shipping portfolio as a whole has risen in the past year (chart 2.12). There has been a clear increase in exposures regarded as high risk, along with a decline in exposures regarded as medium risk. The share of low-risk exposures is roughly unchanged. The increase in portfolio risk should be viewed in light of the trend in the international shipping market, where traditional shipping in particular is fundamentally weak and is marked by low capacity utilisation, low freight rates and ship values. The volume of potential problem loans and defaults has risen sharply over the past year, but a corresponding increase has not taken place in individual impairment write-downs (chart 2.13). Individual impairment write-downs amounted to 14 per cent of problem exposures at the end of the third quarter 2012, compared with 37 per cent at the same point in the previous year. This indicates that individual write-downs by banks may increase further ahead. See chapter 1 for a further account of developments in the shipping markets.

FINANCIAL SOUNDNESS AND BANKS' LOSS-BEARING CAPACITY

Capital raised in the first half-year and profits retained at year-end strengthened the financial position of Norwegian banks in 2012. In its supervisory processes Finanstilsynet, in 2012 as previously, pointed to the need to strengthen financial positions. Total capital adequacy for the banks as a

Table 2.3 Number of standard approaches and IRB banks by level of CET1 ratio, 31.12.2012

	<10 %	10-11 %	11-12 %	12-13 %	>13 %
Standard approach	3	6	9	16	84
IRB	1	6	0	0	1

Source: Finanstilsynet

whole was 13.3 per cent at the end of 2012 compared with 12.3 per cent one year previously. All Norwegian banks met the minimum capital adequacy requirement.

Common equity tier 1 capital is the most important element in an assessment of banks' financial soundness. This is defined as core capital less all hybrid capital, and corresponds largely to equity capital minus regulatory deductions. In the calculation of common equity tier 1 capital adequacy, the common equity tier 1 capital is measured against an asset base mainly reflecting credit risk on assets and off-balance sheet items. Finanstilsynet wishes to see all Norwegian credit institutions maintain a common equity tier 1 ratio above 9 per cent. Norwegian banks' average common equity tier 1 ratio at year-and was 11.1 per cent, which is 1.2 percentage points higher than at the end of 2011 (chart 2.12). The change was largest at the major banks, which saw an increase of 1.5 percentage points compared with 2011 (chart 2.15). Retained profits and stock issues increased the common equity tier 1 capital by about NOK 24bn in 2012, and explain virtually the entire increase in tier 1 capital adequacy. Common tier 1 ratios at Norwegian banks varied from 9.7 to 31.3 per cent at the end of 2012.

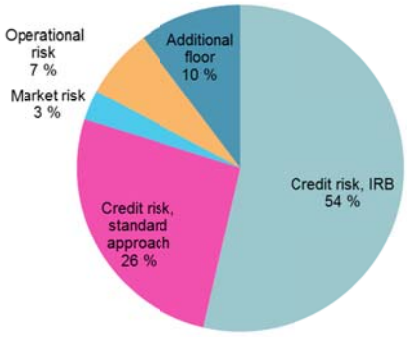
Common equity tier 1 capital adequacy also increases upon reduction of risk-weighted assets. Credit risk is largest risk factor facing the banks, but risk-weighted assets also depend on the size of the bank's market risk and operational risk (charts 2.16 and 2.17). Risk weighted assets are normally lower than total assets (chart 2.18). Basel II permitted banks, subject to the supervisory authority's approval, to use internal models (IRB models) to calculate risk weights. Average risk weights are significantly lower for banks using IRB models than for banks using the standard routine approach, where the risk weights are set in a schematic manner (chart 2.19). This is an important reason for the widening difference between aggregated risk-weighted assets and total assets since 2007.

Banks normally increase their exposures through the year and risk-weighted assets therefore also increase. Although banks' total assets rose by 5 per cent in 2012, risk-weighted assets nonetheless fell by 0.5 per cent (chart 2.18). Consequently the difference between banks' total assets and risk-weighted assets further widened in 2012. This development may be an indication that banks are shifting

2.15 Common tier 1 capital adequacy of Norwegian banks (consolidated group figures)

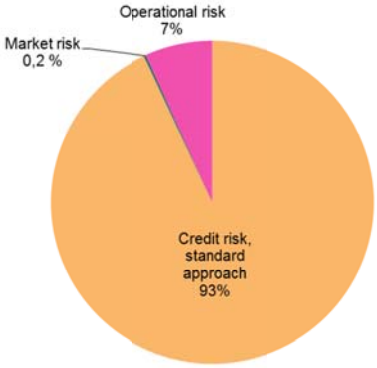
Source: Finanstilsynet

2.16 Risk factors behind the capital requirement, banks using IRB models



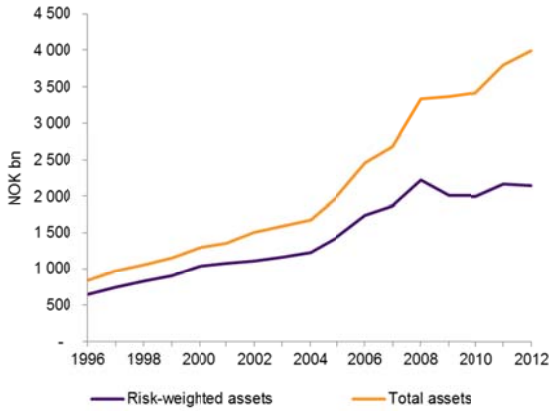
Note: The additional floor relates almost exclusively to credit risk
Source: Finanstilsynet

2.17 Risk factors behind the capital requirement, banks using standard risk weights



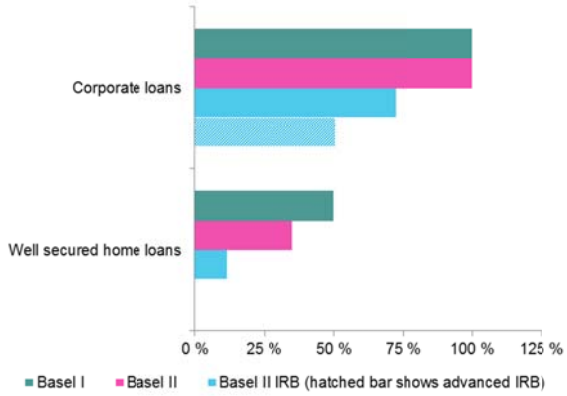
Source: Finanstilsynet

2.18 Trend in total assets and risk-weighted assets



Source: Finanstilsynet

2.19 Risk weights for various types of loan subject to differing regulation



Source: Finanstilsynet

their exposures to categories with lower risk weights and/or that risk weights are being lowered. When more banks introduce IRB models, risk-weighted assets in the banking sector will in isolation be reduced.

When Basel II permitted banks to use IRB models to compute capital, a goal was not to impair the solidity of the banking system. In order to avoid internal models leading to excessive reductions in the capital requirement, transitional rules were introduced in the form of a floor requirement. This states that the capital requirement under Basel II cannot be below 80 per cent of what it would have been under Basel I. The Norwegian authorities have stressed the importance of continuing the floor requirement for risk-weighted assets, and the floor addition was 10 per cent of the total capital requirement for IRB banks at the end of 2012 (chart 2.16).

The new Capital Requirements Directive, CRD IV, proposes supplementing the risk weighted minimum capital requirement with a minimum requirement on the unweighted equity ratio (leverage ratio). Unweighted equity ratio is defined as the ratio of an institution's core capital to a measure of exposure, which in addition to total assets includes off-balance sheet exposures. The leverage ratio is designed to avoid a fall in common equity tier 1 capital adequacy resulting from increased exposure to segments with low risk weights. The requirement will make banks' capital adequacy less vulnerable to weaknesses related to the internal risk models. A minimum required leverage ratio of 3 per cent is proposed although, according to the draft CRD IV, the requirement will only apply from 2018 onwards. The leverage ratio will however from part of institutions' assessment and supervisory authorities' review of capital needs (Pillar 2) as from 2013, and will be published by institutions from 2015 onwards. At the end of 2012 the leverage ratio for all Norwegian banks combined was 6.0 per cent, an increase of 0.3 per cent over the year. The leverage ratio has been considered a part of the supervisory process by Finanstilsynet for a long time.

MORE ABOUT RISK WEIGHTS USED WHEN CALCULATING CAPITAL REQUIREMENTS

Banks can use internal models (IRB) to estimate the risk weights used to determine the capital requirement. The models calculate risk weights based on a formula in which the key parameters are the bank's own estimates of the probability of a customer defaulting on his commitments (PD) and the expected loss ratio if the exposure is defaulted (LGD). IRB models must be approved by the supervisory authorities. At the end of 2012 eight Norwegian banks had permission to use IRB models. Most Norwegian banks use the standard approach to compute capital requirements. IRB models are used primarily by larger banks, and the total assets of IRB banks accounted for about 74 per cent of aggregate total assets at Norwegian banks at the end of 2012. For about 70 per cent of Norwegian housing loans risk weights are based on the IRB approach.

Parts of the capital requirement for credit risk at IRB banks are calculated using the standard approach. This often covers exposures to institutions, central banks, the public sector and small portfolios for which it would not be expedient to develop internal models. Further, the share of capital requirements reported using the standard approach at IRB banks should be viewed in relation to the fact that several banking groups have subsidiaries that use the standard approach.

TIGHTENED HOME LOAN WEIGHTS

Use of empirical models as a basis for risk management and capital requirements presupposes that historical figures are a guide to future developments. Finanstilsynet requires banks' IRB models to make allowance for an economic downturn at least as severe as during the banking crisis

around 1990. However, households' debt burden is even higher today than on that occasion. Additionally, experience from other countries shows that downturns and falling house prices may be of longer duration than during the Norwegian banking crisis. Banks therefore need to make allowance for such a development when estimating PD and LGD. After reviewing banks' IRB models in 2012, Finanstilsynet will require adjustments to be made to banks' models for estimating PD and LGD.

Risk weights for home loans at Norwegian banks using internal risk models currently average 10-13 per cent. Since the Basel I floor is in effect for almost all IRB banks, even a substantially higher risk weight would be of limited significance for the capital requirement. The Basel I floor means that the capital tie-up for new home loans is just as large as it would have been with a 40 per cent risk weighting, i.e. 80 per cent of the Basel I weighting of 50 per cent. The additional floor applies to the entire calculation base and cannot be precisely assigned to the respective types of exposure and be converted to an "effective risk weight" for home mortgage loans. If the home loan weights increase, the effect of the additional floor will be reduced and at a certain level disappear. This level depends inter alia on corporate weights and the proportion of home loans in the portfolio. At a 20-25 per cent risk weight for home loans, the floor will no longer have any effect for the most IRB banks, but for some banks with low corporate weights or a large element of home loans, the floor will remain effective at a 35 per cent risk weight.

On 22 March the Ministry of Finance presented a discussion document recommending tighter risk weights for IRB banks' home mortgage loans. Four alternative solutions were outlined:

1. A standard-approach weight of 35 per cent, also for IRB banks
2. A lower threshold of 20 per cent for average LGD
3. A risk weight multiplier
4. A lower threshold of 25 per cent for risk weights

Finanstilsynet model tightening will be considered in connection with the ministry's round of consultation.

By tightening the risk weights for home loans, Norwegian authorities are utilising the national scope for action allowed under CRD IV; see Theme I Regulation for specific measures to dampen risk in the housing market in particular and systemic and macro risk in more general terms. The supervisory authorities are also responsible for considering whether the models provide robust estimates, for example whether margins of error are adequate in relation to the uncertainty inherent in historical data and the models. If the supervisory authorities find significant deficiencies in the models or in the use of models, they must demand that such deficiencies be rectified or that steps be taken to limit their consequences. The latter can be achieved by imposing stricter capital requirements.

LIQUIDITY RISK

Liquidity risk is the risk that a bank will be unable to honour its obligations to depositors or other creditors as and when its funding falls due for repayment. The residual maturity of banks' funding has increased since the financial crisis, slightly improving the match of funding maturities to lending maturities. This maturity transformation is an important function in banks' operations, but renders banks vulnerable if deposits and funding are not renewed. In the first instance liquidity risk is related to the ongoing refinancing need in national and international money and capital markets. Banks with high deposit-to-loan ratios, long-term market financing and liquid assets are less vulnerable to market turbulence.

SITUATION IN THE MONEY AND CAPITAL MARKETS

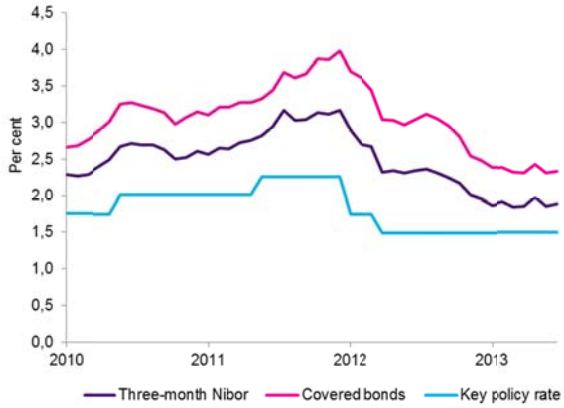
Conditions in the international money and capital markets improved in the final months of 2012, and the positive development continued into 2013. Thus far this year the situation in the markets is better than one year ago. The market for senior bonds was accessible to more banks, and more European banks started in December 2012 and February 2013 early repayments of loans taken up under the European Central Bank's long-term refinancing operation (LTRO). However, the situation in Europe is uncertain and could give rise to rapid changes in international financial markets and trigger renewed turbulence which may affect banks' funding opportunities.

For Norwegian institutions the primary market for covered bonds, both in NOK and other currencies, worked well through 2012 and into 2013. This was also true of the Norwegian market for senior bonds. Access to short-term funding was also ample, and the differential between the key policy rate and the money market rate fell (chart 2.20).

Use of covered bonds for long-term funding has been advantageous for banks due both to investor preferences for safe bonds and to lower risk premium mark-ups. Moreover, the variation in yield has been lower in the case of covered bonds than senior bonds. Risk premiums dropped by relatively large margin in the final months of 2012, and early in 2013 work at a lower level than prior to the turbulence in autumn 2011 (chart 2.21). The interest rate on five-year floating rate senior bonds and covered bonds has fallen by about 100 and 45 basis points respectively since the start of 2012.

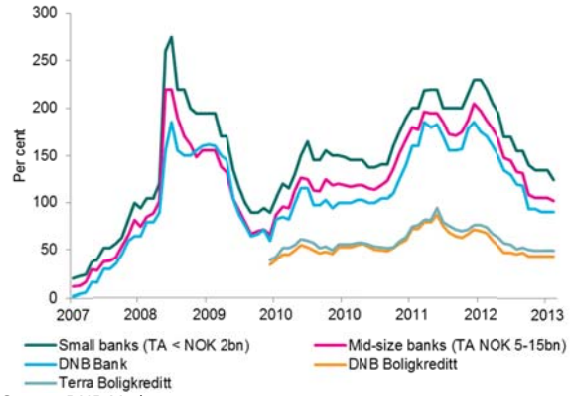
In recent years banks have issued substantially higher amounts in covered bonds than in senior bonds (chart 2.22). Most covered bond issues by Norwegian banks are done in the international capital market. The volume of senior bond

2.20 Key policy rate, Nibor and covered bond rate



Source: Thomson Reuters, DNB Markets

2.21 DNB Markets' indicative mark-ups for senior bonds and covered bonds against three-month NIBOR, 5-year



Source: DNB Markets

2.22 Bond issues per year

Note: Kredittforetak utsteder i all hovedsak OMF. Source: Stat. sentralbyrå

2.23 Residual maturity, bonds maturing after 2013

Source: Finanstilsynet

issues in 2012 was the highest since 2009, while covered bond issues were lower than in the previous years. In 2013 securities debt worth almost NOK 400bn falls due. The bulk of banks' bond debt falls due between 2014 and 2018 (chart 2.23).

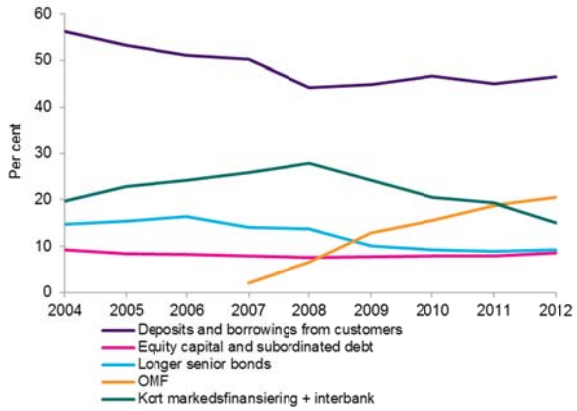
BANKS' FUNDING

Banks' funding largely comprises deposits from customers and borrowings on money and securities markets. Bank deposits have been a stable funding source, also in periods of financial turmoil, partly thanks to the deposit guarantee scheme. The guarantee given by the Banks' Guarantee Fund covers up to NOK 2m per depositor per bank, and at end-2012 guaranteed deposits accounted for 55 per cent of total deposits from customers in Norwegian banks. In a longer perspective, customer deposits have fallen as a share of total funding. In 2004, customer deposits made up 56 per cent of overall funding, compared with 47 per cent in 2012 (chart 2.24). The decline in customer deposits halted in 2012, and deposits rose by 7 per cent in the course of the year. The mid-size banks in particular showed strong deposit growth. Norwegian banks' overall deposit-to-loan ratio (deposits in per cent of loans) has risen in recent years (chart 2.25). The deposit-to-loan ratio at group level, which includes loans transferred to banks' mortgage companies, was 56 per cent at the end of 2012, which corresponds to an increase of 2 percentage points over the past year. Parent banks' deposit-to-loan ratio was 88 per cent.

Banks' market funding has risen markedly since banks were permitted to issue covered bonds through mortgage companies in 2007. Market funding accounted for 45 per cent of total funding at the end of 2012, compared with 35 per cent in 2004. Large banks have a considerably larger share of market finance than smaller banks which base their operations largely on deposit funding. Banks have grown more dependent on market funding, but the maturity on such funding has increased. The share of funding with a maturity above one year accounted for 65 per cent of total market funding, and the bulk of this was covered bonds.

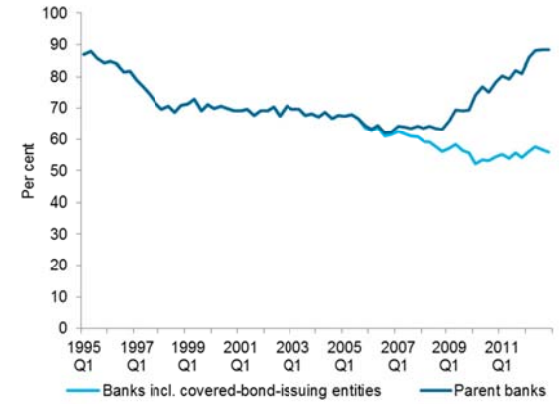
A substantial share of Norwegian banks' market funding consists of borrowings from abroad (chart 2.26). For the most part it is the largest banks that utilise this option

2.24 Funding sources, banks and covered-bond-issuing entities, adjusted for currency deposits with central banks



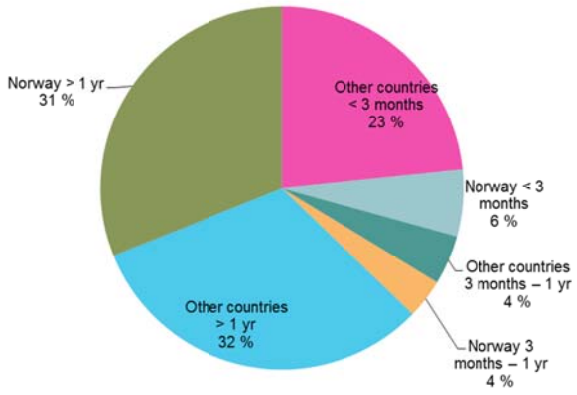
Source: Finanstilsynet

2.25 Deposit-to-loan ratio



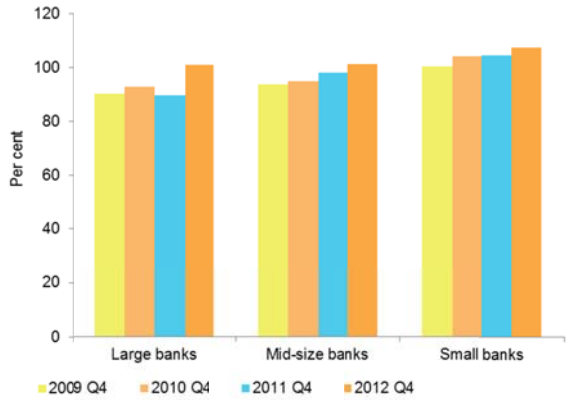
Source: Finanstilsynet

2.26 Market funding (without adjustments for deposits with central banks), and covered-bond-issuing entities



Source: Finanstilsynet

2.27 Funding with maturity above one year as a share of illiquid assets



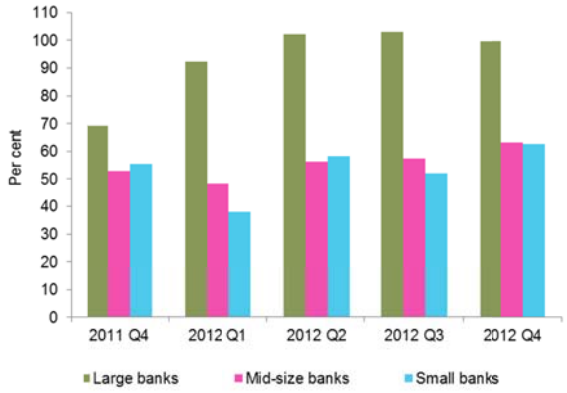
Source: Finanstilsynet

inasmuch as size and credit rating are important for access to funding from foreign sources. Foreign sources accounted for almost 60 per cent of total market funding (incl. all interbank debt) at the end of 2012. Compared with the previous year the proportion of market funding from foreign sources with maturities above one year has risen, mainly at the expense of shorter-term foreign funding.

The largest Norwegian banks also have substantial funding with maturities below 3 months in the money and capital markets. This accounted for 29 per cent of total market funding, the bulk of which was from foreign sources. A large proportion of short-term market finance renders banks more vulnerable to a deteriorating situation on international capital markets. At the end of 2012 Norwegian banks held substantial deposits in foreign central banks, thereby helping to reduce the vulnerability associated with refinancing needs.

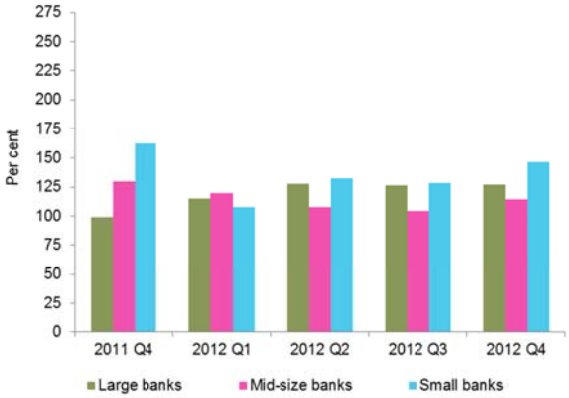
Finanstilsynet's long-term liquidity indicator has been used in monitoring banks' liquidity risk since 2002. The indicator shows the relationship between banks' funding with a maturity above one year (including bonds inclusive of covered bonds, debt to credit institutions, subordinated debt and equity capital, along with customer deposits irrespective of maturity) as a share of illiquid assets. The indicator has risen in recent years, and at end-2012 stood at 102 per cent (chart 2.27). This indicator has features in common with the net stable funding ratio (NSFR), which CRD IV recommends should be introduced with a minimum requirement of 100 per cent as from 2018; see the definition in Theme I. Until the NSFR requirement is incorporated in the Norwegian regulatory framework, Finanstilsynet's long-term liquidity indicator will be used in monitoring banks' liquidity risk.

2.28 LCR, weighted average



Source: Finanstilsynet

2.29 LBI, weighted average



Source: Finanstilsynet

BANKS' LIQUIDITY BUFFER

Banks are required to have sufficient liquidity buffers to withstand a period of limited access to liquid funds. CRD IV includes a new minimum liquidity buffer requirement, the Liquidity Coverage Ratio (LCR), proposed for introduction in 2015. Finanstilsynet considers it important for banks to start at an early stage the process of adjusting to the forthcoming liquidity requirement, and introduced quarterly LCR reporting for all Norwegian banks as from September 2011. This indicator is used in monitoring banks' liquidity risk.

The LCR measures the size of firms' liquid assets (largely consisting of cash, deposits with central banks, government securities along with corporate bonds and covered bonds subject to certain criteria) as a ratio of net liquidity outflow 30 days ahead in time, given a stress situation in the money and capital markets. The LCR for Norwegian banks was 95 per cent at the end of 2012. There are wide variations between banks (chart 2.28). See also a separate account of the LCR in Theme I.

Norwegian banks' liquidity buffer consists mainly of deposits with central banks, covered bonds and other securities. A large part of these securities are assumed to be somewhat less liquid, and therefore ineligible for LCR purposes, but can be put up as security in the central bank. Hence, in monitoring Norwegian banks' liquidity risk, an expanded liquidity buffer indicator (LBI) is employed until the LCR body of rules enters into force. This includes less liquid assets that are depositable in the central bank, regardless of their eligibility for the LCR. At the end of 2012 the LBI averaged 127 per cent (chart 2.29), and Norwegian banks thus have a substantial portion of assets that can be used as a liquidity buffer in periods of stress.

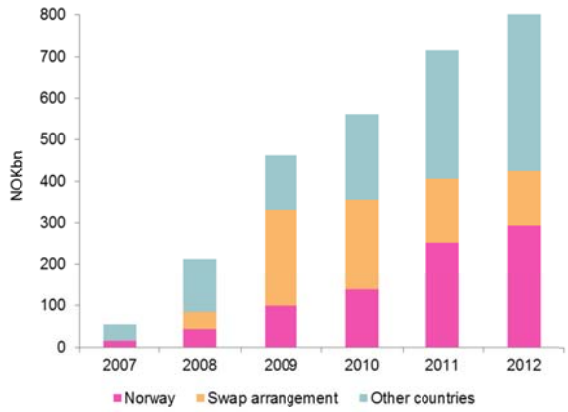
COVERED BONDS

Banks' funding structure has changed substantially in recent years. The increased significance of secured funding, mainly through the issuance of covered bonds, has greatest prominence. The increased share of secured funding is due inter alia to investors' risk aversion during the financial turbulence of 2007. The introduction of CRD IV and a new solvency framework for insurers (Solvency II) is expected to spur further demand for covered bonds. By the end of 2012 Norwegian banks had issued covered bonds worth about NOK 800bn. Under the government package of measures which allowed banks to exchange covered bonds for government securities (the "swap arrangement") during the international financial crisis, covered bonds totalling NOK 230bn were issued. Covered bonds worth about NOK 130bn are still part of the swap arrangement (chart 2.30), a large portion of which falls due between December 2013 and June 2014.

Covered bond funding has contributed to lower funding costs, reduced liquidity risk and a more diversified funding structure at virtually all Norwegian banks. However, the transfer and mortgaging of loan portfolios may also have adverse aspects. Increased mortgaging of banking groups' assets reduces flexibility in asset-liability management. The larger the portion of assets that are mortgaged, the lower the share of assets that are available as collateral for future funding, and the quality of the latter becomes on average poorer. This means that unsecured creditors and depositors must bear a larger portion of the risk. This may limit access to unsecured funding, especially in a crisis situation, thereby heightening the risk present in the financial system.

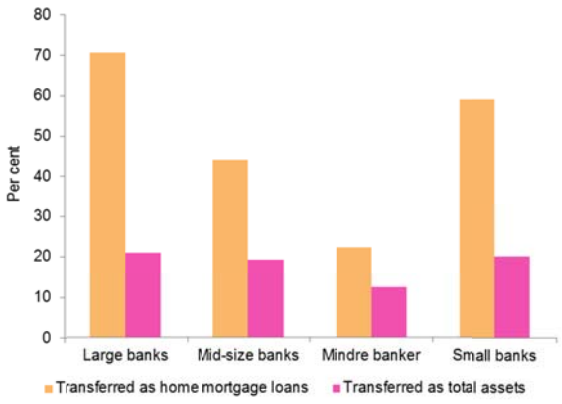
Since covered bonds are largely issued with home mortgage loans as collateral, there is also a danger that relatively favourable pricing of covered bonds and low risk weights assigned to home mortgage loans may prompt banks to steer lending away from corporates to households, thereby fuelling the upturn in household debt and house prices. In a cyclical downturn accompanied by a steep fall in house prices banks may need to transfer further home mortgages in order to honour their obligations. Moreover, rating

2.30 Outstanding covered bonds



Source: Finanstilsynet

2.31 Home mortgage loans transferred to covered-bond-issuing entities



Source: Finanstilsynet

agencies may demand a greater degree of overcollateralisation. The risk of a sharp cutback in bank lending may increase, thereby intensifying the downturn.

In Norway covered bonds must be issued by a separate mortgage company and not by the bank itself. There are 23 Norwegian covered-bond-issuing entities. The majority are wholly owned by the parent bank, while five are co-owned by several banks. Virtually all banks in Norway now have access to wholly or partially owned mortgage companies, and 60 per cent of all home mortgage loans now reside in such companies. The major banks have on average transferred a higher proportion of their loans than have small banks (chart 2.31). Transfer of home mortgage loans to a mortgage company increases average credit risk at the parent bank, and heightens the liquidity risk arising from reduced flexibility in a crisis situation.

There are considerable financial ties between banks and covered-bond-issuing entities, for instance in the form of guarantees and credit facilities available to the mortgage company. Such commitments exist on a large scale and are important in enabling mortgage companies to issue covered bonds of high quality. Rating agencies' requirements regarding parent bank guarantees bring into relief existing commitments and close ties between the banks and their wholly owned and co-owned covered-bond-issuing entities.

Due to possible negative effects of the use of covered bonds, Finanstilsynet recommends curbs on their issuance and increased information requirements. Finanstilsynet will follow up on banks' risk assessments in this area as part of the Pillar 2 process; see Theme I.

3 SITUATION FOR INSURANCE AND PENSIONS

Insurers and pension funds play an important role in ensuring financial security across life phases and against unforeseen events. They are among the largest providers of long-term capital to banks and non-financial firms. Substantial securities holdings enabled life insurers and pension funds to improve their results in 2012, but also entail extensive market risk. The risk needs to be viewed against the buffer capital available to cover any shortfall in return on products with a guaranteed rate of return and other risk factors. The large share of pension contracts with lifelong guaranteed benefits in combination with low interest rates and increased longevity call for a strengthening of risk-bearing capacity. Non-life insurers are less exposed to these long-term challenges and recorded excellent results in 2012.

LIFE INSURERS AND PENSION FUNDS

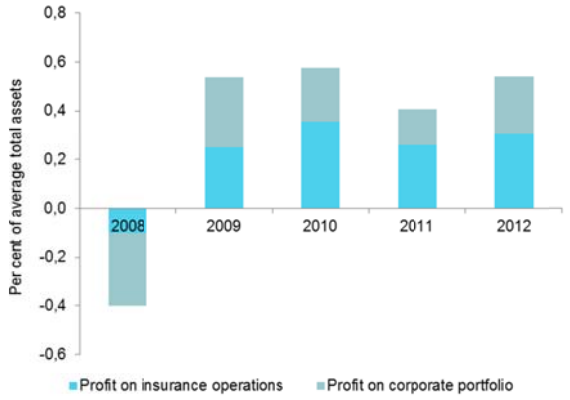
EARNINGS

Life insurers and pension funds (from here on termed pension providers) benefited in 2012 from the positive trend in financial markets. Global stock markets rose for the year as a whole. Concurrently pension providers made capital gains on bond portfolios, mainly as a result of reduced credit spreads for bonds. On the other hand, long rates fell to very low levels over the course of the year. Over time persistent low interest rates pose a challenge to the insurers in terms of fulfilling the annual interest guarantee. Almost 90 per cent of insurance liabilities carry guaranteed interest. At the start of 2013 10-year government bonds in Norway had risen somewhat, but to a level still far below the average interest rate guarantee.

Life insurers' pre-tax profit measured 0.5 per cent of average total assets (ATA) in 2012, a slight increase from 2011. Higher return on insurers' own investment funds, the corporate portfolio, was the largest contributor to the improvement, while earnings on insurance operations (technical result) were relatively stable (chart 3.1). Premium earnings (exc. pension plan transfers) rose by 14 per cent from 2011. Claims expenses, which include pension payments, rose by about 8 per cent.

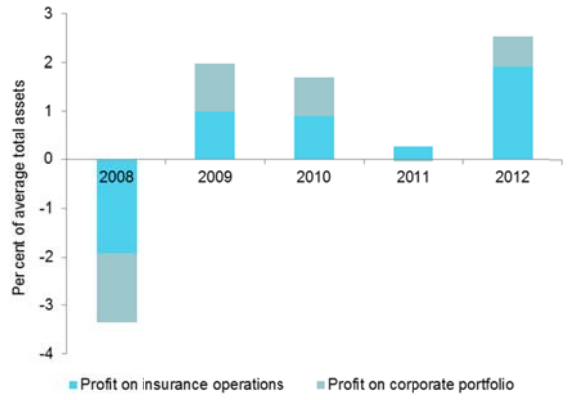
Pension funds achieved overall a strong increase in profit before tax, from 0.3 per cent of average total assets in 2011 to 2.5 per cent of ATA in 2012. Increased earnings from insurance operations were the main contributor to the profit improvement (chart 3.2, note the differing scale compared with chart 3.1).

3.1 Pre-tax profit, life insurers



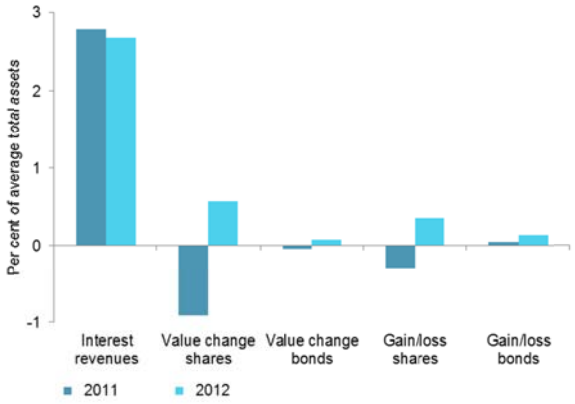
Source: Finantilsynet

3.2 Pre-tax profit, pension funds



Source: Finantilsynet

3.3 Net revenues in the collective portfolio, life insurers



Source: Finantilsynet

The positive trend in the financial markets meant that fluctuation reserves, which are used to smooth variations in investment return over time, strengthened by NOK 8bn for life insurers and by NOK 5bn for pension funds in 2012. In comparison pension providers had to devote NOK 8bn and 9bn respectively of fluctuation reserves in 2011 to make good the shortfall on contracts with an interest guarantee.

RETURN ON POLICYHOLDER ASSETS

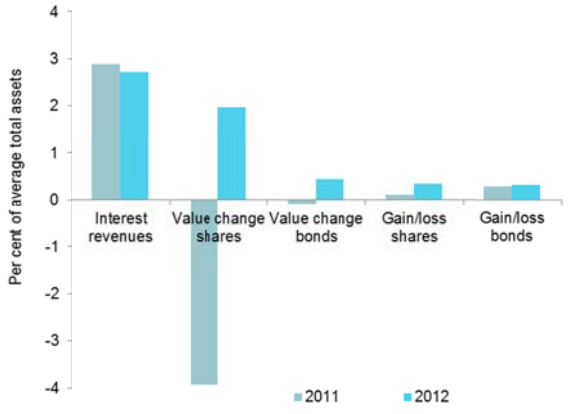
At the end of 2012 about 88 per cent of policyholder assets at life insurers were linked to contracts where the customer is guaranteed a minimum rate of return. These products include defined benefit pensions, paid-up policies and old individual contracts. The associated assets are managed in collective portfolios. Pension funds held 97 per cent of policyholder assets in the collective portfolio.

The financial market trend in 2012 caused net financial revenues in collective portfolios to almost treble compared with 2011. The increase is in the first instance due to the fact that the stock market slump of autumn 2011 was reversed in 2012. Further, the reduction in credit spreads for corporate bonds led to some increase in the value of bond portfolios. Current interest revenues, which account for the bulk of financial revenues, were reduced somewhat due to a further fall in the general level of interest rates (charts 3.3 and 3.4).

The improvement in financial revenues caused adjusted return on life insurers' collective portfolios to rise more than 3 percentage points to 6 per cent in 2012. Partly because of a higher equity component the increase was larger for the pension funds, from 0 to 8 per cent (chart 3.5). Book return on capital, which does not include unrealised gains, also improved to end at 5 per cent for life insurers and pension funds alike. Return was accordingly above the annual guarantee for most contracts. A substantial part of the surplus return in 2012 was used to strengthen reserves with a view to meeting future payments related to rising longevity; see the account towards the end of this chapter.

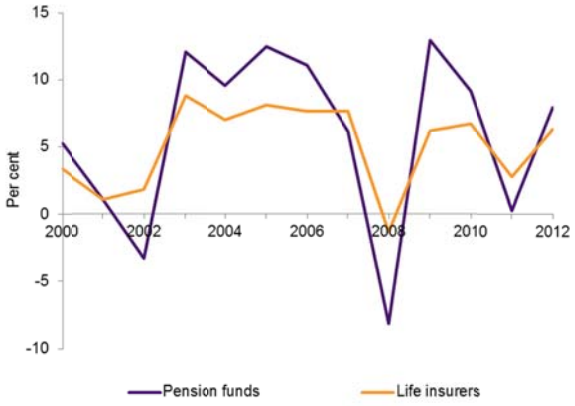
The unit linked portfolio consists of assets linked to contracts where the policyholder chooses the investment mix and personally bears the risk for the return. The portfolio is increasing in volume and accounted for 12 per cent of life insurers' policyholder assets at the end of 2012. As in the case of other portfolios, financial revenues improved sharply, bringing capital return on these policyholder assets to an estimated 8 per cent for 2012 compared with -3 per cent the previous year (chart 3.6). A higher equity component in the unit linked portfolio explains much of the difference return compared with collective portfolios. However, a larger proportion of shares in the portfolio makes for wider fluctuations in value.

3.4 Net revenues in the collective portfolio, pension funds



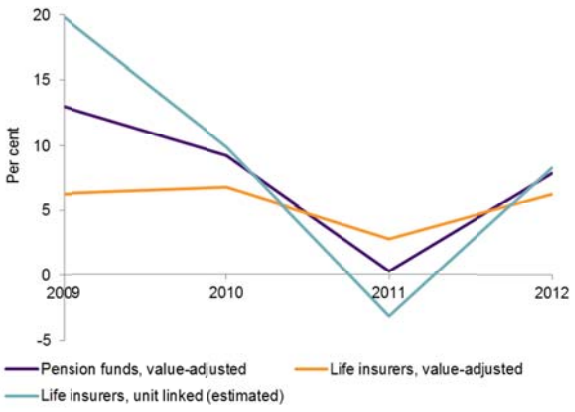
Source: Finantilsynet

3.5 Value-adjusted return, collective portfolio



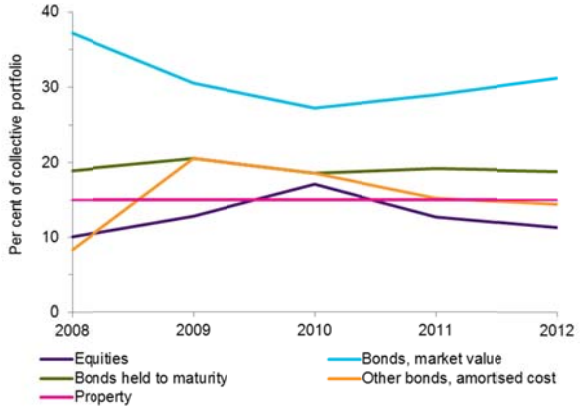
Source: Finantilsynet

3.6 Return for collective portfolio and unit linked



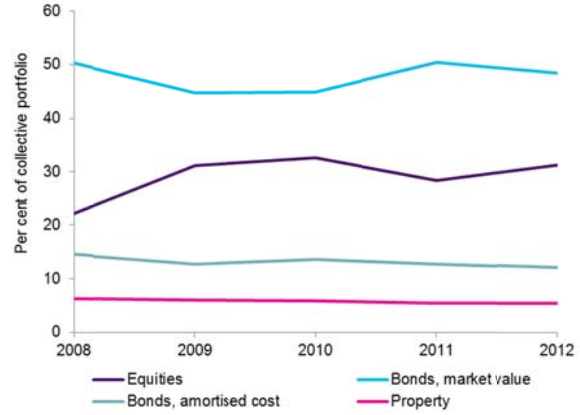
Source: Finantilsynet

3.7 Selected balance sheet items, life insurers, annual figures



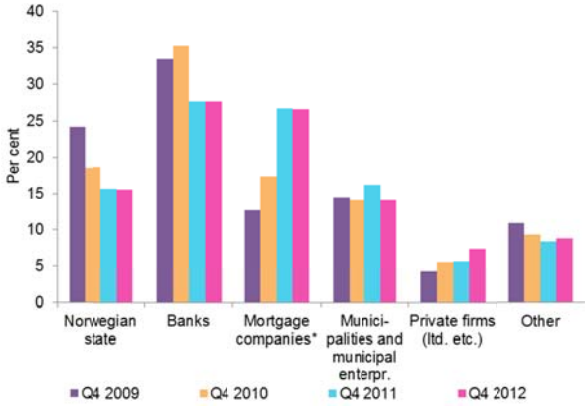
Source: Finantilsynet

3.8 Selected balance sheet items, pension funds, annual figures



Source: Finantilsynet

3.9 Life insurers' investments in bonds issued in Norway, by sector



*Mainly covered bonds. Source: Finantilsynet

For a detailed review of life insurers' and pension funds' results, see Report for Financial Institutions, published quarterly on Finanstilsynet's website.

MARKET RISK

Large parts of life insurers' and pension funds' assets are invested in the securities market, and the value of such investments is influenced by developments in these markets. Although life insurers have reduced their equity component in recent years, equity risk remains substantial due to the potential for rapid, large price movements with immediate effects on return and financial position. The equity component in life insurers' collective portfolio was 11 per cent at the end of 2012 compared with 20 per cent at the end of the first quarter of 2008 (chart 3.7). Since a substantial portion of life insurers' shareholdings consist of foreign shares, developments in both Norwegian and international stock markets affect financial revenues and the value of shareholdings. Pension funds' equity component is higher than that of life insurers, accounting for 31 per cent of the collective portfolio at the end of 2012 (chart 3.8).

Bonds made up a total close to 70 per cent of life insurers' collective portfolio. Bonds generate all in all relatively predictable interest revenues, but their market value fluctuates in step with changes in the market interest rate. Bonds valued at market value, and freely transferable, are for accounting purposes treated differently than bonds to be held to maturity or other (often less liquid) bonds valued at amortised cost. The accounting value of bonds at market value is affected by interest rate changes. Bonds held to maturity, and other bonds at amortised cost, contribute to stable interest revenues, and the accounting value of such bonds does not fluctuate with changes in the market interest rate. An important rationale for classifying fixed income securities as "held to maturity" or amortised cost is precisely to avoid accounting fluctuations that may have negative consequences for pension providers' equity capital and solvency capital. The proportion of life insurers' bonds at market value rose from 29 to 31 per cent of the collective portfolio from 2011 to 2012, while the proportion of bonds at amortised cost (including bonds held to maturity) was just under 40 per cent at the end of 2012. The proportion of bonds at market value at pension funds made up 48 per cent of the collective portfolio, while the proportion of bonds at amortised cost was 13 per cent. The accounting value of pension funds' bond portfolio is accordingly more volatile than that of life insurers.

Fixed income instruments have a certain level of reinvestment risk, which rises with a falling interest rate level. The change in the effective interest upon reinvestment is most evident for fixed income instruments that are held to maturity. Large parts of this fixed income portfolio were

invested at a higher interest rate level than today's, largely above 5 per cent, and, given current interest rate scenarios, will need to be reinvested at a far lower rate level when they reach maturity. However, more than 70 per cent of life insurers' bonds at amortised cost have more than four years' residual maturity, so short-term risk is limited.

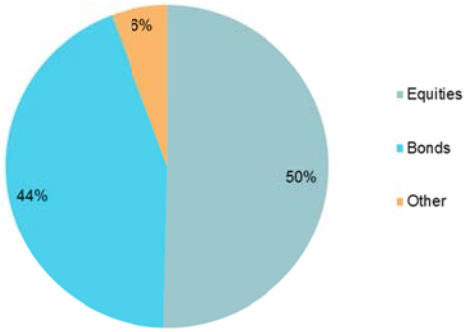
About one-half of life insurers' aggregate bond portfolio consists of Norwegian bonds. Bank bonds make up the largest portion of Norwegian bonds, but this portion was reduced in 2010 and 2011, whereas bonds issued by mortgage companies (mainly covered bonds) rose substantially (chart 3.9). This development may be related to the fact that covered bonds will receive lower risk weighting than bank bonds under the forthcoming regulatory framework, Solvency II. In the past year, however, the distribution has been stable.

The composition of asset classes in life insurers' unit linked portfolio diverges significantly from the collective portfolio (chart 3.10). An average of 50 per cent of the portfolio is invested in shares. The composition varies according to the risk profile chosen by the customer, and a high risk profile normally entails a higher equity component. Theme VI gives a closer account of possible consequences of a rise in the proportion of unit linked pension insurances.

FINANCIAL SOUNDNESS AND STRESS TESTS

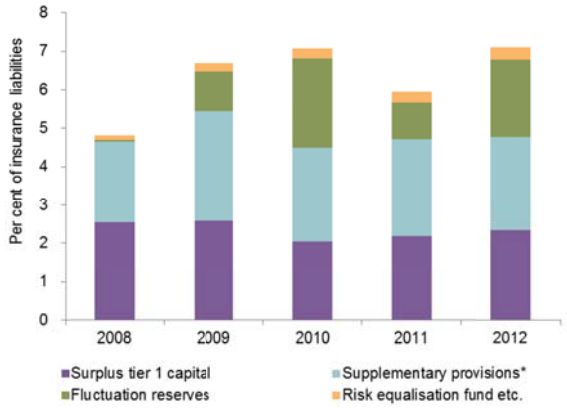
Pension providers' capital management is largely dependent on the buffer capital available to them at all times. High buffer capital, defined here as available capital over and above statutory minimum requirements (surplus tier 1 capital, supplementary provisions, fluctuation reserves, risk equalisation funds and unrealised gains reserve) provides greater room for manoeuvre in asset management, and the portfolio's expected long-term return can be increased by taking greater risk. Life insurers' buffer capital totalled NOK 54bn at the end of 2012. This corresponds to 7 per cent of insurance liabilities compared with 6 per cent at the end of 2011 (chart 3.11). Pension funds have substantially higher buffer capital than life insurers. At the end of 2012 buffer capital measured 14 per cent of insurance liabilities, an increase of 3 percentage points from 2011 (chart 3.12).

3.10 Composition of life insurers' unit linked portfolio as of 31.12.2012



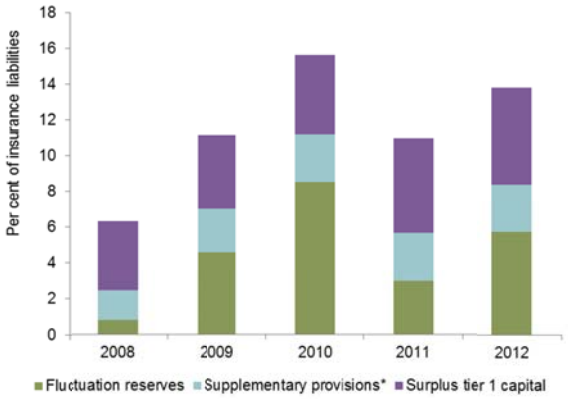
Source: Finantilsynet

3.11 Life insurers' buffer capital



*Upward limit of one year's interest guarantee. Source: Finantilsynet

3.12 Pension funds' buffer capital



*Upward limit of one year's interest guarantee. Source: Finantilsynet

Stress test scenarios for market risk:

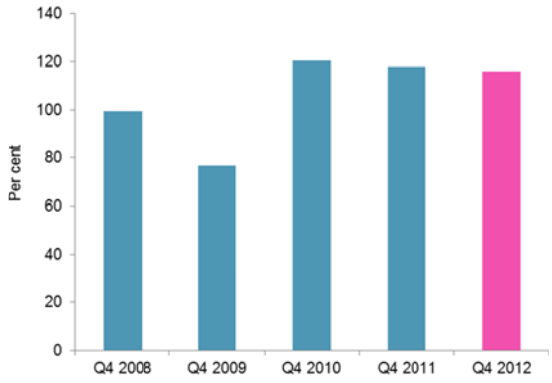
- Specified relative change in the yield curve both for interest rate increases and decreases, where the relative change decreases with longer maturity
- A 39 per cent fall in equity markets for quoted shares in the OECD area and 49 per cent for other equity exposure. Based on the development in the stock market index MSCI World over the last three years, the shocks are adjusted up or down by up to 10 percentage points
- A 25 per cent fall in property markets
- Both a strengthening and weakening of foreign currency exchange rates by 25 per cent
- Specified changes in credit spreads with a steeper rise for lower rating classes

Management of Norwegian pension assets is largely based on dynamic risk management whereby risk is adjusted to risk-bearing capacity. This effectively involves reducing their equity component when equity markets fall and increasing it when the market rises. These procyclical effects are stronger when buffer capital is low in relation to overall risk. With low interest rates, maintaining return above the guaranteed rate of return poses a challenge to pension providers. The challenge is augmented by the fact that low buffer capital limits pension providers' ability to maintain an investment profile needed to achieve surplus return.

Life insurers and the largest pension funds report stress tests on a quarterly basis to Finanstilsynet. The tests are designed to analyse the impact of the forthcoming solvency regime, Solvency II. Introduction of the new framework is postponed and will take place in 2015 at the earliest, giving insurers somewhat more time for adjustment. The stress tests are closely aligned to the new framework, with some simplifications. However, the Solvency II regime is yet to be finalised, and the stress tests are modified in step with revisions of the Solvency II draft. The stress test scenarios cover all aspects of insurers' activity, including market risk, insurance risk, counterparty risk and operational risk.

The stress tests assess the providers' overall risk, measured as potential for loss, against their buffer capital i.e. buffer capital utilisation. Buffer capital utilisation above 100 per cent indicates that the provider's overall loss potential, under the above-mentioned scenarios, exceeds available buffer capital and that the solvency capital requirement under Solvency II is not met. At end-2012 a majority of life insurers had a buffer capital utilisation in excess of 100 per cent in the stress test, some significantly in excess (chart 3.13). Among other factors, a large volume of products with an annual interest guarantee means that a number of companies will face considerable challenges related to the capital requirements under Solvency II. Indeed this is given weight in the Bank Law Commission's reports on new pension laws: see Theme VI Occupational pension system undergoing change.

3.13 Buffer capital utilisation stress test I – life insurers



Source: Finantilsynet

NEW MORTALITY TARIFFS - HIGHER TECHNICAL PROVISIONS TO COVER INCREASED LONGEVITY

A significant share of life insurers' liabilities consist of collective occupational pension schemes providing lifelong benefits. Life expectancy is therefore an important parameter when life insurers and pension funds determine premiums and technical provisions. Finanstilsynet established in March 2013 new requirements on pension providers' mortality tables which will entail a significant strengthening of provisions and increased premiums for new accrual. The new mortality tables will apply from 1 January 2014 onwards. They are based on the Statistics Norway's mortality projections, to which are added margins allowing for the fact that the insured portfolio has a lower mortality rate than the population in general.

A dynamic mortality table is planned entailing that mortality for each age cohort changes over time. Previously the assumption was that mortality for each cohort would be constant throughout the period of insurance (static mortality table), whereas mortality is now presumed to change (fall) over time.

The need for provisioning for premium-paying pension plans and paid-up policies will rise substantially with the new mortality tariffs. Preliminary estimates put the overall need for additional provisioning by life insurers at NOK 45-50bn. Of the overall need for increased provisioning, life insurers have already strengthened provisioning by almost NOK 15bn of which about NOK 11bn in 2012. Pension funds also devoted a significant portion of their surplus returns in 2012 to strengthening provisioning.

The Act on Insurance Activity allows pension providers a period in which to strengthen provisions. By letter of 8 March 2013 Finanstilsynet signalled that providers should not spend more than five years as from 1 January 2014 on completing the process. Based on a derogation included in the above act, providers are allowed to devote surplus returns on policyholders' assets to funding the increase of provisions. Finanstilsynet also announced a requirement that own funds should cover at least 20 per cent of the overall need for provisioning. Finanstilsynet considers the situation to be challenging, but manageable. The return on insurance funds in the years ahead will key to pension providers' ability to strengthen provisions and solvency capital.

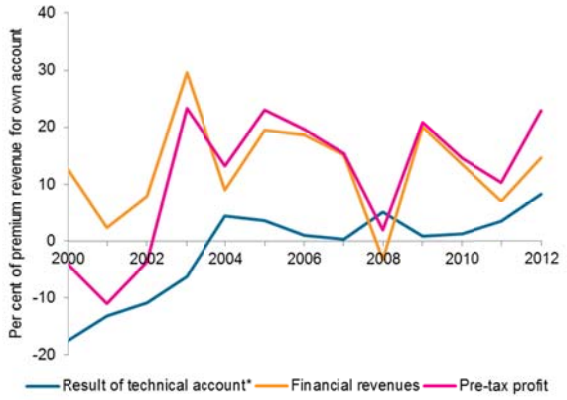
NON-LIFE INSURANCE

In 2012 Norwegian non-life insurers (without captives) posted an overall pre-tax profit of NOK 7.1bn, which is about NOK 4bn better than in 2011. Both earnings on insurance business and return on investments showed improvement (chart 3.14). At NOK 4.6bn in 2012, financial revenues were more than twice the 2011 figure. Interest was the largest financial revenue item. The decline in credit spreads led to a substantial increase in the value of bond portfolios, at the same time as increasing property investment values contributed to improved returns (chart 3.15).

Profit from insurance operations was NOK 3.4bn in 2012, up 38 per cent from 2011. The good performance was due to a 7 per cent rise in premium revenue combined with a slight reduction in claims expenses. The growth in insurance-related operating expenses was also lower than the growth in premium revenues. Legislation requires a portion of investments to be used to cover insurance expenses (allocated investment return). When adjusted for these revenues, the result of insurance operations showed an increase from NOK 0.9bn in 2011 to NOK 2.6bn in 2012.

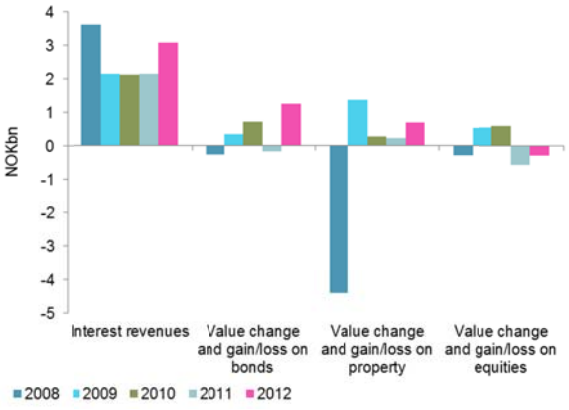
The combined ratio is an indicator of the profitability of insurance business, and shows what proportion of expenses on claims and operations are met by insurers through premiums. If the combined ratio is above 100 per cent, the insurer needs other revenues to achieve profit. Winter 2012 was extremely mild and devoid of extreme weather. This led to lower claims expenses in 2012 than in 2011, and contributed to a 6 per cent improvement in the combined ratio, to 90 per cent in 2012 (chart 3.16).

3.14 Results of non-life insurers (without captives)



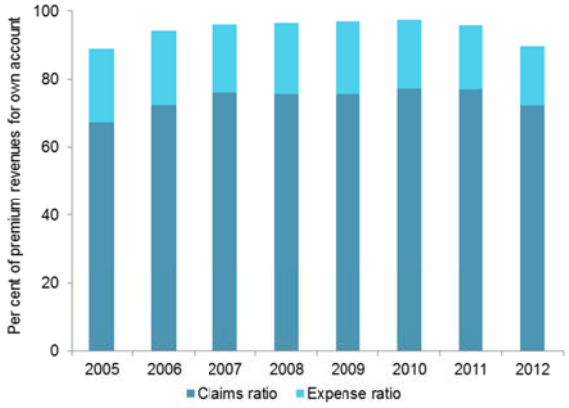
* Value change and gain/loss on equities. Source: Finantilsynet

3.15 Financial revenues of non-life insurers (without captives)



Source: Finantilsynet

3.16 Claims ratio and expense ratio (combined ratio)



Source: Finantilsynet

THEME I REGULATION

A number of regulatory changes are under preparation in the financial area. The EU's draft capital framework, CRD IV, proposes stricter capital requirements for credit institutions and investment firms. New solvency rules for insurers, Solvency II, are to replace current solvency margin requirements. The financial crisis has led to much focus on systemically important banks and crisis management systems. New rules have been drafted in both these areas. Rules have also been proposed with a view to a safer and more transparent market for derivatives not traded on a stock exchange or regulated marketplace – OTC derivatives. In the accounting field new rules regulating loan loss assessment and accounting treatment of insurance contracts will be of major significance for financial institutions.

CRD IV – NEW PRUDENTIAL FRAMEWORK FOR CREDIT INSTITUTIONS AND INVESTMENT FIRMS

CRD IV, implementing the new standards from the Basel Committee, Basel III, was adopted by the European Parliament on 16 April. The new framework is to be approved by the European Council before summer and will go live on 1 January 2014.

CRD IV comprises a Regulation setting minimum requirements for various forms of capital, quantitative liquidity requirements, provisions on large exposures and disclosure of financial information, and a Directive including licensing provisions, provisions on prudential supervision, on corporate governance and risk management at institutions and requirements as to capital buffers in excess of minimum requirements.

The new capital requirements ensuing from Basel III and their impact on Norwegian institutions were discussed in Finanstilsynet's report, Financial Trends, in October 2012. An update on areas in which important clarifications have been made follows below.

SYSTEMIC RISK

Member countries are required to identify globally systemically important institutions (G-SII) and to impose on them a buffer comprising common equity tier 1 capital. Identification is to be based on criteria established by the Basel Committee. Five classes of rising buffer levels are established, ranging from 1 to 3.5 per cent of risk-weighted assets for capital requirements. The G-SII buffer is to be introduced stepwise from 2016 to 2019.

Member countries can identify other systemically important institutions (O-SII) and impose on them a buffer. The assessment criteria are similar to the G-SII criteria but are tailored to the degree of systemic importance at member country and EU level. The buffer can be set at between 0 and 2 per cent of risk-weighted assets. The European Commission, the European Systemic Risk Board (ESRB) and the European Banking Authority (EBA), and affected member countries must be informed when buffers are introduced and revised. A banking group that qualifies for both an O-SII and a G-SII buffer shall only take account of the higher of the two. A subsidiary of a G-SII or O-SII shall be subject to a buffer of 1 per cent or the level of the group's overall buffer requirement, whichever is higher.

Member countries may also introduce a systemic risk buffer to prevent and mitigate "long-term non-cyclical systemic or macro risk" that could lead to serious negative consequences for the financial system and the real economy. This buffer may only be introduced where the above risk is not already covered by the ordinary prudential requirements. The systemic risk buffer may be imposed on institutions, or groups of institutions, that have relatively similar sectoral exposures or risk profiles. The above-mentioned EU bodies and affected member countries must be informed of the introduction of and changes to the buffer. Member countries may set buffer levels between 1 and 3 per cent of risk-weighted assets. As from 2015 member countries can set a buffer of up to 5 per cent for exposures at home and outside the EEA. Higher buffer levels require approval by the European Commission. The authorities are expected to review the buffer requirement every second year. Requirements on systemic risk buffers apply in principle exclusively to the home country's institutions, while other countries' authorities can choose whether to impose a systemic risk buffer on their own institutions operating in the country (voluntary reciprocity).

For institutions eligible for both SII and systemic risk buffers, the Directive draws a distinction between systemic risk buffers which (i) only apply to exposures localised in the home country, and (ii) systemic risk buffers applying to exposures localised both at home and abroad. In situation (i) banks are required to fulfil both requirements. In situation (ii), on the other hand, banks are only required to take into account the larger buffer. An institution which does not fulfil the overall buffer requirements will be subject to restrictions on the distribution of its profit. The introduction of and changes to the buffer requirements must be published.

NATIONAL DISCRETION

In addition to systemic risk buffers and buffer requirements for national systemically important institutions, national authorities are also required to establish a countercyclical capital buffer. Further, national authorities are entitled to

impose on individual institutions or groups of institutions extra capital requirements based on individual or systemic factors (Pillar 2).

Since the property market has distinctive national features, the authorities can impose stricter requirements as to risk weighting of home mortgage loans and loans secured on commercial property:

- Standardised approach: Supervisory authorities assess at least annually whether the criteria and risk weighting for home loans and loans secured on commercial property of, respectively, 35 and 50 per cent are justified, and may set a higher risk weight or lower cap on the loan-to-value ratio (than, respectively, 80 and 60 per cent) to qualify for these weightings.
- IRB approach: Supervisory authorities assess at least annually whether a lower threshold for average loss given default (LGD) for home loans of 10 per cent is justified, and may set a higher lower threshold.

The assessments must be based on historical loss experience, market prospects ahead and the need for financial stability. These measures will apply to all loans secured on property in the country, regardless of the lender's home country.

CRD IV permits national authorities to take special measures in response to increased macro or systemic risk that may have major negative consequences for financial stability and the real economy. Among such measures are higher capital/buffer requirements, tighter liquidity requirements and higher risk weights to counteract property market bubbles. Such measures can only be resorted to where other possibilities offered by the legislation have been exhausted. The measures must be assessed by the EBA, ESRB and the European Commission, and be approved by the Council, although some tightening actions may be taken without approval. The measures can last for up to two years, and can be continued for one year at a time.

EQUITY CERTIFICATES

It was previously unclear whether equity certificates would fulfil the requirement that common equity tier 1 capital should cover the first loss and the proportionally largest portion of losses compared with all other capital instruments issued by the institution. A widespread view among European supervisory authorities has been that such capital instruments in cooperative and mutual institutions, savings institutions and similar institutions fulfil this requirement even though the contributors of the capital do not own, or own only parts of, the retained earnings of the institution.

Another precondition for equity certificates to qualify for inclusion as common equity tier 1 capital is that savings banks should be regarded as "savings institutions" under the supplementary provisions to be established for institutions that are not organised as limited liability companies. However, the proposed Regulation text makes clear that savings institutions and cooperative and mutual companies that are licensed under national legislation in effect prior to 31 December 2012 can form a part of a grouping that is exempt from certain of the requirements regarding common equity tier 1 capital.

Hence Finanstilsynet assumes that equity certificates do fulfil the requirements on common equity tier 1 capital when account is taken of the exemptions in favour of institutions that are not organised as limited liability companies.

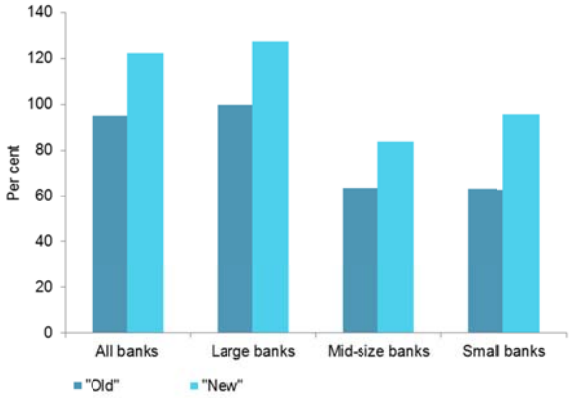
BONUS ARRANGEMENTS

The rules governing remuneration were tightened in CRD III. Norwegian regulations on remuneration at financial institutions entered into force on 1 January 2011. The regulations require the composition of fixed and variable remuneration for senior employees to be balanced. The fixed element of remuneration must be sufficiently high for the employer to be able to refrain from paying the variable element of remuneration. The same applies to employees with functions of vital significance for the entity’s risk exposure, employees with control tasks and elected officers. For the CEO and members of management team of a bank, variable remuneration cannot exceed half of the fixed remuneration. The latter provision is specific to Norway. CRD IV introduces a cap on variable remuneration of 100 per cent of fixed remuneration. This cap can be raised to 200 per cent by a qualified majority of the institution’s general meeting.

IMPLEMENTATION IN NORWEGIAN LAW

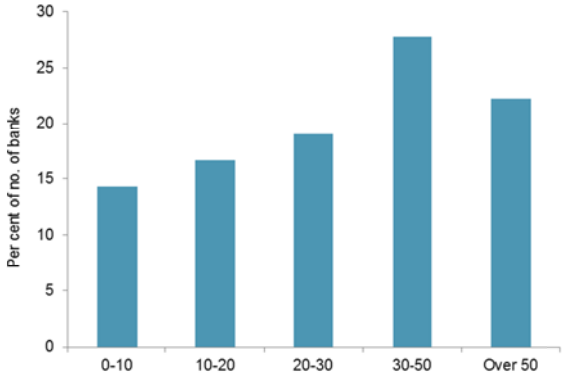
On 22 March 2013 the Ministry of Finance presented a proposal for changes to the financial institutions act and the securities trading act to enable transposition of CRD IV into Norwegian law. The proposed changes entail that the capital and buffer requirements of CRD IV will enter into force in Norway on 1 July 2013. The ministry recommends a permanent systemic risk buffer of at least 3 per cent and a buffer of 2 per cent for systemically important institutions (with authority to change these levels by regulations). Under transitional arrangements the systemic risk buffer will be at least 2 per cent in the first year, thereby continuing the requirement of a 9 per cent common equity tier 1 ratio (the sum of the minimum requirement of 4.5 per cent plus a 2.5 per cent conservation buffer plus a 2 per cent systemic risk buffer). The buffer for systemically important institutions is to be introduced as from 1 July 2015 and will stand at 1 per cent the first year. The law proposal also provides a basis for implementing the more detailed

I.1 Compliance with the LCR requirement under old and new definition



Source: Finanstilsynet

I.2 Improvement in the LCR in percentage points



Source: Finanstilsynet

provisions of CRD IV in regulations. The Regulation will be translated and implemented by means of regulations stating that the Regulation applies (incorporation), whereas the Directive will be implemented in one or more regulations (transposition). Finanstilsynet will propose new regulations in September 2013.

CRD IV will be incorporated in the EEA agreement by an adaptation text clarifying what procedures will be relevant for Norway in cases where national action requires approval from EU bodies.

MORE ABOUT LIQUIDITY REGULATION

Robust funding and ample liquidity are of much significance for financial stability, and Basel III and CRD IV propose stricter requirements on liquidity regulation, including the introduction of quantitative minimum requirements for liquidity buffers and long-term funding.

The liquidity coverage ratio (LCR) measures an institution's liquidity buffer. It requires an institution's highest-quality liquidity reserves to exceed expected net outflows over a stress period of 30 days. The net stable funding ratio (NSFR) measures the ratio of available stable funding to a one-year stable funding requirement, and shows the level of a bank's long-term funding. It is designed to discourage banks from financing illiquid long-term assets by means of short-term funding to an excessive degree.

Norwegian banks will face challenges complying with the new international liquidity requirements, in particular the stringent requirements to be met in order for securities to qualify as liquid assets. Turnover requirements mean that large sections of the covered bond market in Norway are ineligible as liquid assets. Moreover, fixed-income securities issued by the public sector are small in volume and there are few corporate bonds with a satisfactory credit rating. The high outflow rates on certain payments are also a challenge for Norwegian banks. Most Norwegian banks are closer to meeting the forthcoming requirements for the NSFR than the LCR.

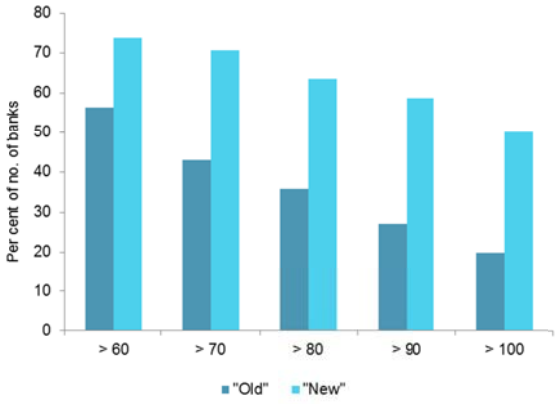
CHANGES PROPOSED IN THE LIQUIDITY COVERAGE RATIO (LCR)

CRD IV builds mainly on recommendations from the Basel Committee from December 2010. The Basel Committee published in January 2013 changes in the LCR enabling further assets to be included in the liquidity buffer, and reducing some outflow rates. An LCR requirement of 60 per cent is proposed as from 1 January 2015, to be increased to 100 per cent as from 1 January 2019. It is not clear which of the Basel Committee's changes will be incorporated in the final CRD IV, but a phase-in of the LCR requirement is planned. No changes are proposed to the NSFR.

The broadening of the range of liquid assets in the LCR includes residential mortgage backed securities (RMBS), lower-rated corporate bonds and certain shares. These changes are of little significance, both because Norwegian banks' exposure to RMBS is negligible and because legislation restricts equity investments to a maximum of 4 per cent of balance sheet assets. Moreover, the securities are subject to high haircuts. The changes in outflow rates will have greater effect. Outflow rates for deposits covered by the deposit guarantee, non-operational deposits and certain credit and liquidity facilities are reduced in the Basel Committee's new proposals.

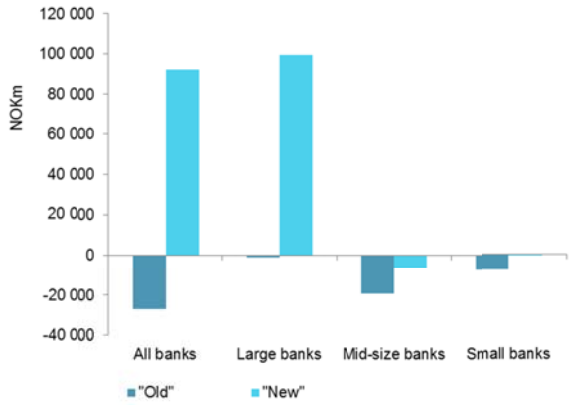
With the new outflow rates, the LCR for Norwegian banks is put at 122 per cent, an increase from the 95 per cent originally proposed. Large banks will fulfil the LCR requirement of 100 per cent, whereas the mid-sized and smaller banks will still fall short (chart I .1). According to the Basel Committee, the average LCR for the world's 200 largest banks will rise from 105 per cent to 125 per cent

I.3 Compliance with the LCR requirement under phase-in plan



Source: Finanstilsynet

I.4 Liquid asset deficit/surplus relative to the LCR requirement of 100 per cent



Source: Finanstilsynet

given the new outflow rates and the expanded range of liquid assets.

The bulk of Norwegian banks will see an LCR increase of between 30 and 50 percentage points with the new outflow rates (chart I.2). Of greatest significance are lower outflow rates for non-operational deposits. For large banks, the effect of the credit and liquidity facilities will also be significant. Reducing the outflow rate for deposits from households covered by the deposit guarantee scheme is highly significant for mid-sized and smaller banks. According to analyses by JP Morgan, reducing the outflow rates for non-operational deposits and credit and liquidity facilities will also have greatest impact for international banks.

Chart I.3 shows Norwegian banks' compliance with the LCR requirement under the proposed phase-in plan. Based on the original outflow rates, only 20 per cent of banks meet the LCR requirement of 100 per cent. New outflow rates bring half of the banks over the 100 per cent LCR threshold. Whereas more than half the banks have an LCR above 60 per cent based on the original proposal, the proportion rises to 74 per cent with reduced outflow rates.

The margin by which Norwegian banks fall short of the LCR requirement of 100 per cent is heavily reduced under the new Basel Committee proposal. Norwegian banks will move from a liquid asset deficit of NOK 27bn to a surplus of NOK 92bn. The large banks are the main contributors here (chart I.4).

Even with lower outflow rates, more Norwegian banks must continue to increase their liquidity buffers in order to meet the requirement of 100 per cent. Banks can increase their holdings of liquid assets approved for LCR purposes, or make adjustments to their inflows and outflows. However, there are limits to the latter adjustments. In order to ensure that banks are not totally dependent on inward cash flows, but at all times have a minimum of liquid assets, inflows can at most measure 75 per cent of outflows.

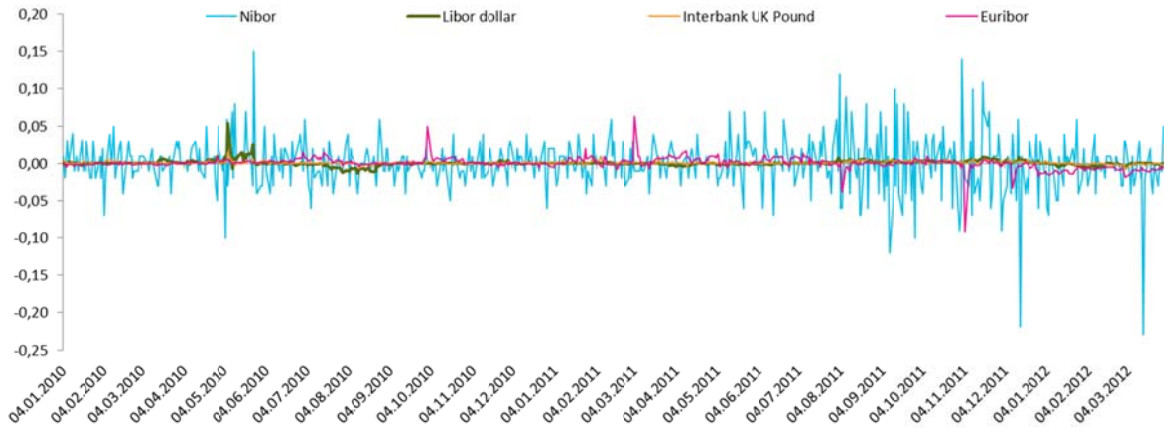
DRAFT CRISIS MANAGEMENT DIRECTIVE

The European Commission presented in June 2012 a draft Directive entitled "Framework for the recovery and resolution of credit institutions and investment firms". The Directive is designed to assure financial stability, continue systemically important functions at banks undergoing liquidation, protect public assets during financial crises and protect customers' bank deposits. The proposed Directive is in keeping with the Financial Stability Board's "Key Attributes for Effective Resolution Regimes for Financial Institutions" and the Basel Committee's recommendation for tools for resolving crises at cross-border banks. The European Commission regards the Directive as an important prerequisite for a banking union in Europe.

The Council considered the proposal in July 2012 and will negotiate with the European Parliament with a view to adopting an agreed Directive at first reading. The draft Directive is expected to be considered by the ECON Committee in the European Parliament in April 2013, with plenary consideration planned for September. The preliminary report from the Committee proposes a large number of substantive changes.

The draft Directive requires each member country to designate a crisis resolution authority. This can be the supervisory authority, the central bank, a government department or other public administrative authority. All banks will be required to draw up recovery plans for restoration of banks' financial position in a stressed situation. Such plans should not presume extraordinary public support. This requirement applies to all banks, but should be in proportion to institutions' size and complexity.

I.5 Three-month money market rates, changes from the day preceding 4 January 2010 to 21 March 2012



Source: Norges Bank

The resolution authorities will be required (possibly in conjunction with the supervisory authorities) to prepare resolution plans that make allowance for the need for a bank to be resolved in an orderly manner in a period of financial instability. The draft Directive contains resolution tools available for use individually or in combination. The Parliamentary committee has recommended a new category of resolution tools - government financial stabilisation tools - including power to provide guarantees and to place an institution under temporary public ownership. These tools will be available once specified capital instruments have been written down and the finance ministry, central bank and supervisory authority consider other resolution tools to be inadequate for the purpose of avoiding a significant negative impact on financial stability.

It is also expected that the European Commission will recommend a body of rules covering "Recovery and Resolution for Financial Market Infrastructures". Crisis management of systemically important infrastructure entities has high political priority within the EU.

RESTRICTIONS ON BANKS' ISSUANCE OF COVERED BONDS

Rules governing covered bonds entered into force on 1 June 2007. Covered bonds, in contrast to other bonds, are secured on loans whose collateral is transferred from a bank or provided by the mortgage company itself. Covered bonds entitle their owners to cover from the mortgage company's cover pool ahead of other creditors. The main purpose is to protect bondholders' rights to the underlying cover pool. In addition to the regulatory requirements on the cover pool, rating agencies require overcollateralisation (cover pool assets' value must exceed the value of issued covered bonds) and liquidity guarantees from the parent bank. These requirements give covered bond investors added protection.

Covered bonds now account for the bulk of Norwegian banks' market funding. However, the large volume of covered bond issues has a detrimental aspect; see chapter 2. Finanstilsynet is therefore considering the introduction of restrictions on the proportion of a bank's assets that can be put up as collateral for covered bond issuance. Home mortgage loan transfers are at a high level, and stricter requirements should be imposed on an individual banks' use of covered bonds. Finanstilsynet has considered a qualitative rule for transfer of home loans in order to limit issues of covered bonds to a volume that is prudent for the individual bank and for the financial system. Finanstilsynet's recommendation is in keeping with a recommendation from the ESRB from February 2013 on financial institutions' funding, including mortgaging of banks' assets.

Finanstilsynet recommends that banks be required to draw up in-house policies for proper handling of asset encumbrance, including for transfers of home mortgage loans to residential mortgage companies. Bank groups must maintain an active stance on the risk faced when mortgaging their own assets. Finanstilsynet will through the Pillar 2 process monitor banks' risk assessments in this area, and ensure that such assessments meet the prudent practices requirement.

In order to strengthen information available to investors, Finanstilsynet recommends the introduction of requirements on the information to be published by bank groups and mortgage companies. The information should make it simpler for covered bond creditors to assess the quality of the cover pool, and simpler for unsecured creditors to assess the quality and volume of non-mortgaged assets.

NIBOR FIXING

Nibor (Norwegian Interbank Offered Rate) states what interest rate Nibor banks would on average demand for unsecured loans in Norwegian kroner to other banks that are active in the money market. Nibor is quoted by the six banks comprising the Nibor panel: DNB Bank ASA, Danske Bank, Handelsbanken, Nordea Bank Norway, SEB AB and Swedbank. Nibor is fixed daily at noon (CET) and is published for ten different maturities. The rates are estimates, and the panel banks are not obliged to quote prices matching their own Nibor quote. Nibor is an important benchmark rate and is used to price financial derivatives, bonds and commercial loans.

Except for very short O/N and T/N transactions, the interbank market in Norwegian kroner is very limited. Due to lack of actual transactions, the panel banks have established a practice where Nibor is fixed on the basis of a USD rate swapped to Norwegian kroner.

Since the financial crisis Nibor has been highly volatile compared with other reference rates such as Libor, Euribor, Stibor and Cibor (chart 1.5). This may have contributed to reduced confidence in Nibor. Nibor's volatility can be explained by daily fluctuations in the forward exchange market. Large fluctuations are not uncommon in Norway's small currency market, and are mostly explained by underlying market conditions. For example, repayments on large loans swapped to Norwegian kroner could move forward prices. However, high volatility can also make it easier to conceal manipulation of Nibor, and may lead to reduced confidence in the fixing process.

Finanstilsynet considers there are insufficient grounds to claim that Nibor has been subject to manipulation or attempted manipulation, but cannot give a definite conclusion on the matter. Since there is no clear alternative to market-based Nibor fixing, the fixing process needs to become more transparent and robust to manipulation. Finanstilsynet considers Nibor should be a private arrangement in which the banks themselves are responsible for the code of conduct and the fixing process. Finanstilsynet has recommended a number of measures to strengthen Nibor, including:

- The panel banks' responsibility for quoting Nibor should be stated more clearly in the legislation.
- In compliance with international proposals and guidelines, Finanstilsynet points to the need to impose requirements on the panel banks' documentation, logging and control of fixing, and their underlying assessments.
- The panel banks should carry out sensitivity analyses showing profit and loss effects on respective banks' results.
- Clearer requirements should be set for the panel banks' internal organisation of the Nibor quotation in order to prevent and deal with any interest conflicts.
- A separate monitoring and oversight body should be set up to ensure that these functions are separate from the steering committee that establishes limits and rules for the fixing of Nibor.
- A separate body, independent of the steering committee, should be established to evaluate approaches and tips regarding irregularities or manipulation of the fixing process.
- The steering committee and the body that evaluates approaches and tips regarding irregularities or manipulation should have a broader-based composition than at present and include members not representing panel banks.

According to Finance Norway, the industry itself intends to initiate measures to strengthen the robustness of and confidence in Nibor.

Finanstilsynet has pointed out that each bank has an independent responsibility for proper organisation and appropriate market conduct. The panel banks are subject to Finanstilsynet's supervision. Any suspicion of market abuse or breach of business or organisational rules will be acted on. Finanstilsynet will conduct inspections at all panel banks in the course of the second quarter of 2013. The inspections will include the banks' handling of interest conflicts and information.

In collaboration with ESMA, the EBA has issued recommendations for strengthening Euribor fixing. Further, the EBA recently concluded a public hearing of proposals for principles to apply to financial reference rates and indices in Europe. Finanstilsynet will consider the need for public regulation based on international recommendations, which are under preparation, inspections at panel banks and proposals for reinforcing the Nibor fixing system to be drawn up by Finance Norway.

SOLVENCY II – A NEW FRAMWORK FOR INSURANCE

Risk-based solvency rules for insurers, the Solvency II Directive, were adopted in 2009. Negotiations on changes to the Solvency II Directive have been under way for some time through the Omnibus II Directive. Owing to delays in these negotiations, the Solvency II framework will not enter into force on 1 January 2014, as previously expected. A revised timetable has yet to be established. In Finanstilsynet's assessment, full entry into force of Solvency II will take place on 1 January 2015 at the earliest. A further delay cannot be ruled out. The Solvency II Directive will be supplemented by implementing measures and technical standards and guidelines. A proposal for such provisions will not be published until agreement has been reached on

Omnibus II. This will be in the second half of 2013 at the earliest.

The European Insurance and Occupational Pensions Authority, EIOPA, points out that the current rules are risk insensitive and provide an inadequate basis for harmonisation between countries. EIOPA is therefore planning temporary measures to facilitate application of parts of the Solvency II framework as from 2014. This could cover requirements on insurers' system of internal governance, the insurer's own risks and solvency assessment (ORSA), requirements on supervisory review, requirements on the pre-application process for internal models and reporting requirements. On 27 March 2013 EIOPA published draft guidelines for a public consultation. Finanstilsynet attends EIOPA meetings as an observer, and plans to act on EIOPA's guidelines for temporary measures prior to the entry into force of Solvency II. However, closer consideration will be needed once the concrete guidelines are finalised. EIOPA stresses that supervisory authorities should adopt a forward-looking, risk-based approach. In Finanstilsynet's assessment such temporary measures could be implemented in Norway through adjustments to supervisory processes, without the need for changes to the current body of rules.

Under Solvency II insurers can apply for approval of internal models to compute the capital requirement or parts of it. Finanstilsynet will continue the pre-application process on internal models with insurers that have developed such a model.

In the first half of 2013 EIOPA is assessing the impact of a number of the proposals under discussion in the Omnibus II process. These are key proposals associated with long-term guarantees, which mainly cover various proposals for adjustments to the yield curve for discounting liabilities, with a view to reducing the fluctuations in insurers' capital and capital requirements. The results of the calculations will be summarised in a report scheduled for publication at the end of June 2013. The results will constitute a key basis for further negotiations and final adoption of Omnibus II.

The various proposals regarding long-term guarantees should be viewed in light of recent years' developments in fixed income markets. The decline in the level of long rates has weakened the financial position of life insurers that have issued long-term interest guarantees, and this will become visible under Solvency II. Hence, for many life insurers the capital requirement under Solvency II could prove significantly higher than under current rules. Some proposals regarding long-term guarantees entail adjustments to the discount rate for liabilities in order to smooth fluctuations resulting from value changes of interest-rate-dependent assets such as government bonds. The proposals also cover extrapolation techniques to achieve greater stability in fixing the yield curve for longer maturities. In addition, there is a proposal for a gradual switch from the existing discount rate (minimum guaranteed interest rate) to discounting using the Solvency II yield curve.

EMIR – REGULATION OF DERIVATIVES MARKETS

The European Parliament and Council adopted a Regulation on OTC derivatives, central counterparties and trade repositories (EMIR) in July 2012. The Regulation introduces a clearing obligation for eligible OTC derivatives and risk-mitigation techniques for OTC derivative contracts not cleared by a central counterparty. All eligible OTC derivatives are subject to a clearing obligation through a central counterparty. EMIR regulates central counterparties established in the EU, as well as the European Security Markets Authority's (ESMA) power to recognise central counterparties established in third countries. EMIR requires derivative contracts to be reported to a trade repository, and sets rules for ESMA's registration and supervision of such repositories. ESMA is also responsible for recognising third country trade repositories.

EMIR introduces a clearing obligation for financial institutions and private actors with regard to derivative contracts that are currently settled bilaterally, for example various currency and commodity derivative contracts. In the case of OTC derivatives not cleared by a central counterparty, the parties to the transaction must exchange collateral and there must be effective processes for the confirmation of completed trades. The trade repository is required to publish aggregated information, and to make information available to supervisory authorities and central banks etc. The Regulation also contains rules on the authorisation and supervision of central counterparties since there is a need to ensure that these are financially sound and well functioning.

Other initiatives in the securities legislation area in the EU are a new legal framework for central securities depositories, and revision of MiFID, and a new body of rules on securities law. Together with EMIR these initiatives will be an important aspect of the EU's efforts to improve the security and robustness of the financial system and to lay down pan-European rules for all systemically important infrastructure entities in the securities area.

ACCOUNTING RULES

The International Accounting Standards Board (IASB) has launched a series of projects to take a closer look at possible improvements to the international accounting standards (IFRS). The IASB published in March 2013 an exposure draft for expected credit losses on financial instruments (the third exposure document since 2009). The proposal will, if

adopted, require a write-down for expected credit losses over the coming 12 months from the date that a loan is first entered in the balance sheet, which is a major departure from the current standard. If the IASB's proposal is adopted within a reasonable period after public consultation, entry into force in 2017 appears realistic. It is the EU that will decide whether the new standard is applicable to European companies, and from what date the standard will in the event be applicable.

The IASB has under way a project on insurance contracts (IFRS 4 phase 2). The object is to formulate a single principle-based accounting standard for all types of insurance contracts. The current IFRS 4 is an interim standard that allows insurance companies to continue existing practice. The IASB published an exposure draft in July 2010 that should eliminate inconsistencies and flaws in current practice by replacing the interim standard. A model has been developed for measuring insurance liabilities based on the discounting of future cash flows from insurance contracts, adjusted for risk with the addition of a residual margin. This model appears to stand fairly firm, but the IASB has seen a need to publish a revised exposure draft inviting comments on certain aspects of the proposal. Publication of the consultation document is scheduled for the first half of 2013. If the IASB's proposal is adopted within a reasonable period after completion of the hearing process, entry into force in 2017 appears realistic. Assuming EU approval, the new standard will be mandatory for the consolidated accounts of listed insurance companies.

THEME II SECURITIES MARKETS

Financial and non-financial firms fund large parts of their business in the money and capital markets. They also invest substantial funds in the same markets. Norwegian households invest directly in shares, bonds and money market instruments. However, their direct investment is smaller in volume than their indirect investment through life insurers, pension funds and securities funds. Market, credit and liquidity risk attends such investments and funding.

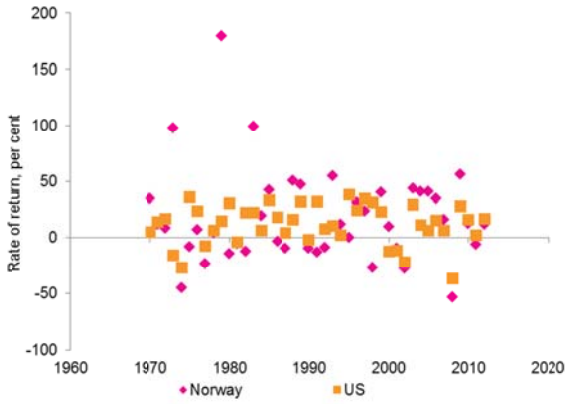
The direct impacts of falling stock and bond market values on households' wealth and banks' capital adequacy are relatively limited due to these sectors' limited exposure to the markets concerned. The impact on life insurers' results would be significantly larger. The indirect effects are difficult to estimate. Steep value falls increase market participants' risk aversion, prompt reassessment of the underlying uncertainty in the economy and weaken confidence in the economic system. Falling stock market values and higher risk premiums in stock and bond markets affect the supply and price of funding for non-financial firms, banks and life insurers. In some cases repricing goes further than justified by underlying fundamentals. This often happens after periods of strong market growth. A crash in share and bond markets may be a result of imbalances in the real economy and itself cause an economic downturn.

STOCK MARKETS

Risk in stock markets is high in both the short and longer term. Periods of value falls of around 50 per cent have occurred several times since 1970. Hence investing in shares is also risky in the long term. It is difficult to assess whether share prices reflect underlying fundamentals. Some valuation indicators do not suggest that markets were overvalued at the start of 2013. But this does not mean that there is no risk of values falling. Rates of return on Oslo Børs have been closely linked to returns in European and emerging stock markets and oil price movements. Calculations show that co-variation in return between companies on Oslo Børs and between international stock exchanges has increased over time and is particularly high in times of crisis. Diversification gains are least when they are most needed. Much uncertainty attaches to modelling of risk in the stock market.

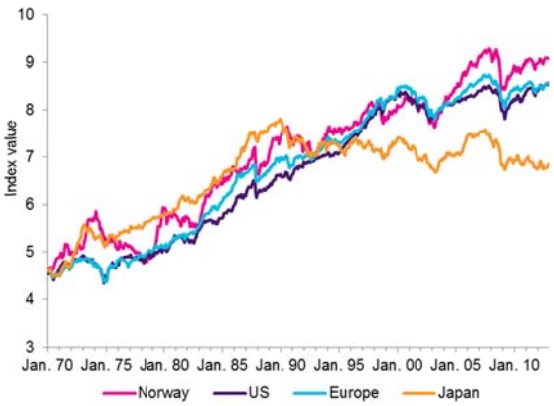
Chart II.1 shows annual (geometric) rates of return in the Norwegian and US stock markets from January 1970 up to the present, while chart II.2 shows share indices for Norway,

II.1 Rates of return in Norwegian and US stock markets



Source: Thomson Reuters Datastream and Finanstilsynet

II.2 Share indices, selected countries



Source: Thomson Reuters Datastream and Finanstilsynet

the US, Japan and Europe[2] respectively. The rates of return show wide variation, in Norway's case from plus 180 to minus 50 per cent. The range of outcomes is far smaller for the US market. Monthly rates of return in the Norwegian market range from almost plus 30 to minus 30 per cent. In 17 out of 43 years return in the Norwegian market has been negative. The corresponding figure for the US market is nine years. The average annual geometric rate of return in the Norwegian market for the period as a whole is put at 11 per cent, whereas the annual rate of return for the latest five-year period is minus 3.9 per cent. For the US the corresponding figures are 9.6 and 0.5 per cent respectively. The annual average geometric rate of return over the latest 20 years in the Japanese stock market is put at minus 1.2 per cent and for the last five years at minus 13 per cent.

There have been several periods in which stock markets

[2] The time series are taken from Thomson Reuters Datastream and are based on MSCI indices (total return, i.e. dividends are included in the return component). 1979 was a special year for Norway's stock market. The indices are in log form, i.e. same-size changes represent the same percentage change.

have fallen by a very large margin over a relatively short space of time. In a longer historical perspective, accumulated value falls of 50 per cent occur relatively frequently. During the latest financial crisis the share index for the Norwegian market dropped 57 per cent between May 2008 and end-February 2009. Between October 2007 and February 2009 the US market saw a value fall of about 50 per cent.

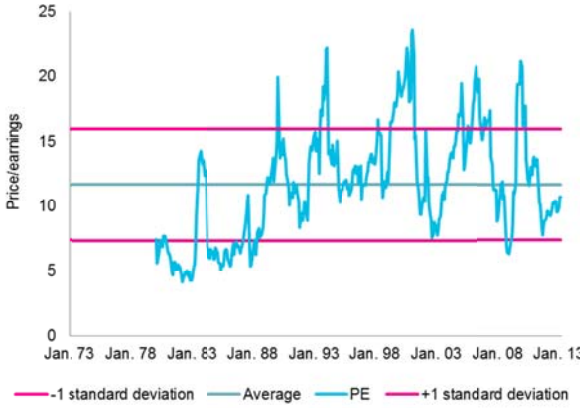
Importantly, the stock market is risk-prone not just in the short term but also in the long-term, as illustrated by the Japanese stock market. Although the likelihood of achieving expected return rises with the length of the time horizon, there is still a considerable chance that stock market rates of return will be lower than those in bond markets. This is for example relevant for saving in various life insurance products. High equity components expose policyholders to high risk in the short term and to a not insignificant risk in the longer term.

It is difficult to assess whether pricing in the stock market is consistent with market actors' expectations of companies' future earnings and required rates of return, the key reason being that neither expectations nor hurdle rates are observable. Several indicators are utilised in assessments of whether the stock market is reasonably priced in relation to economic fundamentals. One of these is the relationship between share prices and corporate earnings (P/E). When prices are high relative to corporate earnings, shares are described as expensive because investors pay a lot for each krone earned. Chart II.3 shows P/E movements for the Norwegian stock market, while chart II.4 shows movements in the ratio of corporate dividend payouts to corporate market value (DY). A historically high ratio (DY) suggests that the stock market is low-priced because investors pay relatively little for relatively high dividend payouts.

Stock price movements are relatively large and frequent, and their size and frequency often differ from those of underlying earnings. Some share prices changes are ascribable to noise, while other changes are due to new information of relevance to assessments of future earnings in the corporate sector or uncertainty with regard to earnings. The ratio of price to expected earnings and of expected dividend to price will vary over time, but can be expected to move towards equilibrium in the long term. Unless structural changes affect corporate earnings or actors' risk aversion, the price of a company will necessarily be in proportion to the company's expected earnings and dividend payouts. The ratios' standard deviation provides a measure of "normal" variations. A ratio that deviates from the average by more than one standard deviation (red horizontal lines in the charts) may be an indication that prices have moved markedly in relation to underlying

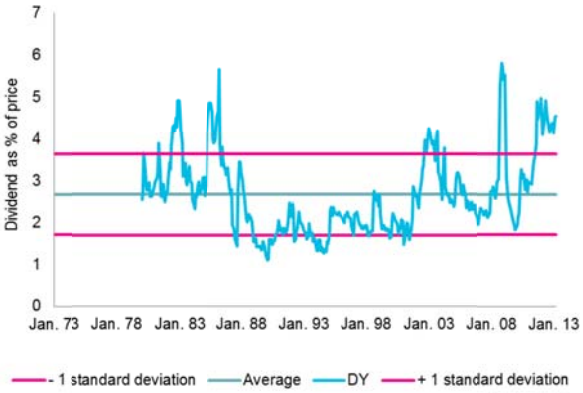
II.3 and II.4 Valuation in the stock market

Ratio of price to earnings



Source: Thomson Reuters Datastream and Finanstilsynet

Ratio of dividend to price

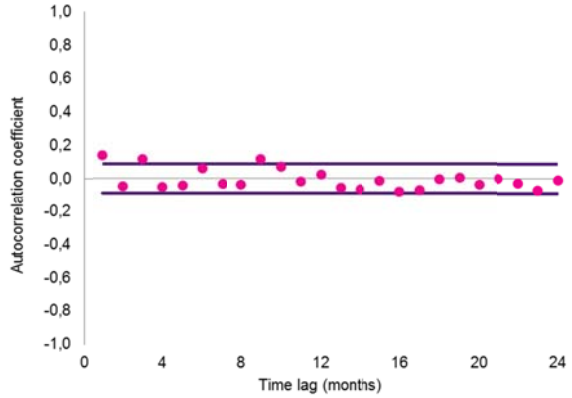


Source: Thomson Reuters Datastream and Finanstilsynet

earnings/dividends. P/E and DY levels do not indicate that the Norwegian stock market was overpriced at the start of 2013. This is also true for stock markets in Europe, the US and for many emerging markets. Several stock markets have yet to return to the levels in effect prior to the financial crisis. This does not mean there is no risk of value falls.

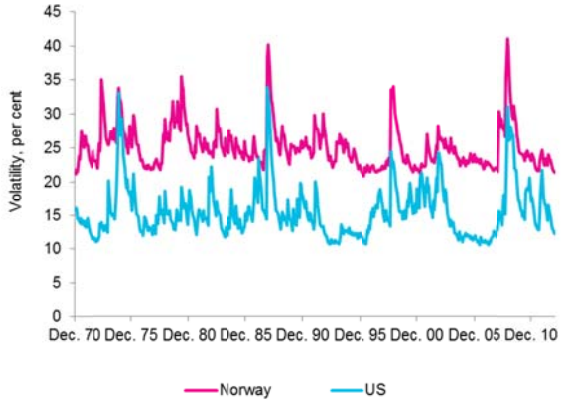
There is a tendency for higher (lower) than average rate of return in a particular month to be followed by higher (lower) than average return in the following month (II.5). There is also a slight tendency for lower-than-average return in a particular year to be followed by higher-than-average return in the following year, although correlations based on annual data are not statistically significant. Empirical studies of stock markets in several countries indicate a momentum effect in the short term and a reversal effect in the longer term. The first-mentioned effect entails that stock prices have a tendency to move in the same direction in the short term, while the second effect suggests

II.5 Serial correlation, monthly rate of return, Norway



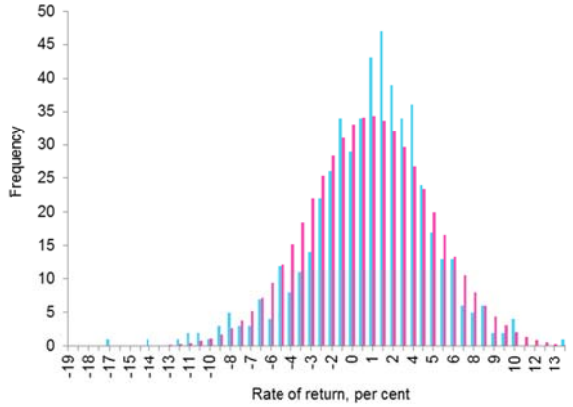
Source: Thomson Reuters Datastream and Finanstilsynet

II.6: Volatility, Norway and the US



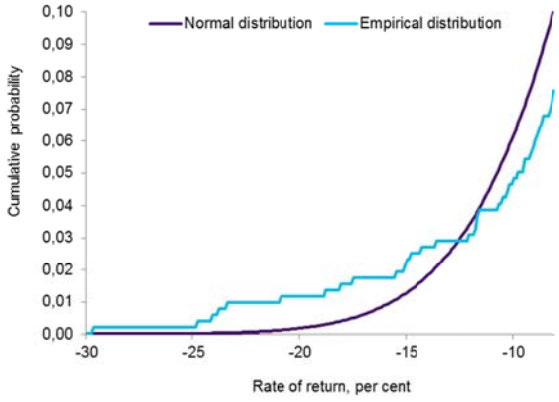
Source: Thomson Reuters Datastream and Finanstilsynet

II.7 Histogram, rate of return, MSCI World Index



Source: Thomson Reuters Datastream and Finanstilsynet

II.8 Cumulative distribution, Norwegian stock market



Source: Thomson Reuters Datastream and Finanstilsynet

that they return to a long-term trend when the horizon extends over several years.

The Norwegian stock market is known for its greater volatility compared with many other stock markets in developed economies. Volatility (risk as measured by standard deviation) in the US market is put at 16 per cent for the period 1970-2012 compared with an estimated 25 per cent in the Norwegian market.[3] For the Norwegian market the implication is that price changes of $\pm$ 25 per cent are relatively normal within a one-year horizon. In the short term the stock market is highly risk-prone, and in some periods markets are significantly more risk-prone than this. Chart II.6 shows how risk develops over time in the period December 1970 to December 2012.[4] Risk has in most sub-periods been far higher in the Norwegian market than in the US market. In some periods volatility is as high as 40 per cent. In periods of negative development, investors may suffer substantial financial losses which may take decades to rebuild. Volatility is driven largely by changes in actors' risk tolerance, psychological mechanisms and accumulation of macroeconomic imbalances that alter the economy's inherent uncertainty.

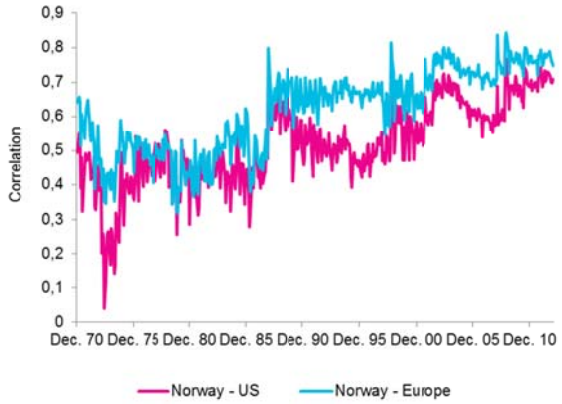
Chart II.7 shows a histogram of rates of return in the world's stock markets. The red histogram in the chart shows the normal distribution. The chart indicates that the empirical distribution is skewed to the left and that it has fatter tales than the normal distribution. This is confirmed by statistical tests. Corresponding results apply to most stock markets in the world, including Norway's.

Chart II.8 shows the cumulative empirical probability distribution of rates of return in the Norwegian stock

[3] Volatility is a measure of risk, here measured by the standard deviation of return. Standard deviation is a symmetrical risk measure not distinguishing between upturn and downturn.

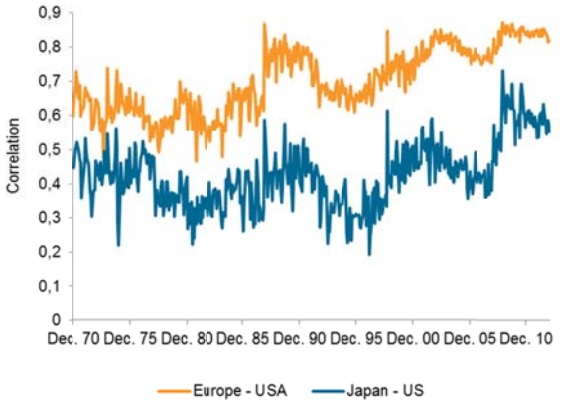
[4] Volatilities (and subsequent correlations) are estimated using a multivariate GARCH model - a much used statistical technique for estimating this type of indicator.

II.9 Co-variation, rate of return, selected markets



Source: Thomson Reuters Datastream and Finanstilsynet

II.10 Co-variation, rate of return, selected markets



Source: Thomson Reuters Datastream and Finanstilsynet

market and the cumulative normal distribution.[5] According to the normal distribution the probability of losing more than 20 per cent over the course of a month is about 0.17 per cent (0.0017 in the chart), whereas the corresponding probability for the empirical distribution is 1.16 per cent. The difference comprises a factor of almost 7. Similar results are found for other stock markets. The lesson learned here is that once the situation starts to deteriorate the outturn is far worse than would be expected had the return been normally distributed. An implication is that the supposition of normal distribution, which in many cases underlies risk modelling and pricing, understates the likelihood of large price movements. This is relevant when assessing whether insurers' buffer capital is sufficiently large. It is also important when assessing whether value-at-risk models, which many banks use to calculate capital adequacy in the trading book, provide robust risk estimates. Important parts of the Basel rules are based on the notion that both equity and credit instruments have normally distributed rates of return. It is also important information for policyholders who are considering signing defined contribution insurance contracts.

International stock markets are tightly interwoven. Information flows freely across national borders and is normally immediately available to all actors in the markets. A high positive correlation between rates of return in two markets means that higher-than-average return in one market is on average accompanied by higher-than-average return in the other market. If the correlation equals 1.0, the rates of return in the two markets co-vary perfectly. It is never the case in practice that two markets show perfect positive or negative correlation. Chart II.9 shows co variation (correlations) between the rate of return in the Norwegian market and the rate of return in, respectively,- the US and the European stock markets. The correlation coefficients are higher now than at the start of the 1970s, suggesting that the Norwegian stock market is now linked more tightly to stock markets in the US and Europe than previously. Chart II.10 shows the correlation between the US market and, respectively, the Japanese and the European markets. Here too, co-variation has increased.

There is empirical evidence that correlation is higher in periods of crisis than in periods of normal stock exchange fluctuation. This means that diversification gains related to global equity portfolios are smallest when they are most needed. For global investors it would be an advantage if the rate of return was positive in one market at the same time as it was negative in another market. It would reduce fluctuations in a portfolio's rate of return over time. When these diversification benefits are reduced, the vulnerability of the global financial system concurrently increases. This has implications for Norwegian investors such as life insurers and pension funds who invest substantial sums in international stock markets with a view to improving their overall equity portfolios' return and risk profile.

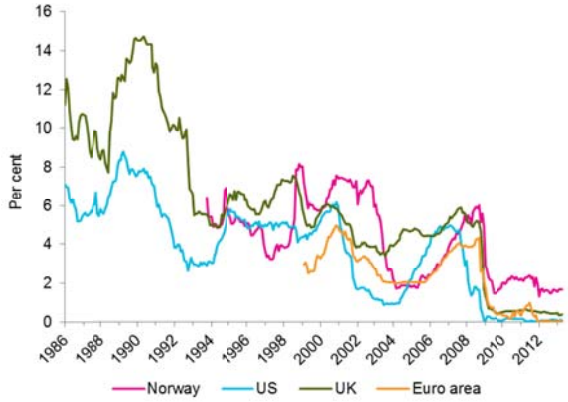
Norway has a small, open economy. Changes in Norwegian share prices are naturally affected by changes in international share prices. The Norwegian economy is closely linked to developments in Europe. The Norwegian economy also receives important impulses from emerging countries such as India, China and Russia.

MONEY AND BOND MARKETS

Both short and long interest rates are low and, with the exception of the debt-burdened euro countries, government bond rates are at historically low levels. In the latter countries, however, government bond rates have fallen substantially from peak levels. Risk premiums have been high but are now almost back to the levels prior to the

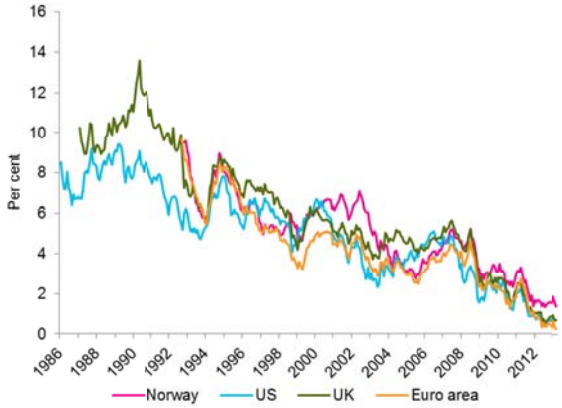
[5] The cumulative distribution (Chart 2.7) up to a given point along the horizontal axis is technically speaking the area under the probability distribution (Chart 2.6) up to this point.

II.11 Three-month treasury certificate rates, selected countries



Source: Thomson Reuters Datastream

II.12 Five-year government bond rates, selected countries



Source:Thomson Reuters and Finanstilsynet

financial crisis. Interest rates and risk premiums in the period 2007-2012 were far more volatile than normal. The correlation between interest rates and risk premiums among countries has risen since 2008.

GOVERNMENT SECURITIES

Government securities are of major interest to investors with high risk aversion, or to investors who wish to reduce the risk in a risk-prone portfolio. Financially sound states' debt instruments are considered to present low risk, which is why the interest rate on those instruments is often used as a reference point for the calculation of risk premiums on other fixed income securities. Government paper includes treasury certificates with a term of up to 12 months and government bonds with a term above 12 months.

Slower price growth and expectations of continued low inflation have contributed to falling government bond rates in the past 25 years (II.11 and II.12). Since the financial crisis in 2008, key policy rates and high demand for financially sound states' government paper have brought a further reduction in government bond rates. Rate levels are below the average for the period 1986-2012. Norwegian short rates have far exceeded US and UK rates since 2008 - because Norwegian key policy rates are higher than UK and British key policy rates. The fact that interest rate levels on long government paper (government bonds) have largely shadowed the short paper (treasury certificates) indicates an expectation that short rates will remain low in the years ahead.

In the wake of the financial crisis uncertainty grew with regard to several euro countries' debt-servicing capacity. Bond rates rose steeply, especially in the case of the debt-burdened euro countries Portugal, Italy, Ireland, Greece and Spain. National tightening action and assistance from the EU, ECB and IMF have helped to bring rate levels back down again. The long-term repercussions of the liquidity injections are unclear.

As in the stock markets, periods of economic stress affect the government securities markets. Uncertainties in the market for government paper can be expressed in terms of interest rate volatility. The periods 1998-2000 with the Asia crisis and the dot.com bubble, the downturn from 2001 to end-2003 and the financial crisis from autumn 2008 stand out as particularly volatile. A historically low level of government paper rates and reduced uncertainty surrounding government paper enabled volatility to subside in 2012. In the case of the debt-burdened euro countries, volatility has been consistently high since 2008, but eased somewhat towards the end of 2012.

In the long term the interest rate level is determined largely by economic fundamentals and inflationary expectations. The fundamental and systemic nature of the financial crisis is shown in the correlations for government bond rate changes between countries. Correlations were higher in the five final years of the period 1993-2012 than for the period as a whole.

INTERBANK MARKETS

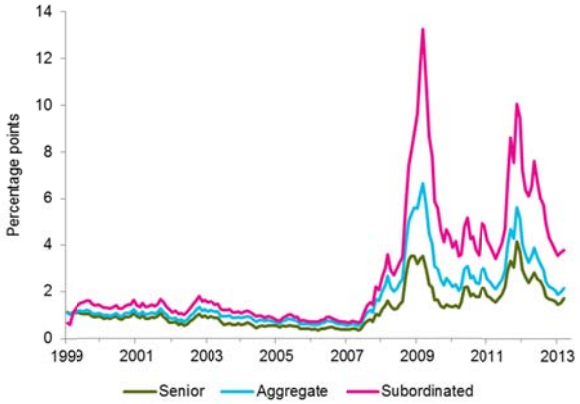
Lending conditions in the interbank market are of great significance for corporate and household borrowing costs and their access to bank loans. Banks' borrowing costs are largely determinative for banks' lending rates. Changes in banks' lending terms in the money market will accordingly have a direct impact on investment in the economy. Much of banks' funding is market funding obtained through other banks.

Libor (dollar) and Euribor (euro) are examples of money market interest rates quoted on a daily basis in the interbank market in, respectively, the United Kingdom and

II.13 Spread between three-month interbank rate and treasury certificate rate

Source: Thomson Reuters and Finanstilsynet

II.14 Spread between euro banks and government bonds



Source: Thomson Reuters Datastream, Iboxx

the euro area. For most currencies an interbank market exists where a selection of banks quote indicative interest rates for unsecured loans to other banks. The term varies from overnight to 12 months. These rates are used as reference rates for the pricing of other loans and financial instruments. Nibor rates are quoted in the Norwegian interbank market. However, Nibor is not a pure krone rate but a swap rate. It is derived with a basis in the theory of uncovered interest rate parity. The Nibor rate for a given period depends on the level of a dollar rate and the forward-spot spread on the krone relative to the dollar.[6] This spread roughly speaking equals the difference between the forward and spot price of NOK/USD relative to the spot price. In Norway six banks quote prices in this market. The Nibor rate is an average of these quotes.

Because interbank rates refer to unsecured loans they are highly sensitive to financial market turbulence. The Nibor rate reached its hitherto highest level during the bank crisis in the 1990s when it exceeded 27 per cent. Due to increased credit risk in the banking sector and heavy demand for liquidity, interbank rates also rose substantially in autumn 2008. Sizeable reductions in central banks' key policy rates in response to the financial turbulence of 2008 gradually helped to lower interbank rates. The rate level in interbank markets in 2013 is low both in Norway and in other countries with which it is natural to compare Norway. Normally money market rates are identical to the central banks' key policy rate (sight deposit rate) plus a mark-up. The sight deposit rate is the rates banks receive on deposits with Norges Bank. The Nibor rate is only exceptionally lower than the Norwegian key policy rate. It would naturally enough not pay for Norwegian banks to lend money to other banks at a rate lower than this rate.

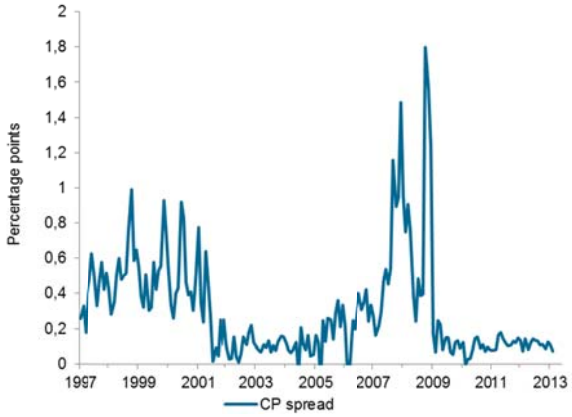
[6] The dollar rate in fixing Nibor has up to 2008 essentially been based on Libor. From 2008 onwards there are indications that the dollar rate quoted by the brokerage house Kliem is utilised (Hellum and Kårvik, Norges Bank, Aktuell Kommentar 5/2012).

The interest rate differential between interbank rates and government paper expresses the risk premium in the market. An increased danger that the borrower will not honour his obligations (credit risk) will increase the spread between interbank and government rates. Preferences with regard to maturity and liquidity may also influence the interest rate differential. After remaining relatively stable for several years, the differential against government paper widened substantially in 2007 (charts II.13 and II.14). Spreads were particularly high in autumn 2008 owing to uncertainties related to credit risk and funding (liquidity risk). Government paper was also considered to be more liquid. This spurred high demand and reduced the liquidity premium on government paper relative to unsecured bank bonds, which further increased the spread. For bonds issued by euro banks, the spread over government bonds at the start of 2013 was still above the average for the period 1919 to 2012.

Uncertainty in the interbank market remains higher than prior to the financial crisis. Spread volatility has been high since 2007, due to continuing uncertainty regarding banks' financial soundness and liquidity. The banks are vulnerable to further deteriorations in the economy. Deep uncertainty with regard to the world macroeconomy is also contributing to volatile bank bond rates.

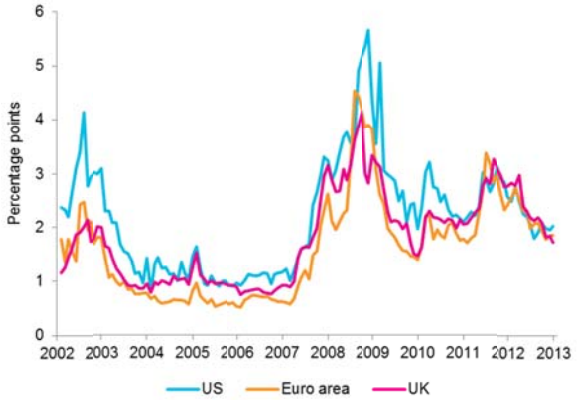
Country-specific risk premiums cause variations in the general level of interest rates between countries in the short term. However, international currency and capital markets are tightly interwoven. Norwegian banks are dependent on funding in foreign currency. Interest rate changes and changes in risk premiums in the money market appear to have become more correlated, particularly in the wake of the financial crisis. There was greater correlation of interest-rate changes between the money market rates Nibor, Libor, Euribor and Interbank UK in the period 2007-

II.15 CP spread US, non-financial firms



Source: Thomson Reuters Datastream and Finanstilsynet

II.16 Spread between 5-year corporate bonds (BBB) and government bonds



Source: Thomson Reuters Datastream and Finanstilsynet

2012 than the period 1986-2012. Risk premiums also show higher correlation.

FUNDING OF NON-FINANCIAL FIRMS

Non-financial firms can finance their activities directly in the money and capital markets. Firms issue debt securities with both short and long maturities. Interest rate movements in these markets are determinative for firms' funding costs.

Commercial Paper (CP) is the designation in the US market for certificates with the term below 12 months issued by non-financial firms. The difference between the effective interest rate on CPs and government paper (CP spread) is a measure of the credit spread in the market for short corporate loans. As shown in chart II.15, the CP spread for non-financial firms rises strongly in periods of economic crisis. During the crisis in 2001 the CP spread exceeded the spread between interbank rates and rates on short government paper at the same time. Since the crisis of 2008, the CP spread has largely been below the spread between interbank and government. This is explained by the fact that the crisis around the turn of the millennium mainly affected non-financial firms, whereas financial firms were at centre stage in the crisis of 2008. Since the third quarter of 2008, the CP spread has hovered around the same level as in the 2000s prior to the financial crisis.

The spread for longer debt securities for non-financial firms has not declined by the same margin as for shorter securities. Chart II.16 shows that the risk premium on corporate bonds in the USA, UK and the euro area alike increased in the period 2007 to 2009. The spread fell through 2012. Low interest rates, the search for yield and lower demand for secure government paper may have contributed to reducing the spread. However, the level at the end of 2012 was still higher than the average for the period 2002 to 2012. This may be a sign that market actors consider the risk attending loans to non-financial firms to be higher than in the mid-2000s.

CREDIT DEFAULT SWAP (CDS) MARKETS

The CDS markets are relatively new, but important, markets for credit risk trading. Credit risk is difficult both to measure and price. "Insurance premiums" vary widely over time, and probability distributions of such contracts are difficult to estimate. Both factors make it difficult to price and model risk in contracts precisely. The same largely applies to interbank rates, commercial papers and credit bonds (including government bonds). Many of the conclusions below therefore apply in more general terms to fixed income paper where there is a risk of the issuer defaulting on its obligations.

A CDS (Credit Default Swap) can be compared with an insurance contract where the buyer insures against the bond issuer's default. A CDS is a financial swap where the seller of the contract undertakes to compensate the buyer when a reference bond (issued by a third party) is defaulted or a pre-defined credit event occurs. The buyer of the contract undertakes to pay regularly through the contract period an amount to the seller (fee, spread). Some CDS contracts may be based on transfer of the underlying reference bond to the seller upon default while, under other contracts, a cash settlement takes place.

The price or spread on a CDS contract is a function of the probability of default on the reference bond through the contract's lifetime and the expected value of the reference bond given default. Low prices reflect low probabilities of default or high expected value of the reference bond given default, while high prices reflect higher probability of default or low value of the reference bond given default.

CDS contracts are traded where the underlying is a government bond, bonds issued by banks or bonds issued

by non-financial firms. In addition, CDS are traded on portfolios of loans (indices). The term may vary from months to several years. All else equal, the effective interest rate on reference bonds should roughly correspond to the sum of the effective interest rate on a government bond with the same maturity and the CDS spread. Markets for CDS contracts have existed since the early 1990s. The market grew strongly from the end of the 1990s onwards.

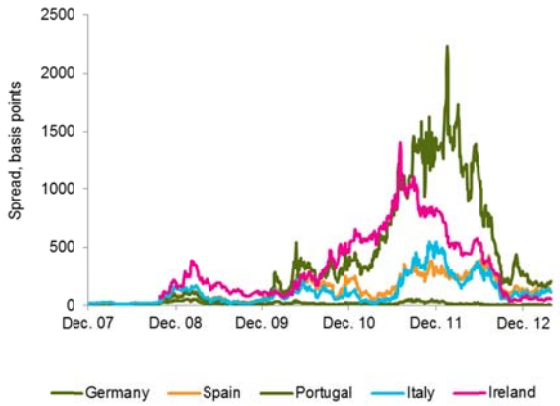
During the financial crisis a number of sellers of CDS contracts incurred heavy losses as defaults increased. Some financial actors had laid large bets on the US housing market by selling or issuing a very high number of CDS contracts whose underlying was structured credit products (CDOs).

Charts II.17 and II.18 show the trend in prices or spreads on CDS contracts with one year's maturity where the reference bonds are issued by nation states. Up to far into 2008 it cost very little to ensure against defaults on these reference bonds. As the financial crisis developed into, or led to, a government finance problem for, among others, many European countries, CDS prices rose markedly (II.17).

The trend in the price of insuring Norwegian government bonds with corresponding maturities is shown in chart II.18. The insurance premium on Norwegian government bonds also increases when international turbulence increases, but significantly less than in the case of most other countries. CDS spreads are generally speaking significantly lower now than one year ago, reflecting increased confidence in developments ahead, but are markedly higher than in 2007. Market actors still regard the risk of increased turbulence and default as considerable.

Chart II.19 shows that the volatility of CDS spreads on Irish government bonds varies widely over time. A CDS contract is a credit instrument, and as such has particular distribution characteristics; see chart II.20 showing the empirical probability distribution of the CDS spread on DNB senior bonds. The distribution is not symmetrical, and deviates strongly from the normal distribution. Empirical probability distributions vary, like volatility, a good deal over time and the length of the period underlying the estimation.

II.17 CDS contracts, 1 year, selected countries

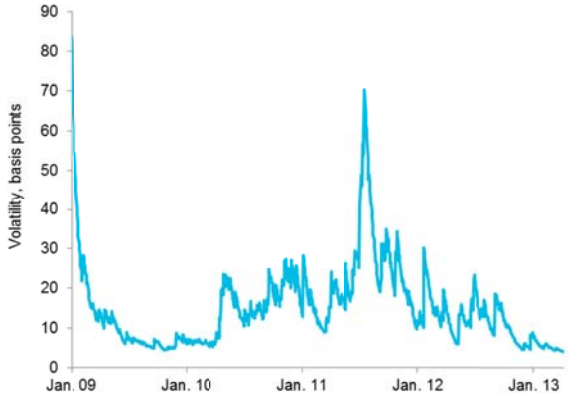


Source: Thomson Reuters Datastream and Finanstilsynet

II.18 CDS contracts, 1 year, Norway

Source: Thomson Reuters Datastream and Finanstilsynet

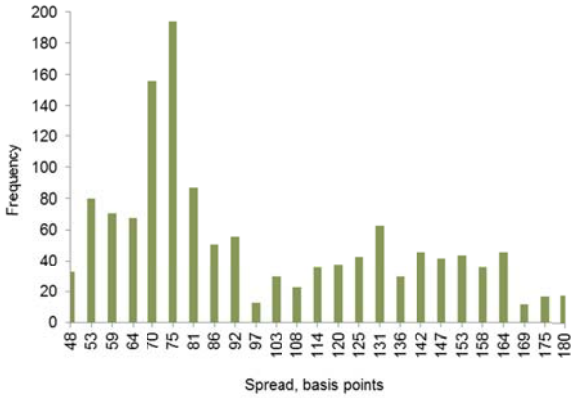
II.19 CDS contracts, 1 year, Ireland



Source: Thomson Reuters Datastream and Finanstilsynet

Charts II.17, II.19 and II.20 illustrate three highly important factors in the discussion on risk-weighted assets and internal risk models for measuring banks' capital requirements. The market for CDS contracts, which gives a price for credit risk, is relatively speaking very young. In 2010 the price history was even shorter than it is now. Calculations based on the three years 2007 to 2010 would have produced low risk estimates and lower capital requirements on this type of contract. Wide variation in risk (chart II.19) increases the uncertainty of risk modelling and makes it more difficult to gauge whether capital buffers in the financial system are of sufficient size. An assumption of normal risk-factor distribution is often applied and underlies inter alia the modelling of both credit and market risk in Basel III/CRD IV. Chart II.20 shows that the assumption will not be equally accurate for all types of instrument. This issue arises in varying degrees for all financial instruments. A more general objection is that some types of uncertainty are not amenable to modelling because historical data do not cover the entire range of possible outcomes. Uncertainty also attaches to price and risk models which embody simplifications and are based on a set of assumptions. The capital adequacy system could be made more robust to such uncertainty by requiring a buffer in addition to the minimum requirements.

II.20 Histogram, CDS spread, DNB senior bonds



Source: Thomson Reuters Datastream and Finanstilsynet

THEME III HOUSEHOLDS' FINANCIAL VULNERABILITY

Household debt is record high and is still growing quicker than incomes. The proportion of households with a high debt burden is rising. The interest burden is growing but remains lower than prior to the financial crisis. Despite high saving, financial buffers have not increased in relation to the debt. The corollary of high saving has been housing investment. The average income of persons on a start-up mortgage has risen considerably in recent years.

Loans to households (mainly home mortgage loans) make up more than one half of banks' overall lending exposure. Banks' losses on loans to households are low in historical terms. However, changes in household demand may be of crucial significance for banks' financial soundness and for financial stability. Experience from recent decades shows that where an economic setback compels households to substantially tighten consumption, the knock-on effects to the wider economy are large. Lower demand for goods and services contributes to weaker corporate debt-servicing capacity, and in the next instance to rising losses on loans to corporates. Unemployment rises, household incomes are weakened, consumption is further tightened, and the economy may enter a downward spiral.

HOUSEHOLDS' DEBT AND INTEREST BURDEN

Between the turn of the century and the international financial crisis of 2008, household debt grew substantially faster than household income. After a brief period when debt developed in step with incomes, the debt burden (debt in proportion to income) has continued to grow, albeit at a slower pace than prior to the financial crisis. In the fourth quarter of 2012 debt was about twice the size of incomes; see chart III.1. The increase in the debt burden applies to a majority of households. Debt burden measured as debt in relation to overall income shows that an increasingly large proportion of households have a high debt burden[7]; see chart III.2. The rising share of households with a high debt burden means that more households are increasingly vulnerable to income loss and interest rate hikes. The proportion of households with debt between three and five times aggregate income has risen at the expense of the proportion without debt or with debt below or equal to aggregate income. The proportion of households with debt larger than three times aggregate income rose from 9 to 15 per cent from 2004 to 2011. Further factors have contributed to the increase in household debt: increased use of interest-only loans (which reduces the liquidity burden in the initial years), equity release loans (enabling increased consumption particularly among the elderly), low interest rates and low house taxes are among the factors that may contribute to debt growing more than income. Changes in Finanstilsynet's home mortgage lending guidelines have prompted tighter lending practice among banks, so that debt growth is lower than it would have been without the guidelines. According to survey carried out by Finanstilsynet, all banks in the survey had introduced a maximum loan-to-value ratio of 85 per cent in their in-house guidelines.

Interest rate increases between the mid-2000s and the financial crisis led to a marked increase in households' interest burden (interest expenses divided by disposable income). Sharp reductions in key policy rates after the onset of the financial crisis caused almost the entire increase in the interest burden from the mid-2000s to be reversed in a single year; see chart III.1. Although the interest burden has increased somewhat in recent years, it remains low compared with prior to the financial crisis. This is due to the current low interest rate level which has improved households' debt-servicing capacity. In the longer term, however, households must expect a higher interest burden. According to Norges Bank's forecasts the interest burden will increase ahead, but will at end-2016 still be lower than the high level prior to the financial crisis. The forecasts assume a moderate interest rate increase from a low initial level. A future interest rate in line with the level prior to the financial crisis would, on the other hand, bring a sharp increase in the interest burden.

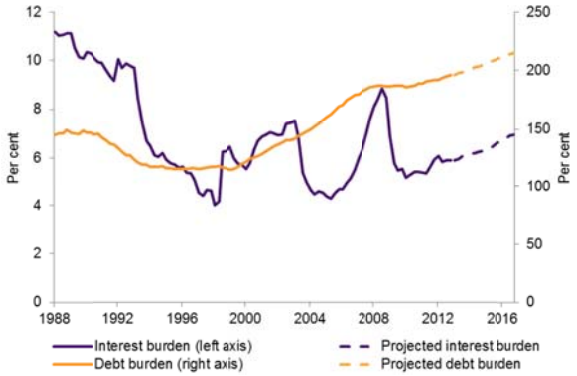
HOUSEHOLDS' FINANCIAL BUFFERS

Financial assets (bank deposits and cash, insurance claims and other securities) can function as buffers for households in economic setbacks. Both the debt-servicing capacity and willingness to consume of households can to a larger extent be maintained when buffers are sound. The trend in households' financial assets indicates that households' financial position may be better than the trend in the debt burden alone would suggest. Financial assets have largely kept pace with debt growth over the period 1996-2012; see chart III.3.

However, the trend in aggregate financial assets in relation to debt gives an incomplete picture of the size of households' financial cushion. Different financial assets have

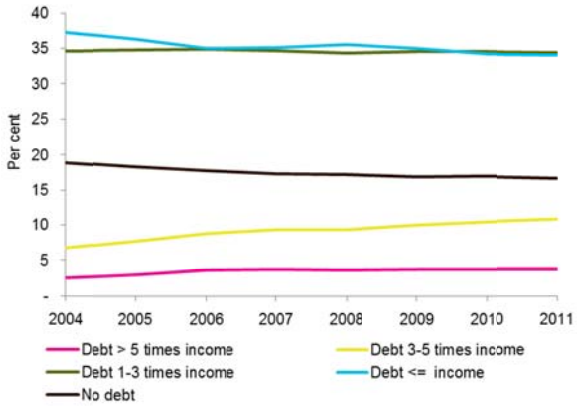
[7] Norges Bank uses disposable income (chart III.1), whereas Statistics Norway uses aggregate income (chart III.2). Aggregate income is a gross concept that includes occupational income, capital income and private and public social security benefits. Disposable income is a net concept denoting overall income less tax, interest expenses and other expenses. Other expenses consist inter alia of transfers to other domestic sectors and abroad. Further, corrections are made for reinvested share dividend in 2000-2005 and redemption/reduction of equity capital 2006-2015. Differing income concepts mean that Statistics Norway's debt burden figures are not comparable with Norges Bank's figures.

III.1 Households' debt and interest burden



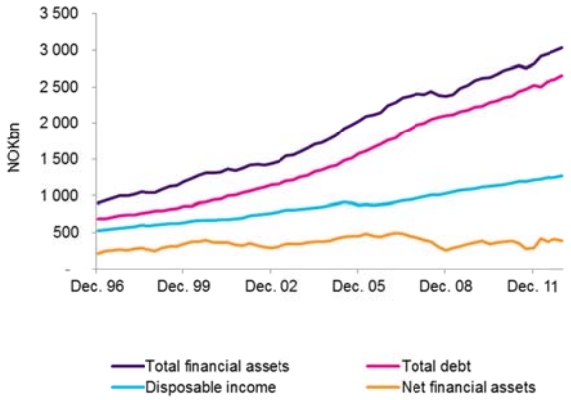
Projections for Q1 2013 to Q4 2016 Source: Norges Bank

III.2 Households by debt burden



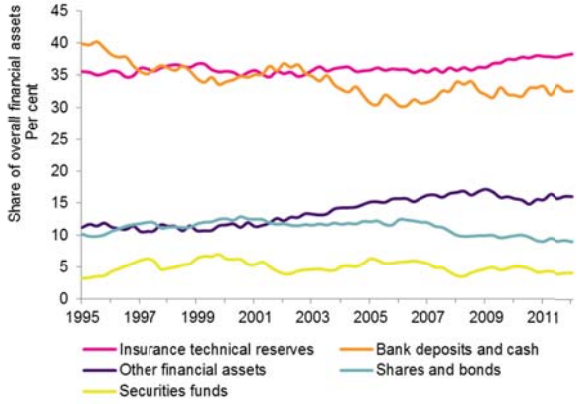
Source: Statistics Norway

III.3 Households' financial assets, debt and income



Source: Statistics Norway. Financial sector accounts

III.4 Households' financial assets



Source: Statistics Norway, Financial sector accounts

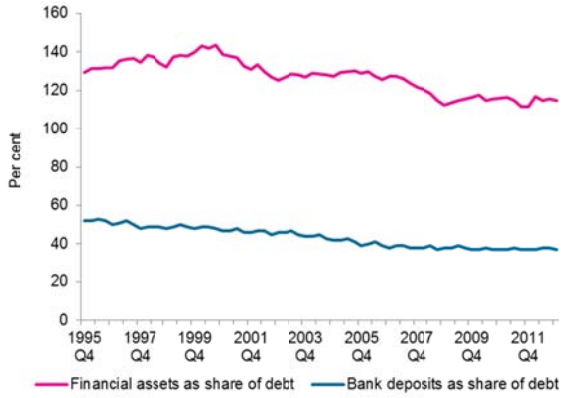
differing buffer characteristics, and financial asset composition is crucial to the quality of household buffers. Ample liquidity is needed for an asset to function as a buffer in times of crisis. Illiquid assets may be difficult or impossible to sell speedily at a satisfactory price. Absence of price volatility is a highly important buffer characteristic. Some asset types, for example shares, may rapidly fall in price in an economic contraction. Such assets are little suited as a buffer for households in turbulent economic times.

Bank deposits and cash as a ratio of debt may give a better picture of households' financial buffers than other types of financial assets as a ratio of debt. Financial assets with the best buffer characteristics are bank deposits and cash. Bank deposits and cash are not prone to nominal price volatility[8] and are the most liquid asset type. Insurance claims are an illiquid type of asset. Shares, bonds and securities funds are less liquid than bank deposits. The prices of such securities, especially shares, can change quickly. Banks deposits and cash make up about 30 per cent of financial assets; see chart III.4. The trend in bank deposits and cash as a ratio of debt suggests that households' financial buffer capacity fell substantially in the period 1996-2012. Debt has risen more than bank deposits and cash. From measuring over 50 per cent of debt at the end of 1995, bank deposits and cash accounted for less than 40 per cent of debt at the end of 2012. The figure has been stable since the mid-2000s; see chart III.5. The chart also shows that the bank deposits and cash as a proportion of debt have also fallen in periods where aggregate financial assets have risen relative to debt. There is a considerable variation in the ratio of bank deposits to debt among households. The youngest households in particular have low bank deposits relative to debt.

Households' direct risk exposure to the securities markets is low since shares, bonds and securities funds make up a relatively small portion of households' financial assets. However, households' insurance technical reserves are heavily exposed to developments in equity, bond and property markets. Moreover, recent years have seen a

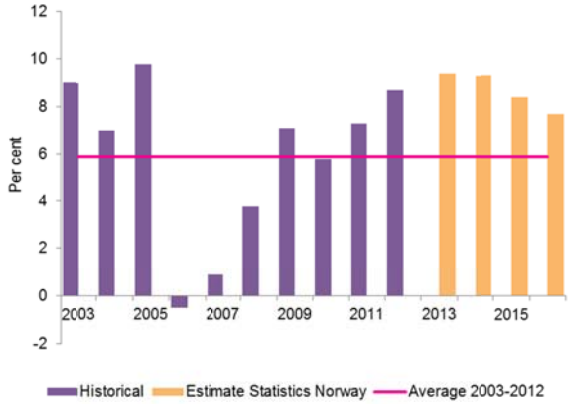
[8] The real value of bank deposits and cash is however affected by general price changes. Where price inflation is greater than the deposit rate, bank deposits' purchasing power is reduced.

III.5 Financial assets and bank deposits as a share of debt



Sources: Statistics Norway. Financial sector accounts

III.6 Household saving rate



Source: Statistics Norway

structural change in the insurance pattern. In defined contribution schemes the policyholder personally bears the risk. This means that right now, and even more so in the future, a setback in the markets could lead to a substantial reduction in the value of household savings. In order to compensate for such a decline in future consumption opportunities, households will need to increase their saving. This will in turn reduce consumption and contribute to a further weakening of the economy.

High saving in housing has contributed to a high household saving rate (saving relative to disposable income) since the financial crisis, despite the fact that net financial assets have been at a stable lower level; see chart III.6. Housing capital has far weaker buffer characteristics than financial capital such as bank deposits and cash. Housing capital is less liquid, and in times of economic decline liquidity is often further reduced by falling house prices. When house prices fall, households see a reduction in the market value of their wealth, which in turn adversely affects their behaviour. On the other hand, housing capital functions as security for households' debt. Banks' credit risk is reduced by use of mortgage. Between the turn of the century and 2010 households' gross debt as a share of total property value has been stable. Hence the increase in the value of housing capital has on average not brought an improvement in banks' safety and security.

SENSITIVITY ANALYSIS OF HOUSEHOLDS' INTEREST BURDEN

The high level of household sector debt poses a risk to financial stability. Diversification of household debt and wealth is also of substantial significance. Large groups may be in a substantially weaker financial position than the household sector as a whole. Using a model, Statistics Norway in conjunction with Finanstilsynet has projected the interest burden (interest expenses as a ratio of income after tax) for households for the period 2011-2014. The projections are mainly based on estimates from Finanstilsynet which largely build on forecasts by Statistics Norway. Further, stress tests have been carried out incorporating an increase of 2 and 5 percentage points respectively from the level set in the projection. See the box for information on the model and the assumptions underlying the projections.

Assumptions in the calculations

Since autumn 2003 Statistics Norway, on commission from Finanstilsynet, has used the microsimulation model LOTTE-Skatt to project households' debt and interest burden. The debt burden is household debt in relation to income, while the interest burden is interest expenses in relation to income. Households' income in the calculations is income after tax, from which interest expenses are not deducted. The model data are a selection of about 10 per cent of households (about 230,000) from Statistics Norway's "Income statistics for households" for 2011. The income statistics provide information on household debt, interest payments and wealth, and the calculations throw light on households' vulnerability to interest rate increases. The model does not take into account changes in household behaviour that may result from an interest rate increase.

Growth estimates underlying the projection are based on historical figures as of end-2012, where available. Lending and deposit rates in 2011 are estimated as average interest income and expenses as a ratio of deposits and debt in the model data. The projections for income growth and the development in banks' lending rate are taken from Statistics Norway's forecasts in Economic Survey of the year 2012 from March 2013. The lending rate used by Finanstilsynet to estimate interest expenses in the model for the years 2012-2014 is assumed to change by the same factor as the change in the lending rate in Statistics Norway's forecasts. The deposit rate is assumed to change by the same margin as the

lending rate. Growth in household debt and deposits is set at 6.1 per cent in 2013 and 5.3 per cent in 2014, which corresponds to the forecast for growth in nominal disposable income. This entails a supposition that households' overall debt burden does not increase in the projection period. The tax programme in the model comprises tax rules for, respectively, 2011, 2012 and 2013, and, as a technical assumption, current 2013 rules are carried forward to 2014.

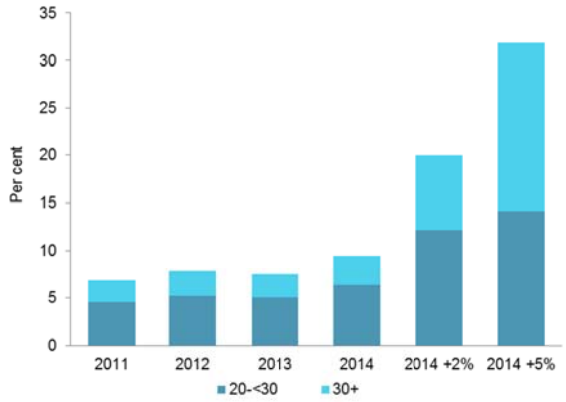
The results from Statistics Norway's model calculations show small changes in households' interest burden. The proportion of households with an interest burden in excess of 20 per cent edges down weakly in 2013, then rises again in 2014; see chart III.7. In 2014 6 per cent of households have an interest burden in excess of 20 per cent, while 3 per cent have an interest burden in excess of 30 per cent. Table III.1 shows the number of households in the respective interest burden groups. The stable trend is due to the fact that the interest rate underlying Finanstilsynet interest expense estimates rises by a mere 0.5 percentage points from 2011 to 2014.

In 2011 households with an interest burden between 10 and 30 per cent had the highest average income. Households with the highest interest burden had the lowest average income; see table III.1. The younger section in particular of the population has high debt in relation to income. Household groups with high debt probably have an interest burden very close to 20 per cent. Hence even a modest increase in the interest rate is likely to bring significant shifts of the debt share between the respective interest burden groups. For example, a slight rise in the interest rate in the benchmark scenario causes the debt share of the group with an interest burden in excess of 20 per cent to rise from 24 per cent of aggregate debt in 2013 to 29 per cent in 2014; see chart III.8.

The simulations show that households' interest burden is highly sensitive to interest rate increases beyond that of the benchmark scenario. A lending rate of 6.6 per cent in 2014, which is 2 percentage points higher than in the benchmark scenario, causes the share of households with an interest burden between 20 and 30 per cent to rise from 6 to 12 per cent. The share of households with an interest burden above 30 per cent rises from 3 per cent in the benchmark scenario to 8 per cent. This corresponds to 193,000 households. A lending rate of 6.6 per cent is low by historical standards, and about the same level as in 2008 (6.7 per cent).

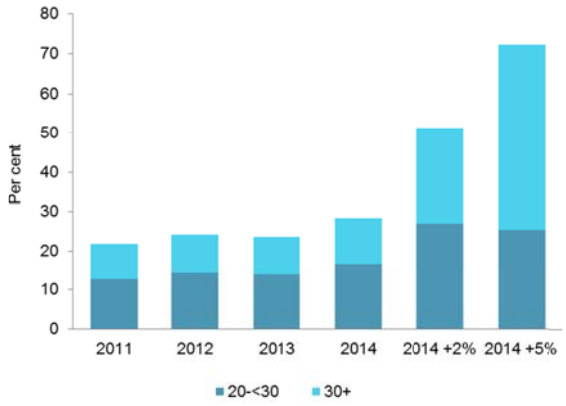
Were the lending rate to rise to 6.6 per cent in 2014, it would result in a sharp increase in the debt share of the group of households with an interest burden above 20 per cent. The debt share of the group with an interest burden between 20 and 30 per cent rises from 17 per cent in the

III.7 No. of households in interest burden groups as a share of total households



Sources: Statistics Norway and Finanstilsynet

III.8 Share of overall debt held by households in two interest burden groups



Sources: Statistics Norway and Finanstilsynet

projection to 27 per cent after the interest rate increase. According to the calculation a lending rate of 6.6 per cent entails that about one quarter of all household debt will be held by households whose interest expenses measure at least 30 per cent of disposable income. Hence the interest rate increase leads to a doubling of this share from 12 per cent.

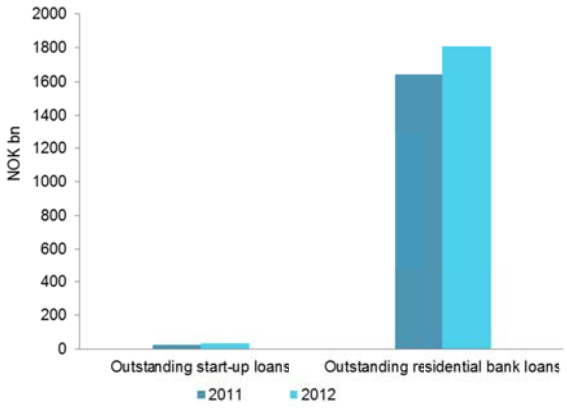
A lending rate of 9.6 per cent i.e. an increase of 5 percentage points from the benchmark scenario, will result in an interest burden above 30 per cent for as much as 18 per cent of households; see chart III.7. In this scenario almost half of all household debt is held by the group with an interest burden above 30 per cent; see chart III.8.

Table III.1: Average household income per interest burden group in 2011. No. of households per interest burden group, rounded off to nearest whole thousand, 2011-2014

Interest burden	2011, interest 4.1 per cent		2012, interest 4.3 per cent	2013, interest 4.2 per cent	2014, interest 4.6 per cent	2014, interest 6.6 per cent	2014, interest 9.6 per cent
	Average income	Households	Households	Households	Households	Households	Households
0-<10	448 000	1 664 000	1 675 000	1 722 000	1 690 000	1 456 000	1 271 000
10<20	584 000	493 000	520 000	526 000	558 000	531 000	420 000
20<30	532 000	105 000	125 000	123 000	158 000	302 000	351 000
30+	391 000	54 000	61 000	60 000	76 000	193 000	439 000

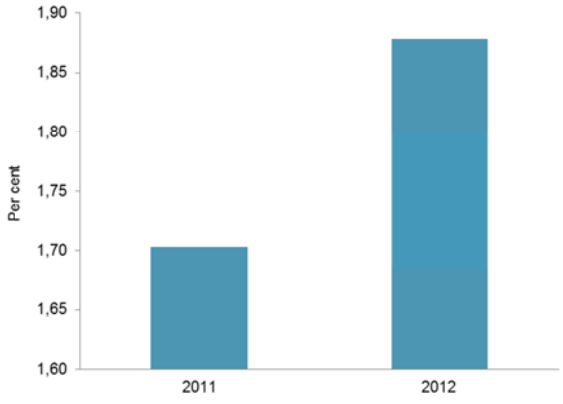
Sources: Statistics Norway and Finanstilsynet

III.9 Value of outstanding start-up loans and outstanding residential bank loans



Norwegian State Housing Bank and Ministry of Finance

III.10 Outstanding start-up loans in relation to outstanding residential bank loans



Sources: Norwegian State Housing Bank and Ministry of Finance

START-UP LOANS

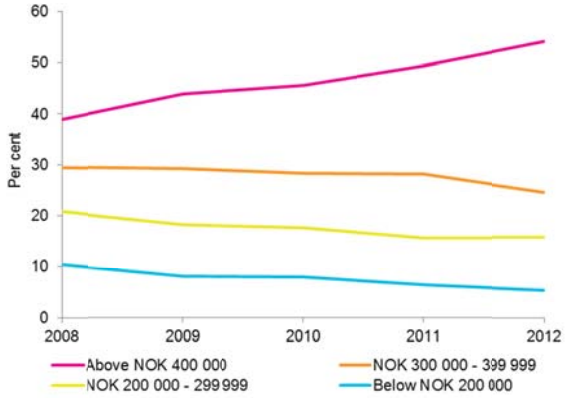
Start-up loans are financed by the State Housing Bank and administered by local authorities. Start-up loans are used both to fully finance and partially finance house purchase. In the case of partial financing, parts of the house purchase are funded by a private bank with the remainder being covered by a start-up loan. Start-up loans are also granted for the refinancing and renovation of dwellings.

Both the number of start-up loans and the value of start-up loans from local authorities have grown sharply in recent years. Annual growth rates in the value of start-up loans disbursed annually by local authorities ranged between 12 and 19 per cent in the years 2008-2012. From 2011 to 2012 the growth rate rose from 12 to 16 per cent.

The value of outstanding start-up loans rose by 20 per cent from 2011 to 2012, and stood at NOK 34bn at end-2012. However, compared with aggregate outstanding bank loans for residential purposes (including equity release facilities secured on homes, repayment loans secured on homes and housebuilding loans) the value of outstanding start-up loans is small; see chart III.9. Nonetheless, the value of outstanding start-up loans represents a growing share of banks' overall lending for residential purposes; see chart III.10. In 2011 outstanding start-up loans made up 1.7 per cent of aggregate bank loans for residential purposes, compared with a share of 1.9 per cent in 2012. Start-up loans' significance may be greater than suggested by the actual value of such loans. The value of new bank loans granted per year in connection with start-up loans has risen in recent years. From representing 65 per cent of the value of new start-up loans in 2008, the value of bank loans granted in connection with start-up loans measured 138 per cent of the value of new start-up loans in 2012. However, these are small values compared with overall bank lending.

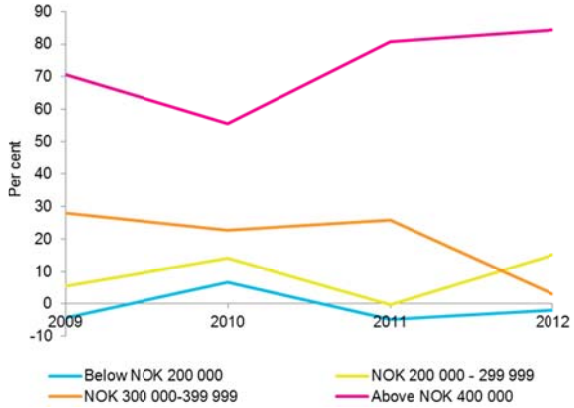
According to the State Housing Bank the value of start-up loans granted per year accounts for a substantial, but falling, share of the value of house purchases in purchases where a start-up loan is also granted. The value of disbursed start-up

III.11 Share of value of new start-up loans by income group



Source: Norwegian State Housing Bank

III.12 Growth in start-up loans by income group



Source: Norwegian State Housing Bank

loans per year in relation to the value of house purchases where a start-up loan is also granted fell from just over 50 per cent in 2008 to 40 per cent in 2012. Bank loans' share of the value of house purchases in the case of loans where a start-up loan is also granted has risen from about one-third in 2008 to more than 50 per cent in 2012.

The income composition of start-up loan recipients has changed substantially in recent years. Recipients with an annual income above NOK 400,000 increased from about one-third of the value of aggregate start-up loans granted in 2008 to more than one-half of the value of new start-up loans granted in 2012; see chart III.11. Growth in start-up loan value for recipients with an annual income above NOK 400,000 came to more than 80 per cent of the growth in the value of new start-up loans in 2011 and 2012; see chart III.12.

The share of the total number of start-up loans where the loan is a full financing loan fell in the period 2008-2012 from just over 50 per cent to just under 40 per cent.

After hovering around 60 per cent in the period 2008-2011 the share of aggregate new start-up loan amounts granted to first-time housebuyers fell to 53 per cent in 2012. The share of first-time housebuyers in cases where the start-up loan is a full financing loan is substantially lower than for all start-up loan groups collectively. The share almost halved from 2008 to 2012. In 2012 the share was 23 per cent.

CONSUMER LOANS AND DEBT COLLECTION TREND

Norwegian banks' loans to households are predominantly home mortgage loans, whereas the volume of uncollateralised consumer loans is fairly limited. Consumer loans are offered in the form of various products and include both card-based loans and other uncollateralised consumer loans ranging from NOK 10,000 to NOK 400,000. The effective interest rate on these loans is consistently high, and varies widely depending on the amount involved and the repayment period. The lenders apply stringent creditworthiness assessments to consumer loans, and reject a large proportion of the applications. Both banks and finance companies provide consumer loans. Finanstilsynet regularly surveys the activity of a selection of companies engaged in consumer finance. The selection comprises 22 companies (13 banks and nine finance companies), and both Norwegian companies and foreign companies are included.

Consumer loans accounted for just under 3 per cent of households' aggregate borrowing at the end of 2012. Growth in consumer lending was high in the years preceding the financial crisis of 2008, but fell substantially the following year. The last three years have again seen quickening growth. At the end of 2012 12-month growth was 7.5 per cent; see table III.2. Lending growth was somewhat lower than in the case of finance companies in general, and lower than the growth in bank lending to retail customers.

Net interest income on consumer loans is at a stable high level. Book losses measured 1.4 per cent of consumer loans in 2012, marginally lower than in 2011. There was a decline in defaults, but the level of defaults is higher than for banks and finance companies in general.

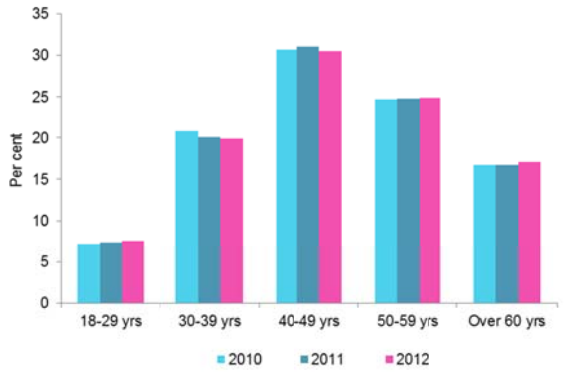
Additional data have been compiled for the 12 largest companies in the selection, which together hold a market share close to 90 per cent. The data show that little in the way of consumer loans has gone to younger borrowers. At the end of 2012 consumer loans to borrowers below the age of 30 accounted for 7.6 per cent of the portfolio, which is marginally higher than the previous year; see chart III.13. Borrowers in the age group 40-49 account for the largest share of consumer loans at just over 30 per cent. Altogether 55 per cent of loans have gone to borrowers between the age of 40 and 60.

Table III.2 Consumer loans at a selection of companies*

	2006	2007	2008	2009	2010	2011	2012
Consumer loans (NOKm)	31 057	36 925	43 352	43 936	48 913	58 118	62 453
Growth in %	18.2	18.9	17.4	1.4	3.0	5.1	7.5
Losses in % of consumer loans (annualised)	0.8	0.9	2.2	3.1	2.7	1.5	1.4
Net interest in % of average total assets (annualised)	11.2	9.8	8.8	11.8	12.0	11.3	11.2
Result of ordinary operations in % of average total assets (annualised)	7.6	5.5	3.3	5.4	5.7	6.5	6.7
Gross defaults, 90 days, in % of consumer loans	4.9	5.0	6.5	6.1	5.9	5.0	4.7
Gross defaults, 30 days, in % of consumer loans					10.0	8.4	8.0

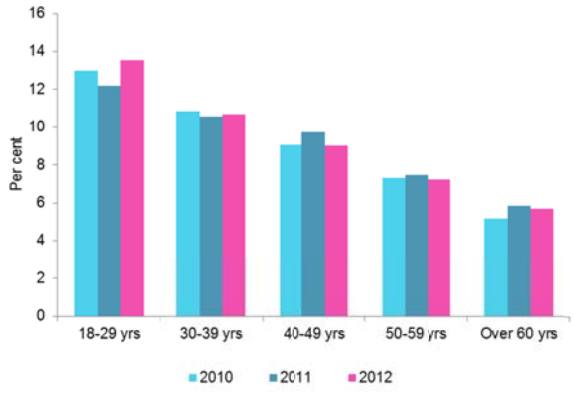
*The selection was expanded in 2012. Figures for 2011 are supplemented to include the same 22 companies. Annual growth is calculated on the basis of a comparable selection. Source: Finanstilsynet

III.13 Consumer loans by age group



Source: Finanstilsynet

III.14 Defaults (30 days) on consumer loans by age group



Source: Finanstilsynet

Measured in relation to aggregate consumer loans in each age group, defaults were highest among borrowers below the age of 30. The default rate declines with increasing age. Some increase was seen in defaults for the age group 18-29 from 2011 to 2012, whereas movements for the other age groups are smaller; see chart III.14.

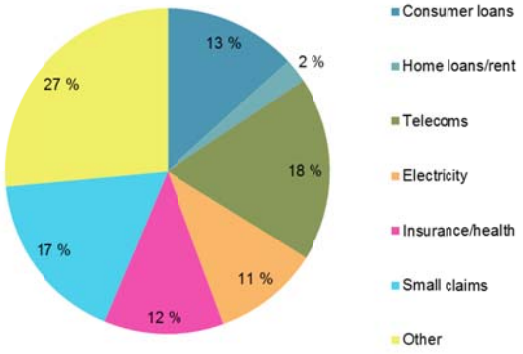
Finanstilsynet conducts each year a survey of the largest debt collection agencies to break down debt recovery cases by type of claim and age group. As of 31 December 2012 the agencies participating in the survey held an aggregate market share of 67 per cent, measured by principal (original debt) for recovery.

At the end of 2012 13 per cent of debt collection cases in process related to consumer loans, which is somewhat less than in 2011; see chart III.15. Mortgage debt recovery accounted for a marginal proportion, just 2 per cent. The bulk of debt collection business in process related to purchases of telecoms services (including broadband and TV subscriptions) and other minor claims (including postal order sales and parking fines).

The age distribution of consumer debt recovery cases showed that most cases at end-2012 related to debtors between age 30 and 50; see chart III.16. However, in terms of the age distribution of all consumer loans the frequency of debt collection cases was highest in the age range 18-29.

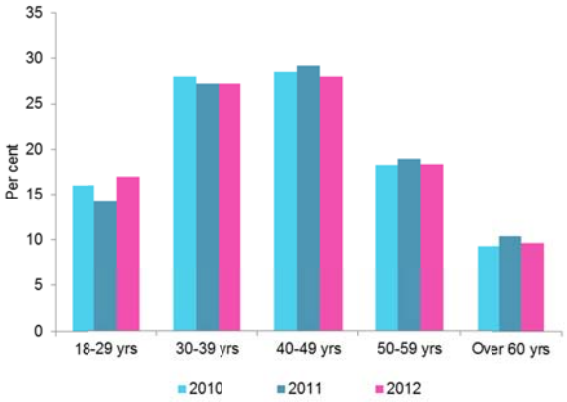
There has in general been a strong increase in the number of debt collection cases in recent years. There are several reasons for this. Firms are sending unpaid claims for the recovery at an earlier stage, and are outsourcing the recovery effort to a larger degree than previously. This gradual change in the recovery process is resulting in defaults and claims for recovery being reported to Finanstilsynet under debt collection agencies' ordinary reporting obligation. Previously recovery would have been attended to by businesses themselves, which are not subject to supervision by, or a reporting obligation to, Finanstilsynet. The registered increase in the number of debt recovery cases and the size of defaulted obligations therefore does not necessarily reflect a genuine increase.

III.15 Debt recovery cases by type of claim* 31.12.2012



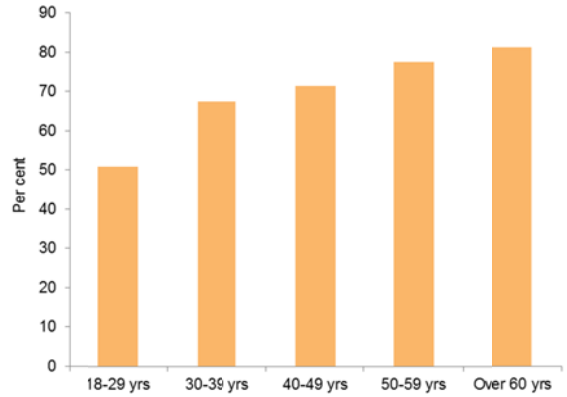
* Telecoms: mobile and landline, broadband and TV subscritions. Small claims: road tolls, parking fines, postal order and internet sales.
Source: Finanstilsynet

III.16 Debt recovery cases, consumer loans, by age group



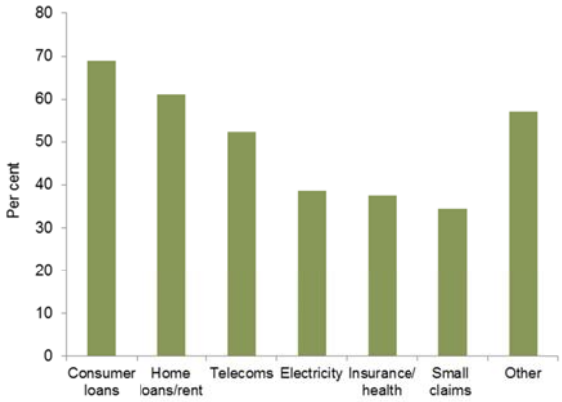
Source: Finanstilsynet

III.17 Consumer debt recovery cases in process for more than 18 months (as at 31.12.2012) as a share of all consumer debt for recovery



Source: Finanstilsynet

III.18 Debt recovery cases in process for more than 18 month



Source: Finanstilsynet

Although debt collection agencies are receiving more claims for recovery, the half-yearly reports to Finanstilsynet also show a strong increase in the number of completed cases. In many cases payment takes place at an early stage of the recovery process. The reporting shows that one in three cases were closed before dispatch of a demand for payment. The fact that payment is remitted after dispatch of a reminder/debt collection notice indicates that in very many cases the borrower does not have a serious payment problem.

Measured against overall consumer debt recovery cases in each age group, the 18-29 age group has the lowest proportion of cases under recovery for more than 18 months; see chart III.17. The over-60s group accounts for most cases still under recovery after 18 months. At the end of 2012 recovery claims related to consumer loans accounted for the highest proportion of cases still under recovery after 18 months; see chart III.18.

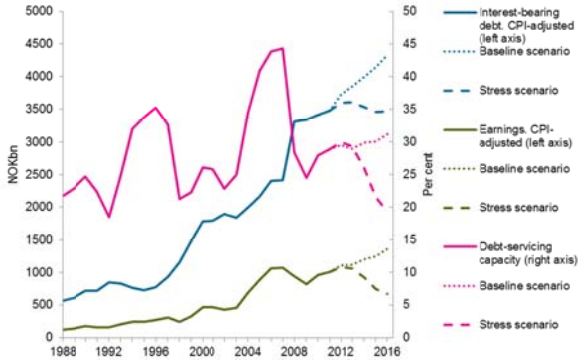
THEME IV FINANCIAL VULNERABILITY OF NON-FINANCIAL COMPANIES

The analysis indicates that the overall debt-servicing capacity of non-financial limited liability companies is not particularly good in a historical perspective. In the stress scenario these companies' debt-servicing capacity falls by the end of 2016 to the lowest level seen during the banking crisis. However, the book equity ratio is high overall, and far less weak among the least financially sound companies than at the start of the banking crisis. The equity ratio, overall, also remains high in the stress scenario. Calculations done using the credit risk model SEBRA show companies' aggregate risk-weighted debt to be low both in relation to their total interest-bearing debt and in relation to banks' equity capital. However, it increases sharply in the stress scenario, and by the end of 2016 exceeds the peak level seen during the banking crisis. The ratio of risk-weighted bank debt to total bank debt rose in all 18 largest Norwegian banks from 2011 to 2012. In the stress scenario risk-weighted bank debt as a ratio of total bank debt rises sharply in all these banks. In the last 20 years non-financial companies' total debt has risen in relation to various indicators of value creation and consumption. These indicator levels are now higher than they were at the start of the banking crisis, indicating that companies' financial vulnerability has grown.

DEBT-SERVICING CAPACITY AND FINANCIAL SOUNDNESS

Many factors have shown a favourable trend in the Norwegian economy in the last 20 years. Although the financial crisis, and to some extent the Asia-Russia crisis in 1997-1999 and the dot-com bubble which collapsed during 2000-2002, adversely affected the Norwegian economy, growth recovered rapidly to relatively high levels. Households' disposable income has risen sharply, fuelling domestic demand. Norwegian business and industry have benefited from generally strong international demand for Norwegian export goods and relatively low prices of many inputs and imported goods. Interest rates have also been very low for several years. The oil price has remained high, leading to substantial investment activity in the oil industry. This has in turn contributed to buoyant earnings for companies directly involved in the oil industry and for many companies indirectly affected by developments in the oil sector. Moreover, the positive trend has brought high tax revenues and favourable public finances. There is no certainty that the trend in the Norwegian economy will be equally favourable over the next 20 years.

IV.1 Earnings, interest-bearing debt and debt-servicing capacity. Norwegian non-financial limited companies



Source: Finanstilsynet

COMPANIES' DEBT-SERVICING CAPACITY

A company must over time generate sufficient earnings to service its debt obligations. Hence a relevant measure in the credit risk context is a company's earnings divided by its debt obligations. This measure is called debt-servicing capacity. Earnings are defined as the company's annual accounting profit plus depreciation and write-downs and extraordinary items.[9] Debt obligations include all interest-bearing debt.

The favourable economic trend in business and industry meant that companies' overall earnings, measured in fixed kroner, rose steeply from the start of the 1990s up to 2007 (chart IV.1). The selection includes Norwegian non-financial limited companies that carry interest-bearing debt.[10] Altogether about 85 per cent of the overall debt to non-financial companies (C3) is included. Experience suggests that some of the omitted companies would have pushed up the ratios had they been included in the selection, while others would have pushed the figure down. It is unlikely that the main conclusions drawn from the analyses would have changed had all companies been included.

After weakening in the years immediately following the financial crisis, earnings improved in 2011 and 2012,[11] but were nonetheless lower measured in fixed kroner than prior to the financial crisis. Companies' interest-bearing debt rose sharply from the mid-1990s up to 2008, after which growth subsided somewhat. Companies' earnings are now far lower in relation to debt than they were prior to the financial crisis. This indicates impaired debt-servicing capacity. Debt-servicing capacity is not much better now than it was at the start of the banking crisis at the end of the 1980s.

The changes in debt-servicing capacity have broadly speaking been identical across most key industries in

[9] Depreciation and write-downs are added to the profit since they are so-called "non-payable expenses" ((i.e. accounting dispositions).
[10] Mainly debt to credit institutions and commercial paper and bond debt.
[11] The figures for 2012 are based on projected annual accounts; see box.

Norway since the end of the 1980s. However, levels vary widely from one industry to the next. In some segments, such as property, a relatively long asset lifetime is the norm, enabling the debt commitment to be spread over a number of years. In other segments, for example retail trade and business services, asset lifetimes are often shorter.

An empirically based method has been developed to project companies' annual accounts at the individual level based on estimates for central macro figures (including GDP, wage growth, interest rate level, property prices and lending growth). This method is explained more closely in the following box.

STRESS TESTING IN BRIEF

Introduction

Stress testing of Norwegian non-financial limited liability companies is based on assumptions for the future development of key macroeconomic variables. These variables are further linked to the companies' annual accounts in a module of the SEBRA model.[12] SEBRA predicts the probability of default (PD) one year ahead in time based on information from the companies' annual accounts. PD is then multiplied by the companies' interest-bearing debt to arrive at risk-weighted debt.

More on the transition from macro variables to accounting variables

The impact of various future scenarios on the companies' financial position is quantified using estimated correlations between macroeconomic variables and companies' annual accounts. Empirical analyses indicate that macroeconomic variables are to a relatively large extent reflected in non-financial companies' aggregated accounts.[13] There is for example a relatively close connection between the trend in the companies' overall operating revenues and the trend in GDP, and between aggregate wage costs and overall actual wage growth in Norway. These correlations apply on an aggregated level. There will be differences between companies and industries. For example, the operating revenues of one company may grow in step with GDP, while others will grow quicker or slower than GDP. However, the differences go both ways, and an average the method appears to be well suited for stress testing purposes.

Selection in the SEBRA database

The selection includes all Norwegian non-financial limited companies that have filed their annual accounts with the Brønnøysund Register Centre, and for which the accounts contain sufficient data to compute probability of default in the SEBRA model. Types of company other than limited liability companies (for example unincorporated businesses and sole proprietorships) and companies registered abroad are not included. In total about two-thirds of banks' loans to non-financial companies are included in the selection.

More on the projections

Technically speaking the projections take the following course: (i) selection of benchmark and stress scenario, (ii) transformation of the benchmark and stress scenario to the companies' annual accounts and (iii) estimation of new probabilities of default and risk-weighted debt based on the projected annual accounts. It is also possible to go a step further by making estimates for banks' loan losses and the effect on banks' capital adequacy. However, in this analysis we have focused on non-financial companies' credit risk. A further description of (i) – (iii) follows below.

(i) Selection of benchmark and stress scenario

Statistics Norway's macroeconomic estimates are taken as the benchmark scenario. The stress scenario is based on an economic downturn. The downturn scenario should be "serious but not inconceivable". In many cases several stress scenarios are employed to illustrate the effect of different downturn scenarios. In the stress tests in the present analysis, a basis is taken in the development of relevant macroeconomic variables during the banking crisis at the end of the 1980s and start of the 1990s.

(ii) Transformation of benchmark and stress scenario to companies' annual accounts

The most central items in the companies' annual accounts are projected using the relevant macroeconomic variables. As mentioned above, empirical analyses indicate a relatively close correlation between the relevant macroeconomic variables and the relevant items in the companies' aggregated annual accounts. The same percentage change in the macroeconomic variables is posited for all companies. The projected accounts are consistent from an accounting vantage point. New annual accounts are produced for each individual company for each of the years in the benchmark and stress scenarios.

[12] SEBRA stands for System for EDB Based RegnskapsAnalyse (AccountingAnalysis). See Bernhardsen, E and K. Larsen, 2007. "Modelling of credit risk in the corporate sector – Refinement of the SEBRA model."** Penger og Kreditt (Norges Bank), 2/2007. Eklund, T., K. Larsen and E. Bernhardsen. 2001 "Model for analysis of credit risk in the corporate sector."** Penger og Kreditt (Norges Bank), 2/2001. For projection and stress test methodology see Bernhardsen, E. and Syversten, B.D. 2009. "Stress testing the Enterprise Sector's Bank Debt: A Micro Approach." International Journal of Central Banking, September 2009. See footnote 10 for references to the SEBRA model. **In Norwegian only.

[13] See Bernhardsen and Syversten (2009).

Table IV.1 Benchmark- and stress scenario. Percentage change from preceding year

	Baseline scenario					Stress scenario			
	2012	**2013**	**2014**	**2015**	**2016**	**2013**	**2014**	**2015**	**2016**
Real economy									
GDP for Mainland (non-oil) Norway at fixed prices	3.5	2.6	3.1	2.8	2.8	1.4	-1.1	-1.5	0.9
Interest rates and exchange rate									
Three-month money market rate (NIBOR)	2.2	1.9	2.5	3.5	4.0	1.3	1.5	1.5	1.8
Banks' average lending rate (companies)	4.8	4.8	5.4	6.4	6.9	4.3	4.5	4.5	4.8
Nominal exchange rate (1-44)	-1.2	-3.2	-1.1	0.5	1.7	2.9	0.6	0.6	-1.0
Prices and wages									
Annual pay	4.0	3.8	3.9	4.1	4.5	1.9	1.0	2.1	2.3
Consumer prices, CPI	0.8	1.5	1.4	1.8	2.4	0.5	0.5	0.5	0.5
Commercial property prices	1.0	3.6	3.7	3.1	2.8	-2.5	-27.5	-4.3	-15.7
Credit									
Credit to households	7.1	7.8	8.5	8.3	8.0	5.6	2.5	-1.8	-2.3
Credit to non-financial companies	6.7	7.8	7.5	6.8	6.5	3.4	-1.3	-3.7	-2.3

Sources: SSB and Finanstilsynet

(iii) Calculation of probabilities of default and risk-weighted debt

Key figures from the projected annual accounts are used in the same way as for the historical accounts to calculate probabilities of default in the SEBRA model. A new probability of default is calculated for each individual company in the benchmark and stress scenarios. Risk-weighted debt is arrived at by multiplying probabilities of default by projected interest-bearing debt.

It should be noted that the selection is kept constant throughout the projection period. It is accordingly assumed that no company goes bankrupt or is wound up no matter how weak the key figures in the annual accounts. Hence some companies will remain in the selection with an "unrealistically" high probability of default, and thereby push up the estimate for risk-weighted debt. On the other hand, a bankruptcy or winding up will cause all or parts of the creditors' loans to be written off. An unchanged selection also means that no new companies are included in the course of the projection period. New start-ups have on average a greater likelihood of defaulting or going bankrupt than established companies. It is difficult to quantify the effect of this "disposal and addition issue".

In chart IV.1 and in the ensuing analyses, Statistics Norway's estimate for the trend in macro figures is taken as the benchmark scenario. Developments through the Norwegian banking crisis at the end of the 1980s and start of the 1990s are employed as the stress scenario; see table IV.1.

In the benchmark scenario, companies' overall earnings and debt increase at about the same pace in the period to 2016 (chart IV.1), entailing that overall debt-servicing capacity remains more or less unchanged in this period. In the stress scenario, earnings weaken substantially while debt remains at about the same level, bringing companies' overall debt-servicing capacity below the lowest level seen during the banking crisis by the end of 2016.

Both the median company and the weakest companies (measured by debt-servicing capacity) saw their debt-servicing capacity weaken in the initial years of the financial crisis; see table IV.2. A marginal improvement followed. But debt-servicing capacity was still weaker for the median entity and the weakest companies at the end of 2011 than at the start of the financial crisis. Further, the weakest companies had about the same debt-servicing capacity as at the start of the banking crisis. Hence they are no better placed now to tackle a period of impaired earnings than they were prior to the banking crisis.

Table IV.2 Debt-servicing capacity of Norwegian non-financial limited companies. 1988-1993 (banking crisis) and 2007-2011 (financial crisis). Per cent

	Banking crisis					
	1988	**1989**	**1990**	**1991**	**1992**	**1993**
Median company	5	5	4	5	6	7
75% weakest company	-4	-4	-6	-5	-3	-1
90% weakest company	-20	-21	-28	-27	-25	-20
95% weakest company	-38	-39	-56	-54	-53	-50
	Financial crisis					
	2007	**2008**	**2009**	**2010**	**2011**	
Median company	12	10	9	9	10	
75% weakest company	1	-1	-1	-1	0	
90% weakest company	-14	-19	-20	-19	-17	
95% weakest company	-36	-43	-45	-44	-41	

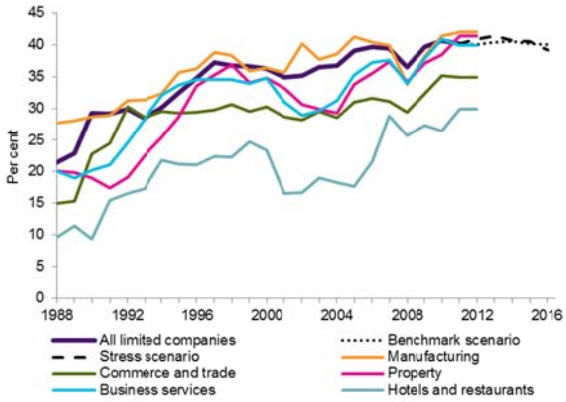
The median shows the debt-servicing capacity of the company at the midpoint of a ranking from best to weakest debt-servicing capacity. The percentiles in the table show the debt-servicing capacity of companies in the weaker half of the ranking. The number of companies in the selection varies from 43 000 in 1988 to 138 000 in 2011. Source: Finanstilsynet

FINANCIAL SOUNDNESS

All else equal, financially solid companies will be better placed to withstand a period of negative development than companies in a poor financial position. Financial soundness is often measured in terms of book equity ratio, i.e. equity capital divided by the book value of assets. Book value may be a misleading indicator of actual value, especially in times of high activity and substantial price level changes. Norwegian accounting rules are relatively conservative in the sense that they take a basis in an asset's acquisition cost with ensuing annual depreciation and write-downs. It is not normally permitted to write up the value of an asset in the accounts. This curbs the possibilities for inflated balance sheet values. Inflated property values may nonetheless bed into the accounts where companies buy property at overstated prices just before property prices start to fall. It should also be noted that property or other assets with little or no alternative application may be overvalued in the balance sheet. Hence, in contrast to debt-servicing capacity (see above), which in the main is based on real values, much uncertainty attaches to the companies' book equity ratio.

The companies' aggregate book equity ratio almost doubled in the 1990s (chart IV.2). However, since the start of the 2000s the equity ratio has been relatively stable at between 35 and 40 per cent. The trend has by and large been identical within the various main industries, but levels vary. None of the main industries had an overall equity ratio below 30 per cent at the end of 2012. The figures indicate that the companies' overall financial position is good. Financial soundness is also far better than at the start of the banking crisis. The companies' overall equity ratio only marginally weakens in the stress scenario. This is mainly because many companies will show positive results, enabling them to retain profit, also in an economic downturn. This facilitates build-up of equity capital.

IV.2 Book equity ratio*of Norwegian non-financial limited companies



*Book equity in per cent of book value of total assets
Source: Finanstilsynet

Table IV.3 Distribution of financial strength of Norwegian non-financial limited companies. 1988-1993 (banking crisis) and 2007-2011 (financial crisis). Per cent

	Banking crisis					
	1988	**1989**	**1990**	**1991**	**1992**	**1993**
Median company	16	16	14	15	18	20
75% weakest company	1	0	-3	-2	1	3
90% weakest company	-30	-40	-50	-54	-49	-45
95% weakest company	-73	-95	-120	-135	-138	-130
	Financial crisis					
	2007	**2008**	**2009**	**2010**	**2011**	
Median company	24	25	26	27	28	
75% weakest company	10	10	10	10	10	
90% weakest company	-9	-10	-14	-14	-10	
95% weakest company	-48	-50	-60	-64	-53	

Source: Finanstilsynet

The book equity ratio weakened somewhat amongst the least sound companies in the first part of the financial crisis, but recovered slightly in 2011 (table IV.3). The equity ratio of the median company and among the more solid companies strengthened throughout this period. At the end of 2011 the equity ratio was substantially higher than at the onset of the banking crisis both for sound and less sound companies. The trend is roughly the same across the main industries, but levels vary. For example, the median company and the less solid companies in the property industry did not have a notably higher equity ratio at the start of 2011 than at the onset of the banking crisis.

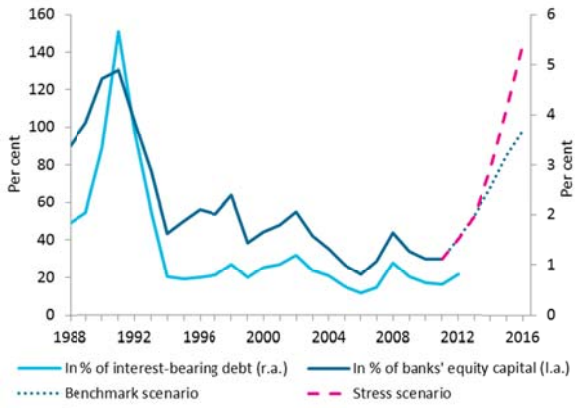
LIQUIDITY

The first sign of financial problems at a company is often impaired liquidity. Liquidity is therefore an important factor in the credit risk context. However, it is difficult to measure companies' liquidity, since liquidity indicators vary widely through the year and the annual accounts only show the situation at year-end. Liquidity indicators may also change over time as a result of changes in corporate structure etc.

ANALYSIS OF COMPANIES' CREDIT RISK BASED ON THE SEBRA MODEL

The SEBRA model predicts the probability of default at Norwegian non-financial limited liability companies. As explanatory variables the model uses key figures calculated with a basis in data from companies' annual accounts and the companies' industry affiliation and age. Companies' debt-servicing capacity and book equity ratio (see above) are central explanatory variables in the model. The SEBRA model is estimated on data from the end of the 1980s up to 2006. Comprehensive testing and validation indicate that the model is relatively good at predicting defaults one year forward in time. The SEBRA model has been in use at Norges Bank and Finanstilsynet for many years.

IV.3 Risk-weighted debt in per cent of total interest-bearing debt and in per cent of banks' equity capital



Source: Finanstilsynet

RISK-WEIGHTED DEBT

Companies' overall risk-weighted debt has since the mid-1990s been relatively low and stable in relation to banks' equity capital (chart IV.3). At the end of 2012 risk-weighted debt measured an estimated 21 per cent of banks' equity capital compared with 28 per cent in 2008, as compared with 151 per cent in 1991. There was a steep increase in risk-weighted debt relative to companies' total interest-bearing debt at the start of the financial crisis, but the Norwegian economy recovered rapidly, and the relatively strong growth contributed to lower probabilities of default.

Risk-weighted debt rises sharply in relation to total debt in both the benchmark scenario and stress scenario (chart

IV.3). In the benchmark scenario the increase is largely due to the fact that interest rate expenses increase as a result of relatively high debt growth and higher interest rates. Companies' overall annual debt growth is assumed to be between 6.5 and 7.8 per cent throughout the period, while banks' average lending rate to non-financial companies is assumed to rise from 4.8 to 6.9 per cent in the period (table IV.1). This has major implications for companies with a high debt burden. In the stress scenario companies' earnings weaken by a relatively speaking larger margin than debt is reduced. By the end of 2016 risk-weighted debt is higher relative to total debt than was the case during the banking crisis. Although much uncertainty attaches to the projections, especially several years forward in time, they illustrate that the companies are vulnerable both to a cyclical downturn and to higher interest rates.

Trends in risk-weighted debt have been much the same for most main industries since the end of the 1980s, but levels have differed. At the end of 2011 the property industry had the highest risk-weighted debt measured in current kroner. But this industry also had the lowest risk-weighted debt in relation to the industry's total interest-bearing debt.

RISK MIGRATION

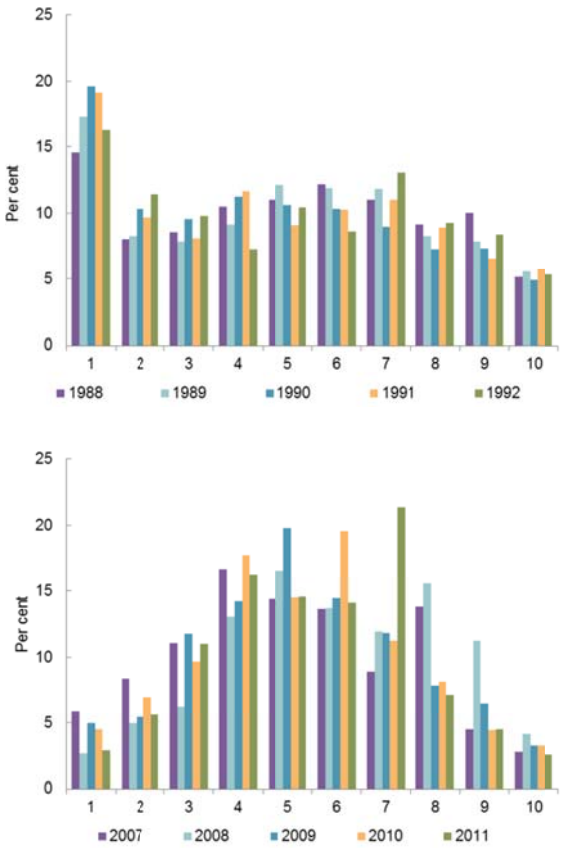
To gain a fuller picture of the trend in credit risk it is relevant to analyse the distribution of companies' debt across various risk classes and the extent of debt migration between risk classes over time.

In chart IV.4a and b interest-bearing debt is divided into risk classes based on the companies' probabilities of default. Risk class 1 is the lowest risk class, risk class 10 the highest. Companies actually in default are not included in the highest risk class. At the end of 2011, 8 per cent of the companies' debt was in the three highest risk classes and 2 per cent in the highest risk class.[14] In the weakest years during the banking crisis the corresponding figures were 35 and 19 per cent respectively. The proportion of debt in the highest risk classes also fell substantially relative to the weakest year during the financial crisis. Average probability of default among companies in risk class 10 rose, however, from 2010 to 2011. It is often the weakest companies that first feel the effects of harder economic times.

RESERVATIONS REGARDING THE SEBRA PREDICTIONS

Is important to note that the probabilities of default as computed in the SEBRA model (and in most traditional credit risk models) estimate the probability of a company defaulting on its debt obligations on the basis of historically observed explanatory variables. In the event of a severe and lasting cyclical downturn, companies' earnings, equity capital and liquidity will in general weaken. This will contribute to higher probabilities of default and hence to more companies migrating to high risk classes. Companies' debt will not automatically be reduced in a downturn. Further, property prices will probably weaken, thereby reducing the value of banks' collateral. The result may be a steep increase in banks' loan losses. This, in combination with higher risk weights (for IRB banks) will therefore bring a reduction in banks' capital adequacy. Banks may therefore be compelled to reduce their lending growth, or at worst sell off loans and other assets in order to maintain their capital ratio. When many banks need to do this simultaneously, liquidity and prices come under further pressure. Hence, tighter credit practice may intensify the economic downturn.

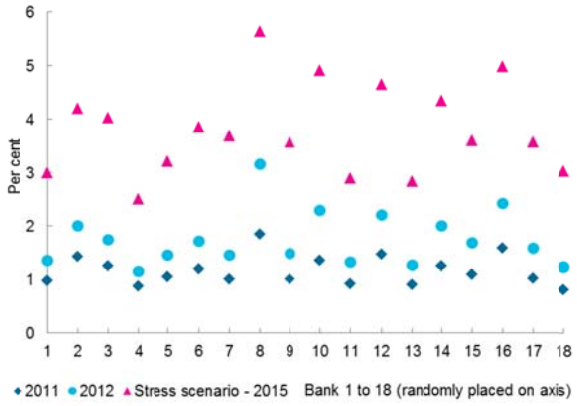
IV.4a and b Interest-bearing debt in different risk classes. Norwegian non-financial limited companies exc. oil and gas extraction



Source: Finanstilsynet

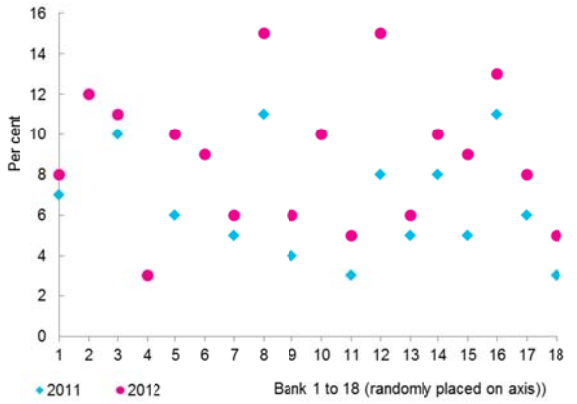
[14] Probability of default above, respectively, 3 and 8 per cent.

IV.5 Risk-weighted bank debt in per cent of banks' total lending to the same borrowers. The 18 largest Norwegian banks' loan portfolios



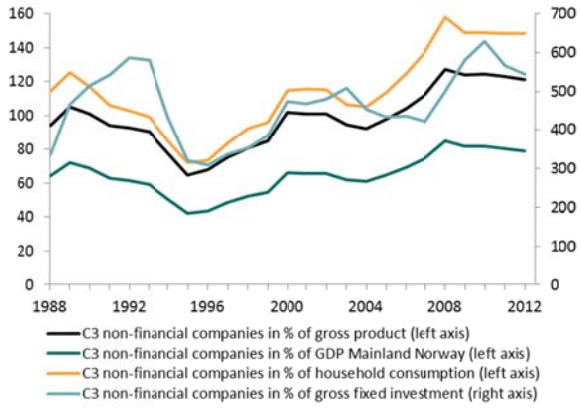
Source: Finanstilsynet

IV.6 Share of bank debt in the three highest risk classes (probability of default > 3 per cent)



Source: Finanstilsynet

IV.7 Gross debt (C3) of non-financial companies in Mainland (non-oil) Norway relative to various value creation measures



Source: Statistisk sentralbyrå

TREND IN THE LARGEST NORWEGIAN BANKS' LENDING TO NON-FINANCIAL FIRMS

Each year Finanstilsynet carries out a SEBRA-based analysis of the 18 largest Norwegian banks' loan portfolios. Analyses of other banks are done on an ad hoc basis. The analyses cover inter alia banks' industry-wise exposures, major customers and risk migration. Comparisons are also made with developments on a regional and country basis, along with developments in the banks' own credit risk models. The SEBRA analyses are normally presented to the bank at on-site inspections, and provide useful information for Finanstilsynet and the banks alike.

Chart IV.5 shows the risk-weighted bank debt related to the individual (anonymised) bank's borrowers divided by the bank's total loans to the same borrowers. The calculations indicate that risk-weighted bank debt relative to banks' total lending rose in the case of all banks from 2011 to 2012.[15] This indicates that banks' credit risk related to non-financial companies rose in the course of 2012. According to the stress scenario, the risk-weighted bank debt rose sharply over the course of the projection period at all banks.

Banks' proportion of loans to companies in the three highest risk classes was considerably higher at the end of 2012 than one year earlier (chart IV.6). Here the risk classification for 2012 is based on banks' loan exposure at 31.12.2012 and companies' annual accounts for 2011, whereas the risk classification for 2011 is based on the exposure at 31.12 2011 and the annual accounts for 2010. Of the 18 largest banks, 14 showed an increase in the proportion of lending to high-risk companies, while the remaining four banks showed no change. There are relatively wide differences among the banks.

ANALYSES BASED ON OTHER DATA SOURCES

As mentioned above, the companies' debt-servicing capacity is now almost at the same level as at the start of the banking crisis and far lower than it was prior to the financial crisis. This indicates that requirements on companies' future earnings are high, and that companies are vulnerable to a setback in the economy.

Other data sources show that non-financial companies' total debt has risen far more than for example companies' gross product, gross fixed investment and GDP for Mainland (non-oil) Norway in the past 20 years;[16] see chart IV.7. Debt has

[15] The figure for 2011 is based on banks' loan exposure at 31.12.2011 and companies' actual annual accounts for 2011, whereas the figure for 2012 is based on loan exposure at 31.12.2012 and companies' projected annual accounts for 2012. The 2015 figure is based on the projected accounts in the stress scenario (see table IV.1). The selection is confined to borrowers that are limited companies whose probability of default has been calculated by the SEBRA model. The proportion of the individual bank's total corporate portfolio that is covered by the analysis varies between 47 and 80 per cent.

[16] Gross product shows the value of companies' output minus product

also risen substantially relative to households' overall consumption. The levels of these ratios are now higher than they were at the start of both the banking crisis and the financial crisis. This also indicates that non-financial companies are vulnerable to a slowdown of economic growth.

An international analysis of the effect of debt on economic growth indicates that where non-financial companies' debt measures more than about 90 per cent of GDP there will be a negative impact on economic growth.[17] According to the analysis, Norwegian non-financial companies' debt measured 174 per cent of GDP at the end of 2010. The weighted average for the 18 countries was 113 per cent. Only Sweden (196 per cent), Spain (193 per cent) and Belgium (185 per cent) had a higher ratio value than Norway. The "overall debt burden" in Norway, i.e. debt of non-financial companies, households and the public sector, came to 334 per cent. This was higher than the weighted average of 306 per cent. Norway has relatively speaking little government debt, which is why the debt of non-financial companies and households pushes up the overall figure.

inputs. Gross fixed investment shows acquisitions of new fixed capital, plus purchases minus sales of existing fixed capital. Fixed capital includes buildings, installations, vehicles, machinery and other production equipment.

[17] See Cecchetti, S.G., M.S. Mohanty and F.Zampolli. September 2011. "The real effects of debt". Bank for International Settlements (BIS). The analysis includes 18 countries, including the largest countries in the world and Norway. The figures used in the analysis are not directly comparable with the figures in chart IV.7 since the selection differs as do definitions of corporate debt.

THEME V CREDIT MARKET STRUCTURE AND INTERNATIONAL REFORMS

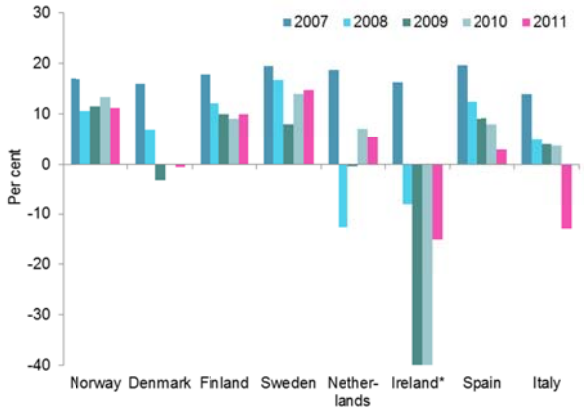
Financial market structure has a bearing on the vulnerability of a country's economy to financial instability. The number of firms and degree of concentration in the market may weigh heavily on the seriousness of such instability for the real economy. This chapter opens with a review of the structure of the credit market in Norway and internationally. It goes on to discuss non-financial firms' funding in the bond market and through the banks. It concludes with an account of important proposals for structural reform of the international banking sector.

CREDIT MARKET STRUCTURE - INTERNATIONALLY AND IN NORWAY

Over time, banking and credit markets internationally and in Norway have undergone substantial structural change. Of late the financial crisis in particular has contributed to change, notably in the banking sector. An important factor behind the structural changes seen since 2008 is large write-downs on financial assets at US and European banks, bringing weak results and a need for government capital or merger partners. The financial crisis has had a particularly large impact on banking structure in the US, although several major European financial conglomerates also received injections of government capital and were restructured. Some went bankrupt. Governments of several countries have looked at possibilities for downsizing the largest banks, for example by separating ordinary banking operations from investment banking which includes securities trading, business acquisition finance and advisory services. In Norway investment banking accounts for only a small portion of banks' business.

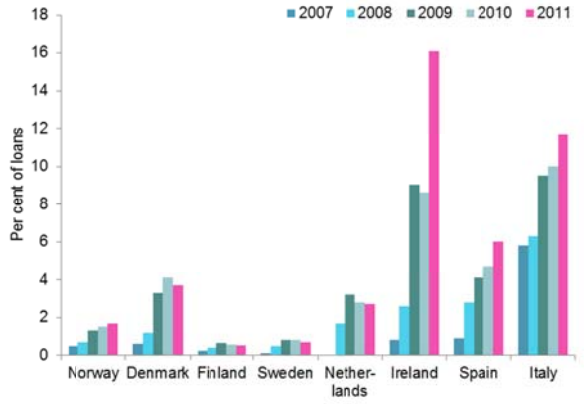
Charts V.1 and V.2 show developments in return on equity and loan defaults in the banking sector in a selection of countries. Throughout the period since 2008, Norway's banking sector has had a return on capital of more than 10 per cent. Defaults have been low relative to outstanding loans. Developments have been far weaker in countries that were hit particularly hard by the financial crisis, such as Ireland and Italy. In the Nordic region, the banking sector in Denmark, where return on equity has been low for a long period, has seen a high level of defaults. The banking structure in Sweden, Finland and Norway has undergone only limited change in the wake of the financial crisis.

V.1 Return on equity



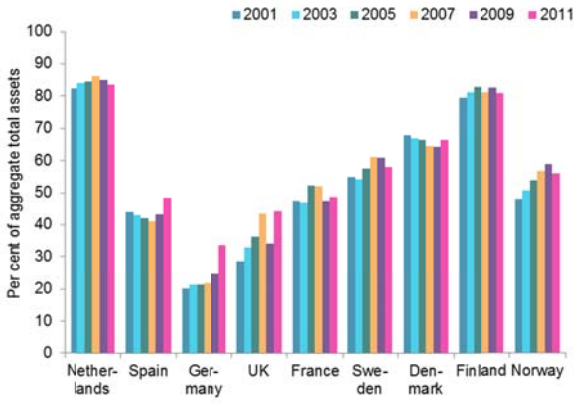
*In Ireland return on equity in the banking sector was -66 per cent in 2010..
Source: IMF, FSI-Indicators

V.2 Loan defaults



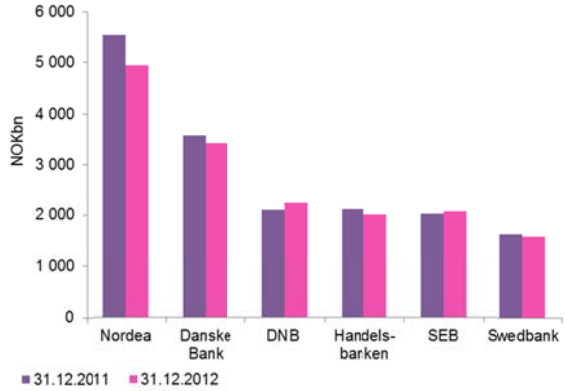
Source: IMF, FSI Indicators

V.3 Market share, five largest credit institutions



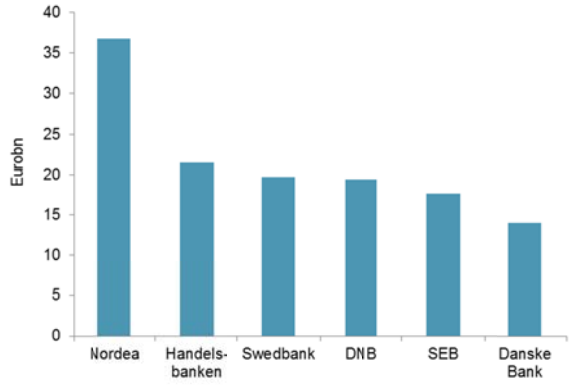
Sources: ECB and Finanstilsynet

V.4 Total assets, largest Nordic financial conglomerates



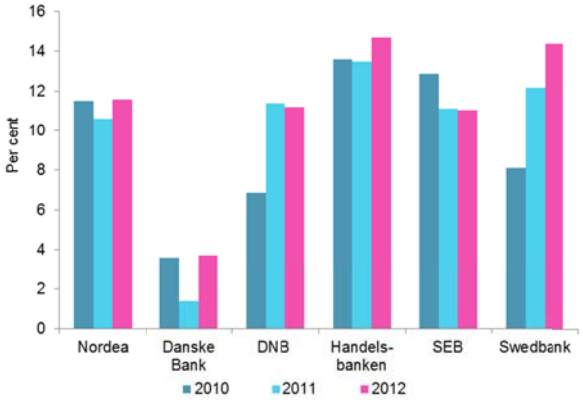
Sources: Quarterly reports

V.5 Market value, largest Nordic financial conglomerates



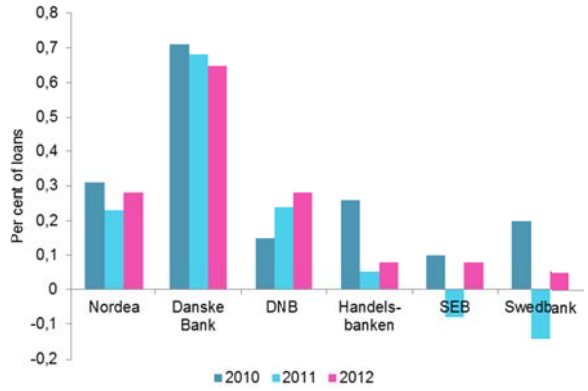
Source: JP Morgan (as of April 2013)

V.6 Return on equity, largest Nordic financial conglomerates



Sources: Annual reports

V.7 Loan losses, largest Nordic financial conglomerates



Sources: Annual reports

In Iceland the three largest banks were taken over by the government in 2008. In Denmark a number of banks have been taken over by a liquidation entity established by central government or have merged.

The European financial market is a bank-dominated market. Banks and finance companies account for the bulk of funding to households and non-financial firms. According to the ECB, banks account for about 70-75 per cent of all lending in Europe compared with 20-30 per cent in the US.

Chart V.3 shows market concentration measured by the five largest institutions' total assets as a ratio of aggregate total assets in selected countries' credit markets. Compared with prior to the financial crisis, market concentration has declined somewhat in Sweden, Finland and Norway alike. In Denmark market concentration has risen slightly: mainly mid-sized and small banks in have been wound up or merged, with large banks consequently increasing their market shares.

NORDIC FINANCIAL MARKET

Nordea was the largest financial conglomerate in the Nordic region with assets totalling close to NOK 5,000bn at the end of 2012. The largest Norwegian financial conglomerate, DNB, was third-largest with assets totalling about NOK 2,300bn (chart V.4). Chart V.5 shows that DNB is the fourth-largest conglomerate in the Nordic region in terms of market value. As of April 2013 DNB's market value was NOK 19.3bn. The largest financial conglomerates in the Nordic region are bank-dominated.

The large Nordic financial conglomerates define the Nordic region as their home market and have set up operations in all Nordic countries, either in the form of subsidiaries or branches. The largest Norwegian bank, DNB, also has substantial activity outside Norway. DNB has branches in the other Nordic countries, and subsidiaries in the Baltics and Poland etc. The other large Nordic conglomerates have also set up operations in neighbouring countries. They are major actors in the Baltics and elsewhere in Eastern Europe, where market shares have grown large. The Baltic countries were hit hard by the financial crisis, leading to heavy loan

Table V.1: Structure of the Norwegian financial market measured in per cent of aggregate managed capital* in the financial market at end-2012

	Credit institutions	Securities funds	Non-life insurance	Life-insurance	**Total, conglomerates**
DNB	36	18	1	27	**32**
SpBank 1/collaborating savings banks	14	4	7	3	**12**
Nordea	10	10	0	6	**10**
KLP	1	12	2	30	**5**
Storebrand	1	10	1	24	**5**
Terra Group	5	1	2	0	**4**
Gjensidige	0	0	27	1	**1**
Total, financial conglomerates/groupings	67	56	40	92	**68**
Other companies	33	44	60	8	**32**
Total market	100	100	100	100	**100**

*Where credit institutions form part of a banking group, aggregate total assets for the banking group are employed. With this exception, aggregate total assets for financial groupings are based on aggregate total assets across the various lines of business and will differ from the groups' own consolidated accounts. Credit institutions include banks, mortgage companies and finance companies. In the case of the Sparebank 1 alliance and the Terra Group, owner banks are included in the market shares. "Total market" includes foreign institutions' branches in Norway. Source: Finanstilsynet

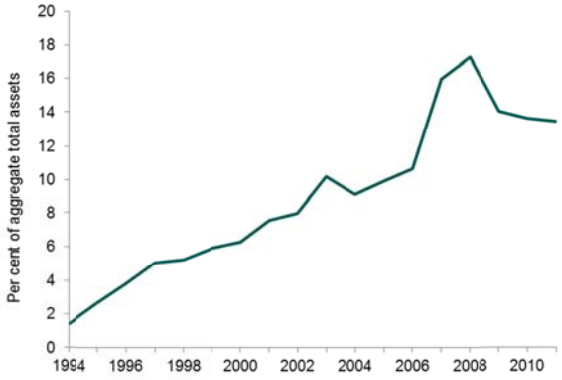
losses for several conglomerates. For Danske Bank heavy loan losses on exposures in Ireland and at home also weakened profits (charts V.6 and V.7).

NORWEGIAN FINANCIAL MARKET

The seven largest financial conglomerates/groupings had a combined market share of 68 per cent of total managed capital in the Norwegian financial market at the end of 2012 (table V.1). Activity is highest in life insurance and lending. DNB is the largest financial conglomerate with 32 per cent of aggregate total assets.

The market share of the largest financial conglomerates/groupings has risen considerably in the past 20 years, from 25 per cent of managed capital in the financial market in 1995 to 68 per cent at the end of 2012 (table V.2). Financial conglomerates have been set up chiefly to achieve economies of scale in IT development, product development, sales and marketing. Further, a number of banks have entered strategic alliances enabling joint ownership of product companies, for example in the insurance and securities management fields. Moreover, jointly owned residential mortgage companies have been set up providing almost all banks with access to funding through the issuance of covered bonds. There are two large alliances/groupings in the Norwegian market: the SpareBank 1 grouping comprising 17 banks and Terra Group with 75 banks. Terra changed name to Eika in March 2013.

V.8 Market share, branches of foreign banks



Source: Finanstilsynet

Foreign financial institutions hold a considerable share of the Norwegian financial market, in particular in banking and non-life insurance. Three of the five largest banks are owned by foreign banks, either as subsidiaries or branches. The largest of these is the Swedish financial conglomerate Nordea which is represented in Norway through its subsidiary Nordea Bank Norway and Nordea Liv.

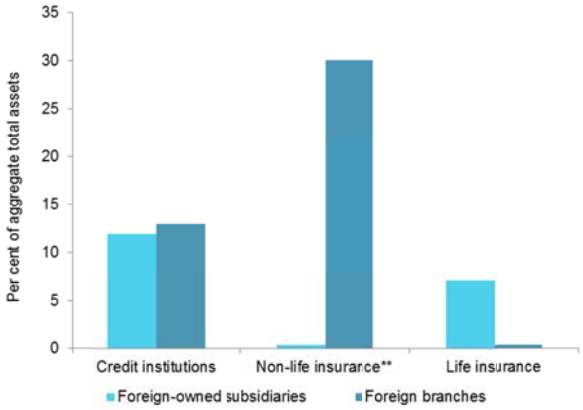
The Nordic banks' branches have over time shown strong lending growth in the Norwegian market, bringing rising market shares up to 2009 (chart V.8). At their peak they accounted for more than 15 per cent of aggregate total

Table V.2 Market shares of financial conglomerates/groupings measured in aggregate managed capital in the financial market

1995		2002		2007		2012	
CBK	12	DnB	19	DnB NOR	32	DNB	32
Spb NOR	8	Gjensidige NOR	15	Nordea	10	SpareB. 1 Gruppen	12
Gjensidige	5	Nordea/Vesta	11	SpareB.1 Gruppen	8	Nordea	10
		SpareB.1 Gruppen	10	Storebrand	6	KLP	5
		Storebrand	6	Terra-Gruppen	3	Storebrand	5
						Terra-Gruppen	4
						Gjensidige	1
	25		61		59		68

Source: Finanstilsynet

V.9 Market share, foreign-owned subsidiaries and branches at 31.12.2012*



*Cross-border activity is not included ** As a share of gross premium revenue, foreign branches have a market share of 42 per cent in non-life insurance. Source: Finanstilsynet

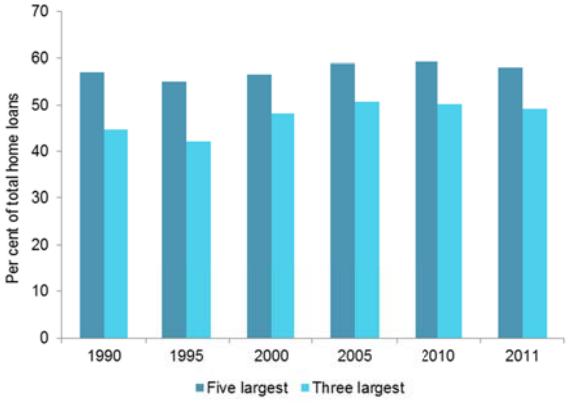
assets, intensifying domestic competition. As from 2009 foreign branches' lending growth fell quicker than Norwegian banks' lending growth. Although these branches' lending growth has recovered, it is still lower than that of Norwegian credit institutions. The branches' total assets are consequently still declining. Their share of aggregate total assets came to 13 per cent at the end of 2012. Foreign subsidiaries also operate in the Norwegian market, the largest being Nordea. In contrast to the branches, the subsidiaries have shown lending growth more on a par with Norwegian banks. Chart V.9 shows the market share of foreign-owned credit institutions to be 12 per cent at the end of 2012. In the non-life insurance market, foreign branches' total assets accounted for as much as 30 per cent of the market at the same point in time.

More about market concentration in the Norwegian loan and deposit market

In the past 20-30 years banks and mortgage companies have strengthened their market position in the loan market, mainly at the expense of state-run enterprises and insurers. Banks accounted for almost 80 per cent of all domestic credit to business and industry at the end of 2012, as compared with 87 per cent to households. Bond and CD debt's share of total domestic credit to non-financial firms has fallen slightly over time, and made up a mere 13 per cent at the end of 2012. The largest firms also borrow in international securities markets. The low portion of market funding diverges somewhat from other European countries where the securities market is of greater significance for firms' funding.

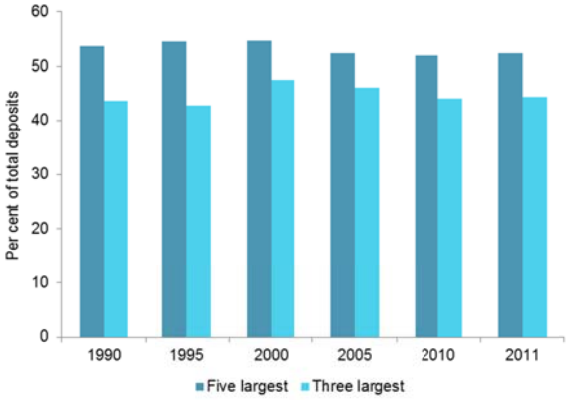
In the Norwegian banking market, retail customers can largely turn to a national market featuring numerous actors and strong competition. Local savings banks secure retail customers a local offering that is additional to the offering from regional and national actors. Developments in information and communication technology enable the customer to be reached without maintaining a local presence. Concentration in the market for home loans and deposits, measured by the three and the five largest banks' share (including loans transferred to a residential mortgage companies) of overall home mortgage lending and deposits has been relatively stable over time (chart V.10 and V.11). Market concentration increased somewhat in 2002 as a result of the merger of DnB and the Gjensidige NOR. It is nonetheless lower than in other Nordic countries, as shown in chart V.3. Norway's bank market is marked by much transparency, which is of significance for competition. Bank products are largely homogeneous, particularly in the retail market, but also in parts of the corporate market.

V.10 Concentration measured by the three/five largest in home mortgage lending*



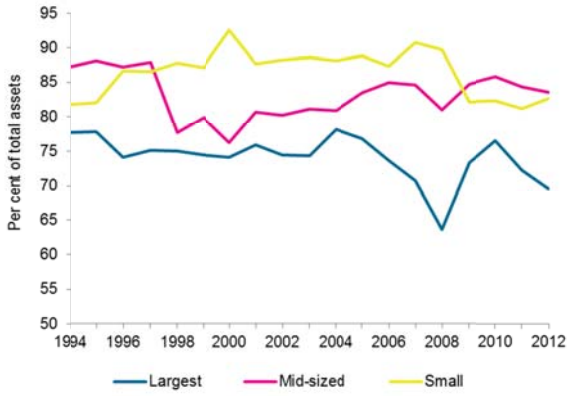
*Including foreign branches in Norway. Source: Finanstilsynet

V.11 Concentration measured by the three/five largest in deposits*



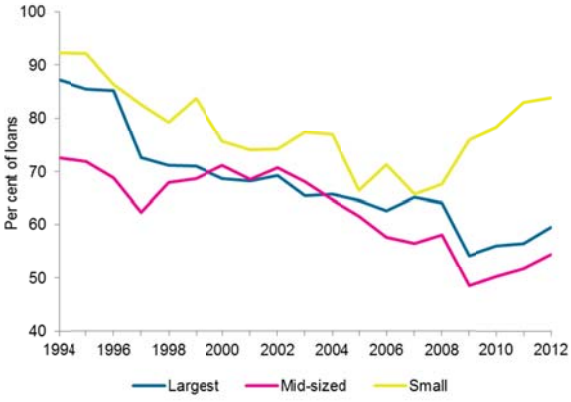
*Including foreign branches in Norway. Source: Finanstilsynet

V.12 Lending



Parent bank up to 2008, bank groups thereafter. Source: Finanstilsynet

V.13 Deposits



But not including loans in jointly owned residential mortgage companies. Source: Finanstilsynet

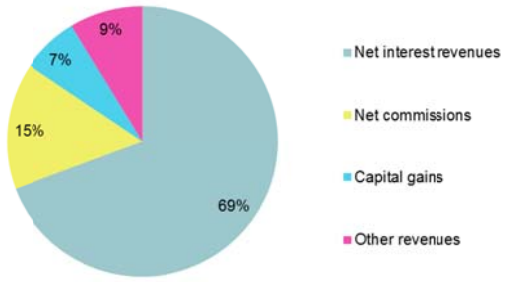
NORWEGIAN BANKS' REVENUE STRUCTURE

Loans to and deposits from customers are the most important aspects of Norwegian banks' business. Loans accounted for 74 per cent of banks' assets, while deposits accounted for 47 per cent of debt, at the end of 2012. Over time growth in lending has exceeded growth in deposits, causing deposits in per cent of loans to fall from almost 90 in 1994 to 56 at the end of 2012 (charts VI.12 and V.13). Money and capital markets have become a more important funding source for Norwegian banks, accounting for 32 per cent of total debt at the end of 2012. Charts V.12 and V.13 distinguish between the six largest banks in terms of total assets, other large/mid-size banks with total assets above NOK 10bn and the smallest banks with total assets below NOK 10bn.

The importance of traditional banking business – granting loans and taking deposits – is reflected in banks' revenue structure (chart V.14). Net interest revenue, i.e. the difference between revenues and expenses on banks' interest bearing assets and debt, made up almost 70 per cent of total operating revenues in 2012. In some years the share has been affected by one-time effects, but for the last 15 years as a whole interest revenue's portion of overall operating revenues have shown just a slight reduction. Net interest revenue as a ratio of total assets, and banks' interest margin (the difference between average lending rate and average deposit rate) has on the other hand shown a clearly falling tendency (chart V.15).

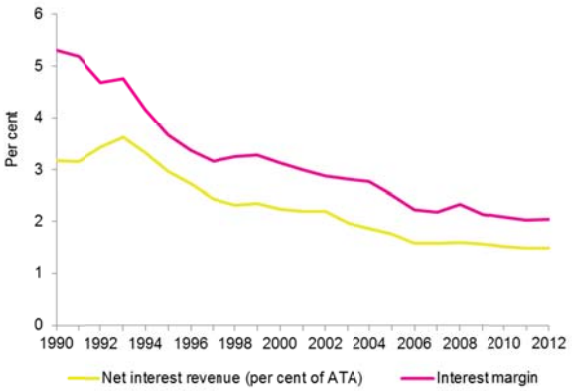
Norwegian banks are subject to limits on the size of their own investments in shares and other equity capital instruments. This reduces the likelihood of large capital losses (and gains). Even so, investments in financial instruments could, together with losses on interest-bearing securities and derivatives, entail fluctuating bank profits. This was particularly clear in the years 2008 and 2009 when Norwegian banks as a whole moved from a net capital loss

V.14 Distribution of operating revenues, 2012



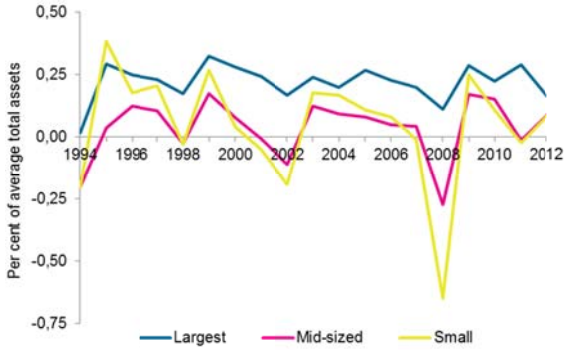
Source: Finanstilsynet

V.15 Net interest revenue and interest margin



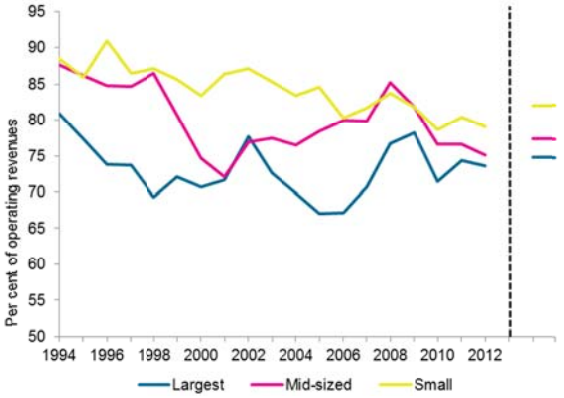
Source: Finanstilsynet

V.16 Net capital gains



Source: Finanstilsynet

V.17 Net interest revenues as per cent of operating revenues *



* To the right of the stippled line in the chart is shown net interest revenues as a share of operating revenues adjusted for the effect of covered-bond transfers, for 2011 and 2012. Source: Finanstilsynet

of NOK 1bn to a net gain of NOK 9bn. Capital gains at mid-size and smaller banks show particularly wide variation (chart V.16).

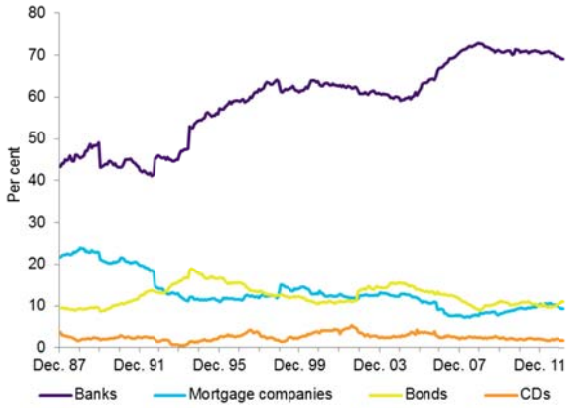
Larger banks earn revenues from investment banking activity through investment firms. Revenues are particularly high in times of substantial volatility. Revenues from market making and own account trading rose in 2012, whereas revenues from primary and secondary market trading in financial instruments other than equity and debt instruments fell compared with 2011. Overall, banks' revenues from investment banking were NOK 8.5bn in 2012. This accounts for a modest portion of overall revenues for Norwegian banks.

Net interest revenues, and other revenues apart from net capital gains on financial instruments, are considerably more stable over time than revenues from investment banking services and proprietary investments in financial instruments (chart V.17). If these revenues are excluded, revenues beyond net interest revenues have nonetheless increased as a share of operating revenues in recent years. Small banks in particular have shown a steady increase in the proportion of other revenues over time. Part of the explanation is substantial transfers of secured home loans to co-owned residential mortgage companies. As long as home loans figured in a bank's own balance sheet, the bank received interest on the loans. These revenues are now recorded as commission earnings from covered-bond-issuing entities. Disregarding this change, banks' revenue structure has been stable in recent years. Part of the reason for the increase in revenues beyond net interest is the fact that banks are to a larger degree than in the 1990s required to show their pricing of banking services (use of ATMs, payment services etc) instead of covering these expenses through the interest rate charged on loans.

FUNDING STRUCTURE OF NON-FINANCIAL FIRMS

Banks are the clearly most important funding source for non-financial firms. However, the latter half of 2012 saw hefty growth in bond debt. Even so, the changes in funding structure are relatively small. However, simulations show that funding structure will change rapidly if growth in funding sources continues as in the past half-year.

V.18 Domestic corporate debt by source

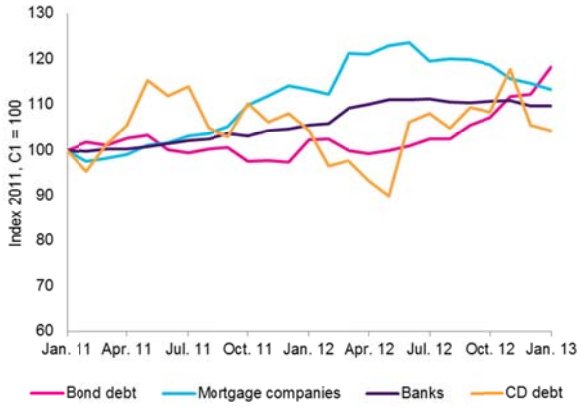


Sources: Statistics Norway and Finanstilsynet

V.19 Ratio of bank debt to bond debt, firms

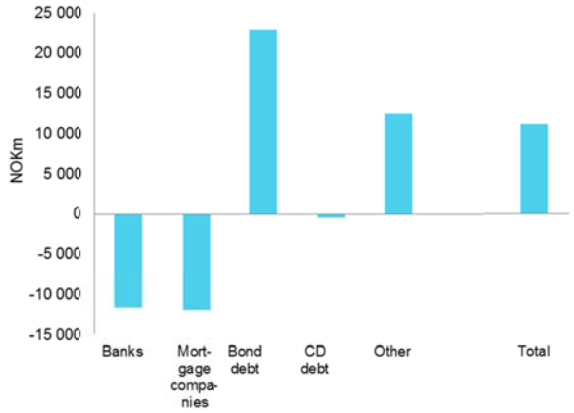
Sources: Statistics Norway and Finanstilsynet

V.20 Domestic corporate debt by source



Source: Statistics Norway

V.21 Change in domestic gross debt, non-financial firms, June 2012 to January 2013



Source: Statistics Norway

Banks were the clearly predominant funding source for non-financial firms in the period 1987-2012, and their significance as a funding source has increased over time. From representing less than 50 per cent of non-financial firms' debt towards the end of 1987, bank debt rose to almost 70 per cent at the start of 2013 (chart V.18).

Bank funding grew more important for non-financial firms than bond funding in the period 1987-2013. The ratio of bank debt to bond debt rose from a factor of 5 in 1987 to just over 6 in February 2013 (V.19). The ratio at the start of 2013 was far below the peak year 2008.

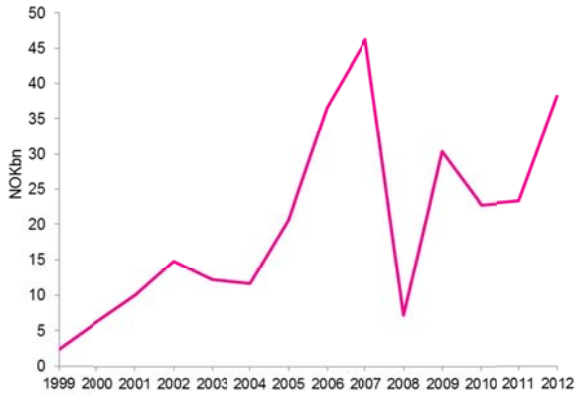
Since January 2011, bond debt has relatively speaking shown fastest growth among sources of funding for non-financial firms. Bond debt in January 2013 was almost 20 per cent higher than one year earlier. Virtually the entire growth took place from summer 2012 (chart V.20). Chart V.21 shows that it is largely growth in bonds that have driven the debt growth among non-financial firms since summer 2012.

The nominal value of bond issues by non-financial firms in Norway also rose in 2012, while the issue volume was somewhat lower than prior to the financial crisis (chart V.22). This development is explained both by banks' lending practice and growing demand from investors.

Several banks have stated that lending to the retail market has priority over lending to the corporate sector. Favourable funding through the covered bond market, combined with relatively low risk weights on home mortgage loans explained part of the increased focus on the retail market. Low interest rates and search for yield may have caused investors to demand corporate bonds to a greater degree.

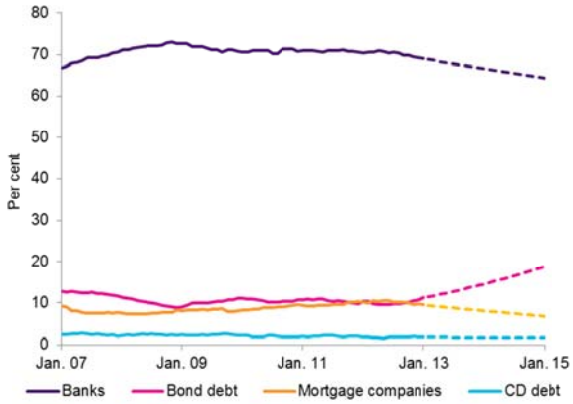
Developments through 2012 do not support the conclusion that a shift has taken place in firms' funding structure. Chart V.18 shows the structure to be little affected by the growth in bond debt. The share of bond debt remains at around the same level (around 10 per cent) of non-financial firms' total debt.

V.22 Gross bond issues in Norway, non-financial firms, nominal value



Source: Statistics Norway

V.23 Shares of corporate debt by source



Source: Statistics Norway

However, if the development that started in summer 2012 continues, non-financial firms' funding structure could change rapidly. Should the growth in bond debt continue, the proportion of bond debt will rise further. The increase since summer 2012 is high by historical standards and beyond the scope of historical variations within such a short space of time. Over the seven-month period from June 2012 to January 2013, the proportion of bond debt rose by 2 percentage points. Average growth in similar seven-month periods (June-January) from 1988 to 2013 is zero, and the standard deviation is 1 percentage point.

Chart V.23 shows results from a simulation in which it is assumed that funding items each month ahead grow by a margin corresponding to the average percentage monthly growth from the period June 2012 to January 2013. Average monthly growth in this period was 0.1 per cent for credit sources in all, -0.2 per cent for bank debt, -1.2 per cent for mortgage company debt, -0.2 per cent for certificate debt and 2.3 per cent for bond debt. As early as by the start of 2014, the proportion of bond debt in the simulation will have grown by 4 percentage points to 15 per cent of overall debt. This is not high historically speaking, but the level is reached in a historically short space of time. The increase in the simulated proportion of bond debt over 12 months is far higher than the historical average increase and variation in 12-month changes over similar periods (January to January). The average 12-month change from January to January in the proportion of bond debt in the period 1988-2013 is zero and the standard deviation is 1 percentage point. 12-month growth in the proportion of bond debt from January to January has never previously in the period 1988-2013 been as high as in the simulation. The highest annual growth from January to January in the period 1988-2013 is 2 percentage points. The picture is quite similar if it is assumed in the simulations that the monthly growth in funding items ahead equals the average absolute monthly growth (NOK billions) from June 2012 to January 2013.

The simulations are not intended as forecasts, and may be unrealistic. It is uncertain whether firms can continue to reduce their bank debt ahead at the same pace as assumed in the simulations. Contracts with varying terms limit the margin by which bank debt can be reduced. Most Norwegian firms are too small to fund themselves in the bond market, since bond issues need to be of a certain size for investors to regard them as an interesting investment option. Moreover in many cases a precondition is that the issuer or the issue is rated by recognised credit rating agencies. Transaction costs associated with small bond series may also be a limiting factor. The most important reason why bank funding will continue to be the most important funding medium for the great majority of Norwegian firms in the future probably lies in the banks' information strength and proximity to their borrowers. Closeness in relations built up over several years can help to reduce problems associated with adverse selection.

INTERNATIONAL STRUCTURAL REFORMS

Banks occupy a special position in the economy, and there are major economic costs associated with financial crises. Internationally (and also in Norway) strong growth has been seen in the relationship between banks' total assets and GDP. At the same time, concentration and complexity in the financial industry has risen considerably. Developments may have strengthened banks' incentive to assume higher risk than is economically optimal. The goal of proposed and adopted structural reforms internationally is primarily to reduce the probability of future financial crises and to weaken banks' incentives to take excessive risk. Establishing a system that makes it simpler to wind down individual institutions without unmanageable consequences is part of this discussion. An improved system of crisis solution mechanisms could reduce the incentives to assume excessive risk. The discussion on a framework for banks' operations is not of recent provenance and goes back at

least to the 1930s. The basic issues being discussed are largely the same now as then.

FINANCIAL CRISES AND MOTIVATION FOR REGULATION

Given the banks' unique role in the economy, a collapse of the banking system would bring economic activity to a halt. The financial infrastructure is the bloodstream of the economy. For that reason the banks are subject to a comprehensive system of regulation and supervision.

Regulation and supervision are designed to ensure that institutions and markets distribute capital and risk efficiently and effectively. A goal is to ensure that markets function satisfactorily in normal times, but it is particularly important to avoid financial instability and systemic collapse accompanied by bank runs and credit contraction. Financial crises are very costly and have major negative long-term impacts on the economy. Regulation and supervision lessen the likelihood of financial crises, dampen fluctuations in the economy, protect depositors and borrowers, and help to maintain confidence in the economic system.

THE FINANCIAL CRISIS, FINANCIAL STRUCTURE AND BANKING

The business of banking can be divided into traditional banking and investment banking. The former is in principle taking deposits, lending money and transmitting payments. Investment banks engage in market making in a variety of financial instruments, in trading for own account in financial instruments, active and passive securities management for clients as well as lead-managing securities issues and providing guarantees in the primary market for shares and bonds.

Banks that both engage in traditional banking activity and provide investment services are often termed universal banks or full range banks. Lending outside the ordinary banking system is termed shadow banking. In their lending activity, banks transform short-term deposits into long-term loans. Deposits are liquid whereas loans are tied up for a long period. Their core business imposes on banks credit, liquidity, interest rate and operational risks. Interest rate risk is however normally limited for Norwegian banks since interest rates on deposits, market funding and lending are largely floating rates.

An important reason why the international financial crisis of 2008 acquired such a large scale was the increasing complexity and reduced transparency of corporate structures and use of instruments. These have not been prominent features in Norway, an important reason being Norwegian legislation which regulates conglomerates and the activities of institutions. For example, financial conglomerates must be based on the holding model. This prevents problems in the banking and finance arm of a conglomerate from feeding through to the insurance arm of the same conglomerate. Transactions between group companies are regulated. Moreover, the Norwegian legislation limits the activity of financial conglomerates to financial and insurance business. A shadow banking system has never arisen, one reason being that all lending activity is subject to a licensing obligation. Moreover, the authorities have maintained a restrictive attitude to securitisation.

A further reason for the scale of the consequences of the financial crisis is the vigorous growth of the financial sector relative to the real economy. For several years up to the financial crisis, banks' total assets grew significantly quicker than GDP in several countries. This coincided with increased concentration in the banking industry and with the emergence of large financial institutions offering a broad range of financial services and instruments. The mutual ties between financial institutions strengthened, and liquidity risk in the system grew up to the onset of the financial crisis. A number of institutions gained such size that the consequences of the failure of an institution would have had substantial negative real economic impacts.

The ratio of banks' total assets to GDP in important industrialised countries has risen from 70 per cent to more than 200 per cent on average for these countries over the last 50 years. IMF studies conclude that increased financial depth has a positive influence on economic growth, but only within given limits. Where the ratio of credit to the private sector to GDP reaches 80-100 per cent, further growth is negative for economic development according to the studies. This is consistent with earlier studies concluding that where the ratio exceeds 100 per cent, the fluctuations in GDP increase.[18]

Complexity and size are important reasons for regulating the structure of the banking system. Regulation of financial market structure affects systemic risk directly and not indirectly, as for example where the regulator seeks to limit systemic risk by raising capital charges.

Norwegian banks' core business is in traditional banking. In their income statements, revenues from this activity, regardless of bank size, are clearly the most important elements. The largest Norwegian banks also earn considerable revenues from investment banking. Even so this share of revenues for the Norwegian banking sector overall is a small proportion of total revenues; see part 1 of this chapter.

[18] Panizza, U, & Arcand, J-L, Berkes E: Too much finance?, IMF working paper 12/161 (2012); Easterly, W, Islam, R, Stiglitz J: Shaken and stirred, explaining growth volatility, Annual Bank Conference on Development Economics, World Bank (2000); Haldane A: On being the right size, Bank of England speech (2012).

LIMITS TO BANKS' OPERATIONS

In several countries crises have led to legislation introducing a separation of traditional banking activity, which is important to protect, from other business which the legislator has not wished to place under a protection system. The Glass-Steagall legislation in the US is a pertinent example. Regulation in this field changed greatly in the years preceding the latest financial crisis. In addition to lending, banks in many countries were given the opportunity to assume sizeable risks in the securities and foreign exchange markets. The separation of traditional banking from investment banking was dispensed with.

Now national supervisory authorities and international bodies are again discussing the merits of setting limits to what activities banks can engage in. An extreme variant is narrow banking.[19] Narrow banks are the only institutions able to take deposits, and must place deposited funds in liquid assets or loans with low credit risk. Payment transmission would be an integral part of narrow banks' business.

The discussion on what limits should apply to banking is an old one. After the crisis in the 1930s it was pointed out by some observers that the authorities lacked control of the money supply and that banks' credit growth intensified the fluctuations in the economy. The original narrow banking proposal in the 1930s entailed that banks that were entitled to take deposits from the general public would be compelled to invest all such funds in government securities, which is identical to a reserve requirement of 100 per cent. In such a system banks cannot create money or credit. The risk of a bank run is removed, and the need for deposit guarantee schemes no longer applies. In addition, the risk that losses in investment banking business will feed through to the core business is reduced. Non-bank institutions would have provided loans to households and non-financial firms. Funding of this business would have been through capital markets by issuing shares, bonds or mutual fund units.[20]

There was insufficient support for a narrow banking system in the US in the 1930s. However, the banking legislation led to the establishment of a system of deposit guarantees and to the prohibition for traditional banks to engage in own account trading in securities or to lead-manage and underwrite stock and bond issues. The US Federal Reserve acquired new statutory authority with regard to open market operations and liquidity reserve requirements. However the central bank could not introduce a reserve requirement of 100 per cent.

INCENTIVES AND RISK TAKING

Shareholders in general have limited liability, meaning that they can leave their company to the creditors when things go badly. Shareholders cannot lose more than the value of their shares, whereas the opportunities for gain are in theory unlimited.[21] Shareholders can increase the company's risk by making actual operations more risk-prone or by increasing the company's debt ratio.[22] The creditors protect themselves by inserting restrictions in loan contracts that prevent shareholders and management from taking excessive risk. Typically, loan contracts may contain requirements regarding equity ratio, the type of investments that may be carried out, restrictions on mortgaging, limits on dividend payouts etc. In addition, creditors' required rate of return contains a risk premium which varies over time and which dampens incentives to take excessive risk.[23]

There are aspects of financial institutions which strengthen owners' incentives to take excessive risk. Because the banking industry has grown so large, individual banks so important and banks' importance to the economy so pivotal, expectations have arisen of government support in crisis situations. An upshot of this is that it is less important for creditors to monitor financial institutions and to charge for the risk associated with funding the banks. Most countries have in addition established arrangements that guarantee depositors' funds up to given amounts. Guaranteed depositors have limited incentives to monitor banks, and the rate of interest on deposits is normally very low.[24]

Banks can increase risk by for example lending more to risky projects where the agreed interest rate is higher than on securer projects or by raising the debt ratio. Through investment banking activity, banks can trade in financial instruments for own account and risk. Moreover, financial institutions have limited incentives to factor in the risk generated by the banking system as a whole. An example is the strong increase in banks' funding of dwellings and the

[19] Often termed utility banking, which draws a direct link to utilities such as electricity and water supply.

[20] It is pointed out that excessive credit growth and growth in property prices can also take place under such a structure. Hence it is unclear whether even such a radical recommendation would have prevented the latest financial crisis. See for example: What do banks do, what should they do and what public policies are needed to ensure best results for the real economy? Adair Turner, March 2010.

[21] In the economic sense this is analogous with shareholders' call option on the company. The value of this option is a function of the company's risk. When risk increases, the value of the option increases because the shareholders' opportunities for gain expand and the creditors' bear the risk of things going wrong.

[22] Management often have the same incentives as shareholders. Bonuses may depend on share price trend, either because management are assigned call options on the company's shares or because they own shares in the company.

[23] It is difficult to entirely remove incentives to take excessive risk. This is because it is difficult to regulate all aspects of loan contracts and because monitoring adjustments made by shareholders and management is problematic. It is equally not possible for creditors to continually reprice a company's loans.

[24] Guarantee arrangements where the levies paid by banks are dependent on a bank's risk are not usual. Such a system would have reduced or removed the incentives to take excessive risk. In other words higher risk than would have resulted under perfect competition with full information, absence of explicit and implicit unpriced guarantees, and rational actors.

mutually augmenting effect of credit growth and house price growth.

Deposit guarantee arrangements may lead to banks taking excessive liquidity risk. The same can happen as a consequence of central banks' role as lender of last resort. Both banks and banks' lenders may expect or assume that the central bank will supply the system with liquidity. The liquidity risk in traditional banking in general, and in investment banking and the shadow banking system in particular, is high since maturities for a large portion of market funding are very short. In this area too, the individual bank has limited incentives to take systemic risk into account. For example, the likelihood of financial institutions having to sell assets at cut prices rises if liquidity is weak. This further intensifies a decline and may lead to a highly detrimental negative price spiral.

A large funding advantage attends implicit and explicit credit and liquidity guarantees. Rating companies quote credit assessments for banks both with and without presumptive government support. The difference in credit assessment leads to a difference in average funding cost, which can be used to estimate the size of the funding advantage. The Bank of England has conducted such analyses and puts the cost saving at about 50 per cent of average pre-tax profit for the world's largest banks in the period 2002-2007. The size of the subsidies has risen significantly after the financial crisis when states injected substantial funds into several banks to avoid bank failures.[25]

The separation of traditional banking from investment banking activities may weaken banks' incentives and/or opportunities to take excessive risk. Structural reforms, including regulation of shadow banking, can also reduce the risk of runs on the money market feeding through to traditional banking. In addition, higher capital requirements reduce the incentives to take excessive risk. Equity capital in a firm has the same effect as excess in insurance.[26] High equity capital means that shareholders or policyholders must bear a significant portion of the losses and that creditors' and insurers' risk is reduced. Where shareholders can lose significant sums, the will to take risk at the creditors' expense is weakened.

Both individual banks and banking systems in general may grow excessively large and risk-prone. From this it follows that measures to limit growth and complexity, and that underpin greater structural simplicity, may be of advantage to the economy.

[25] Haldane, A: On being the right size (2012).
[26] This is a common way to reduce the problem of moral hazard, i.e. a change in behaviour after contract signing, which harms one of the parties.

NEW REGULATION OF FINANCIAL MARKET STRUCTURE

In November 2011 the European Parliament's decision to appoint a high-level expert group to consider structural reforms of the EU banking sector was published. The group was headed by Finland's central bank governor, Erkki Likaanen. The report was delivered in 2012.

The Likaanen group concluded that certain risk-prone activities must be separated from a banking group's deposit taking bank (the deposit bank) into separate legal entities, and that new, improved legislation for capital and liquidity etc was needed. Separation should include proprietary trading in financial instruments and other activities closely related to the securities and derivatives markets. The group recommends that loans, lines of credit and unsecured credit exposures to hedge funds, structured investment entities etc., and investments in unquoted shares should be assigned to the investment bank entity (trading entity). Mandatory separation is recommended for activities representing a significant portion of the business, or where the activities are considered to be essential to financial stability. In addition, the group recommends that only the deposit bank should be able to offer payment transmission services and finance activities by offering guaranteed deposits. Further, it is recommended that hedging services for non-bank customers should be restricted by tight risk limits relative to equity capital in order for such business not to have to be transacted in the trading unit. However, guarantee provision linked to securities issues need not be separated out. The separate deposit and trading units can function within a joint holding company structure. The group considers that this ensures banks' continued ability to offer a broad range of services to customers, that the same marketing organisation can be used and that customers' advantages related to access to different business areas can be maintained.

The Likaanen group states that the key object of the recommendations is to make the socially most important banking functions securer, less intermeshed with banks' trading activities, and to curb central government's implicit and explicit interest in the investment banking arm of banking groups. Separation into different legal units is intended to simplify the structure of banking groups and promote transparency, thereby affording a better basis for market discipline and monitoring, recovery and resolution. According to the group, compulsory separation will in addition curb the incentives and opportunities to take excessive risk with guaranteed deposits, isolate losses in the trading unit from the deposit bank and limit central government's and deposit guarantee schemes' contingent liability. Further, separation may dampen excessive lending by the deposit bank to other financial activities, curb the ties between traditional banking and shadow banking and

assure a level playing field for investment banking activities, irrespective of whether they form part of a larger bank group or are carried out by an independent investment bank.

In addition to separation as described above, the group suggests that further separation of activities, conditional on recovery and resolution plans, would need to be considered. Further, it may be necessary to make adjustments in the use of bail-in instruments, to review capital requirements on the trading portfolio and property loans, and strengthen steering and control of banking business.

The European Commission is currently considering the report and has completed a consultation round on the group's recommendations from market actors, governments and supervisory authorities. It is still unclear whether the Likaanen report will lead to regulatory changes in the EU.

In the US new legislation (Dodd-Frank Act) based on the Volcker rule (after an earlier central bank governor) will prohibit banks operating in the US from engaging in proprietary trading and will allow them only limited activity with, or exposure to, buyout and hedge funds. In the UK, the Vickers report recommends ring-fencing retail banking.

In Germany legislation is proposed that will require m deposit banks to separate out proprietary trading, lending and guarantees to hedge funds and high-frequency trading. The new legislation is scheduled for adoption in 2014. Banks must have adjusted their business to the separation requirement by July 2015. The German proposal is followed by a corresponding French proposal. These proposals are based on the Likaanen group's recommendations.

The proposed legislation in this area introduces a distinction between traditional banking and investment banking. This will reduce the possibility for cross subsidisation, and the risk of problems spreading from investment banking to traditional banking will be curbed. A justification for this type of structural regulation is that it reduces the uncertainty in the system through simple regulation of the system as a whole. In the debate on such regulation the question has been raised whether economies of scale related to banking may be smaller. How large such economies actually are is a moot point. Diseconomies of scale also attach to information and management. Equally, several studies that come out in favour of economies of scale make no adjustment for implicit subsidies to large, systemically important institutions.

THEME VI OCCUPATIONAL PENSION SYSTEM CHANGING

Norway's pension system has three tiers: old-age pension from the National Insurance Scheme, occupational pension and, where applicable, private pension saving. Occupational pension in the public sector is a "gross arrangement" whereby a member with full entitlement is guaranteed an overall benefit from the occupational pension plan and national insurance that is at least 66 per cent of pre-retirement income. Occupational pension in the private sector may be defined contribution or defined benefit, the latter having predominated historically. Defined benefit plans in the private sector are "net arrangements" in the form of a mark-up to the national insurance with a view to an overall benefit level from occupational pension and national insurance combined equal to a certain percentage (normally 50-70 per cent) of pre-retirement income.

2011 saw the introduction of pension entitlement based on all years of service, and flexible retirement age under the national insurance system. Concurrently longevity adjustment of pension benefits was introduced such that either benefits are reduced in step with rising longevity in the population or, alternatively, the individual must work longer to achieve the same pension. The changes were designed to reduce the growth in national insurance expenditure on retirement pensions and to encourage the individual to stay at work longer. Public service pension plans were partially adjusted to the national insurance system by the introduction of longevity adjustment. Private occupational pension plans were in the first instance accommodated by permitting flexible withdrawal of pension. The Bank Law Commission was commissioned to review the need for further adjustments to the rules governing occupational pension plans in the private sector.

Adjustments to the national insurance system were the main justification for revising the legislation on occupational pensions. At the same time, defined benefit pension plans in the private sector have in recent years been under pressure from employers. The premium needed to fund a given lifelong benefit in the future is unpredictable, and has moreover risen due to weaker rate-of-return prospects and rising longevity. The accounting rules require firms to identify pension liabilities in their financial statements, and considerable amounts may be involved. A number of employers have therefore opted to close their defined benefit pension plans and replace them with defined contribution plans. In the period 2006-2012, 3700 defined benefit plans were closed and 104,000 employees were transferred to defined contribution plans.

For life insurers and pension funds the risk attending defined benefit plans is significantly higher than they assumed when the contracts were written, when interest rates were higher and longevity lower. See an account of the need for provisioning for increased longevity in chapter 3.

Firms have adapted to the challenges by reducing market risk in the portfolio. In some quarters it is pointed out that asset allocation under the defined benefit plans is not optimal for pension saving with a long time horizon. At the end of 2012 the equity component in life insurers' collective portfolio was 11 per cent, while bonds and CDs made up 70 per cent. Life insurers have accumulated considerable rate of return risk on their products. In the current situation increased investment in risky assets presupposes higher buffers to meet years of poor return. The challenge is to find other ways to distribute risk in the pension system that facilitate a more appropriate asset composition and reduce businesses' and pension providers' vulnerability, at the same time as the individual has some certainty of an acceptable level of pension.

Over the past year the Bank Law Commission has presented two new reports proposing changes to the rules governing occupational pension plans in the private sector. An important object of the recommendations was to rework the occupational pension rules in line with the changes made to national insurance retirement pensions in the wake of the pension reform. The Bank Law Commission's recommendations also seek to reduce employers' and pension providers' challenges related to defined benefit plans.

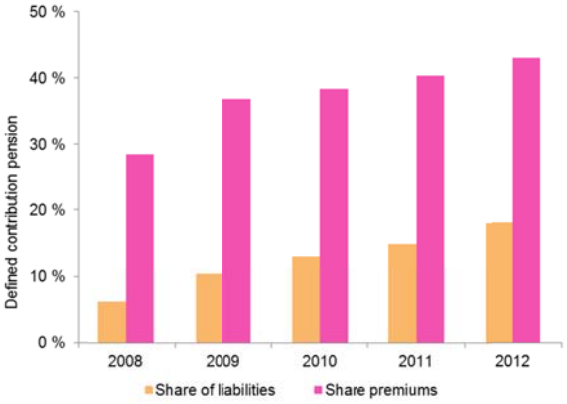
The workers' organisations state that they, in addition to the recommendation now to hand, wish to continue defined benefit pensions as an alternative. The Ministry of Finance accordingly asked the Bank Law Commission in March 2013 to also report on the possibility for establishing a form of defined benefit pension adapted to the new national insurance regime.

Finanstilsynet will issue its consultative statement on the Bank Law Commission's proposal in April 2013. A description of the proposal and possible consequences follows below.

RISK SHARING TO CHANGE

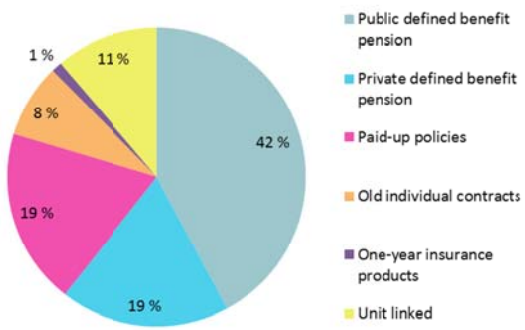
New rules governing life insurance contracts came into force in 2008, inter alia replacing the former system of surplus sharing between policyholder and company with a system of advance payment for the rate-of-return guarantee

VI.1 Occupational pension plans in the private sector (exc. pension funds), defined contribution plans' share



Source: Finance Norway

VI.2 Life insurers' insurance liabilities by type of contract as of 31.12.2012



Source: Finanstilsynet

and insurance risk. The right to charge a premium for the interest guarantee compensates somewhat for higher rate-of-return risk ensuing from lower interest rates. High premiums may however result in closure of more defined benefit plans. Where an employer closes a plan such that paid-up policies are issued with no further payment of premiums, the insurer will be left with the rate-of-return risk with no chance of recouping any interest-guarantee premium. In the current situation of low interest rates relative to the rate-of-return guarantees that have been given, a large scale issuance of paid-up policies could prove a major challenge for insurers.

The Bank Law Commission recommended in NOU 2012: 13 new occupational pension products that are a hybrid of defined contribution plans and defined benefit plans. The products will be premium based, with a guarantee against falls in the value of personal pension assets. At the same time scope is provided for employers to assure adjustment in step with wage growth. Annual pension payments will be determined by inter alia premium payments and the rate of return in the saving period, along with lifetime expectancy at the time of withdrawal. Compared with the traditional defined benefit plans, the Bank Law Commission's proposal entails a significant reduction in pension providers' rate-of-return risk and longevity risk.

In NOU 2012: 3 the Bank Law Commission proposes rules enabling entitlements accumulated under current defined benefit plans to be combined and continued in a new hybrid plan, thereby avoiding closure and issuance of paid-up policies. For already accumulated entitlements, new rules are proposed for annual surplus sharing and funding of any future need for increased provisioning. Further elaboration of the proposal, including on the combining of existing and new policyholder assets, will determine whether this will affect insurers' risk related to already accrued entitlements. Long-term risk related to lasting low interest rates and increased longevity will not however be reduced. For earned entitlements, insurers are still obliged to deliver a future annual benefit in keeping with the entitlements and by the date of the act's entry into force. An important effect of the recommendation compared with continuing the current system is that insurers avoid a massive closure of defined benefit pension plans accompanied by large scale issuance of paid-up policies.

The recommendation proposes that the employer should remain free to close defined benefit plans and convert them to defined contribution plans, in which case pension entitlement certificates will be issued in place of paid-up policies. Benefits following from accrued entitlements are constitutionally protected, entailing that pension providers, as previously, will bear rate-of-return risk and longevity risk for already issued paid-up policies and new pension entitlement certificates based on entitlements accrued prior to the entry into force of the act. However, the Bank Law Commission proposes that the current rules regarding sharing of any annual rate-of-return surplus between pension provider and paid-up policyholder should be replaced by an arrangement enabling the pension provider to require an explicit payment for the rate-of-return guarantee. This payment will be deductible from the return that is assigned to the policyholder.

Against the background of the Bank Law Commission's proposal, the Storting (parliament) in December 2012 adopted changes to the Defined Benefit Pensions Act permitting a paid-up policyholder himself to convert the policy into a unit-linked product. The act has yet to enter into force. How many actually opt for conversion to unit linked is uncertain. At the end of 2012 life insurers' paid-up

policy portfolio totalled about NOK 160bn and had an interest guarantee averaging some 3.7 per cent.

If the Bank Law Commission's proposal for a new occupational pensions law is adopted, the upshot for new accrual of pension entitlement and future pension entitlement certificates, which are to replace paid-up policies, will be significant changes in the distribution of risk and costs between pension provider, employer and employee. Part of the risk which has traditionally resided with insurers and employers would be transferred to pension plan members. This is a development seen in many other countries.

Even if the Bank Law Commission's proposal is adopted, life insurers and pension funds will for several years ahead have substantial liabilities related to products carrying a guaranteed interest and lifelong benefits. Over time, however, the proportion of products without guaranteed return and with limited longevity risk will increase, and pension providers' activity will change character. Changed risk sharing may have consequences for the financial market since it will affect market dynamics and demand for various types of assets.

HOUSEHOLDS' RESPONSIBILITY FOR THEIR OWN PENSION

Historically speaking, the national insurance system and the occupational pension system have been structured such that the individual accumulates entitlement to a fixed annual benefit from age 67. That is why a large majority of pension customers have not needed to make personal decisions regarding their pension. Given the changes to the national insurance, all pension customers must now make a more active choice regarding start of pension withdrawal and retirement age (which may not coincide). At the same time a larger proportion of employees have acquired defined contribution occupational pension plans requiring a choice to be made regarding the contributions' size (within regulated maximum rates), investment and disbursement. A plan's members may in principle be instrumental in shaping a pension plan.

The new "hybrid" occupational pension regime requires the employer and employee to choose a future pension plan. At the same time the individual employee must take a more active stance on what factors influence the level of his or her future pension and consider any need for individual pension saving.

Paid-up policyholders must take a position on their right to exchange annual guaranteed minimum rate of return for the opportunity to personally decide the investment mix and possibly achieve higher return on pension assets.

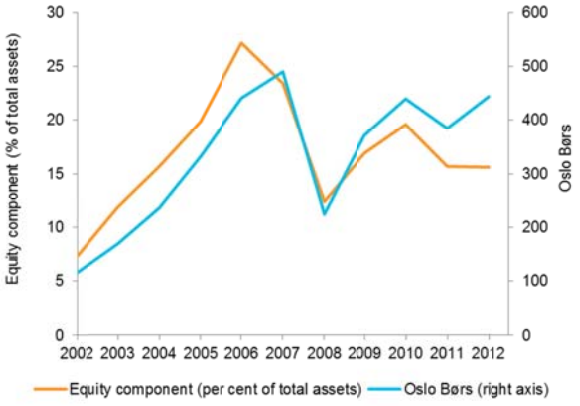
The switch to new pension products also means that employees must to a greater extent bear the risk of the return on their pension savings being lower than expected. Return will potentially be higher by maintaining a high equity component in the unit linked portfolio, but equities also involve greater risk. Although equities issued over very long periods have produced higher demand than bonds, there have also been fairly long interim periods where this has not been the case. Further, it is important to balance management costs against increased expected return.

According to Finance Norway, about one half of employees who were on defined contribution pension plans at the end of 2012 had the statutory minimum plan involving contributions of 2 per cent of salary. The Bank Law Commission presented in NOU 2012: 13 numerical examples showing that persons desiring overall pension cover equal to two-thirds of salary, which has been the norm in defined benefit plans, would have to pay significantly higher contributions or undertake additional private saving. Increased marketing of individual pension saving products as a supplement to collective plans is expected in the future.

The changes in the pension system, both in the national insurance system and occupational pensions, will add to households' obligation to adopt an active stance on pension saving. The pension system of the future is intended to afford the policyholder an overview of the consequences of the respective choices. This will give rise to a substantial need for guidance since the decisions taken have a long time horizon and are often irrevocable. In addition to stricter requirements on information and advice, there will likely be a need for new pension products, strengthened competition and protection of sufficient transfer opportunities. Finanstilsynet is concerned that policyholders' rights should be adequately safeguarded, and in 2012 conducted a survey of life insurers' information and guidance accompanying their sales of individual unit linked life insurance products where the customer takes the investment decisions. The abiding impression is that life insurers do arrange for sufficient information and advice prior to sale. However, there is room for improvement in information on costs, historical return, product structure and the nature of the counterparty. The requirements on personal advice increase for products with a complex structure, low liquidity, built-in leverage or other risk-prone investment choices.

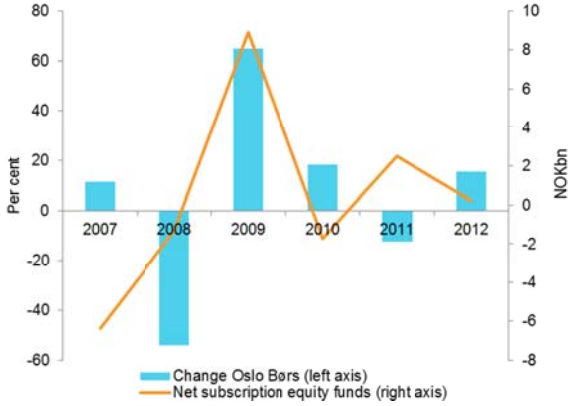
In order for freedom of choice to function as intended, a prerequisite is that customers want to choose and are in a position to make a qualified choice. For employees who continue to prefer a more passive stance on investment choice in their pension plan, pension providers have a specific responsibility for devising predefined solutions at reasonable cost that meet the individual's needs in a

VI.3 Trend on Oslo Børs and in life insurers' equity component



Source: Oslo Børs and Finanstilsynet

VI.4 Change, Oslo Børs and retail customers' net subscription of equity funds



Source: Verdipapirfondenes forening and Oslo Børs

satisfactory manner.

EFFECTS ON THE FINANCIAL MARKET

In recent years life insurers have reduced their holding of shares in portfolios belonging to policyholders with an annual guaranteed minimum rate of return (collective portfolio). Just before the financial crisis in 2008 shares accounted for 21 per cent of this portfolio compared with 11 per cent at the end of 2012. Several factors indicate that disinvestment was prompted more by a need to reduce risk than by changed expectations of the return on shares in the long term. Among other factors, the growing challenge posed by declining long-term interest rates has spurred insurers' need to reduce other risks.

In addition, life insurers have maintained a relatively high equity component in the standard profiles for unit-linked customers. Insurers' recommended investment mix for these policyholders often contains an equity component of 20-30 per cent for cautious profiles, whereas balanced profiles normally have an equity component of 50 per cent. A number of policyholders opt for an even higher equity component. At the end of 2012 unit-linked policyholders had invested about 50 per cent of their pension assets in shares. See also the account of asset allocation in chapter 3, and charts 3.7 and 3.10.

The value of portfolios of unit-linked customers has increased, from NOK 62bn in 2009 to NOK 105bn in 2012. On the other hand, this accounts for a relatively small portion of life insurers' total balance sheet, a mere 11 per cent in 2012. The high equity component in the unit-linked portfolio thus has has a limited effect for the stock market thus far. Ahead, the switch to new pension products will likely lead to far more customers than previously enrolling in unit-linked pension plans. Should they choose an investment profile matching that of current unit-linked customers, it will mean a substantial reallocation to shares. However, the effect will be gradual while this portion of the portfolio is built up over a number of years. On the other hand, assets already in today's collective portfolio are expected to contain a relatively small portion of shares.

With a higher equity component, there is an increased likelihood of larger fluctuations in capital return for unit-linked policyholders than for policyholders with a guaranteed annual minimum rate of return. Should a large proportion of policyholders wish to increase their equity component in the event of a stock market upturn and reduce it in the event of a downturn, this could have a procyclical effect, intensifying the fluctuations. On the other hand, unit-linked pension customers have an opportunity to sit through downturns in the financial market without needing to reduce risk by selling shares, as compared with life insurers that may be compelled to do so as a result of the annual interest guarantee. In recent years life insurers' dynamic risk management and limited buffer capital have contributed to procyclical investment behaviour (chart VI.3). In contrast, figures from the Norwegian Mutual Fund Association show that Norwegian retail customers have sold little in the way of equity funds during the two stock exchange falls in recent years (chart VI.4). These figures are based on policyholders that have already opted to save in equity funds. A majority of pension policyholders possibly have a less active stance on pension saving and will to an even greater degree retain their investment profile unchanged regardless of stock exchange developments.

The overall significance for the stock market of the switches in the pensions area depends to some extent on how many pension policyholders wish to take an active position on their own pension. In 2000 Sweden realigned its pension

system to enable all policyholders to decide where a small portion of their pension saving should be invested. By 2012, four in ten policyholders had not made such a choice, and their assets are being managed in a state investment fund. Hence there is cause to suppose that a substantial proportion of Norwegian pension policyholders would also accept automatic assignment to a standardised profile. These customers will likely receive an equity component considerably larger than policyholders with a rate-of-return guarantee, at the same time as automatic rebalancing of the portfolio will have a partially countercyclical effect since more shares will be bought once stock markets have fallen and vice versa.

For pension policyholders who make an active choice regarding investment mix, the decision will likely be related to their other saving. Should a customer consider pension saving in light of all other wealth, including house and recreational properties, pension saving will account for a smaller share. A stable high equity component may then appear less risky. If, on the other hand, pension saving constitutes a large share of overall wealth or on other grounds is considered separate from other wealth, the desire for certainty with regard to future pension may prompt the policyholder to choose a lower equity component and more frequent adjustment of investment profile in light of market conditions.

In a wider perspective the changes in the pension system may have secondary effects beyond the financial market. Less predictable future pension and presumptively larger fluctuations in personal pension assets as a result of a higher equity component may influence households' expectations and consumption decisions. More policyholders may choose to have an eye to developments in financial markets and increase their saving in the event of a decline in order to compensate for reduced pension assets. This could cause private consumption to fall by a wider margin than is usual in an economic downturn, thereby intensifying the fluctuations in the economy. Much uncertainty regarding many variables makes it difficult to calculate the overall effects of the fact that a larger portion of pension assets are likely to be invested in the stock market in the years ahead.

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Risk Outlook 2013: The Financial Market in Norway

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

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