NORGES BANK

Financial Stability

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Financial Stability 1/09

NORGES BANK

Norges Bank

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Norges Bank's reports on financial stability

Financial stability implies that the financial system is robust to disturbances in the economy and can channel capital, execute payments and redistribute risk in a satisfactory manner.

Pursuant to the Norges Bank Act and the Payment Systems Act, Norges Bank shall contribute to a robust and efficient financial system. Norges Bank therefore monitors financial institutions, securities markets and payment systems in order to detect any trends that may weaken the stability of the financial system. Should a situation arise in which financial stability is threatened, Norges Bank and other authorities will, if necessary, implement measures to strengthen the financial system.

Experience shows that the foundation for financial instability is laid during periods of strong debt growth and asset price inflation. Banks play a key role in credit provision and payment services – and they differ from other financial institutions in that they rely on customer deposits for funding. Banks are thus important to financial stability. The *Financial Stability* report therefore focuses on the prospects for banks' earnings and financial strength and the risk factors to which banks are exposed.

The report is published twice a year. The main conclusions of the report are summarised in a submission to the Ministry of Finance. The submission is discussed at a meeting of Norges Bank's Executive Board. Norges Bank's annual *Report on Payment Systems* provides a broader overview of developments in the Norwegian payment system.

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This report is based on information in the period to 19 May 2009

Editorial

Banks need more capital

The financial crisis has led to a demanding situation for banks. Loan losses have increased over the past half-year and profitability has declined. Twenty-three banks posted a deficit in 2008.

Banks' losses will continue to increase as the economic downturn adversely affects borrowers. Industries with substantial bank debt and weak prospects are likely to incur the largest losses. This applies, for example, to commercial property and shipping.

If economic developments prove to be broadly in line with projections, banks are expected to continue to satisfy the official capital adequacy requirements. Nevertheless, banks need more capital in order to improve access to funding and be robust in the future. They ought to take a precautionary approach and build up capital now. The Government Finance Fund has been established to facilitate banks' ability to strengthen their solidity. This will improve their credit provision capacity.

There is considerable uncertainty surrounding bank losses and performance ahead. Norges Bank conducts stress tests to assess the consequences for Norwegian banks of the coincidence of several risks. In the stress scenario, the effects of a deeper- and longer-than expected downturn in the Norwegian economy, partly owing to a steeper fall in exports and low oil prices, are analysed. The increase in loan losses will then be higher than envisaged at present. Many banks will encounter capital adequacy problems.

Banks must provision for adverse periods when assessing their capital needs. Their financial strength can be bolstered by increasing earnings, cutting costs or by procuring new capital. They can raise capital from existing owners, in the market or by applying to the Government Finance Fund.

The financial crisis has revealed a need for more Tier 1 capital of good quality at financial institutions. In time, when the turmoil comes to an end, new rules are likely to subject banks to higher capital requirements.

Jan F. Qvigstad

1. The outlook for financial stability

The current situation is demanding for Norwegian banks. Last autumn, the challenge was high liquidity risk. This has been alleviated through various actions by the authorities. Norwegian banks now face increased credit risk and the prospect of higher loan losses as the economic downturn affects their borrowers. Expansionary monetary and fiscal policy is limiting the decline in output and employment. Measures have also been taken to improve banks' financial strength. This action will help to sustain capital adequacy and ability to provide credit. Nevertheless, there is considerable uncertainty about banks' losses and results ahead. If conditions prove significantly weaker than expected, banks will need to further improve their financial strength.

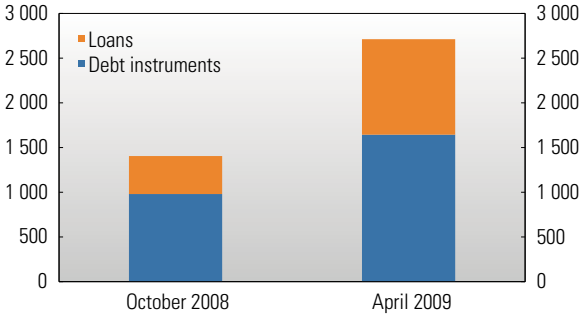
1.1 The economic climate

Confidence crisis, losses and government measures worldwide

The global economy has been affected by the severe crisis of confidence in the financial system. The downturn in the wake of the financial crisis has occurred earlier and been more severe than expected. Losses at financial institutions are rising (see Chart 1.1). The decline in equity prices in the second half of 2008 has levelled off in 2009 (see Chart 1.2), and equity prices rose in April and May. There has also been some other positive news.

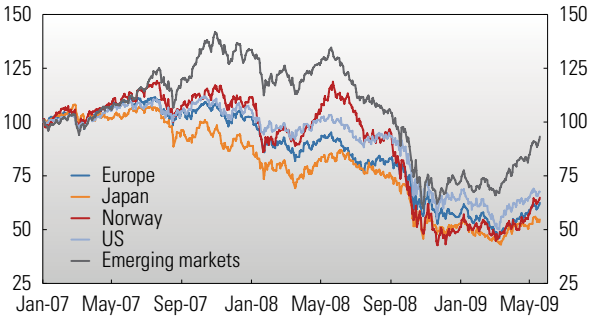
Over the past six months, it has become clear that there are negative feedback loops between the real economy and financial markets abroad. To meet capital adequacy requirements and improve their financial strength following heavy losses, many banks are shrinking their balance sheets by selling off assets and scaling back lending. Reduced access to credit for enterprises and households is exacerbating the downturn in output and employment and so further increasing banks' losses.

Chart 1.1 Estimates of financial institutions' losses on US assets in the period 2007 – 2010. In billions of USD



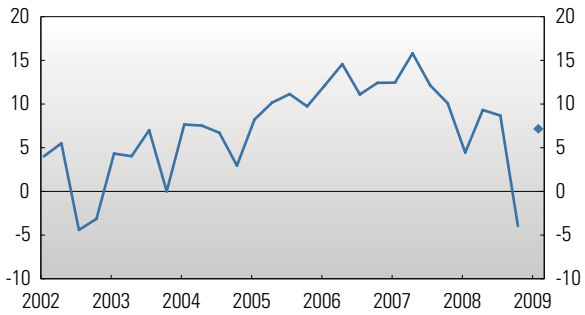
Source: IMF

Chart 1.2 International equity indices. 1 Jan 07 = 100. Daily figures. 1 Jan 07 – 19 May 09



Source: Thomson Reuters

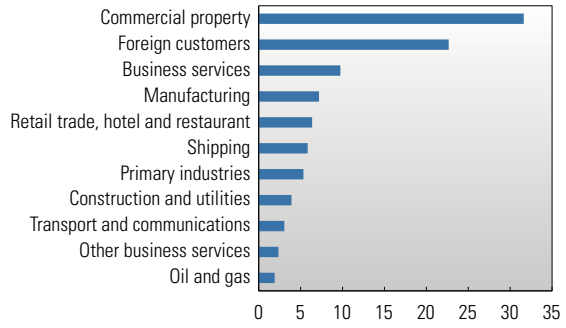
Chart 1.3 Operating margins[1)] for non-financial listed companies.[2)] Per cent. Quarterly figures. 02 Q1 – 09 Q1



[1)] Operating profit in per cent of sales
[2)] The selection consists of 153 companies as of 2008 Q4. The projection for 2009 Q1 is based on interim reports from non-financial companies in the OBX index

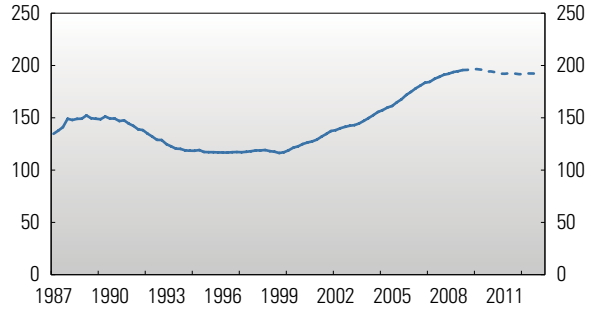
Sources: Statistics Norway and Norges Bank

Chart 1.4 Banks' lending to different industries as a percentage of total lending. As at 31 Dec 08



Source: Norges Bank

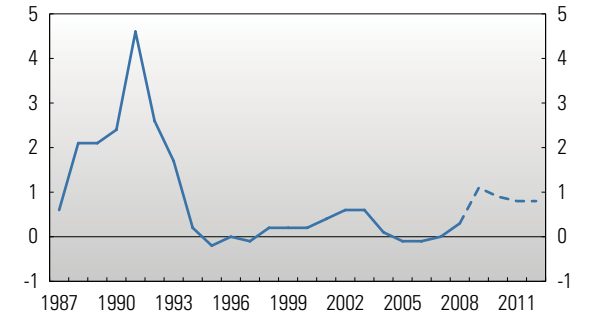
Chart 1.5 Household debt burden.[1)] Per cent. Quarterly figures. 87 Q1 –12 Q4[2)]



1) Debt as a percentage of disposable income adjusted for estimated reinvested share dividends
2) Projections for 09 Q1 – 12 Q4

Sources: Statistics Norway and Norges Bank

Chart 1.6 Banks' losses.[1)] Percentage of gross lending. Annual figures.1987 – 2012[2)]



1) All banks except branches of foreign banks in Norway
2) Projections for 2009 – 2012

Source: Norges Bank

Worldwide government action is helping to limit instability in financial markets. In many countries, the financing of these extensive measures is resulting in increased issuance of government debt. This has increased the risk of countries having problems repaying their government debt. This applies particularly to countries with a large banking sector in relation to total output.

Increased credit risk for Norwegian banks

Norwegian banks face increased credit risk and the prospect of higher loan losses as the economic downturn is affecting their borrowers. Macroeconomic developments will result in reduced corporate profitability and debt-servicing capacity ahead, even though lower interest rates are reducing financing costs and curbing the fall in demand. Corporate equity ratios are relatively solid, but earnings fell in 2008 (see Chart 1.3). Meanwhile, the number of bankruptcies rose. We expect this trend to continue in the coming years. The heaviest losses will probably be on loans to industries that have large amounts of bank debt and see markedly reduced profitability (see Chart 1.4). These include commercial property and shipping[1].

Economic activity is falling faster in the other Nordic countries and the Baltic States than in Norway. This entails increased credit risk for banks with loans to these countries.

The household debt burden is high (see Chart 1.5). Together with weak growth prospects and lower house prices, this may lead to an increased incentive to save, which will help to reduce the debt burden slightly. However, it is unlikely that household deleveraging will be as strong as during the banking crisis of 1988-1993. Substantially lower interest rates, expectations of a more moderate growth in unemployment and a smaller fall in house prices than 20 years ago will probably mean a weaker increase in the saving ratio than in the 1990s, when changes to the tax system contributed to a shift in the way households made their financial adjustments. There are, however, considerable variations within the household sector. Many households suffering a loss of wage earnings will probably have difficulties servicing their loans.

1 Norway's largest banks have substantial exposure to foreign shipping companies. These loans are included under "foreign enterprises" in Chart 1.4.

Measured in relation to consumer prices, building costs, rents and annual wages, house prices remain high by historical standards. Although house prices appear to have stabilised after the slump last autumn, there is considerable uncertainty about future price developments.

Higher loan losses and lower earnings point to a need for more equity

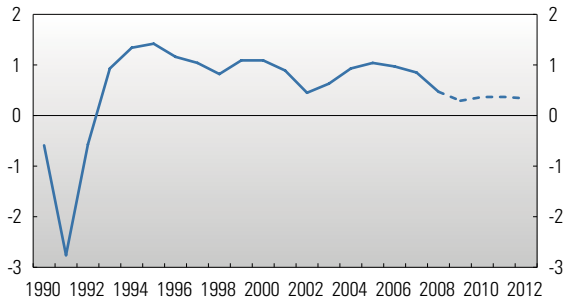
Banks' loan losses have risen over the past six months and will probably continue to climb (see Chart 1.6). In the fourth quarter of 2008, banks made extensive general provisions for expected future losses on loans to industries with weak prospects. This indicated that banks anticipated higher default rates ahead, and defaults did increase in the first quarter of 2009, especially on corporate loans. Many financial institutions took heavy losses on securities in 2008. These losses are expected to decrease ahead.

Increased losses led to a fall in Norwegian banks' earnings from 2007 to 2008, and 23 banks reported a deficit last year. The downturn in earnings is expected to continue (see Chart 1.7). Capital adequacy is nevertheless expected to be relatively stable (see Chart 1.8). Many banks will attempt to strengthen their Tier 1 capital because this will improve their access to bond financing. Depositors and borrowers will have to pay for this, and it is expected that banks will maintain high lending margins. Banks may also cut costs in a bid to limit the fall in earnings as losses mount.

Funding is still difficult for many enterprises

It remains expensive and difficult for many enterprises to obtain credit. Enterprises seeking to refinance debt may encounter obstacles in credit markets. According to Norges Bank's Survey of Bank Lending, banks will continue to tighten credit standards for enterprises (see Chart 1.9). Banks report that they are prioritising loans to existing corporate customers and are more reluctant to lend to new customers, especially the larger ones. Many enterprises are also unable to borrow in securities market. The new Government Bond Fund is helping to alleviate this situation, primarily for enterprises with moderate or high credit ratings, but also by improving liquidity in the bond market. Credit growth is falling and is expected to continue to slow, especially in the corporate segment (see Chart 1.10).

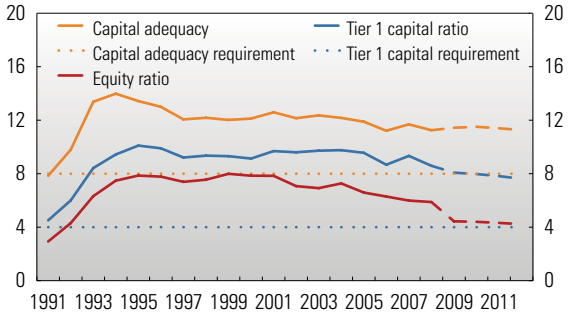
Chart 1.7 Banks' profit after tax as a percentage of average total assets.[1] Annual figures. 1990 – 2012[2]



[1] All banks except branches of foreign banks in Norway
[2] Projections for 2009 – 2012 for DnB NOR Bank (except its foreign branches), Nordea Bank Norge, SpareBank 1 SR-Bank, Sparebanken Vest, SpareBank 1 SMN and SpareBank 1 Nord-Norge

Source: Norges Bank

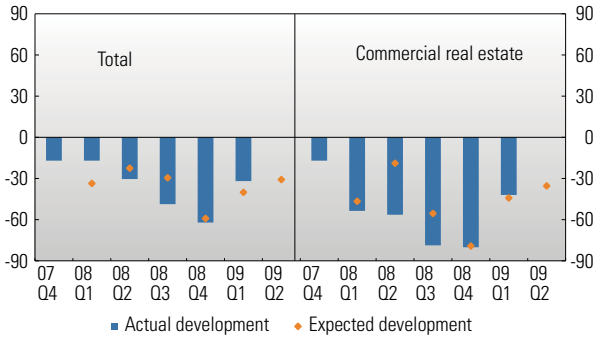
Chart 1.8 Banks' capital ratios and equity ratio.[1] Percentage. Annual figures. 1991 – 2012[2]



[1] All banks except branches of foreign banks in Norway
[2] Projections for 2009 – 2012 for DnB NOR Bank (except its foreign branches), Nordea Bank Norge, SpareBank 1 SR-Bank, Sparebanken Vest, SpareBank 1 SMN and SpareBank 1 Nord-Norge

Source: Norges Bank

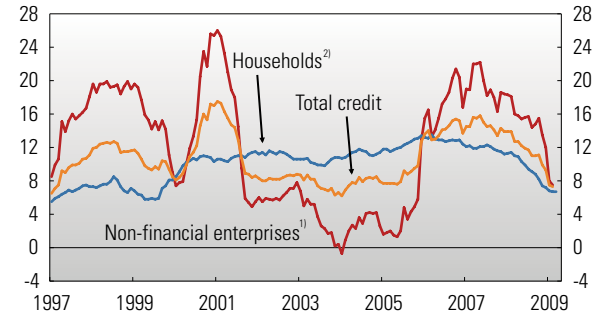
Chart 1.9 Change in banks' credit standards for approving loans to non-financial enterprises.[1] Net percentage balances. 07 Q4 – 09 Q2



[1] Negative net percentage balances indicate tighter credit standards

Source: Norges Bank

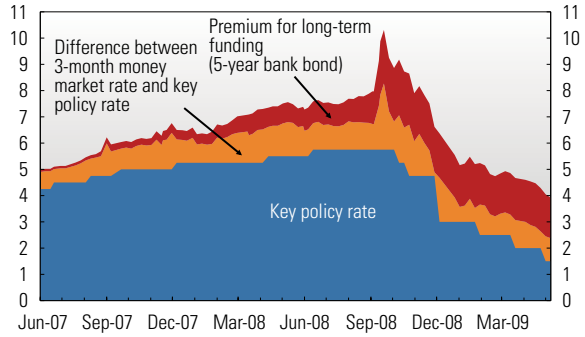
Chart 1.10 12-month growth in credit to mainland Norway. Per cent. Monthly figures. Jan 97 – Mar 09



[1] All foreign credit to mainland Norway is assumed granted to enterprises
[2] Household domestic credit

Source: Statistics Norway

Chart 1.11 Costs of money market funding and long-term funding. Percentage. Weekly figures. Week 24 2007 – Week 21 2009



Sources: DnB NOR Markets and Norges Bank

Chart 1.12 Difference between 3-month money market rate and key policy rate expectations in the market.[1] Percentage points. 5-day moving average. Daily figures. 1 Jun 07 – 19 May 09

[1] The expected key policy rate is derived from Overnight Indexed Swap (OIS) interest rates
[2] UK, euro area, Japan, Sweden and US

Sources: Bloomberg, Thomson Reuters and Norges Bank

Government action has worked…

Authorities the world over have taken extensive monetary and fiscal policy action to manage the financial crisis and limit the downturn in the real economy. There have also been specific measures to improve banks' equity and access to funding. Key rates have been cut considerably in the past six months and are close to zero in many countries. Central banks in some of these countries have turned to unconventional monetary policy means in order to bring about further easing (see *Monetary Policy Report* 1/09).

In Norway, the steps taken to date have worked. Banks' access to long-term funding has improved. Both the swap arrangement for covered bonds, in which more and more banks are participating, and longer maturities for central bank loans are making a difference. Norges Bank has also supplied banks with large amounts of short-term liquidity. These measures have helped to lower banks' liquidity risk since the previous publication of Financial Stability, but banks still describe the liquidity situation as demanding. Credit premiums for both short- and long-term market funding have decreased, but are still relatively high (see Chart 1.11).

Money market rates were elevated for a long period due to unusually high risk premiums, but have now moved closer to the expected key rate (see Chart 1.12). This reduces interest expenses for enterprises whose borrowing rates are linked to money market rates. Banks' lending rates for new mortgages have fallen (see Chart 1.13).

In February this year, the Norwegian government set up the Government Bond Fund and the Government Finance Fund, each with capital of NOK 50bn.

Folketrygdfondet began managing the Government Bond Fund in mid-March. The aim of the fund is to increase the supply of capital to the bond market in Norway in order to improve liquidity. The fund is to invest in instruments from both non-financial enterprises and financial institutions, primarily those with moderate or high credit ratings. In mid-May, the fund had invested around NOK 2.5bn of its capital.

In the present situation, it may be difficult for banks to raise capital in the market, even though a number of banks outside Norway have obtained new equity from their shareholders. The Government Finance Fund has been set up to boost Tier 1 capital adequacy in the Norwegian banking sector. Capital from the fund will carry a minimum return requirement which must be met before dividends can be paid to other investors. The fund's provision of Tier 1 capital will enable the banks to improve their financial strength without selling off assets or scaling back lending.

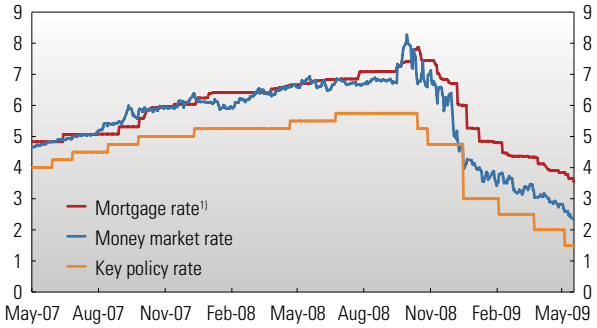
1.2 Risks to financial stability in Norway

The economic projections in this *Report* are based on the analyses in *Monetary Policy Report* 1/09 published in March. The picture was largely the same at the monetary policy meeting in May, where importance was attached to the easing of an inflation. The key rate is therefore being kept low so that inflation does not move too far below target. Lower interest rates are helping to limit the downturn in output and employment, but there is nevertheless the prospect of a further decline in the Norwegian economy. Unemployment is set to rise.

Economic developments may be weaker than assumed. New negative spirals may arise in both the real economy and financial markets. This may increase banks' risks related to lending and liquidity management. In contrast to the symmetrical analyses in connection with monetary policy assessments, the primary concern here is the risk of a more negative outturn.

The risk factors in the previous *Financial Stability* still apply. Since then, global financial markets have stabilised with the help of government action. Meanwhile, the growth outlook for the global economy has deteriorated. The household saving ratio increased towards the end of last year, and commercial property probably is facing a period of waning profitability. These factors will be monitored closely in the period ahead. A lack of far-sightedness in household financial planning may also increase the risk of financial instability in the long term.

Chart 1.13 Key policy rate, 3-month money market rate and banks' lending rate on new mortgage loans. Per cent. Daily figures.
3 May 07 – 19 May 09



1) Interest rate on new mortgage loans of NOK 1m within 60% of purchase price with floating interest rate. Figures for the 20 largest banks, weighted according to market share

Sources: Norsk Familieøkonomi AS and Norges Bank

Kaupthing's Norwegian operation

Icelandic bank Kaupthing's Norwegian branch became a member of the Norwegian Banks' Guarantee Fund in September 2007. High deposit rates led to deposit growth of more than 400% from January to August 2008, while lending to Norwegian customers increased only marginally during the same period. This resulted in a deposit-to-loan ratio for the Norwegian branch of more than 2 000% at the end of August last year. Deposits from Norwegian customers were largely used to fund Kaupthing Bank's activities in other countries. Due to the Norwegian deposit guarantee scheme, depositors' risk was limited, while the price paid for their deposits did not reflect the bank's high risk.

Further collapses in the global financial system

The collapse of the global financial system after the US investment bank Lehman Brothers filed for bankruptcy in September 2008 showed how an event with no direct links to Norwegian banks can still have a significant negative effect on Norwegian financial markets. If the participants in financial markets and authorities involved do not manage to prevent further large, system-critical financial institutions from collapsing, if the support packages for banks and credit markets prove insufficient, or if the crisis spreads to new areas where action has not been taken, this could increase liquidity risk for financial institutions at home and abroad. Increased liquidity risk may lead to further tightening of banks' credit standards. In some countries, the banking sector is very large relative to the economy as a whole, which could make it difficult for the authorities to take sufficient action if banks run into serious problems.

Events that pose a risk to the financial system could arise in both the US and Europe. The International Monetary Fund (IMF) is focusing particularly on Central and Eastern Europe – where Nordic banks have extensive operations – as a risk area. Should one or more large Nordic banks face serious problems, this would probably also have negative consequences for Norwegian banks.

Considerably weaker growth in the global economy could further increase credit risk

The current downturn is the deepest in the post-war period, and the outlook is unusually uncertain. If the downturn proves significantly longer or deeper than assumed, the consequences for Norwegian borrowers may be more serious than we currently anticipate.

If government measures to improve economic performance do not work as intended, the downturn may last longer than assumed. The weak global economy has brought a steep fall in oil prices since July 2008. At current prices, many new projects in the oil industry are still profitable, according to oil companies' analyses. Nevertheless, due to uncertainty about the economic outlook, activity in oil-related industries in Norway will probably decrease somewhat. A further drop in oil prices could lead to a sharp downturn in these industries.

The decline in world trade has led to lower revenue for many shipping companies. Large Norwegian banks have substantial exposure to Norwegian and foreign companies in this industry. Losses on these loans have not been large to date, but could increase if the downturn persists.

In the event of a longer and deeper downturn, Norwegian banks' loan losses could be higher than we currently envisage (see Section D on stress tests on page 45).

Higher loan losses may prompt many banks to seek to improve their financial strength by rationing credit. In this scenario, even sound investment projects may be postponed, and the downturn in the real economy exacerbated. This will in turn have an adverse impact on banks through higher loan losses and lower earnings, which may reduce their equity.

A surge in household saving could amplify the downturn

The economic downturn at home and abroad may be deeper than expected if economic agents' expectations deteriorate further. For many households, the future has become more uncertain. They may therefore prefer to save more by repaying debt or building up their liquid financial assets. In previous reports, the risk of financial instability associated with a high household debt burden was highlighted. Increased saving provides a buffer in the event of higher interest rates or loss of income. In time, this will promote financial stability. However, if saving were to rise rapidly and remain high for an extended period, this would undermine demand and erode enterprises' earnings and debt-servicing capacity. In the short term, a surge in the saving ratio could therefore deepen the economic downturn and further increase banks' loan losses.

If households take too short-sighted a view of interest rates when taking out mortgages, there will be an increased risk of a rapid shift in the saving ratio once interest rates normalise. It is long-term interest rate movements that are relevant when buying a home, given the nature of the investment and the repayment period. Homebuyers and lending banks must take into account that interest rates will average around 6% over time and will at times be higher. More fixed-rate loans may promote more stable household financial behaviour.

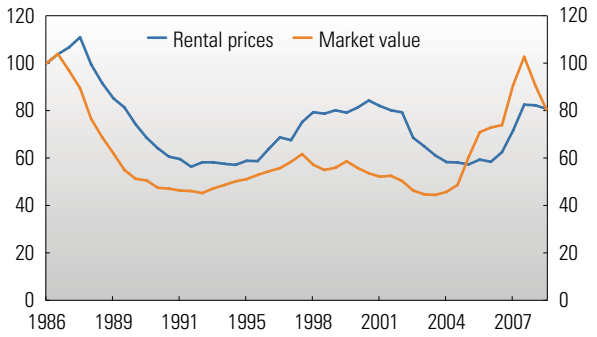
Further decreases in debt-servicing capacity in commercial property

In several previous reports, the excessive optimism in the property market was underlined. Real market prices and rents for commercial property have been falling since 2007 (see Chart 1.14). This negative trend, with rising office vacancy rates and falling rents on new leases, is expected to continue as a result of reduced activity in service sectors. A sharp downturn in the retail trade may make more retail premises available, and the profitability of property companies with hotels in their portfolios may be undermined by lower occupancy rates. In principle, the reduction in interest rates will bring down property companies' financing costs, but many companies have large proportions of their debt on fixed rates. All in all, profitability at many property companies has been falling, and the outlook is bleak.

As property companies are often highly geared and account for a large share of banks' overall lending, a large fall in property prices and further deterioration in earnings will trigger a substantial increase in banks' loan losses.

Unexpectedly weak conditions would increase banks' need to improve their financial strength. In our stress scenario for economic developments, we analyse the consequences for Norwegian banks were a number of risk factors to coincide. The economic downturn in the stress scenario is deeper and longer than projected in *Monetary Policy Report* 1/09 (see Section D on page 45). In this scenario, banks' loan losses will rise, especially on loans to property companies, export-oriented industries and oil-related industries. Many banks will then have problems with capital adequacy. Banks' capital requirements are greater in the stress tests in this Report than in the stress tests in the previous Report. Banks can meet an increased capital requirement by increasing their earnings (through higher margins, for example), cutting costs or raising new capital. This capital can be raised from existing owners, in the market or by applying to the Government Finance Fund.

Chart 1.14 Rental prices and market value of office premises in 2008-NOK.[1] Indices. Jun 86 =100. Semi-annual figures. Jun 86 – Dec 08



[1] High-standard offices centrally located in Oslo

Sources: OPAK, Statistics Norway and Norges Bank

1.3 Challenges for macro supervision

Authorities in many countries are currently working on making financial markets more robust. In the short term, attention is on escaping the current crisis by stabilising the banking system and limiting the spillover effects on output and employment. Thereafter, a clear exit path from the current situation must be indicated, with a clear strategy for how the extensive support measures implemented are to be phased out.

Once these measures can be phased out, the aim is to establish more sustainable financial systems. The financial crisis has highlighted the need for a regulatory framework that reduces the risk of instability in the financial system and hence the real economy. This precautionary element of macro supervision is often referred to as macroprudential policy.

The interaction between financial institutions means that rules that seem sensible for individual banks may have unwanted ramifications for the financial system as a whole. Paying greater attention to these relationships may result in a more balanced combination of micro and macro oversight in the future, with supervision of both individual institutions and the overall system.

One area for improved supervision is banks' liquidity management, which has been one of the reasons why many financial institutions have had problems in recent years. Many banks have been too dependent on short-term funding or have invested their liquidity portfolio in financial instruments that have proved illiquid in the event of market turmoil.

It is difficult to estimate the probability and price the risk of all possible outcomes in financial markets. This applies particularly to events that occur rarely and have not occurred for a long time. This difficult risk assessment leaves markets prone to sharp fluctuations, as participants will often react simultaneously and move in the same direction. A broad and lasting market upswing can therefore quickly be succeeded by turmoil and decline. The possibility of such shocks occurring may be given insufficient attention. In the long term, therefore, public authorities have an important role to play in maintaining a collective memory of previous crises. Authorities must also provide a regulatory framework that helps to prevent renewed turmoil.

One important question is what would be a suitable capital requirement for banks in the future. The financial crisis has revealed a need for more Tier 1 capital of good quality at financial institutions, and that the regulation of banks should be less procyclical.

Financial markets have become more global and feature high levels of innovation. The rules must promote greater transparency in the financial system. New demands are also being made for common rules and oversight across national borders. A consistent regulatory framework is needed if banks in different countries are to compete on equal terms. National supervisory authorities may be reluctant to impose stringent requirements on their banks for fear that their competitiveness will be eroded. It is important to avoid such a slide in the regulatory framework towards an inadequate common minimum.

The new rules should be simple and robust. Nevertheless, as with monetary policy, mechanical rules will be unsuitable for macro supervision; there will be a need for a certain degree of discretion.

New rules resulting from the financial crisis

The financial crisis has led to increased interest in the work on new, common rules for the financial industry worldwide. Many international institutions are working on proposals for new rules and changes to existing rules. Most of the proposals put forward are currently somewhat fairly general. The issues are complex, and it may therefore be difficult to come up with a sound set of rules. This will require thorough analysis and a great deal of work. It is also being stressed that it is more important to agree on high-quality solutions than for the agreements to be made quickly. Furthermore, many of the new rules, such as those relating to higher capital adequacy requirements, should preferably not be introduced until the situation in financial markets is more stable. At the same time, there is currently support for change among public authorities and a favourable climate for putting into place new and improved rules.

The Basel Committee, an international forum for cooperation on banking supervision, has presented a number of proposals to increase the level and quality of banks' capital. For example, it is proposing an increase in the capital requirements associated with banks' trading portfolios, which consist of positions in financial instruments. The risk here has previously been underestimated.

Another proposal is a common definition of Tier 1 capital. Authorities in many countries have recently injected capital into their banks. This has been done in different ways, which may, in the short term, be an obstacle to arriving at a common definition of Tier 1 capital. With regard to the quality of Tier 1 capital, and to keep its definition simple, Norges Bank's view is that, in the slightly longer term, only equity capital excluding intangible assets should qualify as Tier 1 capital at banks. In Norway, there have been relatively stringent restrictions on the approval of hybrid capital for inclusion in Tier 1 capital. Most Norwegian banks should therefore be in a good initial position if the requirements for the quality of Tier 1 capital are tightened (see Chart 1.15).

The Basel Committee also wishes to limit the build-up of debt at financial institutions. This may, for example, be achieved with a minimum requirement for financial institutions' equity ratio, which is a common measure of non-financial enterprises' financial strength.

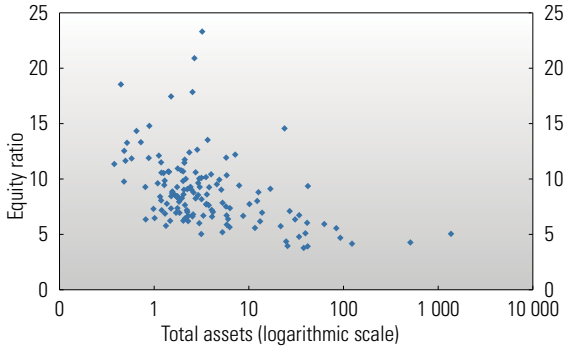
Both the Basel Committee and the Financial Stability Board (FSB), which aims to promote global financial stability, are in the process of producing proposals for capital requirements that are less procyclical. The regulatory framework should ensure that banks build up buffers over and above the minimum requirement for capital adequacy during normal times. They will then have more to draw on when the economy turns and be able to absorb losses without having to increase their equity. This may help prevent banks from rationing credit during difficult periods.

Less procyclical capital requirements can be achieved in a number of ways. Financial buffers at banks can be increased during cyclical upturns by including a countercyclical factor in the capital adequacy requirements. Simple rules for economic policy that take account of both factors relating to financial stability and movements in output and employment may be a tool for bringing about more balanced credit growth in the economy and a more stable financial sector. Banks' capital adequacy requirements could, for instance, depend on credit growth in the economy and the output gap (see Charts 1.16 and 1.17). This would require the banking system to build up capital reserves when credit growth is high, thus serving as a countercyclical factor. Another option is to require banks to recognise larger loss provisions in expansionary periods than they are able to do under current accounting rules. With this dynamic provisioning[2], banks can take account of losses throughout the business cycle and not just when the losses occur.

The European Commission has announced an extensive upcoming reform of the financial system in the EU. The regulatory and supervisory structure is to be coordinated and strengthened across the member states. A group of experts appointed by the Commission (the de Larosière

2 This method is currently used in Spain. To date, Spanish banks have fared better during the financial crisis than banks in many other countries.

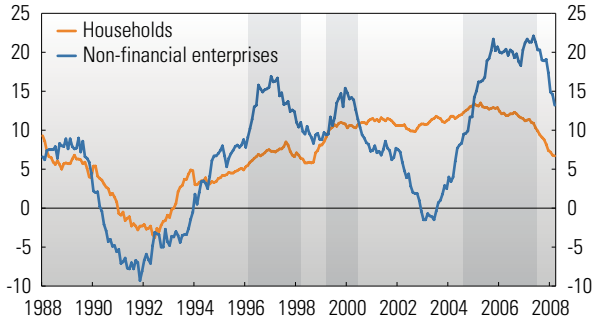
Chart 1.15 Banks'[1] total assets (in billions of NOK) and equity ratio[2] (in per cent) as at 31 Mar 09



1) All banks except foreign branches in Norway
2) Equity divided by total assets

Source: Norges Bank

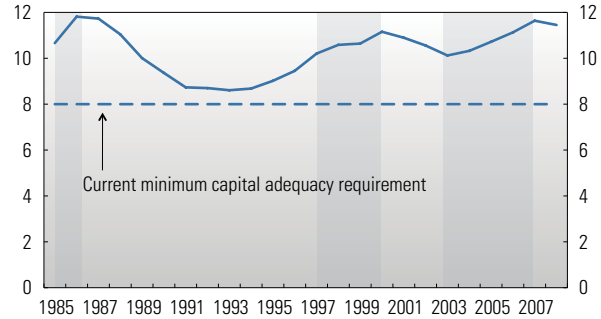
Chart 1.16 12-month growth in domestic credit (C2) to non-financial enterprises and households. Per cent. Monthly figures. Dec 88 – Mar 09[1]



1) Periods when credit growth to both enterprises and households were above 10% plus the period 1997 – 1998, when credit growth to enterprises was high, are shaded grey

Source: Statistics Norway

Chart 1.17 Illustration of a capital requirement which depends on the credit gap[1] and the output gap. Per cent. Annual figures. 1985 – 2008[2]



1) The credit gap is defined as the deviation from trend for total credit measured as a percentage of GDP for mainland Norway
2) Periods when the capital requirement is above 10% and rising are shaded grey

Source: Norges Bank

Group) has proposed that the overall management of macro supervision be delegated to a new body, the European Systemic Risk Council (ESRC), and that the European Central Bank be given a larger role in macroeconomic oversight of financial stability. The creation of an overarching supervisory authority in the EU, the European System of Financial Supervision (ESFS) is also proposed. The current advisory committees for banks, securities and insurance will, together with the national supervisory authorities, be at the heart of the new system. The committees will have decision-making authority. This will be of significance to financial institutions and securities markets in the European Economic Area (EEA).

In December last year, the European Parliament decided to coordinate the EU's deposit insurance schemes. With effect from 2011, the amount guaranteed in the EEA will be EUR 100 000. This means that the amount guaranteed at Norwegian banks will be reduced from today's NOK 2m. This is in line with previous recommendations from Norges Bank. The current level of cover under the Norwegian guarantee scheme is high relative to the amounts guaranteed in other countries. This may make the Norwegian deposit market attractive as a source of funding for high-risk banks (see box on Kaupthing Bank). The coordination of deposit insurance schemes will promote more equal competition between banks in the EEA.

The G20 countries have agreed on a number of concrete measures to improve the supervision and regulation of the financial system. They have replaced the Financial Stability Forum (FSF) with a new body, the Financial Stability Board (FSB), which will have a stronger mandate and a broader composition than the FSF and will collaborate with the IMF. In addition, credit rating agencies are to come under supervision.

Assessment of the Norwegian regulatory framework

A sound regulatory framework is an important foundation for financial stability. Weaknesses such as inadequate rules, inappropriate design of the tax system or incomplete markets may be sources of instability.

In Norway, it has been advantageous to invest in housing in recent years due to favourable taxation of housing investment and housing consumption. This has led to overinvestment in housing capital and fuelled house price inflation during good times. This encourages increased household borrowing and may therefore lead to the build-up of financial imbalances over time. A tax system that taxes the benefits of home ownership and values houses close to "fair value" would have reduced the incentive to borrow and limited fluctuations in house prices.

For Norway, it is particularly important for the supervision of Nordic financial institutions and markets to be strengthened. A greater degree of coordination and collaboration between Nordic authorities is needed. It is important that the rules are enforced both strictly and consistently in the different countries. Norges Bank believes that it is important for such collaboration to be rooted in the Nordic countries' finance ministries.

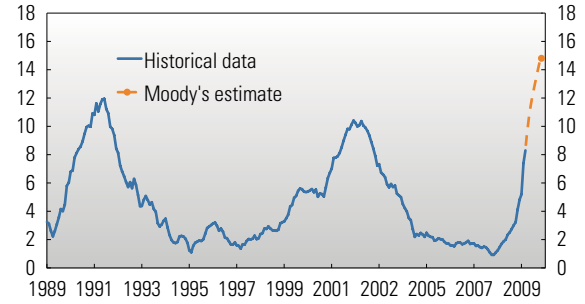
Several Norwegian banks do not currently have sufficient buffers from their own perspective, nor from that of their owners or the economy at large. In the longer term, once the turmoil is over, the rules on capital adequacy for Norwegian banks need to be strengthened in line with the work of the Basel Committee.

The government has proposed legislation to improve saving banks' ability to raise new capital. This change in the law would allow savings banks to incorporate if this is warranted by the need to raise new capital in the market, but not for structural reasons. This option may prove important in the years ahead.

Recent developments have also shown how life insurers' return guarantee and the one-year guarantee period have increased uncertainty about their results. This has also accentuated fluctuations in the equity market. The Act relating to Insurance Activity, which entered into force in 2008, allows new and existing pension insurance customers with a return guarantee to have this guarantee calculated over periods of up to five years. Such a multi-year return may induce life insurers to apply a somewhat longer investment horizon. This may enhance stability in securities markets.

Sections

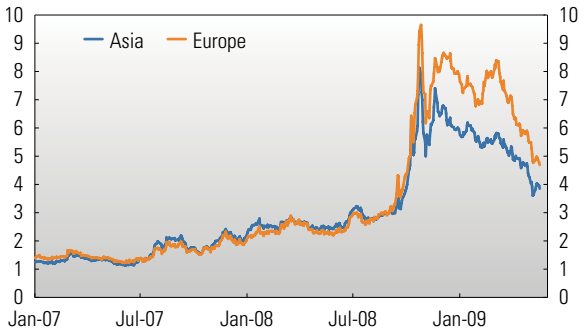
Chart A.1 Annual global default rate, speculative grade corporates.[1] Per cent. Monthly figures. Feb 89 – Apr 09



[1] Credit rating below BBB-

Source: Moody's

Chart A.2 Emerging market bond spreads. Percentage points. Daily figures. 2 Jan 07 – 19 May 09



Source: Thomson Reuters

Chart A.3 Average leverage rate for financial institutions.[1] Total assets over shareholders' equity. Quarterly figures. 86 Q2 – 08 Q3

[1] Federal Reserve primary dealers

Source: Adrian & Shin

A. Extensive action to stabilise global financial markets

Global financial markets continue to be affected by the crisis of confidence that has developed in the global financial system. The downturn in the global economy has worsened, and the growth outlook has been revised down since last autumn. Banks and financial institutions the world over have had to take heavy losses, with a further increase in losses expected ahead. Authorities in many countries are stimulating the economy through fiscal and monetary measures. Extensive action aimed directly at the financial sector is also being taken.

Losses at financial institutions are expected to rise further…

Since the turmoil began in 2007, banks and financial institutions the world over have taken heavy losses and writedowns on loans and securities holdings carried at fair value. At the end of April 2009, total bank losses amounted to around USD 970bn. The International Monetary Fund (IMF) revised up its forecast of losses on loans to US enterprises and households from USD 1 405bn in October last year to USD 2 712bn in April this year (see Chart 1.1). Including borrowers in Japan and Europe, total losses could reach USD 4 054bn according to the IMF, equivalent to around 7% of loans outstanding. A good 60 % of these losses are expected to be taken by banks.

... and credit risk is rising

The downturn in the global economy has worsened further since the autumn. Capacity utilisation has fallen considerably in the US and a number of European countries, and bankruptcies are expected to rise ahead. Credit rating agency Moody's predicts that the proportion of enterprises that are unable to service their debts will rise significantly (see Chart A.1). The IMF expects banks' losses on securities backed by corporate loans and commercial property to increase. In addition, a growing share of bank losses is expected to come from traditional loans to enterprises and households.

Banks with operations in Eastern Europe are particularly exposed

Many of the emerging economies of Eastern Europe have been hit hard by the global economic downturn. Many countries in the region have large current account deficits and high foreign debt. Financing from foreign sources has also become more expensive and less readily available (see Chart A.2). This may reduce domestic demand, resulting in increased bankruptcies and loan losses. Banks in Western Europe have substantial operations in Eastern Europe via subsidiaries and branches. Around a third of lending from banks in the euro area to Eastern Europe have been to at-risk countries such as Hungary, Ukraine and the Baltic States. Some Swedish banks have relatively large operations in the Baltic States and are exposed if the economic downturn becomes more severe and government-backed reforms are not successful. In recent years, domestic interest rates have been elevated in the Baltic States, and the proportion of foreign currency loans has increased, making borrowers vulnerable to a collapse in these countries' fixed exchange rate systems.

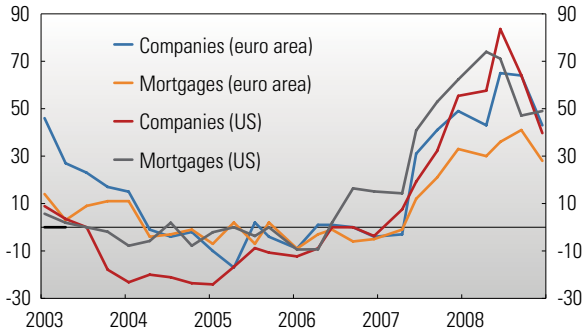
Deleveraging continues

Heavy loan losses and falling prices for assets carried at fair value have led to a need for extensive deleveraging at many financial institutions (see Chart A.3). To meet capital adequacy requirements and improve their financial strength, banks are shrinking their balance sheets by selling off assets and scaling back lending. Credit standards at US banks have been tightened further in recent months (see Chart A.4), and growth in credit to the private sector is falling in many countries. Reduced demand for asset-backed securities has made it harder for banks to reduce their balance sheets by selling on loan portfolios (securitisation). The majority of loans are now being held on banks' balance sheets and used as collateral for central bank loans.

Government action has eased access to short-term funding somewhat…

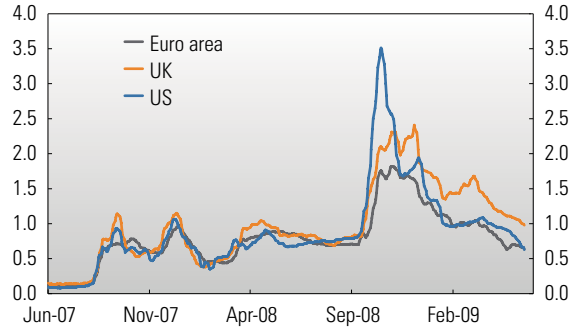
Lower key rates and large injections of liquidity by central banks have helped to bring down risk premiums and interest rates in interbank markets (see Chart A.5). However, banks are being restrictive in their lending beyond short

Chart A.4 Bank lending surveys in the US and the euro area. Net share of banks that have tightened credit standards. Per cent. Quarterly figures. 03 Q1 – 09 Q1



Sources: Federal Reserve and the European Central Bank

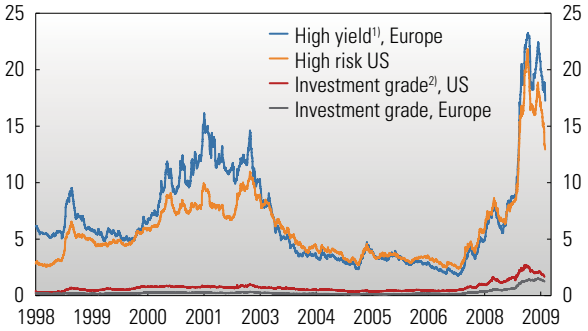
Chart A.5 Spread between 3-month money market rates and expected key policy rates.[1] Percentage points. 5-day moving average. Daily figures. 1 Jun 07 – 19 May 09



[1] Expected key rates are measured by Overnight Indexed Swaps (OIS)

Sources: Bloomberg and Thomson Reuters

Chart A.6 Corporate credit spreads. Percentage points. Daily figures. 2 Jan 98 – 19 May 09



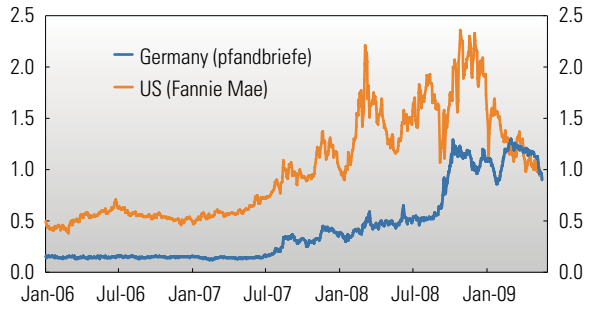
[1] Credit rating below BBB-
[2] Credit rating above or equal to BBB-

Source: Thomson Reuters

Chart A.7 Difference between CDS premium and bond spreads, European financials. Basis points. Daily figures. 2 Jan 07 – 19 May 09

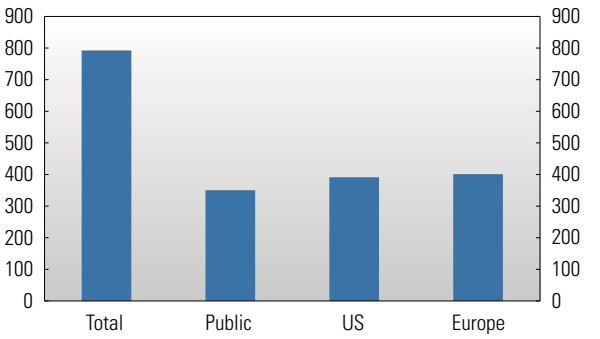
Sources: Thomson Reuters and Norges Bank

Chart A.8 Spreads on US and German mortgage bonds. Percentage points. Daily figures. 3 Jan 06 – 19 May 09



Source: Thomson Reuters

Chart A.9 Capital raised by banks to end - 2008 in billions of USD



Source: IMF

maturities and holding large amounts of liquidity as central bank deposits. The lack of redistribution of liquidity in the interbank market reflects continued uncertainty about future liquidity needs and low confidence among banks. Central banks in the US and the UK have made it easier to obtain funding in the commercial paper market through purchase facilities.

... and bond financing has been boosted by government guarantees

The limited availability and high price of long-term funding have been a major hurdle for the normalisation of credit markets and for financial institutions' ability to manage their liquidity. Risk premiums remain high, but government support packages in the form of purchase, guarantee and swap facilities have helped to improve market conditions in a number of countries (see Chart A.6). In the US and Europe, most bonds issued by banks have been guaranteed by the authorities, but lately the share of guaranteed emissions has fallen. Issuance of bonds by non-financial enterprises has picked up after the authorities in a number of countries included these bonds in their purchase facilities. However, total risk premiums in the bond market are higher than the cost of credit default insurance (see Chart A.7). This may indicate that liquidity premiums in bond markets remain high. In the US and the UK, central banks have been purchasing not only private securities but also government bonds with maturities of up to ten years in order to bring down long-term interest rates and increase the money supply. This may lead to greater demand and higher prices for higher-risk assets. Higher asset prices increase the value of banks' collateral and can stimulate consumption and investment.

Issuance of European covered bonds, which are an important source of market funding for mortgages, has been very low over the past year. Risk premiums are high (see Chart A.8). To date, these bonds have not been backed by guarantees from the authorities, resulting in a higher risk weighting when calculating capital adequacy. Together with more stringent credit rating requirements, this has led to lower demand. The European Central Bank has announced that it will purchase up to EUR 60bn in covered bonds. In the US, the Federal Reserve has purchased

mortgage-backed securities issued by mortgage institutions. This has helped to sustain an important source of funding and bring down mortgage rates in the US.

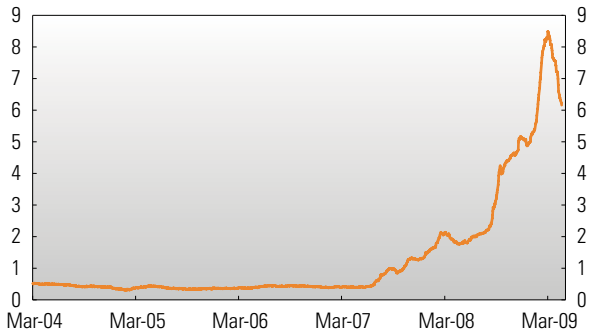
Authorities inject substantial amounts of equity and hybrid capital

To date, losses and writedowns at banks and financial institutions have been matched by capital injections in the form of ordinary equity and preferred shares. Public capital accounted for almost half of the total capital raised by banks and financial institutions in 2008 (see Chart A.9). The IMF forecasts that European and US banks will need fresh equity totalling USD 450bn in order to maintain the level of capital adequacy they enjoyed at the end of 2008. This is equivalent to almost 60% of the capital raised to date. In addition, there may be a need for new funding if banks wish to increase their capital adequacy. Banks can also increase their financial strength by issuing subordinated debt. Uncertainty about banks' risks and how public subsidies will affect the priority of this class of debt has made these loans very expensive (see Chart A.10).

Support packages increase the risk associated with public debt

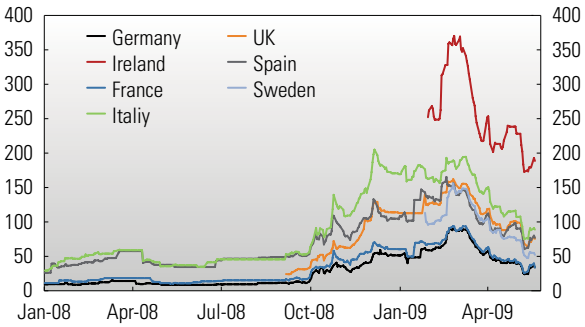
The total cost of public support packages is high and very uncertain. The IMF estimates that the cost for countries with a large banking sector, such as Ireland, the Netherlands, Sweden and the UK, may be in excess of 7% of GDP. The financing of these measures is resulting in increased issuance of government debt in many countries. Higher costs and weaker public finances are making debt financing more expensive. The price of credit default insurance for public debt has risen recently (see Chart A.11). A large financing requirement appears to be affecting credit premiums more than the total level of debt. This may indicate that investors are more concerned about countries' short-term financing needs than about their long-term financial position.

Chart A.10 Spreads on subordinated debt issued by European banks. Percentage points. Daily figures. 31 Mar 04 – 19 May 09



Source: Thomson Reuters

Chart A.11 CDS premiums on sovereign debt. Basis points. Daily figures. 1 Jan 08 – 19 May 09



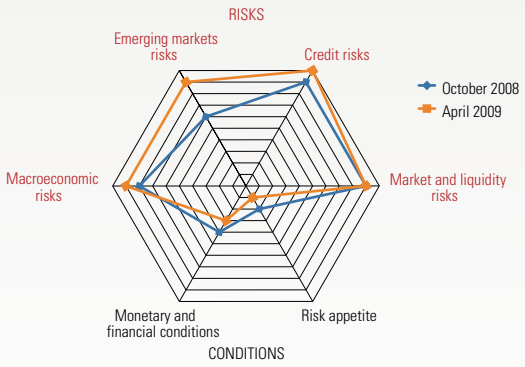
Source: Bloomberg

The IMF's Global Financial Stability Report

The IMF publishes its Global *Financial Stability Report* every six months. The report presents the IMF's assessment of the state of the global financial system. This assessment is summarised in six factors of significance to financial stability (see Chart 1). In April 2009, the IMF's assessment was that five of these six factors had deteriorated since October 2008.

Credit risk has increased, due partly to greater uncertainty about the scale of the downturn in the global economy. Higher macroeconomic risk reflects the downward revision of the global growth outlook since last October. Emerging market risk is increasing due to weak growth in the real economy and reduced access to cross-border financing. Despite the action taken by authorities, market and liquidity risk in money and capital markets remains high. Tighter credit practices at banks and higher risk premiums in the markets are undermining the effect of monetary policy easing and contributing to the tightening of funding conditions. Investors' risk appetite has diminished due to reduced confidence and higher counterparty risk.

Chart 1 The IMF's Global Financial Stability Map[1)]



[1)] Closer to centre signifies less risk, tighter monetary and financial conditions or reduced risk appetite

Source: IMF

The background for the financial crisis[1)]

The world economy is now in the deepest downturn in the post-war period. The crisis originated in and is partly created by financial markets, and also reflects global macro-economic imbalances.

In the past decade, considerable global economic imbalances developed. The US trade deficit was matched by trade surpluses in emerging economies and oil-exporting nations. The build-up of debt in the US was partly financed by capital flows from countries with large surpluses and high saving rates, particularly China. These capital flows were partly invested in US government securities, which contributed to keeping long-term interest rates at a low level. Global capital flows and low interest rates fuelled debt accumulation and a sharp rise in asset prices in the US and many European countries.

With low interest rates and ample supply of liquidity, financial institutions and investors sought higher returns, by increasing investment leveraging or by investing in increasingly risky products. Investments became more exposed to risk, while risk premiums were at historically low levels. Higher leveraging ratios increased financial institutions' vulnerability to even a moderate fall in asset prices.

As a reaction to investors' search for higher yield, complex financial products and techniques were developed to transfer credit risk. Traditional lending activity was partly replaced by banking activity where loans were packaged into portfolios, split up and sold off to investors. This activity probably reduced financial institutions' incentive to conduct a thorough credit risk assessment to avoid losses. The number of financial products and financial institutions that were not subject to regulation, sufficient oversight or capital requirements increased. The emergence of a shadow banking system made it possible for regulated financial institutions to transfer risk to their own special purpose vehicles (SPVs) that were exempt from regulation.

Other structural changes in the financial system have also taken place in recent years. Cross-border financial activity has grown markedly, and the interdependence between different financial markets and systems has increased. Financial products have become more complex. This has resulted in reduced transparency in the financial system, making it more difficult to understand market behaviour and assess risk. It is likely that both market operators and the supervisory authorities underestimated the risk in the financial system prior the crisis.

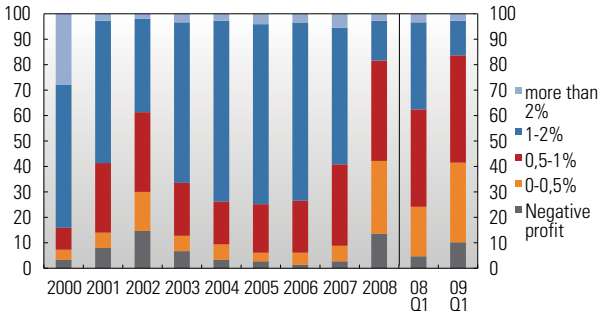
The triggering factor behind the financial crisis was increased losses on loans and securities linked to a specific segment of the US housing market, so-called subprime mortgages. These mortgages were extended to borrowers with low creditworthiness, based on expectations of a continued rise in house prices. However, house prices in the US started to fall in 2006 and defaults on these loans increased markedly. A large portion of these loans were packaged into portfolios and furnished as collateral for bonds sold to investors worldwide.[2] Uncertainty as to which investors risked incurring losses on these securities led to a confidence failure that spread to money and credit markets in many countries in autumn 2007. It became more costly and difficult for banks to procure funding. The situation worsened considerably when the US investment bank Lehman Brothers filed for bankruptcy on 15 September 2008. Several large financial institutions were bailed out by the authorities or were taken over by competitors. Confidence between financial market participants was severely impaired, and in periods the interbank loan market ceased to function.

Impaired confidence in the financial system has resulted in higher risk premiums on lending, and lending standards facing households and businesses have been tightened. Households have reduced their consumption, and enterprises have cut production and investment. The pronounced downturn in the real economy has had negative repercussions on financial markets. Looking ahead, losses among banks and financial institutions are expected to increase as a result of rising unemployment and business failures. This will in turn reduce banks' capacity and willingness to provide credit. The authorities worldwide have implemented comprehensive monetary and fiscal measures designed to stabilise the markets, improve bank solidity, maintain financial institutions' capacity to supply credit and boost demand for goods and services (see box "Deep downturn in the global economy" in *Monetary Policy Report* 1/09).

1 The box is based inter alia on Brunnermeier, Markus K. (2009) "Financial Crisis: Mechanisms, Prevention and Management", The de Larosière Group and Mervyn King's speech on 17 March 2009 "Finance: A Return from Risk".

2 See more on residential mortgage securitisation in *Financial Stability* 1/08, Norges Bank.

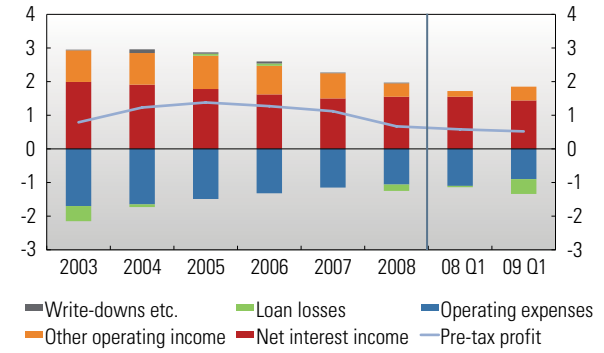
Chart B.1 Banks' pre-tax profits. Distribution of banks[1] by profit as a percentage of average total assets. Annual figures. 2000 – 2008. Annualised quarterly figures for 08 Q1 and 09 Q1



[1] All banks in Norway

Source: Norges Bank

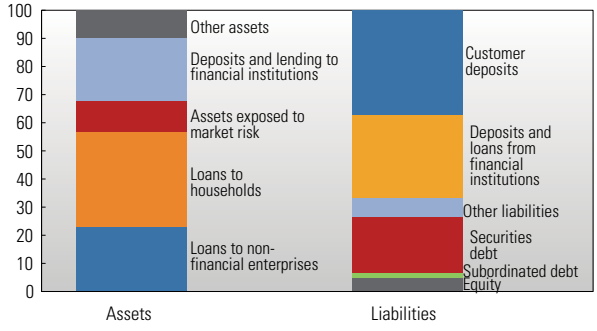
Chart B.2 Banks'[1] pre-tax profits as a percentage of average total assets. Annual figures. 2003 – 2008. Annualised quarterly figures for 08 Q1 and 09 Q1



[1] All banks except branches of foreign banks in Norway

Source: Norges Bank

Chart B.3 Bank[1] assets and liabilities as of end-2008. Per cent



[1] All banks in Norway. Norwegian banks' foreign subsidiaries and branches abroad are not included.

Sources: Statistics Norway and Norges Bank

B. The impact of the recession on Norwegian financial institutions

The financial crisis and the economic downturn are having an adverse impact on Norwegian financial institutions. Loan losses are increasing and funding is still difficult to obtain. A number of financial institutions need fresh capital. The Norwegian authorities have taken extensive action to mitigate the impact of the crisis.

Substantial losses on securities and lending have resulted in lower profits for banks

Norwegian banks' profits fell in 2008 compared with the preceding years (see Charts B.1 and B.2). Banks' overall profits in NOK were 32% lower in 2008 than in 2007. About half of the banks recorded negative results in 2008 Q4. The decline in profits was primarily due to losses on securities and lending. Banks' results improved somewhat in 2009 Q1, but prospects remain weak.

Assets that are exposed to market fluctuations (securities recognised as current assets) accounted for 11% of Norwegian banks' total assets at end-2008 (see Chart B.3). In spite of the relatively modest share, losses on securities contributed over half of the reduction in profits from 2007 to 2008. These losses were a result of higher credit premiums on corporate bonds and the fall in equity prices. Losses due to lower equity prices were less severe after some banks made use of the option to reclassify securities as "held to maturity", as provided by the new guidelines of 16 October 2008. The reclassification was recognised on balance sheets as of 30 June 2008. The book value of these securities is thereby no longer directly influenced by changes in market value. Six Norwegian banks reported that they had used the reclassification option. Without this option, banks' overall profits would have been 18%, or NOK 3.4bn, lower in 2008.

Banks' loan losses increased in 2008, particularly in 2008 Q4, and were the highest in any one quarter since 2002 Q4 (see Chart B.4). Losses decreased somewhat in 2009 Q1, but projections of banks' loan losses based on economic developments show an increase ahead.

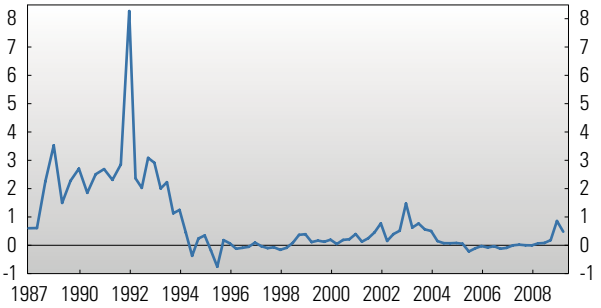
Loan losses rose considerably more than the stock of non-performing loans, which only showed a marginal increase in 2008 (see Chart B.5); banks had set aside substantial funds to cover expected future losses on loans to industries with weak prospects (collective writedowns) in 2008 compared with previous years. While a higher number of defaults increases individual writedowns, banks can take collective writedowns when there are clear indications that they will lose on loans to a group of customers, for example in a specific industry. In 2008 the proportion of collective writedowns recognised by banks in Norway as a whole was almost as high as individual writedowns (see Chart B.6), although the distribution of collective and individual writedowns varied across banks.

The commercial property industry accounted for the largest losses and recorded the sharpest rise in losses in 2008. Losses on loans to construction and retail trade, hotels and restaurants also increased substantially. Chart B.7 compares book loan losses as a share of gross lending with expected loan losses estimated for all Norwegian banks[1]. The banks to the left of the diagonal line in the chart recognised lower losses in 2008 than expected based on the industry mix in their lending portfolios. This may be because some banks have been more proficient at credit assessment than others, but it may also be due to differences in writedown calculation. Banks furthest to the left of the diagonal are more likely to record larger losses in 2009.

Enterprises' debt-servicing capacity deteriorated in 2008. (see section on enterprises in the section on Norwegian borrowers on page 34.) Loan losses will probably increase in 2009, particularly in commercial property, shipping, construction, retail trade and the hotel and restaurant in-

1 The chart does not show banks with losses exceeding 1% of gross lending. This group comprises a very limited number of banks. The estimate was made using Norges Bank's corporate model, SEBRA. For a more detailed description of the models, see Andersen, Berge, Bernhardsen, Lindquist and Vatne: "A suite-of-models approach to stress-testing financial stability", *Staff Memo* 2/2008, Norges Bank.

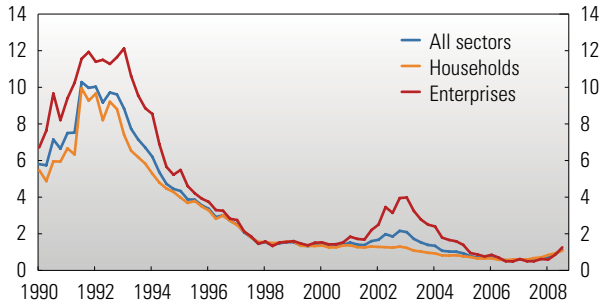
Chart B.4 Bank[1)] losses on loans and guarantees. By four-month periods from 1987 – 1991. By quarter from 1991. Annualised. Percentage of lending to all sectors. Sep 87 – 09 Q1



1) All banks except branches of foreign banks in Norway

Source: Norges Bank

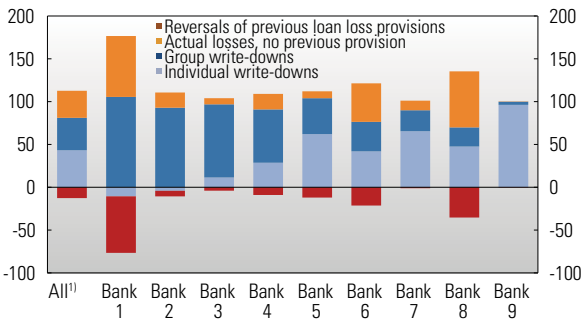
Chart B.5 Banks[1)] gross stock of non-performing loans by sector. Percentage of gross lending to the sector. Quarterly figures. 90 Q3 – 09 Q1



1) All banks in Norway

Source: Norges Bank

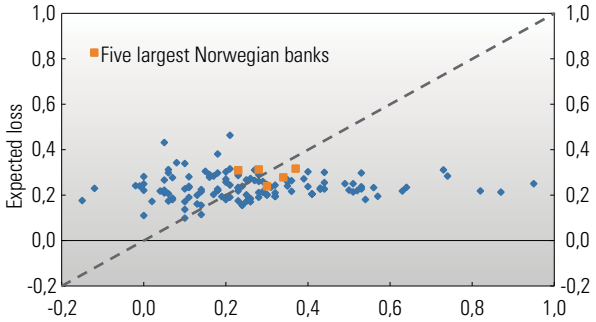
Chart B.6 Components of recognised losses. A selection of banks. Percentage of total losses. 2008



1) All banks in Norway

Source: Norges Bank

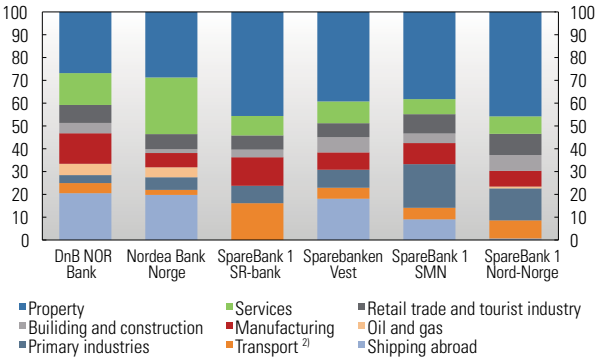
Chart B.7 Recognised loan losses and model estimated expected loan losses for banks[1] in 2008. Percentage of gross lending



[1] All banks, except branches of foreign banks, in Norway

Source: Norges Bank

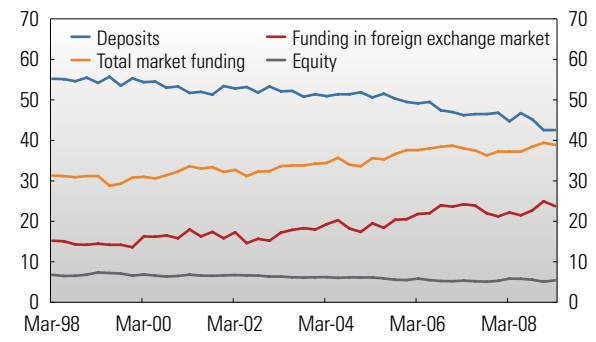
Figur B.8 Norwegian banks' lending portfolio[1] for the corporate sector. Percentage share. End of 2008



[1] Due to differences in reporting, the categories are not directly comparable between banks.
[2] Includes shipping abroad for banks which have not reported these categories separately.

Source: The banks' annual accounts

Chart B.9 Funding sources for banks.[1] Percentage of total assets. Quarterly figures. 98 Q1 – 09 Q1



[1] All banks except branches and subsidiaries of foreign banks in Norway

Source: Norges Bank

dustries. Exposure to the most distressed industries varies across banks (see Chart B.8). The quality of a bank's lending portfolio depends on the bank's credit assessments.

After action taken by the authorities, the liquidity situation has improved somewhat

Market funding is becoming as important a source of funding for Norwegian banks as customer deposits (see Chart B.9). In addition, over half of banks' market funding is short term (see Chart B.10). As a result of these developments, banks are more exposed to turmoil in money and credit markets.

In the course of 2008, financial institutions took on a more prominent role in bond markets (see Chart B.11). Credit premiums on bank bonds have declined somewhat since the beginning of November (see Chart B.12) as a result of the swap arrangement for covered bonds. Risk premiums on subordinated loan capital have decreased somewhat but they remain high. This may indicate that market participants perceive a risk of banks' losses exceeding their equity capital.

Norges Bank's surveys of the liquidity situation indicate that in autumn 2008 it was difficult for banks to comply with internal limits for long-term funding. Banks reported that funding with a maturity of more than one year had become particularly expensive and difficult to obtain. At the end of April 2009, banks reported that the funding situation had improved. Stable sources of funding and illiquid assets are more evenly balanced in small banks than in larger banks (see Chart B.13).

Payment problems in a bank will be reflected in the payment systems. For banks that settle transactions at the central bank, deposits and borrowing facilities in Norges Bank determine the amount of liquidity available to settle their accounts (see Chart B.14). During the financial turmoil, the distribution of interbank liquidity was more uneven than previously. While some banks have ample surplus liquidity, others can sometimes experience a shortage. When liquidity is not distributed effectively, higher overall liquidity is needed to prevent solvent banks from encoun-

tering payment problems. Action taken by the authorities contributed to an increase in liquidity in 2008 Q4. Norges Bank has taken steps to increase overall available liquidity in interbank settlement by easing collateral requirements and by providing larger and longer-term loans to banks. The change from two to six petroleum tax payments per year also resulted in an increase in available liquidity in the October and November settlements in 2008[2].

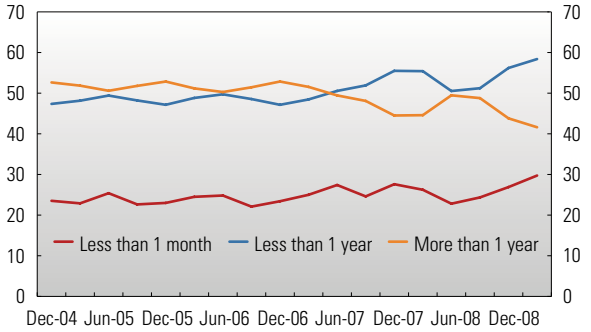
The difficulty of obtaining funds has contributed to banks tightening their credit standards. According to Norges Bank's Survey of Bank Lending, banks tightened credit standards for both the household and the corporate sector throughout 2008. Banks' credit standards for households were approximately unchanged in 2009 Q1, while tightening on corporate loans continued. Credit standards were tightened through an increase in banks' lending margins, equity and collateral requirements and fees. Maximum loan repayment periods were also reduced. Banks reported that they expect to tighten corporate credit standards in 2009 Q2 primarily by increasing fees and lending margins. If oil prices remain low, credit standards are expected to be tightened in particular for the offshore and shipping sectors in the period ahead.

Need for higher bank lending margins

The spread between banks' lending and deposit rates (the interest margins) widened in 2008 Q4 (see Chart B.15). Interest margins fell in 2009 Q1 as a result of a decline in lending margins. Deposit margins increased in the first quarter but will probably remain low ahead due to lower money market rates and competition for deposits as a source of funding. The low interest rate level is in itself exerting downward pressure on deposit margins as banks cannot set the deposit rate lower than zero. With high financing costs, added pressure on deposit margins, expectations of increased loan losses, a desire for higher equity ratios and reduced competition for lending to enterprises, banks are likely to maintain high lending margins ahead. In order to avoid weaker results, banks should also reduce costs. Developments in bank profitability imply that banks will have to maintain interest margins at least

2 In 2008 the government changed the number of annual petroleum tax payments from two to six (Proposition to the Odelsting No 59). The last semiannual payment was on 1 April 2008. The first payment under the new schedule was on 1 August 2008.

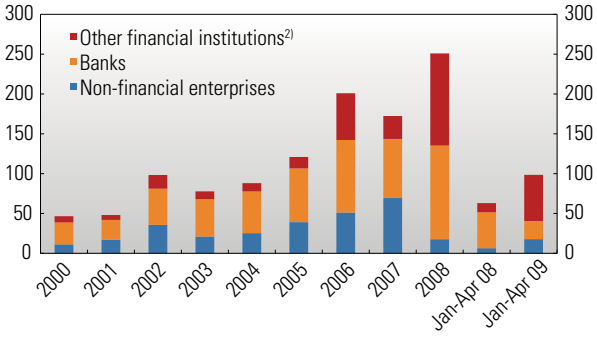
Chart B.10 Banks[1] market funding by maturity. Per cent. End of quarter. 04 Q4 – 09 Q1



1) All banks except branches and subsidiaries of foreign banks in Norway

Source: Norges Bank

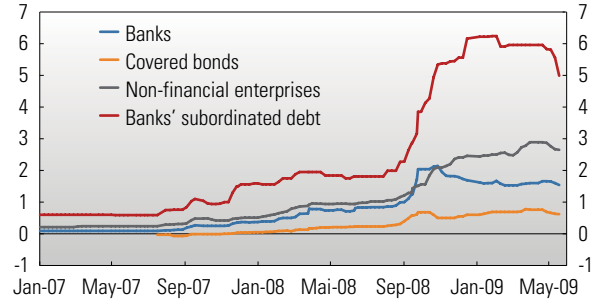
Chart B.11 Bonds issued in Norway.[1] In billions of NOK. 2000 – 2008. Jan - Apr 08 and 09



1) All bonds registered in VPS – The Norwegian Central Securities Depository
2) After the swap arrangement was implemented, most of the covered bonds have been issued to parent banks.

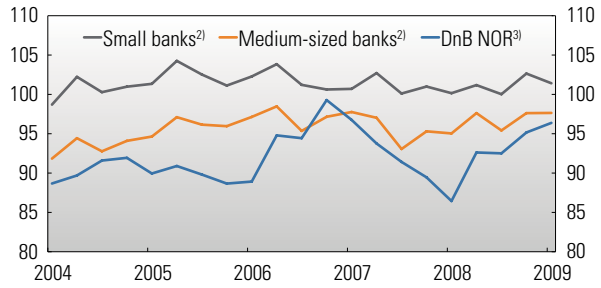
Source: Stamdata

Chart B.12 Risk premiums on Norwegian bonds. 5-year maturity. Indicative prices. Percentage points. Compared with swap rates. Weekly figures. Week 1 07 – week 21 09



Source: DnB NOR Markets

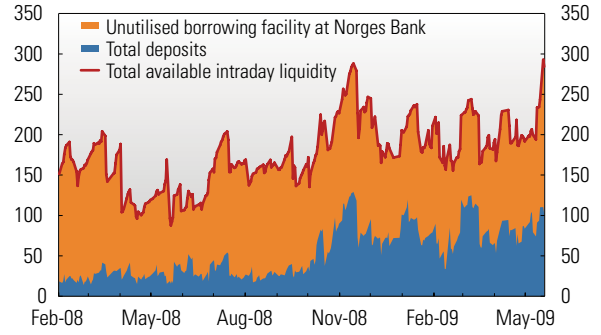
Chart B.13 Ratio of stable funding sources to illiquid assets for Norwegian banks.[1] Per cent. Quarterly figures. 04 Q1 – 09 Q1



[1] All banks except branches and subsidiaries of foreign banks in Norway
[2] The dividing line between small and medium-sized banks is set at NOK 10bn (measured in total assets) at end-2006
[3] DnB NOR Bank ASA (parent bank) and Nordlandsbanken

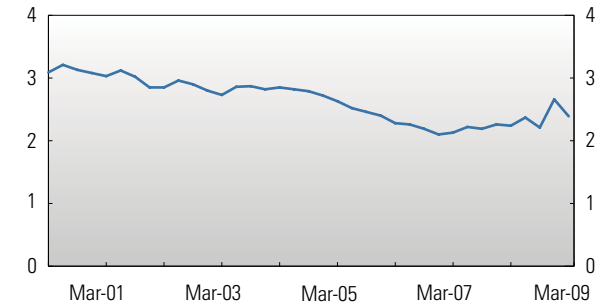
Source: Norges Bank

Chart B.14 Banks' total available intraday liquidity: deposits and available liquidity in Norges bank. In billions of NOK. Daily figures. 1 Feb 08 – 19 May 09



Source: Norges Bank

Chart B.15 Banks'[1] average interest margin. Percentage points. Distance between deposit and lending rates at end-quarter. 00 Q1 – 09 Q1



[1] All banks in Norway

Source: Statistics Norway

at the current level to avoid negative results in 2009. If loan losses should be higher than expected, it may be in banks' interest to raise interest margins. However, this will affect their competitive situation and their customers' interest burden and debt-servicing capacity.

Lower deposit-to-loan ratios

Retail deposits have grown at a slower pace than total assets in recent years, while wholesale deposits have been more stable (see Chart B.16). This may change if enterprises' funding conditions remain difficult and they have to draw on their deposits. Both retail and wholesale deposits fell as a share of total assets in 2008.

While the gap between customer lending and deposits was about 30% for banks towards the end of the 1990s, the gap had widened to around 40% in 2008 (see Chart B.17). If the gap between lending and deposits were to be reduced to the 1998-level, banks would have to increase their deposits by close to NOK 175bn (12%) or reduce lending by a corresponding amount. In order to secure stable access to funding, banks must have a well diversified funding and maturity structure when deposit-to-loan ratios decline.

Banks are financing a growing share of residential mortgage loans via mortgage companies that issue covered bonds (OMF) (see Chart B.16[3]). In the period from 1 June 2007, when the regulation relating to covered bonds entered into force, to 20 May 2009, banks' mortgage companies issued covered bonds for NOK 223bn. Seen in isolation, transfers of residential mortgage loans to mortgage companies contribute to high deposit-to-loan ratios at banks and improve liquidity.[4] At the same time, the average credit risk linked to banks' remaining loans increases when top-grade residential mortgage loans are transferred to mortgage companies. Increased public spending ahead will result in higher deposits at banks. Combined with lower lending growth, this is likely to lead to a rise in deposit-to-loan ratios and an improvement in bank earnings.

3 See further details in box "Covered bonds" in *Financial Stability* 2/07.
4 When residential mortgage loans are transferred to mortgage companies against cash payment or covered bonds (OMF), banks' liquidity indicator improves. Since autumn 2008, however, there has been a shortage of liquidity in the OMF market. In effect, it is only once a bank's OMF holdings are sold in the market or used in the swap arrangement that a bank's liquidity improves.

The deposit-to-loan ratio increased for both small and medium-sized banks, and for DnB NOR, in 2008 Q4 (see Chart B.18). This is partly because residential mortgage loans are transferred to mortgage companies.The deposit-to-loan ratio is lowest for medium-sized banks, while small banks have recorded the largest decline in recent years.

Crisis probability for banks has edged up

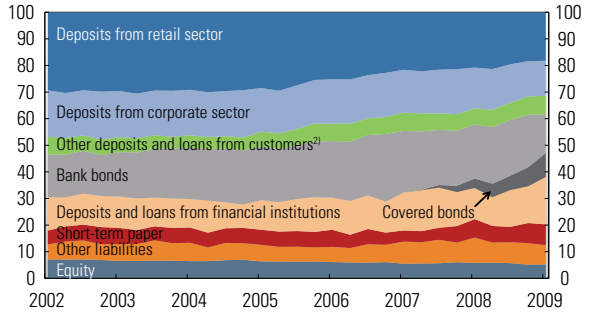
Norges Bank estimates a risk indicator that provides an overall assessment of banks based on accounting figures. The probability that banks will encounter problems in the next quarter are estimated using historical indicators of capital adequacy, profits, liquidity risk, credit risk and concentration risk (see box in *Financial Stability* 1/08). According to the risk indicator, the estimated probability of a crisis at Norwegian banks increased in 2008 (see Chart B.19). At end-2008 there were nonetheless only 10% of banks for which the probability of a crisis was over 0.13%. For some banks, with poor results and a fall in capital adequacy, the crisis probability was high and rising. Improved results in 2009 Q1 have brought the crisis probability back to the level prevailing in 2008 Q3.

In addition to the account-based analysis, we can use forward-looking information to estimate risk. Equity capital at the largest Nordic banks is valued continuously in the equity market. On this basis, we can estimate the market value and standard deviation of banks' total assets. The distance to insolvency is the number of standard deviations the value of banks' assets can fall before the value is lower than the sum of debt and the minimum capital adequacy requirement over a time horizon of one year. The distance to insolvency is an expression of the size of a bank's buffer against solvency problems. The lower the numerical value (distance to insolvency), the higher the risk of breaching the capital requirement is.[5]

Chart B.20 shows the estimated distance to insolvency for the four largest Nordic banks that all have sizeable activity in Norway. Since the financial turmoil started in 2007, the distance to insolvency has fallen for all banks, and most

5 See Aronsen, P.A. and K.B. Nordal: "Solvensavstand og andre risikoindikatorer for banker" [Solvency gap and other bank risk indicators], *Staff Memo* 6/2009, Norges Bank.

Chart B.16 Funding sources for Norwegian banks and mortgage companies.[1)] Percentage of total assets. Quarterly figures. 02 Q1 – 09 Q1



1) All banks except branches and subsidiaries of foreign banks in Norway. All mortgage companies entitled to issue covered bonds
2) Mainly deposits from non-resident customers and Norwegian government administration

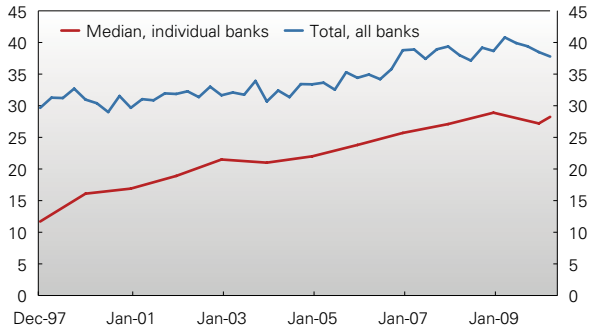
Source: Norges Bank

Counterparty risk has increased

Due to the financial crisis, increased attention has been paid to banks' counterparty risk; the amount banks stand to loose if their largest counterparties[1], mainly other banks, default. Norges Bank, in cooperation with the Kredittilsynet (Financial Supervisory Authority of Norway), conducts an annual survey for a selection of banks covering 2/3 of the Norwegian market, measured according to total assets. Total counterparty exposure to each bank's 15 largest counterparties increased from about NOK 95 bn by the end of 2008 Q1 to close to NOK 130 bn in 2009 Q1. At the same time, about half of the banks are now in a weaker situation if their largest counterparties default.

1 Within loans, derivatives, guarantees and foreign exchange trading.

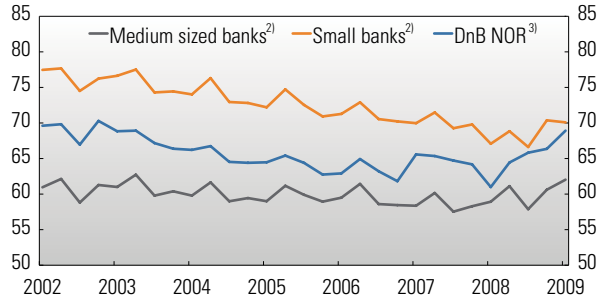
Chart B.17 Banks[1] customer funding gap.[2] Quarterly figures for total. Annual figures for individual banks, and quarterly figure for 09 Q1. Per cent. 97 Q4 – 09 Q1



[1] The gap between gross customer lending and deposits, as a share of gross customer lending
[2] All banks in Norway

Source: Norges Bank

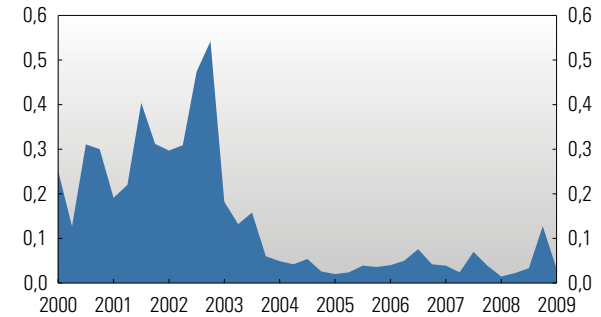
Chart B.18 Banks[1] deposit-to-loan ratio. Customer deposits in per cent of gross lending to customers. Quarterly figures. 02 Q1 – 09 Q1



[1] All banks except branches and subsidiaries of foreign banks in Norway
[2] The dividing line between small and medium-sized banks is set at NOK 10bn (measured in total assets) at end-2006
[3] DnB NOR Bank ASA (parent bank) and Nordlandsbanken

Source: Norges Bank

Chart B.19 Probability of bank failures[1]. 90 per cent percentile.[2] Per cent. Quarterly figures. 00 Q1 – 09 Q1



[1] All banks except branches of foreign banks in Norway
[2] 90 per cent of the banks are within the 90th percentile

Source: Norges Bank

for Danske Bank and DnB NOR. The reason for this is lower and more volatile equity prices. After the turbulence intensified in autumn 2008, the indicator turned negative for three of the banks. With a negative distance to insolvency, the value of a bank's assets must rise to prevent a breach of the capital adequacy requirement in this model. Equity prices have increased lately, but the indicator is still at a very low level for all the four banks.

We have also conducted stress tests that show the effects on the largest Norwegian banks under a considerably weaker economic scenario than the baseline scenario in this Report. Under the stress scenario, all banks will have to increase interest margins further, tighten lending or raise new capital to satisfy the capital adequacy requirement (see section D for further details on the stress test).

Solvency must be strengthened

Banks' equity has fallen over the past 10 years At the same time, the Tier 1 capital ratio, which is a risk-weighted measure of solvency, has been stable (see Chart B.21), reflecting a transition to new international capital adequacy rules, Basel II, from 2007. The new rules have resulted in lower risk weights for Norwegian banks' loans, particularly residential mortgage loans. This has contributed to holding up capital adequacy.

Several banks need an additional supply of capital in the period ahead. The equity ratio for banks is low from a historical perspective. Weaker profits ahead may impede the build-up of equity and in the worst case reduce equity. The capital requirements for the largest Norwegian banks may increase during a recession because loans become more risky. This is reflected in the model-based risk weights used in the capital adequacy calculations. An analysis based on the stress test in *Financial Stability* 2/08 shows that the capital adequacy requirements become more difficult to satisfy during a recession. This is because the sum of risk weighted assets in such a situation is appreciably higher under the new capital adequacy regulation than under the previous one. For example, the sum of risk weighted assets three years into a sharp downturn would have been between 65 and 184% higher under today's

rules.[6] The Basel II rules thus entail a higher degree of procyclicality, which may amplify banks' tightening and hence the economic recession.

Credit rating agencies and international investors are exerting pressure in favour of increasing banks' equity so that individual banks augment their capacity to absorb losses without being liquidated or placed under administration. In many cases, the market now applies considerably stricter requirements than government regulation. These stricter capital requirements have in many countries already led to equity issues and government measures. In Denmark, the authorities aim to enable banks to attain a Tier 1 capital ratio of 12% via government measures.

Challenging times for life insurance companies

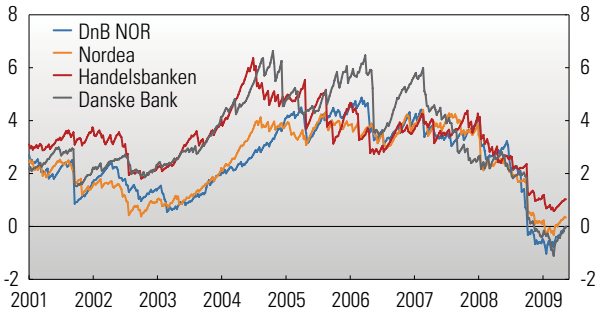
The steep fall in equity prices in 2008 eroded profits at life insurance companies. Total value-adjusted results showed a loss of NOK 20bn in 2008, i.e. a loss of close to 3% of average total assets (ATA). This corresponds to a fall in the companies' buffer capital from 6.7% of ATA at end-2007 to about 3,5% at end-Q1 2009 (see Chart B.22).

Life insurance companies are more exposed to market risk than banks, as they have a higher share of total assets in the form of equities and bonds (see Chart B.23). About 80% of life insurance companies' commitments are defined benefits plans and feature a return guarantee, i.e. customers are guaranteed a minimum annual return on their pension funds, even if the company should record a negative return on fund management. The companies must then draw on accumulated funds. The annual return guarantee has led to a situation where life insurance companies have sold equities in sharply falling equity markets in order to reduce portfolio risk. At the end of 2008, the companies' equity portion was reduced to 12%, from 23% in the previous year. When equity prices rise again, companies increase the equity portion. This trading pattern has amplified price fluctuations in the equity market and limited the return potential during a price rebound.

Recent developments have shown how life insurance companies' return guarantee and the one-year guarantee period

6 See Andersen, H. :"Norwegian Banks in a Recession: Procyclical Implication of Basel II", *Norges Bank Working Paper* 4/ 2009.

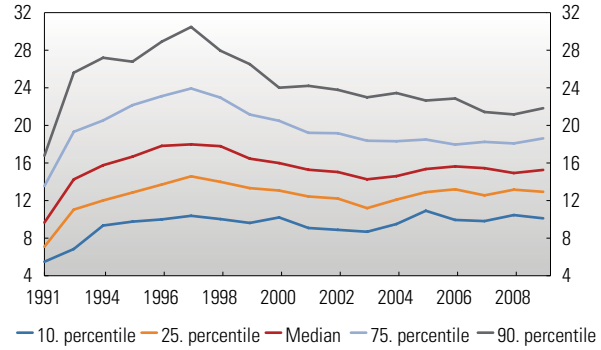
Chart B.20 Distance to insolvency[1)] for four major Nordic banks. Weekly figures. Week 2 01 – week 20 09



1) Number of standard deviations the modelled value of banks' assets can decrease before breaching the capital adequacy requirement. 1-year horizon

Sources: The banks' quarterly accounts, Thomson Reuters and Norges Bank

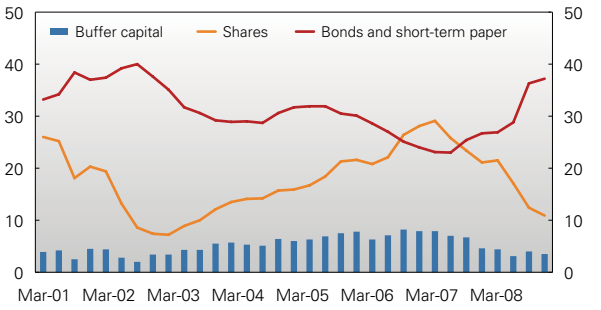
Chart B.21 Banks'1) tier 1 capital ratio. Per cent. Annual figures. 1991 – 2008



1) All banks except branches of foreign banks in Norway

Sources: Kredittilsynet (Financial Supervisory Authority of Norway) and Norges Bank

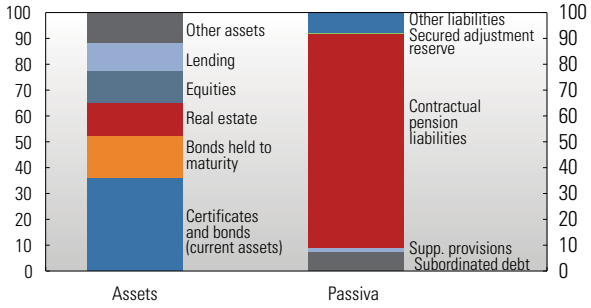
Chart B.22 Life insurance companies' buffer capital[1)] and asset mix. Percentage of total assets. 01 Q1 – 08 Q4



1) Buffer capital is defined as the sum of supplementary provisions, with an upper limit of one year, and surplus Tier 1 capital

Source: Kredittilsynet (Financial Supervisory Authority of Norway)

Chart B.23 Life insurance companies' assets and liabilities as of end-2008. Per cent.



Sources: Kredittilsynet (Financial Supervisory Authority of Norway) and Norges Bank

Payment systems have functioned smoothly during the financial turmoil

It is important that clearing and settlement systems are designed to prevent problems from spreading to other banks.[1] In periods of financial turbulence, the design of the systems is decisive even if payment problems do not arise. An identified contagion risk can then allow participants to limit their transactions, lending activity or use of payment systems in general.

The Norwegian payment systems have functioned well during the financial turbulence. The systems are designed to limit problems in one bank from spreading to another bank, and the banks have used the systems normally.

The payment systems also interlink banks across currency zones and markets in different countries. Banks have become increasingly aware of the financial risk linked to certain types of settlement, but by and large the international infrastructure has also functioned effectively.

1 For further information on issues relating to clearing and settlement, see Annual Report on Payment Systems 2008.

have amplified stock market volatility and contributed to increased uncertainty concerning life insurance companies' performance. The Act relating to Insurance Activity, which came into force in 2008, allows new and existing customers with pension insurance with a return guarantee to decide the return and risk profile for their investment portfolios. Moreover, the return guarantee can now be determined for periods of up to five years. With such a multi-year return guarantee, life insurance companies can apply a somewhat longer investment horizon. This may enhance stability in securities markets.

So far, few contracts with investment choices and even fewer with an extended guarantee period have been concluded. New pension insurance contracts are primarily defined contribution plans, which place the return risk with the customer.

The requirement that insurance commitments should at all times be covered by the companies' assets still applies. Life insurance companies must thus continue to guarantee an annual return. According to estimates from the Financial Supervisory Authority of Norway (Kredittilsynet), life insurance companies' average annual return guarantee is 3.35% in 2009. The guarantee is assumed to move down towards 3% over the next ten years.

At end-2008, bonds and certificates accounted for 52% of life insurance companies' total assets. Low interest rates are limiting the return on these assets. Property investments accounted for 13%, and the potential return in the short term is also limited for these assets (see discussion on the commercial property industry in the section on Norwegian borrowers).

In 2008, insurance companies' securities adjustment reserve was almost depleted and supplementary provisions were almost halved to cover the return guarantee. Several companies will probably need an additional supply of capital if negative conditions persist. This can adversely affect Norwegian banks belonging to groups that also include life insurance companies. They may be compelled to increase their investments in life insurance companies at a time when they themselves require more capital.

C. Weaker outlook for Norwegian borrowers

Corporate credit growth has slowed markedly. Financial strength and debt-servicing capacity have deteriorated but remain solid for many enterprises. More enterprises are failing. Commercial property exposes banks to substantial risk. Household debt growth fell throughout 2008 and has continued to slow in 2009, while saving is rising. The decline in house prices has eased in the last six months.

C.1 Enterprises

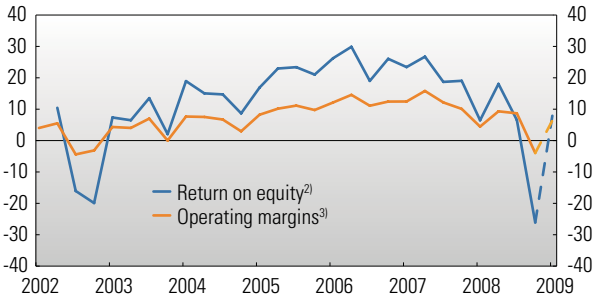
Profitability has deteriorated

The profitability of non-financial enterprises fell in the second half of 2008 and first quarter of 2009 due to a combination of further increases in costs and dwindling revenue. The average return on equity and operating margins for the most liquid companies on the Oslo Stock Exchange (listed in the OBX index) increased somewhat in the first quarter (see Chart C.1). Revenue will probably continue to fall. Demand is expected to decrease, especially from abroad. This will affect export firms in the first instance, although a weak krone could soften the impact. The equity market's expectations of earnings at Norwegian companies have also fallen since summer 2008 (see Chart C.2). Writedowns of assets will probably continue to rise, even though substantial impairment losses have already been recognised. As enterprises are in a net debt position, lower interest rates will have a positive impact on profitability going forward. Due to high risk premiums, some enterprises may nevertheless face unchanged or even rising borrowing rates. In the longer term, action by the authorities will probably soften and gradually help to turn around the decline in corporate profitability.

Corporate debt growth has slowed markedly

Corporate debt growth has fallen considerably recently (see Chart C.3). Banks have tightened credit standards, and enterprises' demand for loans has eased due to weaker

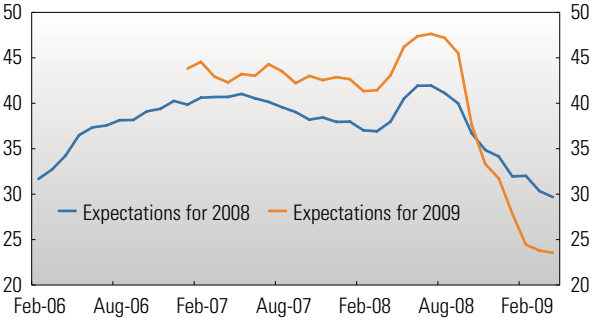
Chart C.1 Key ratios for non-financial enterprises listed on Oslo Stock Exchange.[1] Per cent. Quarterly figures. 02 Q1 – 09 Q1



[1] Sample consisting of 153 listed enterprises as of 2008 Q4. Projections for 2009 Q1 are based on published quarterly reports from non-financial enterprises in the OBX index
[2] Annualised quarterly results before tax as a percentage of book equity
[3] Operating results as a percentage of sales

Sources: Statistics Norway and Norges Bank

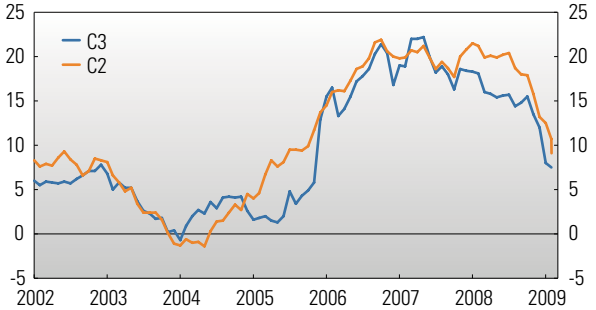
Chart C.2 Expected earnings for enterprise listed on Oslo Stock Exchange in 2008 and 2009.[1] NOK per share. Monthly figures. Feb 06 – Apr 09



[1] Estimates given by market analysts at different points in time

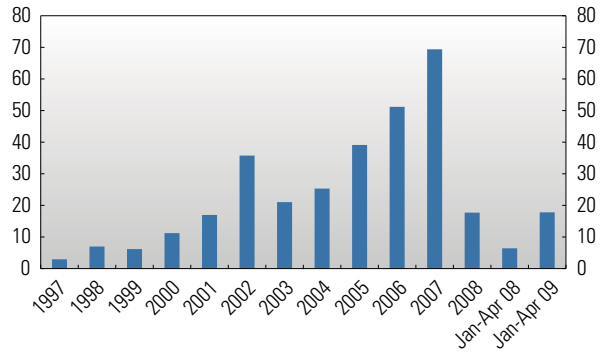
Source: Thomson Reuters

Chart C.3 12-month growth in total credit to mainland enterprises. Per cent. Monthly figures. Jan 02 – Mar 09



Source: Statistics Norway

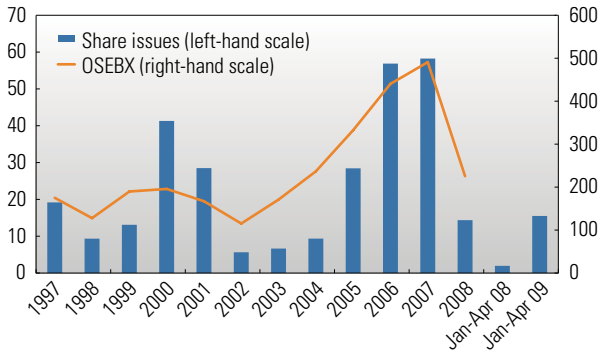
Chart C.4 Bonds issued in Norway.[1] In billions of NOK. Jan 97 – Apr 09



[1] All bonds registered in the VPS – The Norwegian Central Securities Depository

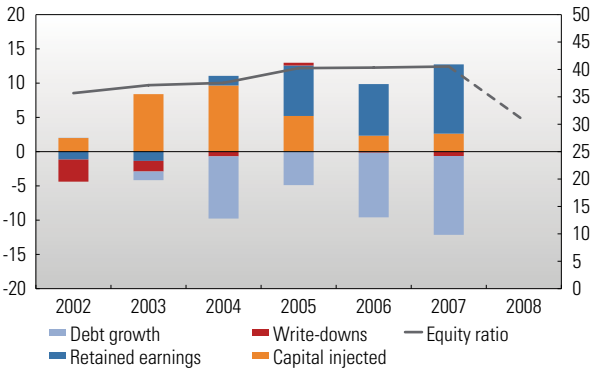
Source: Stamdata

Chart C.5 Share issues on Oslo Stock Exchange and Oslo Axess in billions of NOK and OSEBX. Monthly figures. Jan 97 – Apr 09



Source: Oslo Stock Exchange

Chart C.6 Equity ratio non-financial enterprises[1] (right-hand scale) and contribution to relative changes (left-hand scale) from debt growth, retained earnings, writedowns and capital injected. Per cent. 2002 – 2008[2]



[1] Mainland Norway
[2] Based on a sample of financial statements for 2008 that were submitted early

Source: Norges Bank

growth prospects. Norges Bank's Survey of Bank Lending showed that banks tightened their credit standards for non-financial enterprises throughout 2008 and in the first quarter of 2009. Foreign banks also tightened credit standards during this period. According to the Survey, capital adequacy is playing an important role in banks' credit practices. Lending to cyclically exposed industries with high levels of debt could reduce banks' capital adequacy more than lending to other industries. It has therefore become harder for some industries, such as commercial property, to obtain credit.

Corporate debt growth has been high for a long period. Lending to the commercial property sector, including commercial services, increased by an annual 26% from 2005 to 2007, while the equivalent figure for shipping was 23%. Once foreign enterprises are included, these two industries accounted for around half of total Norwegian bank lending to the corporate sector at the end of 2008 (see Chart 1.4). The probability of default, based on Norges Bank's corporate model (SEBRA), also increased in 2008. Combined with high debt, this means that these industries now account for a large proportion of enterprises' risk-weighted debt. Weaker commercial property and shipping markets will therefore push up banks' losses.

The Norwegian securities market is an important source of funding for large and medium-sized enterprises. Growth in bond and commercial paper debt for non-financial enterprises was negative through most of 2008. In the first four months of 2009, however, non-financial enterprises raised more capital in the bond market than in the same period last year (see Chart C.4). Primarily solid enterprises with high credit ratings obtain funding in the bond and commercial paper market. Corporate bonds continue to attract high credit premiums. Unused overdraft facilities, retained earnings and new issues will probably be important for enterprises in the period ahead. New issue activity in the equity market fell in 2008. This may indicate that the propensity to invest in the market has decreased and that enterprises are unwilling to raise fresh capital in equity markets when prices are low. In the first four months of 2009, new issue activity in the equity market picked up (see Chart C.5). Enterprises seeking to

refinance debt in 2009 may encounter obstacles obtaining credit. However, access to credit will probably improve as further action taken by the authorities is implemented.

Financial strength has deteriorated but is still solid for many enterprises

Provisional figures based on a sample of early annual reports suggest that 2008 as a whole was a somewhat weaker year for non-financial enterprises than 2007. Equity ratios fell (see Chart C.6). For the enterprises in the sample, the equity ratio was 30%. The decline in 2008 was due to high debt growth and increased writedowns. Looking ahead, increased writedowns and lower profitability will probably further reduce the equity ratio. Capital raisings may pull in the opposite direction.

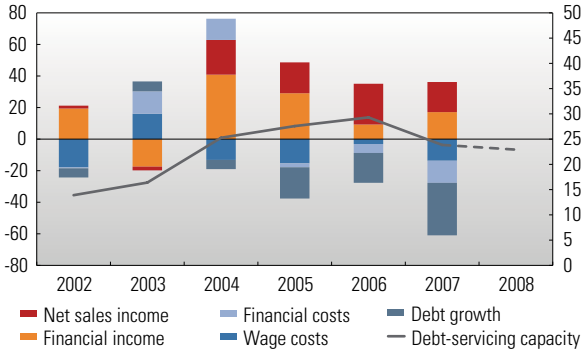
Reduced debt-servicing capacity

Enterprises' capacity to service debt deteriorated in 2008 as a result of high debt growth, high funding costs and lower sales revenue (see Chart C.7). The decrease was probably as broad-based as in 2007 (see Chart C.8). In the sample of early annual reports, results before tax, depreciation and amortisation was 23% of bank and bond debt in 2008. This is defined as enterprises' debt –servicing-capacity. The required level of debt-servicing-capacity of an enterprise depends on the maturity of its long-term debt. Industries with longer-maturity debt, such as commercial property, may have lower required debt-servicing capacity. Given the weaker outlook for enterprises, a continued decline in sales revenue is expected. Debt-servicing capacity will probably continue to fall. Slower debt growth, lower interest rates and moderate wage growth may pull in the opposite direction.

More enterprises are failing

Norwegian enterprises are being affected by the downturn in the global economy. The bankruptcy rate rose in 2008 and the first quarter of 2009 (see Chart C.9). Most enterprises that failed were small, with an average of NOK 4m in revenue and 2.8 employees in 2008. To date, most bankruptcies have been in retail trade and construction (see Chart C.10). As enterprises in the construction industry have low bank debt, bankruptcies there will trigger only limited losses at banks. The number of bankruptcies

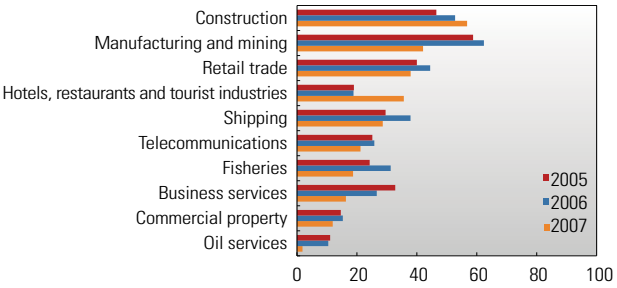
Chart C.7 Debt-servicing capacity.[1] Levels (right-hand scale) and contribution to relative changes (left-hand scale) from growth in debt, income and costs. Per cent. Annual figures. 2002 – 2008[2]



[1] Results before tax, writedowns and depreciation as a percentage of bank and bond debt. Non-financial enterprises excluding oil and gas extraction. Intragroup funding not included
[2] Based on a sample of financial statements that were submitted early

Source: Norges Bank

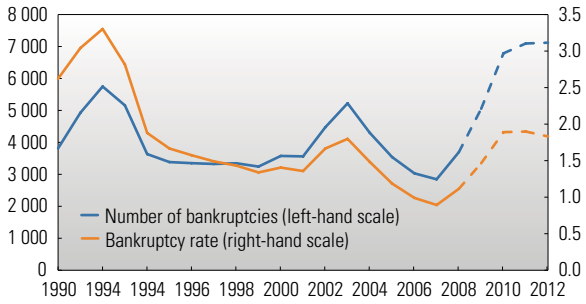
Chart C.8 Debt-servicing capacity[1] for different industries. Per cent. Annual figures. 2005 – 2007



[1] Results before tax, writedowns and depreciation as a percentage of bank and bond debt. Non-financial enterprises excluding oil and gas extraction. Intragroup funding not included

Source: Norges Bank

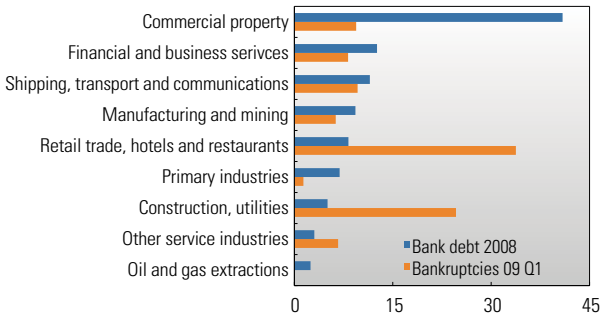
Chart C.9 Number of bankruptcies and bankruptcy rate. Annual figures. 1990 – 2012[1]



[1] Projections for 2009 – 2012

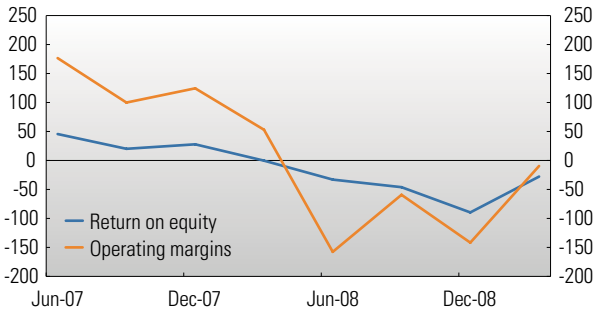
Sources: Statistics Norway and Norges Bank

Chart C.10 Bankruptcies and bank debt by industry. In per cent of total. 2008 and 09 Q1



Sources: Statistics Norway and Norges Bank

Chart C.11 Key ratios for commercial property enterprises listed on Oslo Stock Exchange.[1] Per cent. Quarterly figures. 07 Q2 – 09 Q1



[1] The sample consists of enterprise in the OSE4040-index. 5 of the 6 enterprises had submitted a first-quarter report as of 19 May 2009

Source: Norges Bank

is expected to climb, however, the bankruptcy rate is not expected to rise as far as seen during the banking crisis of 1988-1993.

Commercial property exposes banks to substantial risk

At the end of 2008, loans to the commercial property sector accounted for no less than 32% of total bank lending to the corporate sector (see Chart 1.4). Developments in profitability and collateral values in this sector are therefore very important for banks. Profitability in commercial property is determined in the first instance by movements in rents, interest rate levels and ownership costs. Market prices will also affect profitability through sales proceeds, revaluations and impairment losses. If the decline in hotel guest nights continues, this will erode the profitability of property companies with hotels in their portfolios.

Office rents flattened out in most parts of Oslo in 2008 but fell marginally in the prestigious central districts. A record-high 140 000 square metres of new office premises is expected to be completed in Oslo in 2009. A large area of existing office space will also become available as leases expire during the year. Demand is expected to be very limited due to weak economic developments. Rents are therefore expected to fall in 2009. Market participants expect a drop of 15-30% in the prestigious central districts and a somewhat more moderate fall in the rest of the city. At the end of 2008, the average rent for office premises of a good standard in central Oslo was 10% higher than the average real rent for equivalent premises in the period 1985-2008. Market prices for office premises of a good standard in central Oslo fell by 20% in 2008 (see Chart 1.14). This was due to expectations of a decline in rents and tightening of banks' credit standards, which led to higher writedowns, lower turnover of commercial property and lower collateral values for banks. Further reductions in market prices may result in breaches of lenders' loan-to-value covenants.

These developments substantially reduced the profitability of listed commercial property companies in 2008 and the first quarter of 2009 (see Chart C.11). These companies generated a negative return on equity of 28% in the first

quarter of 2009. Further decreases in rents and market prices will further reduce profitability. As a high proportion of loans to the commercial property sector are fixed-rate loans, the reduction in interest rates is less important than in other sectors.

C.2 Households

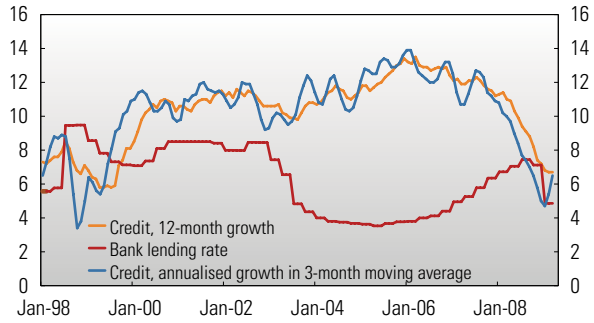
Debt growth continues to slow

Household debt growth slowed throughout 2008 (see Chart C.12). This was due partly to high borrowing rates, greater uncertainty about the economy, dwindling turnover in the housing market and tighter bank credit standards. Continued weak economic prospects contributed to a further decline in debt growth in the first quarter of 2009. We expect debt growth to continue to slow during 2009 and then level off. As a result of low interest rates and slowing debt growth, households' interest burden is expected to fall over the next two years after rising sharply in 2007 and 2008 (see Chart C.13).

If households take a too short-sighted a view of interest rates, the current interest rate level will play an important role when mortgage decisions are made, even though this is a long-term investment. Lower lending rates could therefore curb the decline in debt growth somewhat in the period ahead. However, it is long-term interest rate movements that are relevant when buying a house, given the nature of the investment and downpayment period. Homebuyers and lending banks must take into account that interest rates will average around 6% over time and will at times be higher.

More fixed-rate loans promote more stable household financial behaviour. The proportion of household fixed-rate loans has fallen over the past five years, from 16% in 2004 to 6% at the end of 2008. *Norges Bank's Survey of Bank Lending* shows that demand for fixed-rate loans increased in the first quarter this year, and banks expect a further slight rise in demand in the second quarter. An extended period of low variable rates may have the opposite effect.

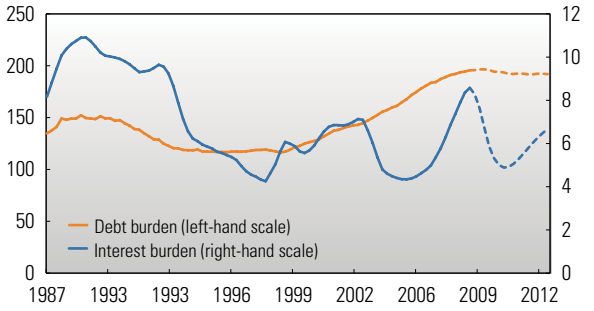
Chart C.12 Credit to households and bank lending rate for repayment motgages. Per cent. Monthly figures.[1)] Jan 98 – Mar 09



[1)] Quarterly figures for bank lending rate

Sources: Statistics Norway and Norges Bank

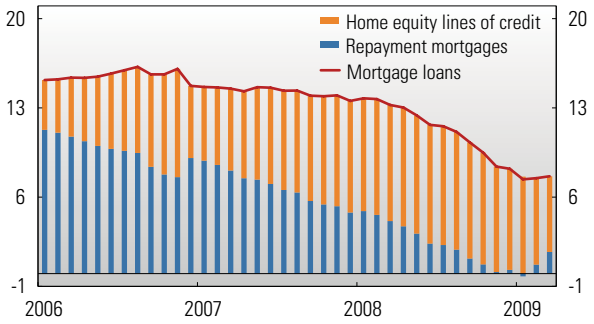
Chart C.13 Household debt burden and interest burden. Per cent. Quarterly figures. 87 Q1 – 12 Q4[1)]



[1)] Projections 2009 Q1 – 2012 Q4

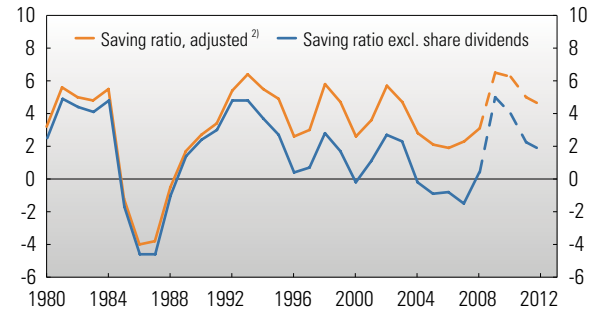
Sources: Statistics Norway and Norges Bank

Chart C.14 12-month growth in household mortgage debt (in per cent) and contribution from home equity line of credit and repayment mortgages (in percentage points). Monthly figures. Jan 06 – Mar 09



Sources: Statistics Norway and Norges Bank

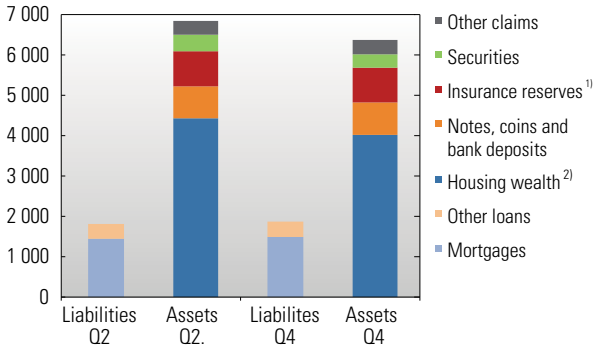
Chart C.15 Household saving as share of disposable income. Per cent. Annual figures.1980 – 2012[1)]



1) Projections for 2009 – 2012
2) Adjusted for estimated reinvested share dividends for 2000 – 2005 and redemption/reduction of equity 2008 – 2012

Sources: Statistics Norway and Norges Bank

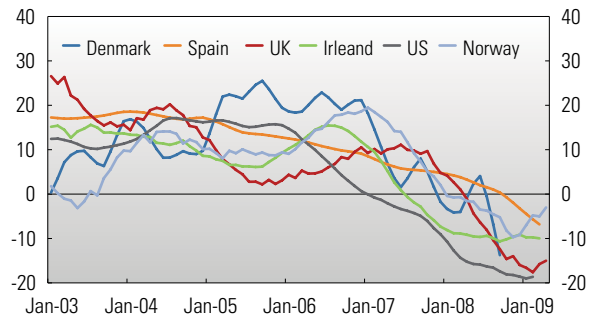
Chart C.16 Household liabilities and assets. In billions of NOK. 2008 Q2 and 2008 Q4



1) Insurance reserves are not available in the short and medium term
2) Norges Bank's estimation

Sources: Statistics Norway and Norges Bank

Chart C.17 House prices in the US and Europe.12-month rise. Per cent. Monthly figures. Jan 03 – Apr 09



Sources: Association of Norwegian Real Estate Agents, ECON Pöyry, Finn.no, Association of Real Estate Agency Firms, Thomson Reuters and Norges Bank

The household debt burden has increased steadily over the past decade and was close to 200% at the end of 2008 (see Chart C.13). This may be due to structural changes in the credit market. New loan products, such as home equity lines of credit, increased use of interest-only periods and longer maturities, are giving households greater flexibility and making it possible to service higher debt with a given level of income. Home equity lines of credit have also made it easier to free up home equity when the value of a property increases, as borrowings can be adjusted free of charge within the overall limit. This may have helped to push up borrowing during the house price boom. Since 2006, home equity lines of credit have accounted for an increasingly large share of growth in household debt secured on dwellings, while repayment mortgages made a negative contribution for the first time in January 2009 (see Chart C.14). The stock of home equity lines of credit accounted for 21½% of total debt secured on dwellings in March 2009, up 5 percentage points on the same month last year.

The saving ratio has risen

The saving ratio has risen over the past six months, due to a weaker outlook for output and employment and uncertainty about the future developments. In *Monetary Policy Report* 1/09, employment was projected to decrease by 1½ percentage points in 2009. Combined with high debt levels and lower house prices, this may induce more borrowers to curb consumption in order to repay debt or build up financial buffers. However, households with safe jobs will enjoy increased purchasing power as a result of lower interest expenses and relatively high real wage growth, and this may curb an increase in the saving ratio. The saving ratio is expected to climb to around 5% of disposable income in 2009 (see Chart C.15).

Households' overall financial position remains sound, although net wealth fell during 2008 (see Chart C.16). This was due primarily to a decrease in housing wealth as a result of the fall in house prices. At the end of 2008, the value of households' housing and financial assets was close to 3½ times their total debt.

Slower decline in house prices

House prices fell during the autumn both in Norway and abroad (see Chart C.17). The slowdown in the Norwegian housing market in 2008 was primarily due to higher interest rates and growing uncertainty about the economy. However, the decline has slowed over the past six months, and prices reached a provisional low in November last year (see Chart C.18). The rebound in December was clear in all regions (see Chart C.19). House prices at the end of April were 5% below their August 2007 peak.

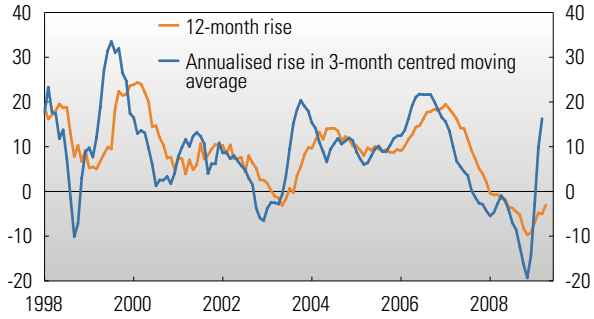
The housing market was marked by euphoria for a period, with rapidly rising house prices and expectations that a long period of rising prices indicated a continued upward spiral. The further house prices rise relative to their long-term equilibrium level, the larger the potential fall in the housing market becomes. The deviation from equilibrium can be assessed in various ways. Deflated by consumer prices, building costs, rents and annual wages, house prices have increased markedly over the past 15 years (see Chart C.20). This may indicate that today's house prices are high relative to their long-term equilibrium level[1]. Prices are also high relative to the average annual increase in real house prices over the past 50 years (see Chart C.21). For simplicity, we have used the midpoint between the high and low in the period 1987-1992 to represent an equilibrium level for real house prices.

A simulated model for house prices shows that movements in the housing stock, unemployment, mortgage rates, disposable income and household expectations do not explain the fall in house prices last year (see Chart C.22). However, this model does not take account of banks having tightened their credit standards for residential mortgages, especially in the second half of 2008, as shown by Norges Bank's Survey of Bank Lending. This tightening may have helped to pull down house prices. Once we take account of this tightening of credit standards in the model simulation, there is greater correspondence between simulated and actual house prices in the fourth quarter of 2008.[2]

1 Although housing currently costs more in relation to household income, the potential decrease is probably not as large as shown in Chart C.20, as the consumption of necessities has become cheaper in relative terms during the period. This means that households can afford to spend a larger share of their income on housing.

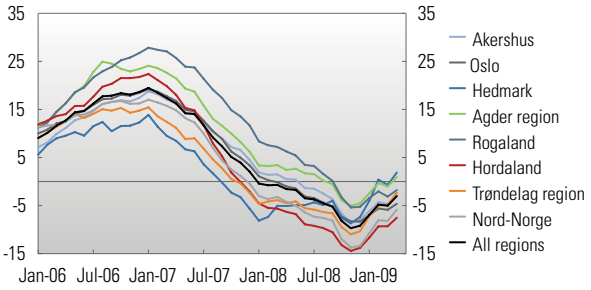
2 The simulation uses actual values for the explanatory variables and model-predicted values for house prices from the 2004 Q 1 to 2009 Q1.

Chart C.18 House prices. 12-month rise and annualised rise in 3-month moving average. Per cent. Monthly figures. Jan 98 – Apr 09



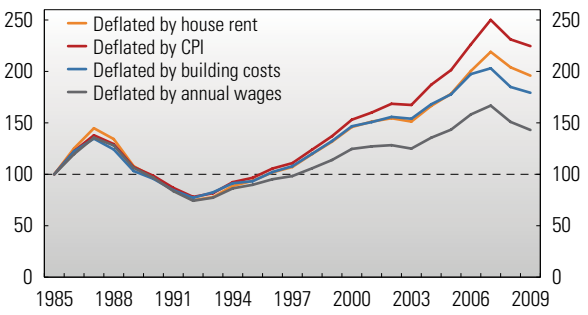
Sources: Association of Norwegian Real Estate Agents, ECON Pöyry, Finn.no, Association of Real Estate Agency Firms and Norges Bank

Chart C.19 Regional house prices. 12-month rise. Per cent. Monthly figures. Jan 06 – Apr 09



Sources: Association of Norwegian Real Estate Agents, ECON Pöyry, Finn.no and Association of Real Estate Agency Firms

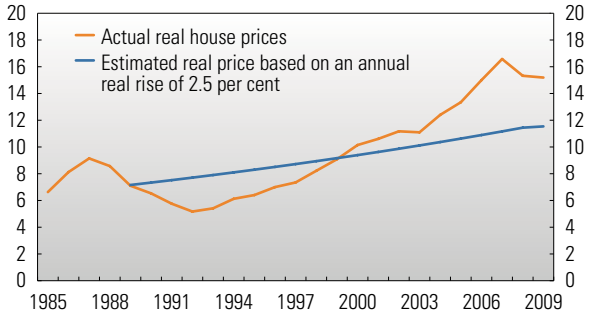
Chart C.20 Real house prices. Indices. 1985 = 100. Annual figures. 1985 – 2009[1)]



1) Jan 09 – Apr 09 (average). Projected annual wages 2009

Sources: Association of Norwegian Real Estate Agents, ECON Pöyry, Finn.no, Association of Real Estate Agency Firms, Statistics Norway and Norges Bank

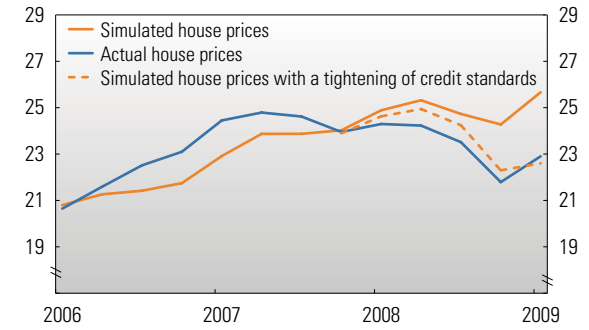
Chart C.21 Real house prices. Actual prices and technical estimate of prices based on an annual real rise of 2½ %. NOK 1000 per sq.m. Annual figures. 1985 – 2009[1)]



[1)] As of April 2009

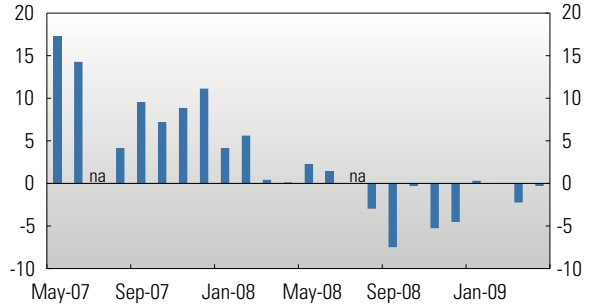
Sources: Association of Norwegian Real Estate Agents, ECON Pöyry, Finn.no, Association of Real Estate Agency Firms, Statistics Norway and Norges Bank

Chart C.22 Actual and simulated house prices. NOK 1000 per sq.m. Quarterly figures. 06 Q1 – Q1 09



Sources: Association of Norwegian Real Estate Agents, ECON Pöyry, Finn.no, Association of Real Estate Agency Firms, Statistics Norway and Norges Bank

Chart C.23 Consumer confidence.[1)] Monthly figures. May 07 – Apr 09



[1)] An average of households' expectations concerning their own financial position, the economy, unemployment and their propensity to save over the next 12 months. A positive outcome means a majority of positive responses.

Source: ForbrukerMeteret™ from Makrosikt AS

These simple cross-checks send different signals about future house price movements. Changes in supply and demand in the short term could result in significant deviations from the long-term equilibrium level for house prices.

A continued large gap between the supply and turnover of existing homes may put a damper on house prices in the short term. On the other hand, continued population growth and a drop in housing starts may push up house prices again in the period ahead. Consumer confidence has also proved to have a positive effect on house prices in the short term. Households' view of the future has become less pessimistic (see Chart C.23) and lower mortgage rates, combined with further solid growth in household disposable income, could also help to boost activity in the housing market. The Survey of Bank Lending indicates that banks are not planning to tighten their credit standards for households further, which means that credit standards will no longer be pushing down house prices.

In the long term, house prices will tend towards a level that corresponds to movements in the real cost of building new homes. House prices are currently substantially higher than fundamentals would indicate (see Chart C.20).

Then and now – a comparison with the banking crisis of 1988–1993

Some similarities in the household sector ...

Household saving increased sharply during the banking crisis of 1988-1993, mainly in the form of debt repayment. Saving also rose in 2008 Q4 when uncertainty concerning economic developments was high, and households are expected to increase debt repayment ahead.

... but mostly differences

Household credit growth was strong both in the years preceding the banking crisis and prior to the current financial turmoil. It can be important for long-term economic stability that household debt repayment increases following a period of high credit growth. However, there are strong indications that the rise in saving and repayment of debt will be weaker this time than in the early 1990s.

- Bank lending rates for households are lower today and interest rates are expected to remain lower ahead than in the period 1988 to 1993. As a result, saving by repaying debt is less profitable. With today's low bank lending rates, the household interest burden is lower, even though household debt is now about twice as high as income. This reduces the need to curb spending in order to service debt[1].

- The fall in house prices was deeper during the banking crisis than it has been so far in the current downturn. The loan to value ratio has not increased to the same extent. In isolation, this indicates that the need to repay debt is lower today.

- The household debt burden is more evenly distributed today than during the banking crisis (see Chart 1), when high-income households had a substantially higher debt burden than other income groups, largely due to the tax system. After the 1992 tax reform, it became less profitable for households facing high marginal tax rates to carry debt, and a substantial share of household debt repayment in the early 1990s was an adaptation to the new tax system[2].

- The debt burden in the lower income groups is markedly higher today than twenty years ago. These groups are in the danger zone for default, for example as a result of increased unemployment rates. When bank lending rates are low, low income groups will probably choose to strengthen their financial position, for example by increasing their bank savings, rather than repay debt more quickly. Savings will serve as a financial buffer to cover living costs and interest expenses in the event of a loss of income. In the lowest income group, a larger share of household debt is student loans, which can be frozen in the event of unemployment and as a result are seldom repaid before maturity.

Households are better prepared now than in 1988

Household financial margins, defined here as after-tax income and bank deposits less interest expenses and the cost of a reasonable level of consumption[3], were on average about NOK 240 000 higher in 2007 than prior to the banking crisis (see Chart 2). The share of economically active households that would have been able to cover living costs and interest expenses for more than twelve months after the loss of household income was 23% in 2007. At the same time, 77% would have been able to make ends meet for 6 months or more, compared with only 43% in 1988.

The share of households with no financial margins was small at end-2007 and considerably smaller than during the banking crisis (see Chart 3), shrinking from 21% in 1988 to 7% in 2007. Excluding pensioners and households receiving state benefits, which usually have limited debt and are only marginally affected by developments in interest rates and income from employment, the share of households with no financial margins was only 1% in 2007. In 1988, this share was 10%[4]. Overall, the share of households that have built up financial margins is larger now than it was then.

Debt repayment will probably be on a much smaller scale today and there are strong indications that households today are better prepared for leaner economic times than they were during the banking crisis.

Basis for Norwegian enterprises was weaker during banking crisis

Corporate credit growth was also high both in the period preceding the banking crisis and prior to today's financial turmoil. The strong credit growth that preceded both crises was related to low real interest rates, high credit demand and an ample supply of credit.

The nominal interest rate level was very high during the banking crisis and enterprises' financial expenses as a share of pre-tax profits was considerably higher than it is today (Chart 4). Nominal interest rates are not expected to be as high in the current situation and consequently enterprises' financial expenses will not rise to the levels prevailing during the banking crisis.

Since the banking crisis in the period 1988 -1993, profitability for Norwegian enterprises has on the whole increased (see Chart 5). Enterprises' equity ratios rose steadily up to 2008 (see Chart 6), making them more robust in today's downturn than they were prior to the banking crisis. The equity ratio acts as a buffer in periods when access to funding is difficult, as enterprises can draw on their equity capital instead of raising loans. In recent years, increased profitability and higher equity ratios have improved enterprises' debt-servicing capacity (see Chart 6). However, debt-servicing capacity is expected to fall ahead as a result of lower profitability.

Global recession will have adverse impact on export industries

During the banking crisis, enterprises were severely affected by a decline in domestic demand. However, demand from abroad held up and many Norwegian enterprises made use of idle capacity to expand their export activities. From 1988 to 1993, the export volume of Norwegian enterprises increased on average by 7%, compared with 3% in the period from 1993 to 2008.

Today's broad-based contraction in the global economy, however, has resulted in a decline in demand from abroad, which primarily affects export industries, while demand from Norwegian households is expected to rise in the years ahead.

Commercial property industry more vulnerable now

Banks are highly exposed to the property industry, which accounts for the largest share of problem loans in the corporate sector and has a high level of risk-weighted debt. Prospects for the industry are weak. Owing to changes in accounting rules, fluctuations in profitability in this industry are wider today than they were during the banking crisis, as listed companies are now required to recognise property stocks at fair value, which for this industry is the same as market value. After the recent sharp fall in market prices for property, write-downs have increased considerably. Wider fluctuations in profitability require a stronger capital base. Risk exposure to the property industry was also very high during the banking crisis.

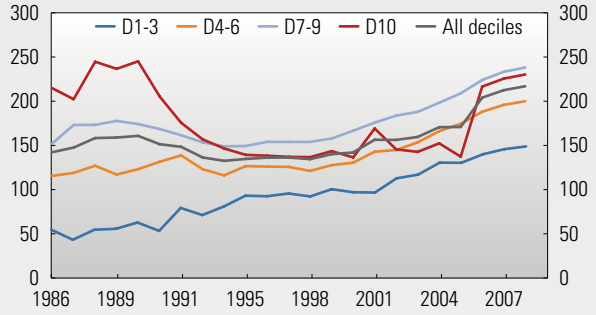
1 See also Berge, T.O. and B.H. Vatne, "Har husholdningene for høye gjeld i forhold til inntekten?" (Are households' debt-to-income ratios too high?), *Economic Commentary* 4/2009.

2 From 1990 to 1994 the debt burden fell by 40% in the highest income group and by 15% in the second highest group. In comparison, the debt burden in the second lowest group fell by 5% in the same period, while it rose by 28% for the lowest income group.

3 A reasonable level of consumption is defined as in the standard budget drawn up by the National Institute for Consumer Research (SIFO).

4 The analysis of household financial buffers is based on the article "Hvilke buffere har husholdene mot nedgangstider?" (What financial buffers do households have for leaner times?) by B.H. Vatne, *Samfunnsøkonomen* 4/2009.

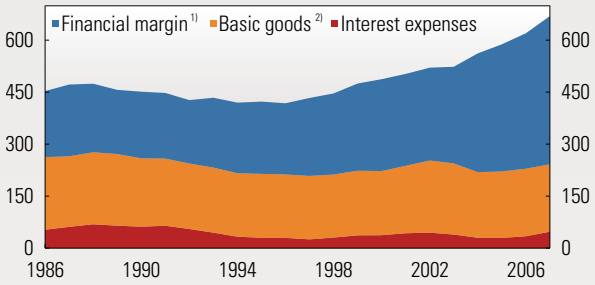
Chart 1 Household debt burden by after-tax income. Indebted households. Per cent. Median. Annual figures. 1986 – 2008[1)]



1) Projections for 2008

Sources: Statistics Norway and Norges Bank

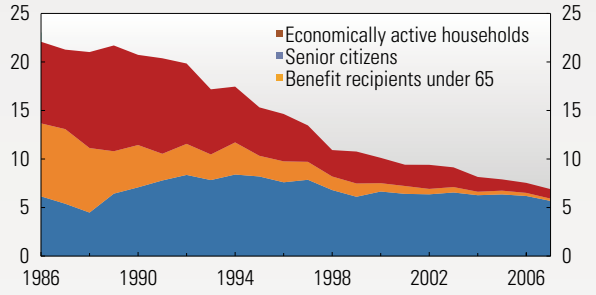
Chart 2 Income after tax plus bank deposits. Adjusted for share dividends. An average of all households. In thousands of NOK 2007. Annual figures. 1986 – 2007



1) Defined as income after tax plus bank deposits minus interest expenses and basic goods
2) Basic goods to maintain a "reasonable level of consumption", as defined by the National Institute for Consumer Research (SIFO)

Sources: Statistics Norway, National Institute for Consumer Research (SIFO) and Norges Bank

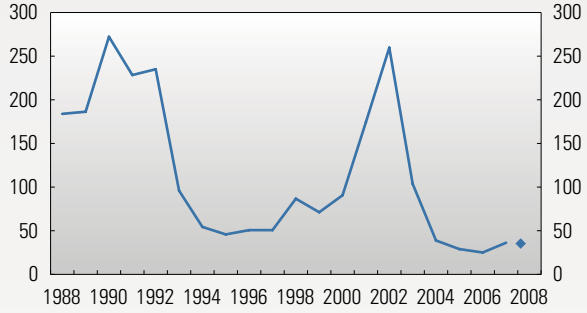
Chart 3 Share of households without a financial margin.[1)] An average of all households. Per cent. Annual figures. 1986 – 2007



1) Defined as income after tax plus bank deposits minus interest expenses and basic goods

Sources: Statistics Norway, National Institute for Consumer Research (SIFO) and Norges Bank

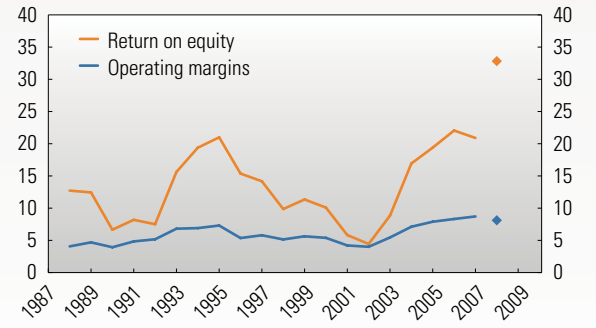
Chart 4 Financial costs[1)] as percentage of pretax results for non-financial enterprises.[2)] Per cent. Annual figures. 1988 – 2008[3)]



1) Interest costs in intragroup funding included
2) Oil and gas extraction is not included
3) An early sample, covers 5% of financial statements for 2008

Source : Norges Bank

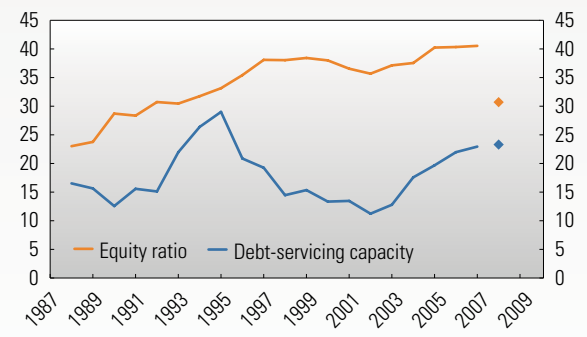
Chart 5 Operating margins[1)] and return on equity[2)] for non-financial enterprises.[3)] Per cent. Annual figures. 1988 – 2008[4)]



1) Operating results as a percentage of operating sales
2) Pretax results as a percentage of book equity
3) Oil and gas extraction is not included
4) An early sample, covers 5% of financial statements for 2008

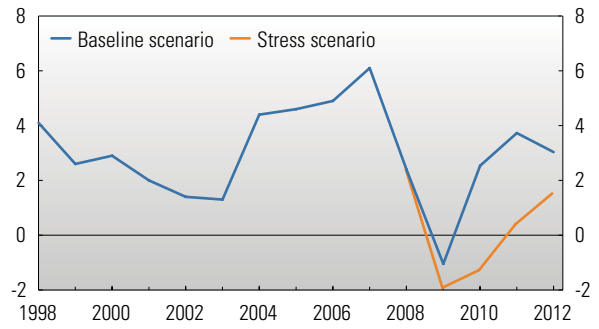
Source: Norges Bank

Chart 6 Equity ratio and debt-servicing capacity[1)] for non-financial enterprises.[2)] Per cent. Annual figures. 1988 – 2008[3)]



1) Results before tax, writedowns and depreciation as a percentage of bank debt and bonds
2) Oil and gas extraction is not included
3) An early sample, covers 5% of financial statements for 2008

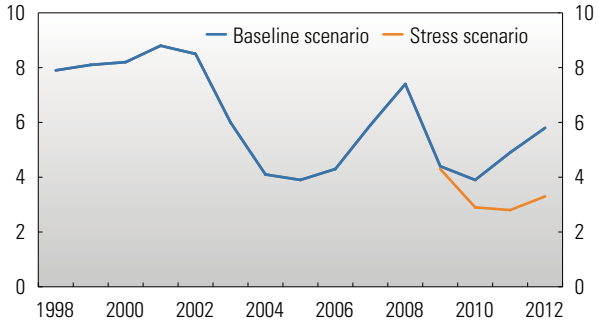
Chart D.1 Mainland GDP. Annual volume change. Per cent. 1998 – 2012[1)]



1) Projections for 2009 – 2012

Sources: Statistics Norway and Norges Bank

Chart D.2 Bank lending rates. Per cent. Annual figures. 1998 – 2012[1)]



1) Projections for 2009 – 2012

Sources: Statistics Norway and Norges Bank

D. Stress testing bank losses and profits

In stress testing bank losses and profits we have analysed the consequences for Norwegian banks of a scenario where the economic downturn becomes deeper and longer than expected. Under this scenario, banks' loan losses increase markedly, both for loans to property companies, export-oriented manufacturing and petroleum-related activity. Capital adequacy levels may then fall below the required level at many banks. Banks can cover the increased need for capital by increasing their earnings, cutting costs or raising new capital in the market. The authorities can contribute by increasing the supply of capital.

A weaker macro environment and consequences for banks

Since *Financial Stability* 2/08, the real economy has moved on a markedly weaker path. Many banks have absorbed sizeable losses. For the first time in the post-war period, OECD-wide growth is projected to decline. There is considerable uncertainty as to economic developments ahead.

Using a suite of models[1], we look at the consequences of continued weak financial market confidence and a deeper and more protracted economic downturn abroad. We choose to look at an alternative scenario with severe stress. The likelihood that this scenario will materialise is small. We assume that the downturn abroad has contagion effects on the Norwegian economy through lower export growth. Furthermore, we assume that oil prices fall to about USD 30 per barrel in the course of 2009 and remain low for the rest of the period. This results in adverse ripple effects on the wider economy, with a pronounced

1 For a further description of the models, see Andersen, Berge, Bernhardsen, Lindquist and Vatne: "A suite-of-models approach to stress-testing financial stability", *Staff Memo*, 2/2008, Norges Bank. See also Andersen and Berge: "Stress testing of banks' profit and capital adequacy", *Economic Bulletin* 2/2008, Norges Bank, pp. 47-57.

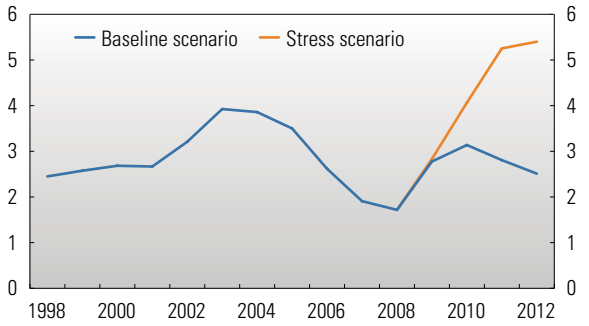
fall in total output growth. Households become increasingly pessimistic about future prospects. This alternative stress scenario is compared with the projections in the baseline scenario for the Norwegian economy in Norges Bank's *Monetary Policy Report* 1/09. The analysis period extends from the latter half of 2009 to end-2012.

In the stress scenario, annual growth in mainland GDP is considerably weaker than in the baseline scenario (see Chart D.1). GDP falls by close to 2% between 2008 and 2009. For the 4-year period as a whole, average annual GDP growth is -0.3%, which is lower than during any of the three periods of banking crisis in the 1900s. For example, average annual growth was -0.1% during the crisis years of 1988-1991. Norges Bank responds to the economic deceleration by cutting key interest rates. This results in lower lending rates (see Chart D.2).

Unemployment shows a higher-than-projected increase in the stress scenario (see Chart D.3). Household expectations become more pessimistic. This leads to a fall in house prices (see Chart D.4). Towards the end of the simulation period, nominal house prices are almost 30% lower than in 2007, which is on a par with the fall in house prices during the banking crisis of 1988-1993. In the stress scenario, credit growth also declines (see Chart D.5). Household and corporate credit demand falls as a result of reduced consumption and investment, in addition to falling property prices. The weak macro prospects lead to higher credit risk and banks having difficulty funding increased lending. Consequently, banks tighten their lending standards, particularly with regard to enterprises. Via these channels, credit market conditions deepen the downturn in the real economy.

The weak economic environment reduces borrowers' debt servicing capacity. Corporate earnings show a steep fall in the stress scenario. As a result, the volume of problem loans increases. At the end of the simulation period, the share of corporate sector problem loans reaches about 16%, which is the same proportion recorded towards

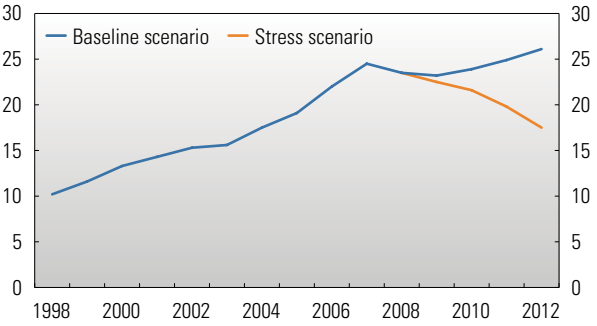
Chart D.3 Registered unemployment.[1] Percentage of labour force. Annual figures. 1998 – 2012[2]



[1] As a percentage of the labour force. The baseline scenario is calculated using the same percentage change as in the projections of the LFS unemployment rate in *Monetary Policy Report* 1/09
[2] Projections for 2009 – 2012

Sources: Statistics Norway, Norwegian Labour and Welfare Administration and Norges Bank

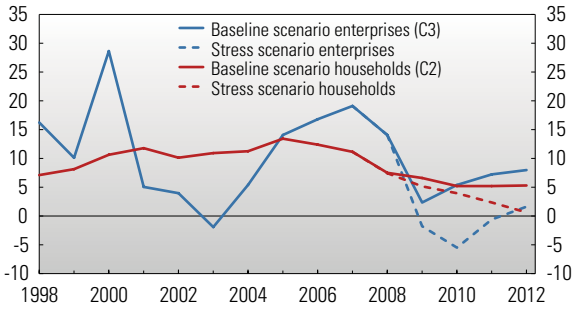
Chart D.4 House prices. NOK 1000 per sq.m. Annual figures. 1998 – 2012[1]



[1] Projections for 2009 – 2012

Sources: Association of Real Estate Agents, ECON Pöyry, FINN.no, Association of Real Estate Agency Firms and Norges Bank

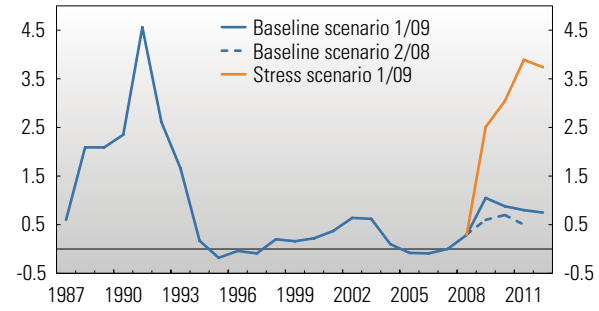
Chart D.5 Credit to households and non-financial enterprises. Year-on-year growth.[1] Per cent. 1998 – 2012[2]



[1] Change in stock measured at end of year
[2] Projections for 2009 – 2012

Sources: Statistics Norway and Norges Bank

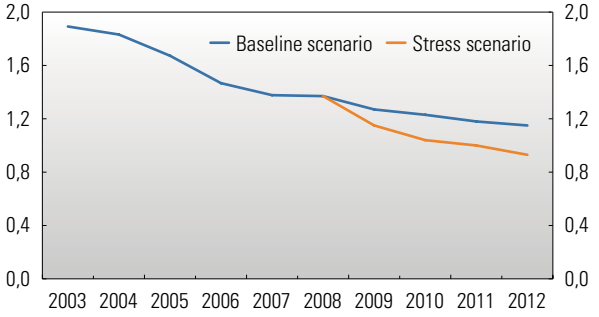
Chart D.6 Bank losses. Percentage of gross lending. Annual figures. 1987 – 2012[1)]



[1)] Projections for 2009 – 2012

Source: Norges Bank

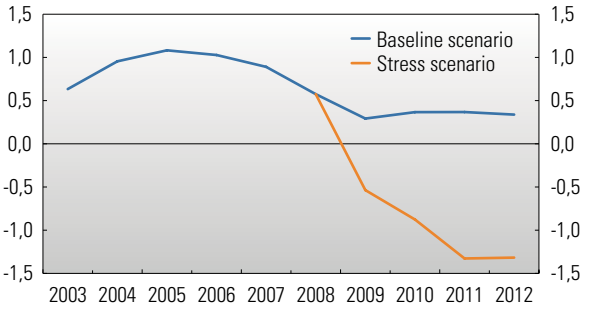
Chart D.7 Net interest income for Norway's five largest banks[1)] and Nordea Bank Norge. Percentage of average total assets. Annual figures. 2003 – 2012[2)]



[1)] DnB NOR Bank (excl. foreign branches), SpareBank 1 SR-Bank, Sparebanken Vest, SpareBank 1 SMN and SpareBank 1 Nord-Norge
[2)] Projections for 2009 – 2012

Source: Norges Bank

Chart D.8 Post-tax results for Norway's five largest banks[1)] and Nordea Bank Norge. Percentage of average total assets. Annual figures. 2003 – 2012[2)]



[1)] DnB NOR Bank (excl. foreign branches), SpareBank 1 SR-Bank, Sparebanken Vest, SpareBank 1 SMN and SpareBank 1 Nord-Norge
[2)] Projections for 2009 – 2012

Source: Norges Bank

the end of the banking crisis of 1988-1993. The share of problem loans in the household sector remains low, even though the unemployment rate increases.

The proportion of problem loans that must be recognised as losses (loss ratio) partly depends on collateral values. In the stress scenario, residential and commercial property prices fall sharply. The loss ratio is assumed to rise to the same level as towards the end of the banking crisis, which is to say about 50%. With a loss ratio at that level, loan losses account for just below 4% of total lending in 2011 (see Chart D.6).

The alternative stress scenario is based on the assumption that continued turbulence in international financial markets leads to higher risk premiums on banks' market funding. The premium increases by 40 basis points in 2009 and by 70 basis points during the remainder of the simulation period. Lending growth is very low during the same period. As a result, banks' net interest income shrinks (see Chart D.7).

Banks' after-tax profits remain low in the baseline scenario (see Chart D.8). Profits are expected to vary between 0.3 and 0.4% of average total assets in the period 2009-2012. In the stress scenario bank profits turn negative in 2009, primarily reflecting elevated loan losses and a decline in net interest income.

The average capital ratio is around 11% in the baseline scenario (see Chart D.9). The transition to the new rules for calculating capital requirements results in higher capital ratios in 2009, followed by some decline thereafter. In the stress scenario, negative profits result in lower capital adequacy levels. If new capital is not supplied, banks would be in breach of the capital adequacy requirements in 2011. Some banks will encounter problems satisfying the 8% requirement as early as in 2010.

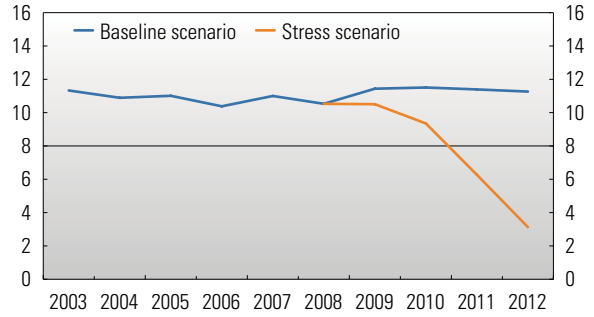
To maintain capital adequacy levels, banks can for instance increase earnings by widening the distance between deposit and lending rates. Our analyses show that the

interest rate margin must be increased by 1½ percentage points in order to meet the capital adequacy requirement in the stress scenario. This results in an average interest margin of close to 4½ percentage points throughout the projection period. By comparison, interest margins were close to 6 percentage points during the banking crisis. The low interest rate level in the alternative stress scenario limits the scope for a further reduction in deposit rates, and perforce the lending rate must be increased in order to raise interest margins. Such a change will further reduce borrowers' debt-servicing capacity, leading to increased loan losses. Changes in interest rate margins may also influence bank competitiveness. Such spillover effects will feed back onto capital adequacy. Neither tightened credit growth nor cost cuts alone would improve results sufficiently for the banks to satisfy the official capital adequacy requirements.

If all the banks in our selection were to be able to satisfy the capital adequacy requirements, loan losses and the decline in net interest income would have to be about 60% lower than in the stress scenario. An average bank would, however, be able to meet the requirements with a corresponding downward adjustment of 25%. This amounts to annual loan losses of about 2½% of gross lending and an overall decline in net interest income of 15%. By comparison, average loan losses were close to 3% during the banking crisis in the years 1989-1992.

Chart D.10 compares bank profits after tax in this Report's alternative stress scenario with two other alternative scenarios. In one alternative scenario, the macroeconomic developments in the *Financial Stability* 2/08 stress test are applied. The other scenario is based on actual developments in the period 1988-1992. As shown in the Chart, the stress scenario in this Report is consistent with the scenario where we use macro developments during the banking crisis. The structure of the banking market, the implementation of economic policy and the main risk factors are, however, very different from what they were prior to and during the banking crisis.

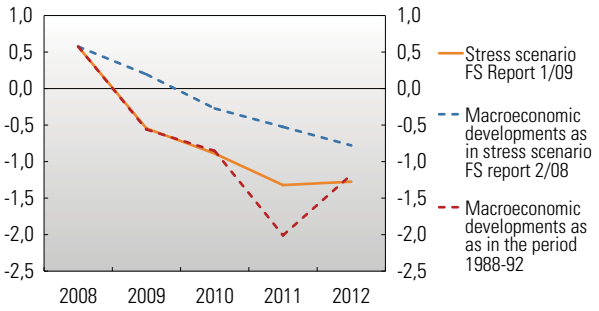
Chart D.9 Capital adequacy in Norway's five largest banks[1)] and Nordea Bank Norge. Percentage. Annual figures. 2003 – 2012[2)]



[1)] DnB NOR Bank (excl. foreign branches), SpareBank 1 SR-Bank, Sparebanken Vest, SpareBank 1 SMN and SpareBank 1 Nord-Norge
[2)] Projections for 2009 – 2012

Source: Norges Bank

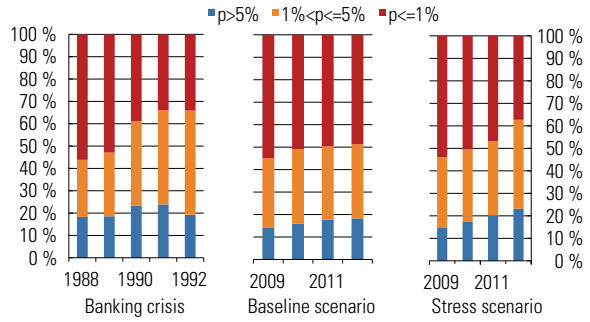
Chart D.10 Post-tax results for Norway's five largest banks[1)] and Nordea Bank Norge. Percentage of average total assets. Three different scenarios. Annual figures



[1)] DnB NOR Bank (excl. foreign branches), SpareBank 1 SR-Bank,Sparebanken Vest, SpareBank 1 SMN and SpareBank 1 Nord-Norge

Source: Norges Bank

Chart D.11 Distribution of total corporate debt[1] with different probabilities of default.[2] Percentage. Annual figures



[1] Including bonds, certificates and convertible debt
[2] p = probability of default.

Source: Norges Bank

The alternative stress scenario in the previous Report showed that banks' accumulated profits during the years 2009-2011 were close to -1½% of average total assets. In the current stress scenario, accumulated profits are a little less than -3% of average total assets in the same period. The deeper and longer downturn in the stress scenario is the main factor behind the higher estimate this time. The initial conditions in the scenario are also somewhat worse.

Increased risk of corporate loan default

Enterprises' turnover and performance deteriorate markedly in the stress scenario, and the value of financial and operating assets are written down. Persistently weak performance will erode enterprises' equity capital ratios. As the stress scenario implies a decline both abroad and in Norway, Norwegian enterprises will not have the same scope for shifting activity towards exports as they had during the banking crisis in 1988-1993. Despite high interest premiums for enterprises, lending rates are low in the stress scenario, and debt growth decelerates (see charts D.2 and D.5). Consequently, enterprises' interest expenses fall, restraining the deterioration in profits and debt-servicing capacity.

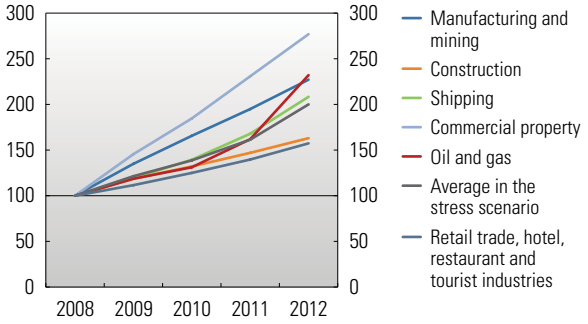
In the alternative stress scenario, the most risky enterprises will account for a larger share of total corporate debt than in the baseline scenario (see Chart D.11). The share of debt among enterprises with a default probability of over 1% increases from 46 to 63% between 2009 and 2012. Towards the end of the banking crisis in 1991 and 1992, 66% of debt was held by enterprises with a corresponding default risk. The default probability also increases in the baseline scenario, but enterprises' debt-servicing capacity improves again after a shorter period of lower earnings.

A higher default probability in the stress scenario increases the enterprise sector's risk-weighted debt (see Chart D.12). Potential bank losses therefore rise markedly. Shipping, the property industry and export-oriented industries

in manufacturing are particularly vulnerable to developments in the stress scenario. Weaker oil prices and lower external demand lead to reduced investment activity and earnings in several sectors, including the oil sector. The volume of risk-weighted debt is highest in the property industry, primarily because property companies account for about 32% of corporate bank lending. In addition, earnings and profits deteriorate further for these enterprises in the stress scenario owing to reduced demand for commercial premises and a nominal fall in commercial property prices of about 35% between 2007 and 2012.

If banks were to increase their lending rates, this would primarily affect the debt-servicing capacity of enterprises with high debt compared to earnings. The debt-to-earnings ratio before tax is particularly high in the fisheries, maritime transport, telecommunications, oil services and commercial property.

Chart D.12 Risk-weighted debt[1)] in selected industries in the stress scenario. Index. 2008 = 100. Annual figures. 2008 – 2012



[1)] Probability of default multiplied by bank debt

Source: Norges Bank

Annexes

Tables

Annex 1

Glossary

Disposable income: All income less taxes, interest expenses and other expenses (other expenses include a number of components such as transfers abroad, transfers to non-profit organisations, payments to group pension schemes, fines and confiscation of licences).

Financial instruments: Under the Norwegian Securities Trading Act, financial instruments include transferable securities, such as equities and bonds, units in securities funds, money market instruments and derivatives.

Financial stability: Financial stability means that the financial system is resilient to shocks to the economy such that it is able to channel capital, execute payments and redistribute risk in a satisfactory manner. Experience shows that the foundation for financial instability is laid during periods of strong growth in debt and asset prices. Banks play a key role in credit provision and payment services and are thus important to financial stability.

Financial income and financial expenses: Income and costs associated with investment, securities, other assets and debt.

Financial institution: Financial institution is used as a collective term for banks, financial undertakings and insurance companies.

Insurance companies' buffer capital: The sum of the securities adjustment reserve, supplementary provisions with an upper limit of one year, interim profits, risk equalisation fund and surplus Tier 1 capital.

Debt burden: Loan debt as a percentage of disposable income adjusted for estimated reinvested share dividends.

Deposit margin: Difference between the 3-month effective NIBOR rate on the last trading day in the quarter and the average deposit rate.

Securities adjustment reserve: Unrealised gains on current assets that accrue to the group portfolio.

NIBOR (Norwegian Inter Bank Offered Rate): NIBOR or the money market rate is the interbank lending rate. Money market rates are determined by supply and demand in the money market. NIBOR is a foreign exchange swap rate.

OBX index: Index comprising the 25 most liquid shares on the Oslo Stock Exchange. The index is revised every six months.

Oslo Axess: A regulated and authorised marketplace under the Oslo Stock Exchange. Oslo Axess is not defined as a stock exchange according to EU regulations due to less stringent listing requirements. Only equity instruments are listed and traded on Oslo Axess.

SEBRA: SEBRA stands for System for Edb-Basert Regnskapsanalyse (a computer-based system for financial statement analysis). The SEBRA model is used to estimate historical and future default probabilities in the corporate sector.

Annex 2

Boxes 2004–2009

1/2009
The background for the financial crisis
Then and now – a comparison with the banking crisis of 1988–1993

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Banks' capital requirements
How vulnerable is the financial system? An analysis using gap indicators
Stress-testing of bank losses and results

1/2008
Stress-testing of bank losses and results
Norges Bank's Survey of Bank Lending
Central bank measures to address liquidity problems at banks

2/2007
Problems in the US residential mortgage market
Problems in interbank markets - central bank liquidity measures
Covered bonds
Stress testing of banks' losses and results

1/2007
International experience of turnarounds in the housing market
Low share of fixed-rate loans in the household sector
Low household saving
An analysis of banks' problem loans

2/2006
Substanital losses in Amaranth hedge fund
Housing investment and house prices
Higher debt in households in many countries
A fall in household consumption – what is the impact on credit risk in the corporate sector?
Basel II – what is the impact on banks' capital adequacy?

1/2006
Implications of changes in pension fund regulations for the bond market
Long-term real interest rates and house prices
Household housing wealth and financial assets
Household margins
Banks' pricing of corporate credit risk
The importance of Norges Bank's key rate and the competitive climate for banks' interest rates
Equity market valuation

2/2005
Are equity prices more volatile in Norway than in other countries?
Developments in house prices
Distribution of household debt, income and financial assets
Macroeconomic gap indicators
Foreign banks in Norway
Security for loans from Norges Bank: new guidelines

1/2005
Risk premiums in the equity market
What influences the number of bankruptcies?
Small enterprises more exposed to risk then large enterprises
Loans to households other than mortgage loans
Risk associated with loans to various industries
Banks' financial position is more robust today than prior to the banking crisis

2/2004
Derivatives markets are expanding
Use of a central counterparty in the settlement of financial instruments
Is there a connection between house prices and banking crisis?
Relationship between the results of companies listed in the Oslo Stock Exchange and of the Norwegian enterprise sector as a whole
How do enterprises hedge against exchange rate fluctuations?
Risk associated with loans to small enterprises and the new capital adequacy framework
Norges Bank's role in the event of liquidity crisis in the financial sector

1/2004
How Norwegian is the Oslo Stock Exchange?
Fixed-interest mortgages
What drives house prices?
Predictions with two credit risk models
Loan loss provision rate and loan losses
A more robust securities settlement system

Table 1 Structure of the Norwegian financial industry as at 31 March 2009

	Number	Lending (NOK bn)	Total assets (NOK bn)	Tier 1 capital ratio (%)	Capital ratio (%)
Banks (excluding branches of foreign banks)	137	1 791	3 041	9.0	11.7
Branches of foreign banks	10	341	692		
Mortgage companies (including branches of foreign companies)	21	627	1 008	8.6	11.0
Finance companies (including branches of foreign companies)	51	130	152	11.7	12.9
State lending institutions	3	213	230		
Life insurance companies (excluding branches of foreign companies)	12	16	733		17.7
Non-life insurance companies (excluding branches of foreign companies)	45	NA	143		
Memorandum:			(NOK bn)		
Market value of equities, Oslo Stock Exchange			979		
Outstanding domestic bonds and short-term paper debt			1 238		
Issued by public sector and state-owned companies			481		
Issued by banks			295		
Issued by other financial institutions			218		
Issued by other private enterprises			108		
Issued by non-residents			136		
GDP Norway, 2008			2 548		
GDP mainland Norway, 2008			1 830		

Sources: Kredittilsynet (Financial Supervisory Authority of Norway), Oslo Stock Exchange, Statistics Norway and Norges Bank

Table 2 Financial conglomerates' market shares[1)] in Norway in various sectors as at 31 March 2009. Per cent

	Banks	Finance companies	Mortgage companies	Life insurance	Total for conglomerate
DnB NOR (including Nordlandsbanken)[2)]	37.5	25.9	25.7	30.4	34.2
Sparebank 1 alliance[3)]	13.0	7.9	7.9	2.9	10.6
Nordea Bank Norge	13.6	8.9	2.4	5.9	10.5
Danske Bank Norway (Fokus Bank)[4)]	6.8	0.0	0.0	0.0	4.5
Storebrand[5)]	1.1	0.0	1.2	26.9	4.4
Terra alliance[6)]	4.9	1.6	1.7	0.0	3.6
Total	76.9	44.3	38.9	66.1	67.8

[1)] Market shares are based on total assets in the various sectors. "Total for conglomerate" is equivalent to the combined total assets of the various sectors in the table. The table does not show an exhaustive list of the activities of the financial conglomerates. For example, non-life insurance, securities funds and asset management have been excluded

[2)] Excluding DnB NOR's subsidiaries and branches abroad

[3)] The Sparebank 1 alliance comprises Sparebank 1 Gruppen AS (including subsidiaries), BNbank and the 20 banks that own the group

[4)] Fokus Bank ASA was converted to a branch of Danske Bank as of 1 April 2007

[5)] Excluding Storebrand's Swedish subsidiary, SPP, acquired in December 2007

[6)] The Terra alliance comprises Terra Gruppen AS (including subsidiaries) and the 78 banks that own the group

Source: Norges Bank

Table 3 Results and capital adequacy in Norwegian banks for selected quarters[1)]

	Q1 08		Q2 08		Q3 08		Q4 08		Q1 09	
	NOK bn	% ATA	NOK bn	% ATA	NOK bn	% ATA	NOK bn	% ATA	NOK bn	% ATA
Net interest income	10.21	1.55	9.73	1.43	11.30	1.64	11.91	1.60	10.11	1.32
Other operating income	1.09	0.17	5.51	0.81	2.53	0.37	1.55	0.21	5.59	0.73
Commission income	2.34	0.36	2.40	0.35	2.35	0.34	2.24	0.30	2.13	0.28
Securities, FX and derivatives	-2.57	-0.39	2.92	0.42	-0.81	-0.12	-0.97	-0.14	3.90	0.52
Other operating expenses	7.21	1.10	7.23	1.06	7.35	1.07	7.78	1.05	7.76	1.02
Personnel expenses	4.07	0.62	4.06	0.60	4.24	0.62	4.35	0.59	4.52	0.59
Operating result before losses	4.09	0.62	8.02	1.18	6.49	0.94	5.68	0.77	7.93	1.04
Losses on loans and guarantees	0.29	0.04	0.38	0.06	0.92	0.13	3.83	0.52	2.15	0.28
Pre-tax profit	3.80	0.58	7.68	1.13	5.43	0.79	1.36	0.18	5.77	0.76
After-tax profit	2.98	0.45	5.68	0.83	3.77	0.55	0.59	0.08	3.94	0.52
Capital ratio (%)	12.0		11.9		11.4		11.3		11.7	
Tier 1 capital ratio (%)	9.5		9.2		8.8		8.6		9.0	

[1)] All banks with the exception of branches of foreign banks in Norway. Results as a percentage of average total assets (ATA) are annualised

Source: Norges Bank

Table 4 Results and capital adequacy in Norwegian banks[1)]

	2004		2005		2006		2007		2008	
	NOK bn	% ATA	NOK bn	% ATA	NOK bn	% ATA	NOK bn	% ATA	NOK bn	% ATA
Net interest income	30.71	1.91	31.75	1.78	34.51	1.62	36.72	1.50	43.16	1.55
Other operating income	15.16	0.94	17.63	0.99	18.11	0.85	18.47	0.75	10.69	0.38
Commission income	8.82	0.55	9.74	0.55	10.39	0.49	10.24	0.42	9.34	0.34
Securities, FX and derivatives	4.86	0.30	6.66	0.37	6.44	0.30	3.58	0.15	-1.42	-0.05
Other operating expenses	26.56	1.65	26.49	1.49	28.21	1.32	28.17	1.15	29.57	1.06
Personnel expenses	13.77	0.86	14.24	0.80	15.52	0.73	15.61	0.64	16.72	0.60
Operating result before losses	19.31	1.20	22.89	1.29	24.40	1.14	27.02	1.10	24.28	0.87
Losses on loans and guarantees	1.25	0.08	-1.08	-0.06	-1.45	-0.07	-0.01	-0.00	5.41	0.19
Pre-tax profit	19.78	1.23	24.61	1.38	27.14	1.27	27.41	1.12	18.28	0.66
After-tax profit	14.79	0.92	18.53	1.04	20.64	0.97	20.78	0.85	13.02	0.47
Capital ratio (%)	12.2		11.9		11.2		11.7		11.3	
Tier 1 capital ratio (%)	9.8		9.5		8.7		9.3		8.6	

[1)] All banks with the exception of branches of foreign banks in Norway

Source: Norges Bank

Table 5 Banks losses on loans to various industries and sectors as a percentage of lending to the respective industries and sectors[1)]

Industry / sector	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Agriculture. forestry and fishing	-0.06	0.19	0.29	0.26	0.21	2.73	6.06	1.46	-2.07	-0.52	-0.05	0.14
Fish-farming, hatcheries	0.40	-0.14	1.25	0.12	0.16	8.05	22.37	3.90	-11.40	-0.15	-0.14	0.31
Extraction of crude oil and natural gas	-1.29	-0.08	0.06	0.40	0.08	1.84	1.83	-1.12	-0.03	-0.04	0.00	0.00
Manufacturing and mining	0.56	0.54	0.64	0.60	0.97	1.65	1.68	0.53	0.78	-0.25	0.06	0.38
Electricity and water supply, construction	-0.13	0.15	0.41	0.69	0.21	0.46	1.66	0.50	0.29	-0.16	0.11	0.42
Construction	-0.23	0.18	0.68	1.13	0.42	0.50	2.33	0.56	0.26	-0.13	0.17	0.65
Retail trade, hotels and restaurants	0.13	0.26	0.56	0.61	0.80	0.90	0.95	0.43	0.19	0.09	0.16	0.50
Wholesaling and agency business	0.11	0.27	0.36	0.27	1.05	0.71	0.65	0.27	0.12	0.12	0.20	0.38
Retail trade	0.08	0.27	0.82	1.39	1.05	0.50	0.96	0.27	0.15	0.04	0.11	0.59
Hotels and restaurants	0.02	0.23	0.60	0.50	0.74	0.55	1.06	0.85	0.22	0.03	0.15	0.41
Shipping and pipeline transport	0.44	0.31	0.22	0.76	1.43	0.76	0.64	-0.04	0.06	0.06	-0.05	0.09
Shipping	0.48	0.26	0.19	0.26	0.18	0.68	0.38	-0.09	0.06	0.06	-0.05	0.02
Other transport and communications	-0.16	0.19	0.39	0.37	1.13	1.23	0.71	0.52	0.05	0.05	0.05	0.04
Commercial services and property management	-0.16	0.07	0.09	0.08	0.37	1.51	0.56	0.04	-0.12	-0.04	0.01	0.34
Property management	-0.15	0.04	0.08	0.02	0.12	0.68	0.22	0.08	0.02	-0.12	0.02	0.28
Other service industries	-0.10	0.07	0.02	0.81	0.54	1.22	1.57	0.34	0.28	0.15	0.06	0.22
Total for all industries	0.02	0.19	0.27	0.41	0.61	1.44	1.50	0.34	-0.12	-0.07	0.02	0.27
Retail market	-0.06	-0.01	-0.01	0.00	0.06	0.12	0.06	0.05	0.03	-0.00	0.04	0.07
Others[2)]	0.04	0.67	0.02	0.21	0.30	0.26	0.16	0.25	-0.14	0.03	0.01	0.09
Total	-0.02	0.16	0.11	0.19	0.31	0.63	0.57	0.16	-0.04	-0.03	0.03	0.16

[1)] All banks with the exception of branches of foreign banks in Norway

[2)] Financial institutions. central government and social security administration. municipal sector and foreign sector

Source: Norges Bank

Table 6 Rating by Moody's [1], total assets, capital adequacy [2] and return on equity for Nordic financial conglomerates, subsidiaries in Norway and Norwegian banks as of 2009 Q1. Consolidated figures.

								Return on equity		
	Financial strength	Short-term	Long-term	Total assets (NOK bn)	Tier 1 capital ratio (%)	Capital ratio (%)	Share of interim profits (%)	2007	2008	Q1 09
Nordea Bank AB	B	P-1	Aa1	4 333	8.3	10.1	0	19.7	15.3	13.9
Danske Bank	C	P-1	Aa3	3 991	9.0	12.9	100	15.1	1.0	6.3
SEB	C-	P-1	A1	1 999	11.1	13.2	100	19.3	13.1	4.9
Handelsbanken	B	P-1	Aa1	1 849	8.1	11.8	0	23.3	16.2	13.8
DnB NOR	B-	P-1	Aa1	1 809	6.8	9.6	0	22.0	12.4	15.8
Swedbank	C-	P-1	A1	1 488	9.3	12.9	100	18.9	15.2	neg.
Nordea Bank Norge	B-	P-1	Aa1	524	7.7	10.4	0	13.2	17.6	18.1
SpareBank 1 SR-Bank	C-	P-1	A1	124	6.6	9.0	50	19.4	8.0	5.3
Sparebanken Vest	C	P-1	A1	92	8.5	10.2	0	16.2	4.9	0.2
SpareBank 1 SMN	C	P-1	A1	85	8.4	11.8	50	18.9	11.9	5.8
SpareBank 1 Nord-Norge	C	P-1	A1	64	10.1	11.7	0	18.1	8.1	13.5

[1] Rating as of 18 May 2009. Moody's scale of rating: Financial strength: A+. A. A-. B+. B. B-. C+. C. C-.... Short-term: P-1. P-2.... Long-term: Aaa. Aa1. Aa2. Aa3. A1. A2....

[2] The share of interim profits included in the core capital ratio and capital ratio varies between institutions. The higher the share of (positive) interim profits included. the higher are the capital adequacy ratios. If the institution has reported capital adequacy ratios with 0% of interim profits included. these ratios are used in the table. Varying national regulations. including consolidation of life insurance companies. imply that Norwegian financial conglomerates' capital adequacy ratios are not directly comparable with ratios of other Nordic financial conglomerates.

Sources: Banks' websites and Moody's

Table 7 Balance sheet structure, Norwegian banks.[1)]
Percentage distribution

	2008	Q1 08	Q1 09
Cash and deposits	11.7	7.6	11.0
Securities (current assets)	11.6	11.9	13.4
Gross lending to households, municipalities and non-financial enterprises	59.4	67.6	58.9
Other lending	11.2	9.7	10.0
Loan loss provisions	-0.3	-0.3	-0.3
Fixed assets and other assets	6.4	3.4	7.0
Total assets	100.0	100.0	100.0
Customer deposits	38.5	41.2	38.9
Deposits/loans from domestic financial institutions	4.7	5.4	5.0
Deposits/loans from foreign financial institutions	12.9	10.9	13.7
Deposits/loans from Norges Bank	1.8	0.3	1.8
Other deposits/loans	4.3	3.0	5.9
Notes and short-term paper debt	5.4	5.6	4.4
Bond debt	19.0	18.3	17.6
Other liabilities	5.5	7.3	4.9
Subordinated loan capital	2.5	2.2	2.4
Equity	5.4	5.9	5.5
Total equity and liabilities	100.0	100.0	100.0
Memorandum:			
Total assets (NOK billion)	3 088	2 661	3 041

[1)] All banks with the exception of branches of foreign banks in Norway

Source: Norges Bank

Table 8 Balance sheet structure and profit/loss, covered bond companies[1)]

	2008	Q1 08	Q1 09
Balance sheet. Percentage distribution			
Cash and deposits	3.6	2.4	3.4
Securities (current assets)	8.4	1.4	5.1
Gross lending	87.5	95.5	90.8
Loan loss provisions	0.0	-0.0	0.1
Fixed assets and other assets	0.5	0.8	0.6
Total assets	100.0	100.0	100.0
Notes and short-term paper debt	0.2	1.6	0.0
Bond debt	59.1	57.2	67.4
Loans	36.0	34.9	28.1
Other liabilities	1.2	1.7	1.2
Subordinated loan capital	0.7	0.9	0.6
Equity	2.9	3.6	2.8
Total equity and liabilities	100.0	100.0	100.0
Profit/loss. Percentage of ATA (annualised)			
Net interest income	0.77	0.56	1.10
Operating expenses	0.22	0.26	0.22
Losses on loans and guarantees	0.04	0.02	0.01
Pre-tax profit	0.77	0.34	0.10
Memorandum:			
Repayment loans (NOK billion)	219.6	101.3	254.8
Total assets (NOK billion)	359	146	403

[1)] Mortgage companies with the right to issue covered bonds in accordance with the regulation that came into force on 1 June 2007. In March 2008, the figures are for four companies, in December 2008, the figures are for seven companies and in March 2009, the figures are for twelve companies.

Source: Norges Bank

Table 9 Balance sheet structure and profit, life insurance companies[1)]

	Q1 08	Q1 09
Balance sheet. Selected assets as a percentage of total assets		
Buildings and real estate	13.3	12.7
Financial assets measured at amortized cost, of which:	27.5	29.3
Investments held until maturity	20.2	17.4
Lending and claims	6.9	11.0
Financial assets measured at fair value, of which:	55.3	53.9
Shares and units	24.0	10.9
Bonds and short-term papers	24.2	37.2
Profit/loss. Percentage of ATA (annualised)		
Premium income	13.87	12.88
Net income from financial assets	-5.89	1.41
Result from technical accounts	-1.12	-1.06
Result from non- technical accounts	0.14	0.21
Value-adjusted pre-tax results	-9.39	-1.02
Memorandum:		
Buffer capital (percentage of total assets)	4.6	3.5
Total assets (NOK billion)	734	733

[1)] 11 life insurance companies. (Netfonds Livsforsikring has been in activity since Q1 2009 and is not included)

Source: Kredittilsynet (The Financial Supervisory Authority of Norway)

Table 10 Key figures

	Average 1987-1993	Average 1994-2007	2008	Q1 09	Projections 2009	2010	2011-2012
Households							
Debt burden [1]	141	141	196		196	192	192
Interest burden [2]	9.7	5.6	8.6		5.8	4.9	6.2
Borrowing rate after tax	8.3	4.7	5.1		3.4	2.8	3.6
Real interest rate after tax [3]	2.3	1.1	2.8		0.3	0.1	0.6
Net financial wealth [4]	8	46	25				
Unemployment (LFS) [5]	4.7	4.0	2.6		4	5	4
Rise in house prices [6]	-1.3	10.4	-4.1		-1	3	5
Enterprises							
Debt burden [7]	1087	829	608				
Interest burden [8]	44	28	24				
Return on total assets [9]	3	5	9				
Equity-to-assets ratio [10]	27	37	31				
Banks [11]							
Profit/loss [12]	-0.1	1.2	0.7	0.8			
Interest margin [13]	5.2	3.0	2.7	2.4			
Non-performing loans [14]		1.9	0.9	1.1			
Loan losses [15]	2.3	0.1	0.3	0.5			
Lending growth [16]	4.7	11.3	4.1	-7.9			
Return on equity [17]		15.3	9.0	9.9			
Capital ratio [18]	10.3	12.3	11.3	11.7			

[1] Loan debt as a percentage of disposable income adjusted for estimated reinvested share dividends for 2000 - 2005 and redemption/reduction of equity capital for 2006 - 2012

[2] Interest expenses after tax as a percentage of disposable income adjusted for estimated reinvested share dividends for 2000 - 2005 and redemption/reduction of equity capital for 2006 - 2012 plus interest expenses

[3] Household borrowing rate after tax deflated by the 12-quarter moving average (centred) of inflation measured by the CPI

[4] Households' total assets less total debt as share of disposable income adjusted for estimated reinvested share dividends for 2000 - 2005 and redemption/reduction of equity capital for 2006 - 2012

[5] Comprises all groups 16-74 years

[6] Based on house prices from Association of Norwegian Real Estate Agents, Association of Real Estate Agency Firms, ECON Pöyry and Finn.no

[7] Enterprises' total debt as a percentage of profits before tax and depreciation. Limited enterprises in Norway. Exlusive bank/insurance, public sector and extraction of oil/gas. Figures include only enterprises with debt. Key figures for 2008 are based on a sample of financial statements that were submitted early

[8] Enterprises' total interest costs as a percentage of profits before tax, interest costs and depreciation. Limited enterprises in Norway. Exlusive bank/insurance, public sector and extraction of oil/gas. Figures include only enterprises with debt. Key figures for 2008 are based on a sample of financial statements that were submitted early

[9] Enterprises' profits before tax as a percentage of total assets. Limited enterprises in Norway. Exclusive bank/insurance, public sector and extraction of oil/gas. Key figures for 2008 are based on a sample of financial statements that were submitted early

[10] Book equity as a percentage of total assets. Limited enterprises in Norway. Exclusive bank/insurance, public sector and extraction of oil/gas. Key figures for 2008 are based on a sample of financial statements that were submitted early

[11] Annual accounts and stock at year end form the statistical basis. Figures for profit/loss, loan losses, lending growth and return on equity as of 2009 Q1 are annualised

[12] Pre-tax profit as a percentage of average total assets. For the period 1987-1989 branches of foreign banks in Norway and branches of Norwegian banks abroad are included. This does not apply for other periods

[13] Percentage points. Average lending rate minus average deposit rate for all banks in Norway, based on stock at year end

[14] Non-performing loans as a percentage of gross lending to households, non-financial enterprises and municipalities

[15] Loan losses as a percentage of gross lending to households, non-financial enterprises and municipalities for all Norwegian banks except branches of foreign banks in Norway and branches of Norwegian banks abroad

[16] Per cent. Annual growth in lending to the corporate and retail market from all banks in Norway

[17] Net profit as a percentage of average equity for all Norwegian banks except branches of foreign banks in Norway and branches of Norwegian banks abroad.The average for the period 1987-1993 cannot be calculated due to insufficient data on equity

[18] Regulatory capital to risk-weighted assets for all Norwegian banks except branches of foreign banks in Norway. The average for the period 1987-1993 is for the years 1991-1993 due to lack of data

Sources: Statistics Norway, Association of Norwegian Real Estate Agents, ECON Pöyry, Finn.no, Association of Real Estate Agency Firms and Norges Bank

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