Economic perspectives

Address by Governor Svein Gjedrem at the meeting of the Supervisory Council of Norges Bank on Thursday 12 February 2009

Introduction

The poet Øyvind Rimbereid from Stavanger – his works already awarded a place in the Norwegian literary canon[1] – has been nominated for this year's Nordic Council Literature Prize for the collection of poems entitled Herbarium. The poem "Tulip" starts with the tulip bulb market bubble in the 1600s. A futures market for tulip bulbs had emerged in Holland when growers discovered that infecting the tulip with a virus could produce stripes and beautiful colours. In a short time, bulbs were trading at 25 times the normal value before the market collapsed. A hundred years later, a tulip bulb cost less than one per cent of the price before the collapse.[2]

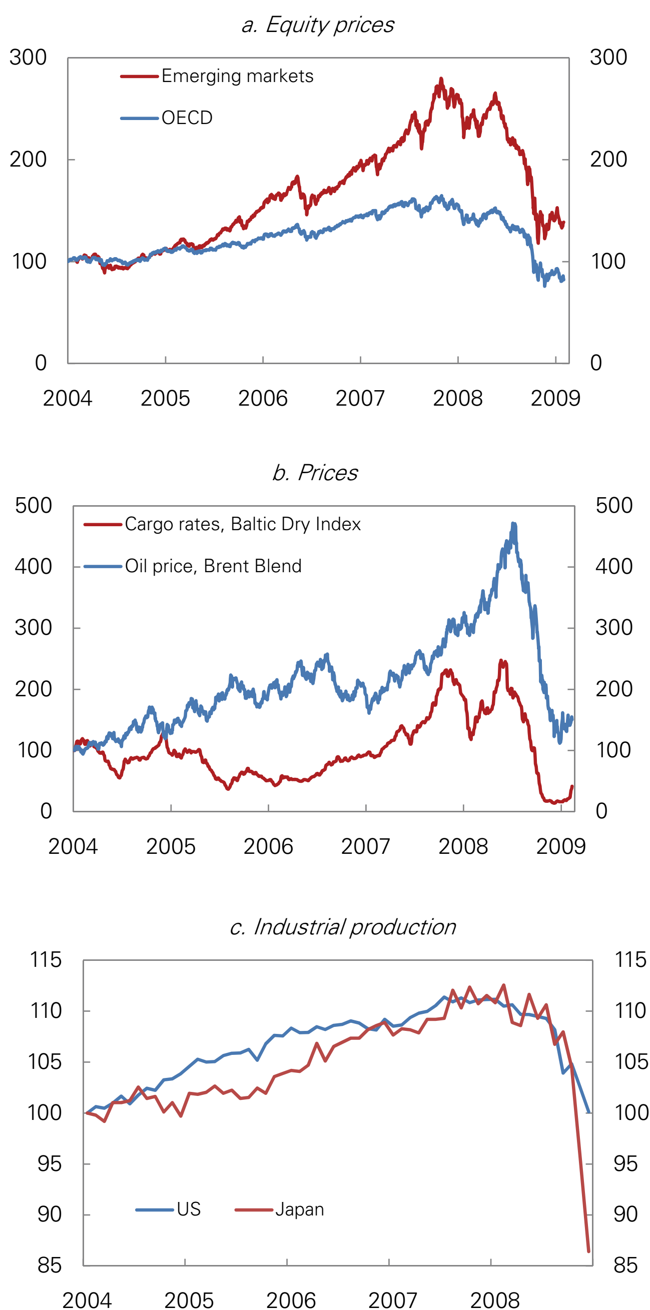
In the words of Rimbereid:

"The year 1635
and on pollen-yellow paper
flutter tulip bulbs grown in places
unknown to most.
Or grown only in the signature
on the bill of exchange
of a seller who himself has bought
a signature from a seller
with money that itself exists
only as a signature." [3]

Downturn in the global economy

In September 2008, the turbulence in financial markets erupted into a full-blown global crisis. Just before, it had appeared that the US government rescue of the mortgage corporations Fannie Mae and Freddie Mac would calm the markets. Then on 15 September, a major US investment bank, Lehman Brothers, with extensive operations in Europe and Asia as well as the US, filed for bankruptcy. The next day, money markets seized up. Confidence between banks evaporated. Liquidity dried up, interest rates rose sharply and equity prices fell. Exchange rate volatility – the daily fluctuations in the exchange rate – showed a marked rise. On 25 September, a major US

Chart 1 Equities, prices, production. Fall in all countries and markets. Index. 1. januar 2004 =100



Source: Thomson Reuters

[1] Stig Sæterbakken and Janike Kampevold Larsen (Ed.) (2008): "*Norsk Litterær Kanon*" (Norwegian literary canon), Cappelen DAMM.

[2] For a further account of the tulip bubble in Holland, see *NOU 1999:29* "Commodity derivatives", p 53

[3] Øyvind Rimbereid (2008): *Herbarium*, Gyldendal Norsk Forlag, p.38. (Unofficial translation by Norges Bank's translators)

savings bank, Washington Mutual, was placed into receivership and its creditors incurred losses. Bond markets in turn shut down.

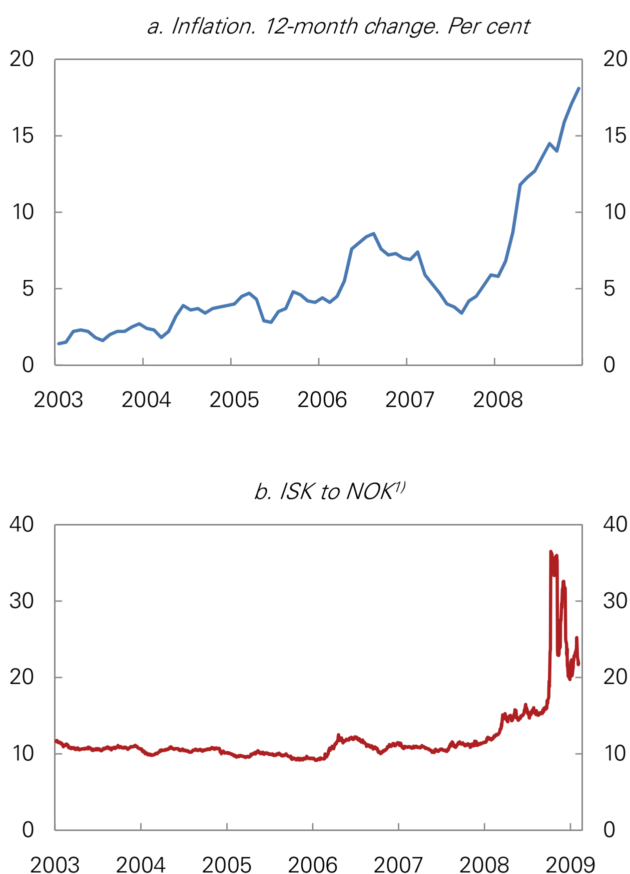
In the days and weeks that followed, banks tightened credit standards on new loans to households and enterprises.

Global economic growth was already slowing, but the situation deteriorated in the last few months of 2008. The turnaround hit hard, with synchronised effects on virtually all financial and goods and services markets, not only in the US but also in Europe, Asia, Latin America and Oceania (Chart 1).

Iceland was more vulnerable than most (Chart 2). There were wide swings in inflation and inflation expectations were not well anchored. As a result, the impact on the Icelandic krona was also considerable. The sharp depreciation of the krona left many borrowers with foreign currency loans facing higher debt. For a time, exchanging Icelandic krona for another currency was impossible. Nonetheless, the decisive factor was the collapse of Iceland's oversized banks. Although they were taken over by the Icelandic authorities, there was no confidence that Iceland's finances would be able to cope with the accompanying high level of debt. Iceland was obliged to seek aid from other countries and from the International Monetary Fund (IMF). Output is now expected to fall by 10 per cent this year, and private consumption to drop by 35 per cent over the next three years. At the same time, the Icelandic state will be bearing a debt burden equivalent to more than NOK 1 million per family.

The global crisis soon affected Norway. Our banks and the flow of credit and money are closely interconnected with global markets. Banks' foreign financing became expensive and almost came to a halt. Banks responded by raising interest rates on corporate and household loans and restricting lending. As the autumn progressed, an increasing number of business sector segments were feeling the impact of contraction. In August 2008, manufacturing enterprises in our regional network reported that they expected growth to remain high. In November, they described the turnaround as a "heart attack". Manufacturers of automotive parts in Farsund, Høyanger, Raufoss, Kongsvinger, Kongsberg, Hvitting-

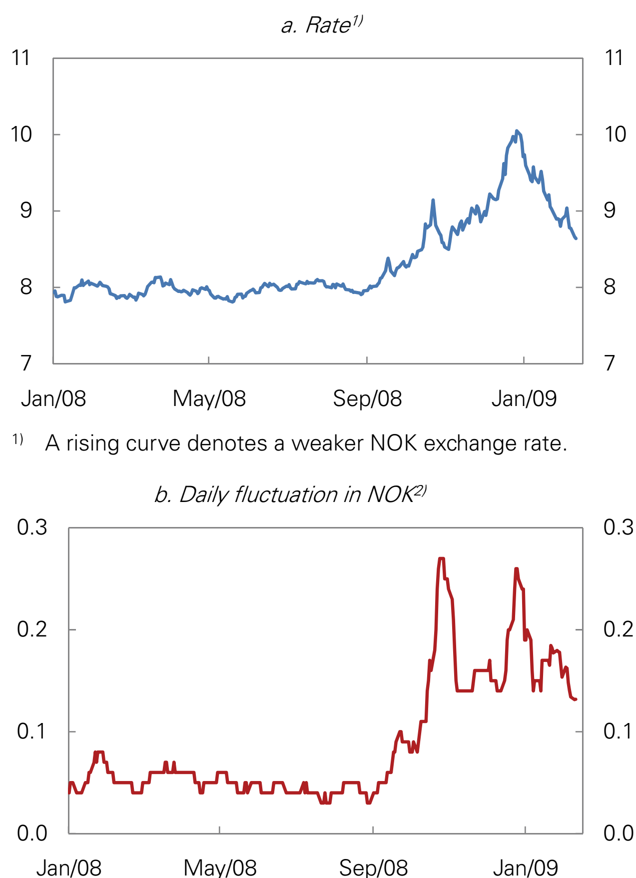
Chart 2 Inflation and the Icelandic krona (ISK). 1 January 2003 – 4 February 2009



1) As from 9 December 2008 ,foreign exchange market listings are used for the ISK/NOK exchange rate. A rising curve denotes a weaker ISK exchange rate.

Sources: Norges Bank and Thomson Reuters

Chart 3 NOK to EUR. Rate and fluctuations. 1 January 2008 – 10 February 2009



2) Difference between highest and lowest rate during the day. 10-day moving average

Source: Thomson Reuters

foss and Rollag felt the impact of the slump in car sales. The engineering industry began to doubt the quality of their order books. Prices for oil, gas, aluminium and ferro-alloys fell, as did freight rates.

The fragility of the Norwegian krone was illustrated when investors fled the currencies of small countries, and the krone weakened considerably (Chart 3). When speculators withdrew, daily fluctuations increased and hedging against exchange rate volatility became more expensive. On Christmas Eve, the krone fell to its lowest level in ten years.

We are now in the deepest downturn in OECD countries in the postwar period. The US economy may already have shrunk by around 2½ per cent since the crisis erupted in September. Output has fallen at the same rate in many European countries, and perhaps by twice that rate in Japan and Korea. For a long period there were hopes that growth in China and other emerging market economies would hold up. But they are also now severely affected by the crisis.

Output is also contracting in Norway, but so far probably somewhat less so than abroad.

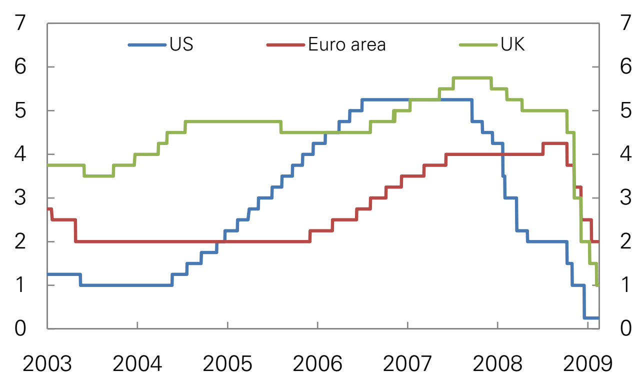
What is happening now is more than a normal fluctuation in the business cycle. The world is facing a crisis of confidence, with faltering faith in the future and a loss of confidence in banks, counterparties and contractual partners. The authorities have taken extraordinary action, as in a state of emergency, deploying a wide range of established and new policy instruments.

Five different sets of measures have been implemented:

First, central banks have supplied liquidity to banks on a much larger scale than usual and provided loans with longer maturities. Central banks are also providing foreign currency loans to their banks.

Second, key rates have been aggressively cut (Chart 4).

Chart 4 Key rates abroad. Per cent.
1 January 2003 – 10 February 2009



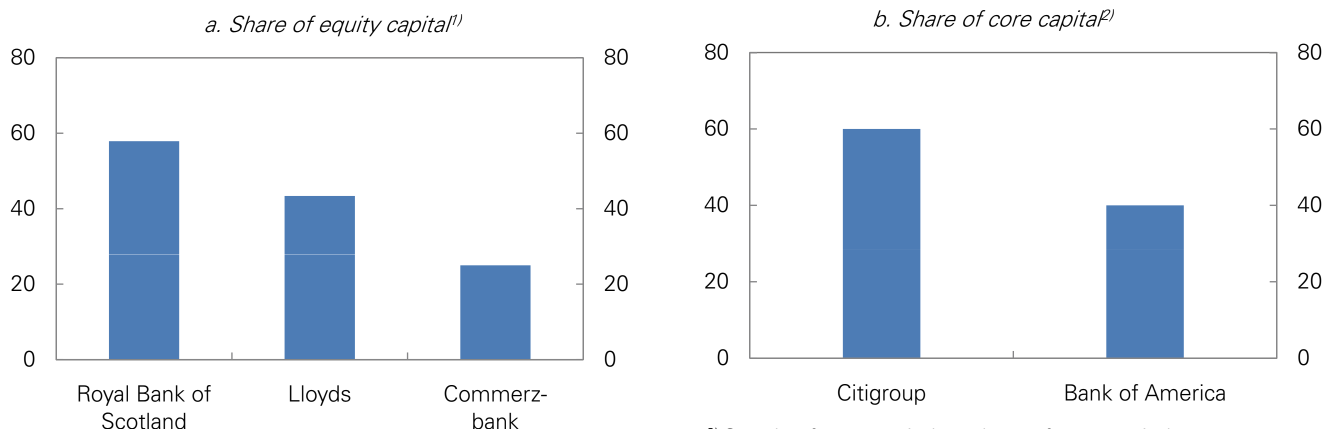
Source: Thomson Reuters

The US entered the downturn first and had already reduced the key rate in early autumn 2007. And as the crisis developed, the Federal Reserve continued to lower its key rate. Here in Europe, key rates rose up to summer 2008 before being lowered substantially from October.

Third, credit policy instruments have been introduced. Several countries are guaranteeing loans to banks. The Federal Reserve is buying mortgage-backed securities, asset-backed securities collateralised by student loans, credit card loans and loans to small businesses, as well as commercial paper issued directly by large businesses, a measure the central banks in Japan and the UK also intend to implement. The UK government has announced that they will guarantee loans to small and medium-sized firms.

Fourth, the authorities in a number of countries felt compelled to supply risk capital to banks (Chart 5). Some governments have assumed ownership of financial institutions. In the UK, the government is now a majority stakeholder in the Royal Bank of Scotland and owns over 40 per cent of Lloyds. In Germany, the government is increasing its stake in Commerzbank, which is acquiring

Chart 5 Government supply of capital in 2008 and 2009. (Planned and transferred capital). Per cent



1) Supply of equity capital as share of equity capital

2) Supply of core capital as share of core capital

Source: Bloomberg

Dresdner Bank. In the US, the authorities have provided capital in forms other than ordinary share capital, but in such a way that large banks are operating to a great extent for the government's account and risk.

Fifth, to cushion the fall in output and employment, governments are increasing their expenditure and lowering tax rates. The US government is preparing measures equivalent to almost 5 per cent of gross domestic product. Active measures in Europe are not as extensive. However, Europe's taxes and the public safety net act as shock absorbers.

A wide range of instruments is also being used in Norway. Banks have been provided with short and more long-term loans by Norges Bank. Banks have also been given access to liquid government paper in exchange for mortgage-backed securities. The key policy rate has been lowered substantially (Chart 6).

As in other countries, money is not finding its way to businesses, but is accumulating in banks (Chart 7). The government has therefore provided increased loans and guarantees to Norwegian export industries, has raised lending limits for state banks and is allowing Folketrygdfondet (Government Pension Fund – Norway) to increase its purchases of bonds. The government is now also providing Norwegian banks with risk capital. In order to curb the fall in activity, the government has proposed an increase in government expenditure of over 10 per cent in 2009.

What went wrong?

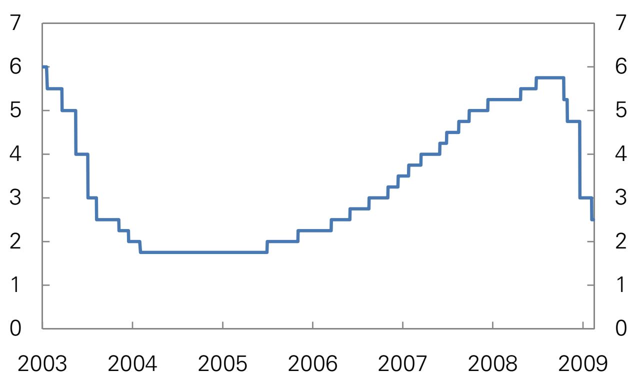
The current downturn followed a period of very high global and domestic economic growth, supported by favourable trading conditions. Emerging market economies in Asia, Europe and Latin America have accounted for an increasing share of global output. Several hundred million people have been lifted out of poverty.

So what went wrong? Or in the words of Rimbereid:

"And the cause of the depression?
Theories conflict, as if surrounding
a virus not yet discovered.
Was it due to the far too unrestricted life of share trading?
Or was it because the hand of the state
constantly interfered with its unnatural contagion?
Or did the virus worm its way
into the calculating machine itself?" [4]

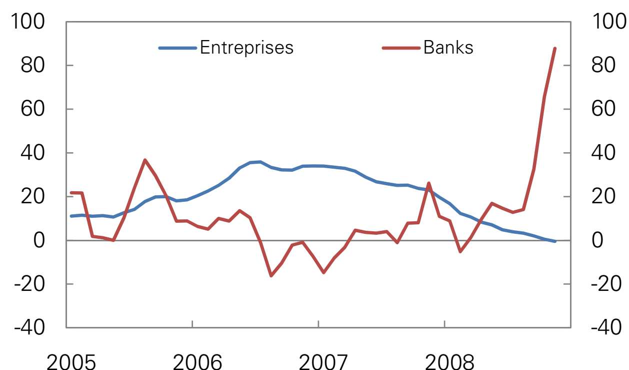
Substantial trade imbalances developed between industrialised countries, particularly the US, on the one hand and emerging market economies, particularly China, on

Chart 6 Norges Bank's key policy rate. Per cent. 1 January 2003 – 10 February 2009



Source: Norges Bank

Chart 7 Liquidity.[1), 2)] 12-month change. 3-month moving average. Per cent. January 2005 – December 2008

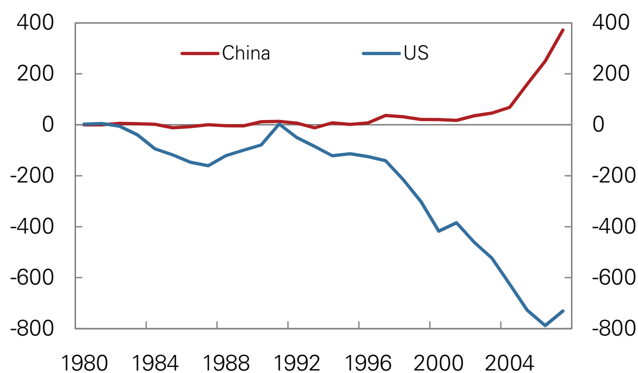


1) Banks' liquidity expressed as the sum of banks' and money holding sector's stock of Norwegian banknotes and coins in circulation plus their deposits in Norges Bank (M_0).

2) Enterprises' liquidity expressed as non-financial enterprises' stock of Norwegian banknotes and coins, unrestricted bank deposits, certificates of deposit (M_2).

Sources: Statistics Norway and Norges Bank

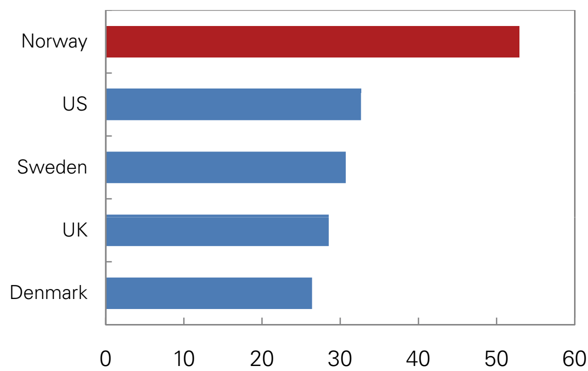
Chart 8 Current accounts, US and China. In billions of USD. 1980 – 2007



Source: Thomson Reuters

[4] Øyvind Rimbereid (2008): *Herbarium*, p.56. (Unofficial translation by Norges Bank's translators)

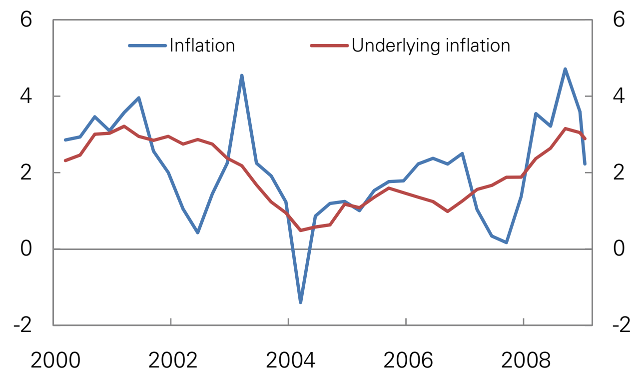
Chart 9 National income.[1] Total growth from 2002 to 2007. Per cent



[1] Disposable national income, in nominal terms

Source: OECD

Chart 10 Inflation[1] and underlying inflation[2]. 12-month change. Per cent. January 2000 – January 2009



[1] CPI

[2] CPI adjusted for tax changes and excluding temporary changes in energy prices. See Norges Bank's Staff Memo 2008/7 for a description of the CPIXE

Sources: Statistics Norway and Norges Bank

the other (Chart 8). This is partly due to government budget deficits and low private saving in the US since the 1990s, and partly due to export-led growth in China, particularly over the past few years, combined with strong competitiveness and a managed exchange rate. In short, rich countries borrowed and developing countries saved. The imbalances grew when oil and other commodity prices rose markedly. Financial market participants found it too difficult to channel capital. Long-term interest rates were too low, the search for yield too aggressive and compensation for risk-taking too meagre.

With long-term loans in ample supply, demand for residential and other property became excessive in almost the entire western world. The first clear signs that these developments were not sustainable emerged in 2007 – in the US housing market, in the money market and in banks.

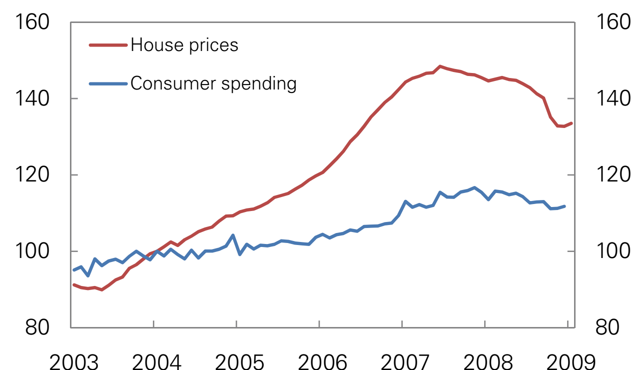
Few countries benefited more than Norway from the economic upturn, which drove up prices for oil, gas and other export commodities (Chart 9). At the same time, an increasing number of cheap consumer goods were imported from new EU countries and from Asia.

In addition, EEA enlargement provided Norway with large inflows of labour, particularly from Poland. Moreover, Norwegian firms were also quick to make use of new technology and organise their activities effectively. Norway's disposable income increased by more than 50 per cent from 2002 to 2007, more than that of any other western country. Not surprisingly, economic agents in Norway were optimistic about the future. Saving fell, and euphoria spread through the housing market. Household and corporate debt surged.

Inflation slowed for a long period (Chart 10). Norges Bank reduced the key rate when inflation fell and approached zero in 2003 and 2004. Production capacity had increased markedly, providing scope for strong growth in demand for goods and services. Low interest rates underpinned the solid growth capacity of the economy. Well before inflation picked up, the Bank began to raise the key rate in 2005. The pace of the interest rate rise was gradually increased.

The economic turnaround in Norway occurred just over a year ago. Growth in consumption came to a halt and house prices began to fall (Chart 11). Up to autumn 2008, it appeared that capacity utilisation in the Norwegian economy would most likely decline to a normal level, inflation would stabilise around 2½ per cent and the key rate ahead could be held at what we consider to be a normal level – between 5 and 6 per cent. But the outlook was regarded as uncertain. Commodity prices rose and pushed up inflation in many countries. At the same time, wage growth in Norway had become high and productiv-

Chart 11 Consumer spending and house prices. Index. 1 January 2004 = 100



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

ity growth was slowing. On the other hand, the financial turbulence, if it gained momentum, could have a severe impact on the global economy and our exports.

Then, in autumn 2008, the turbulence led to a synchronised financial and real economic crisis in virtually every country in the world. As a result, output and employment are falling, and Norway is no exception.

The way forward

Since then, the authorities in many countries have shown that they are prepared to use powerful tools to fight the crisis, but financial markets are still under stress. The crisis of confidence and credit rationing are leading to a decline in output. Corporate earnings are falling across the board and the number of unemployed is rising, prompting new rounds of losses on securities and in banks' books. Every week there is a news story conveying the impression that the action being taken is not enough to stave off the downturn.

But the measures being implemented are indeed having an effect.

The flow of liquidity has improved slightly, and interbank rates have fallen (Chart 12). In the US and Europe, these rates were more than 2 percentage points above the key rate in October last year, but now the gap has been halved. As a result, the low rates set by central banks are having a greater effect. In the US, mortgages and corporate loans have become cheaper after the Federal Reserve began to purchase bonds and commercial paper issued by mortgage banks and firms. In Germany, Sweden and Denmark, mortgage rates have decreased markedly. And in Norway, borrowing rates have fallen and credit to homebuyers is flowing again. Equity and commodity prices are still fluctuating widely, but the decline is no longer steep.

Lower key rates, higher public expenditure and reduced taxes will push up demand for goods and services, gradually stabilising output and employment and preventing inflation from becoming too low.

There are also strong self-regulating mechanisms in market economies that can easily be underestimated when times are at their bleakest.

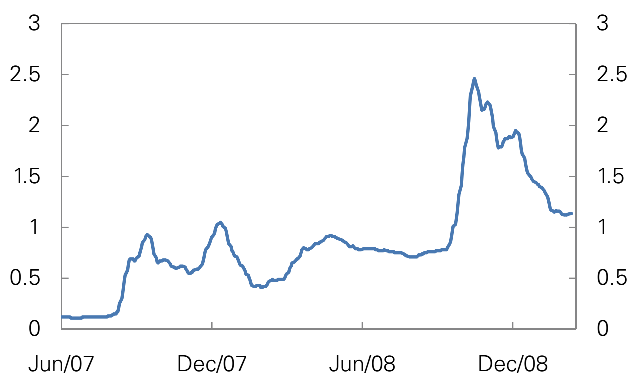
Corporate profitability is being squeezed, but the rise in unemployment will result in lower wage growth, which will curb the impact on earnings. Investment is falling sharply, but there will in time be a need for new houses and commercial buildings and to replace obsolete machinery. Households all over the world are now increasing their saving and reducing debt. When debt eventually reaches a sustainable level, consumption will pick up.

Low interest rates curb the decline in investment and make it easier for households to repay debt. The change in behaviour can nevertheless take time and we cannot expect consumers in the US and Europe to drive a new upturn. The public sector will eventually have to rein in expenditure and increase tax revenues to prevent debt from increasing. If growth in the global economy is to be sustained, public and private investment and consumption in China and other Asian countries will probably have to absorb a greater share of output in these countries.

In many industrial countries, export prices have risen relative to import prices. Lower oil and commodity prices are easing the burden.

But Norway's terms of trade are deteriorating (Chart 13). Some of the gains of the past few years have now

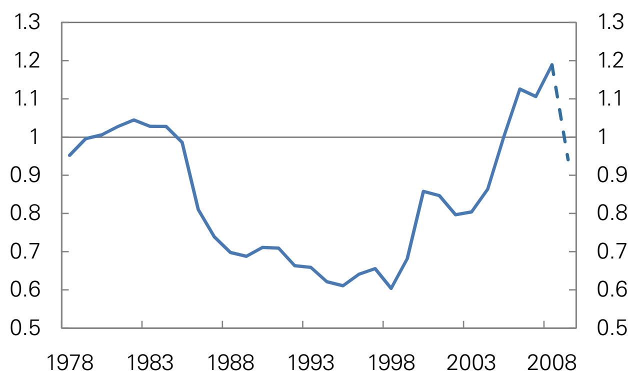
Chart 12 Premiums in international money markets.[1)]
5-day moving average. Percentage points.
1 June 2007 – 1 February 2009



1) Average of the spread between 3-month money market rates and expected key rates in the US, UK and euro area.

Source: Thomson Reuters

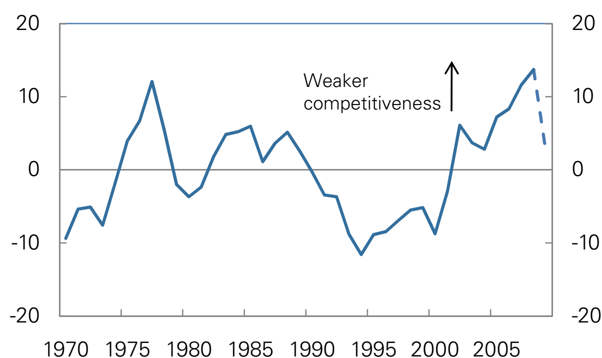
Chart 13 Norway's terms of trade.
Export prices/import prices. 1978 – 2009[1)]



1) Projections for 2008 and 2009.

Sources: Statistics Norway, Thomson Reuters and Norges Bank

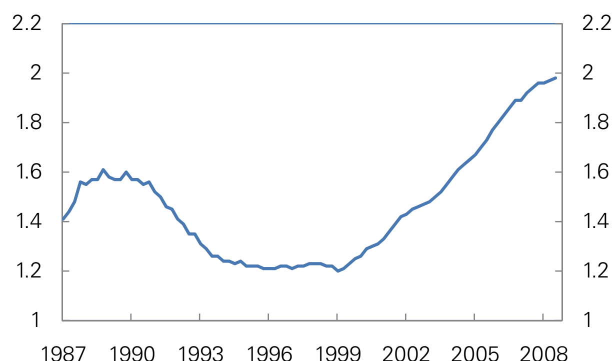
Chart 14 Relative labour costs.[1)] Deviation from average. 1970 – January 2009. Per cent



[1)] In relation to our trading partners. Measured in a common currency. Expresses the competitiveness of Norway. The average is calculated from1970 to 2008.

Sources: Statistics Norway, the Technical Reporting Committee on Income Settlements(TRC), Ministry of Finance and Norges Bank

Chart 15 Debt to income ratio.[1)] Quarterly figures. 1987 Q1 – 2008 Q4



[1)] Household debt as a share of liquid disposable income adjusted for projected reinvested share dividends.

Sources: Statistics Norway and Norges Bank

dissipated, and Norway's disposable income might fall by close to 10 per cent in 2009. Norway will move down on the list of the world's richest countries. (And perhaps this is not altogether a bad thing.)

Norwegian firms are affected when households the world over buy fewer cars and furniture and fewer ships are built. Lower oil prices will probably also result in a fall in investment on the continental shelf in the years ahead. But let us not forget that petroleum prices are still higher than the industry dared hope just a few years ago.

The competitiveness of the Norwegian business sector declined during the upturn (Chart 14). Although the depreciation of the krone since September 2008 will redress the balance somewhat, we must nevertheless expect job losses in manufacturing. Indeed, recent years' growth in this industry was an unexpected break in the long-term trend.

Norwegian households have built up debt over many years. In the mid-1990s, debt was one fifth higher than income. In 2008, debt was twice as high as income (Chart 15).

We have no clear basis for determining what constitutes sustainable debt. People today spend less of their income on basic necessities and have more to spend on their homes and mortgages. Changes in credit markets have provided greater opportunities to spread consumption over a lifetime. The public safety net is also gradually being expanded, which may lead to lower saving.

The experience of recent years nevertheless indicates that the level of debt is on the high side. Growth in private consumption slowed sharply when interest rates rose to more normal levels through 2007.

Household debt is largely secured on residential property. When residential property falls in value – and we are probably not at the end of this road yet – consumers have less leeway. A larger number will want to reduce their debt, and banks will curtail lending.

All in all, it must be expected that households will deleverage and be more cautious in their consumption and investment in the years ahead.

It is easy to bury one's head in the sand when the economic situation deteriorates.

But who could have foreseen in 1990 that we were on the brink of a golden decade that would see a boom in the IT and communications industry? And who would have imagined in 2002 that Norwegian manufacturing would experience a new wave of growth?

Fortunately, there are also many examples of innovation, particularly when times have been bad. Nokia managed to make the transition from rubber boots to new technology when the Finnish economy collapsed at the beginning of the 1990s. In Norway, the Norwegian telecom system was deregulated and Telenor developed into a large international company. During the downturn at the end of the 1980s, Tandberg started developing video conferencing systems.

In the industrial centres Mo i Rana, Raufoss and Kongsberg, rich technological communities emerged after the collapse of government enterprises in the 1980s.

The merchants behind the grocery chains Rimi and Rema started business on a small scale during the downturn at the end of the 1970s. The furniture producer Stokke – makers of the world-famous Tripp Trapp chair for children – started operations in western Norway in the midst of the economic crisis in the 1930s.

Economic policy

The measures now being implemented are intended to provide a bridge until market economies generate new growth under their own steam.

The authorities in many countries are now testing the boundaries of active economic policy. And some have overstepped them.

A number of countries have had their credit rating downgraded and have lost their economic room for manoeuvre, obliging them to seek support from neighbouring countries and the IMF. In the euro area, a number of states with high debt or large deficits are paying dearly for their credit (Chart 16).

In monetary policy, the interest rate weapon is being deployed to the full. In the US, Japan and Switzerland, the interest rate is close to zero.

But the instruments that are benefiting the economy now may weaken the growth potential further ahead.

Large budget deficits must be reduced over time and growth in government debt preferably scaled back.

Households may begin to save more in order to be prepared for higher taxes or lower state benefits in the future. This will weaken the current and future effect of the measures now being implemented.

Governments that have provided capital injections or loans to banks and firms are relieving owners of risk. This may foster the idea that the government will also pick up the tab next time. Risk may then again be priced too low, leading to a new round of debt accumulation.

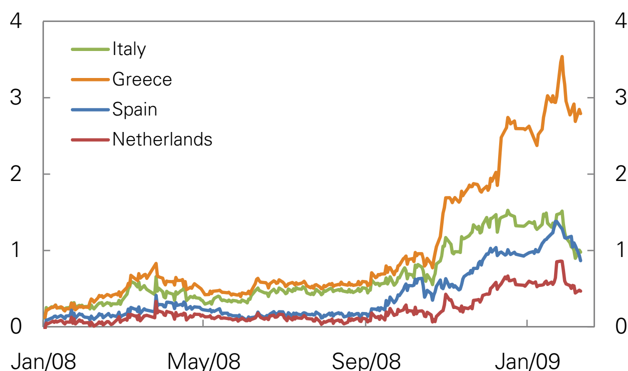
Norway is more fortunate than most. Government finances are sound, with substantial net wealth and a trade surplus. Unlike many other countries, our banks have not overexpanded (Chart 17). The level of activity in the Norwegian economy was high without expectations of higher inflation when the downturn occurred. Inflation was low and stable.

The state of our economy shows that the fiscal framework is sound.

From 2008 to 2009 – during the downturn – the government budget will stimulate the mainland economy by the equivalent of 5 per cent of GDP, or NOK 90 billion. Half will automatically be channelled through unemployment benefit, which will cushion the impact on purchasing power for those who lose their jobs, and through lower taxes for households and firms, without an attendant reduction in government expenditure. The remainder comprises active measures and the gradual increase in petroleum revenue spending (Chart 18).

Credibility is enhanced when fiscal policy adheres to the same strategy over several years and when the automatic stabilisers are also allowed to operate when tax revenues are high. As a result, the Norwegian government

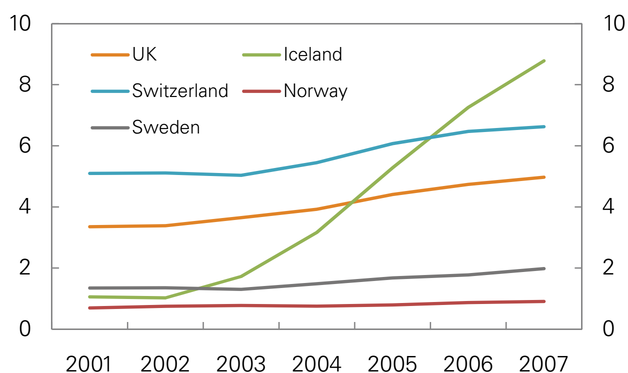
Chart 16 Interest rate premiums on government debt.[1] Compared with Germany. Percentage points. 1 January 2008 – 10 February 2009



1) 5-year government bonds.

Source: Thomson Reuters

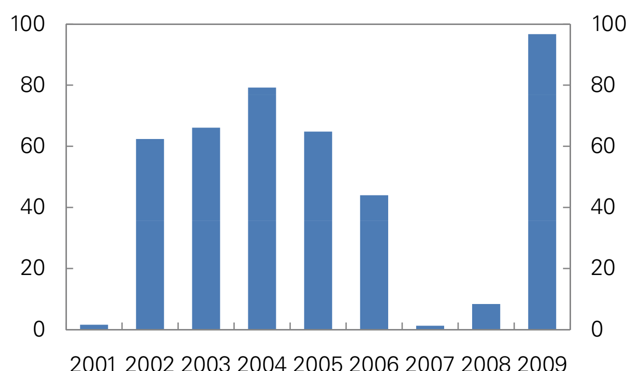
Chart 17 Size of the banking sector. Total assets as share of GDP. 2001 – 2007



UK: UK resident banks
Switzerland: All banks, excluding foreign-owned branches
Sweden: All banks
Iceland: Kaupthing, Landsbanki and Glitnir and their foreign subsidiaries
Norway: All banks, excluding foreign-owned branches and subsidiaries

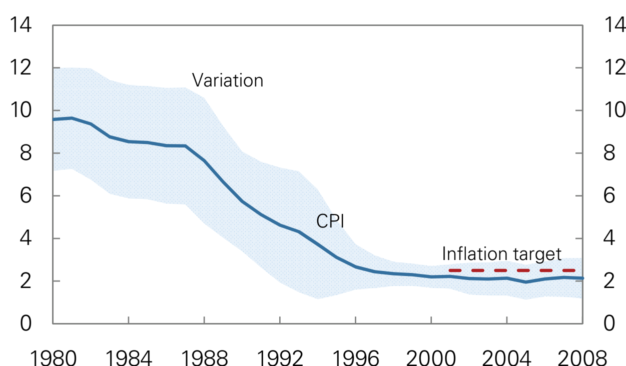
Sources: Swiss National Bank, Bank of England, Riksbanken, IMF, Financial Supervisory Authorities Iceland and Norges Bank

Chart 18 Petroleum revenue spending in the government budget. In billions of NOK. 2001 – 2007



Source: Ministry of Finance and Norges Bank

Chart 19 Inflation. Moving 10-year average[1)] and variation[2)] in CPI[3)]. Per cent. 1980 – 2008



1) The moving average is calculated 7 years back and 2 years ahead.

2) The band around the CPI is the variation adjusted for tax changes and excluding energy products in the average period, measured by +/- one standard deviation.

3) Projections for 2008 – 2010 from PPR 3/08 form the basis for this estimate.

Sources: Statistics Norway and Norges Bank

can spend money during a downturn without prompting a rise in consumer saving in order to meet future tax expenses and without pushing up yields on government securities as a result. The government still has freedom of manoeuvre.

The operational objective of monetary policy is low and stable inflation with annual consumer price inflation of close to 2.5 per cent over time. Over the past ten years, inflation has averaged 2 per cent, which is close to but somewhat lower than the target, and it fluctuates to a lesser extent than previously (Chart 19). In the recent period of expansion, inflation rose to 3 per cent in 2008, but was restrained without raising the key rate to a high level.[5]

The advantages of economic agents anticipating low and stable inflation are now clearly evident. They can be quite sure that inflation over time will be close to 2.5 per cent. This enables interest rate setting to be more effective. When the nominal interest rate is reduced, the real interest rate falls accordingly, and it is this rate that influences decisions made by households and enterprises.

Interest rate setting still provides some scope for stimulus.

When inflation is anchored, economic agents do not expect inflation to accelerate over a period in Norway even if the krone depreciates. The krone can then decrease in value without monetary policy having to be tightened. This will curb the decline in our export industry. In bad times, a marked krone depreciation might even be necessary to hold up inflation close to 2.5 per cent. In the downturns in 1990 and 1998, the opposite action was taken: the interest rate had to be increased in order to stabilise the krone and keep inflation in check.

Even though fiscal policy and monetary policy have had the intended effect, there have been fluctuations in output and employment. We have experienced a period of strong credit growth. During the upturn, the housing market was increasingly marked by the belief that house prices would always rise. Current cyclical developments reflect falling house prices and a necessary deleveraging among households and enterprises.

Developments in Norway, and to an even greater extent in other countries, show that economic policy instruments are not perfect. The interplay between credit and property prices in particular poses a challenge.

Interest rate setting influences this interplay only indirectly. The interest rate rises in good times when inflation is expected to increase and falls when growth and inflation moderate. The interest rate is an approximate instrument, which can be used to keep inflation in check over time and thereby stabilise output and employment. The instrument must not be overburdened.

Attempts to tighten monetary policy in the growth period from 2003 would, for example, have resulted in higher capital inflows, a noticeably stronger krone and a decline in manufacturing, even lower inflation, higher growth in real wages and more foreign currency loans to households and enterprises. The rise in credit and house prices would probably not have been affected to any extent and the current turnaround in the domestic economy would have been stronger and the fluctuations for our fragile krone even more pronounced.

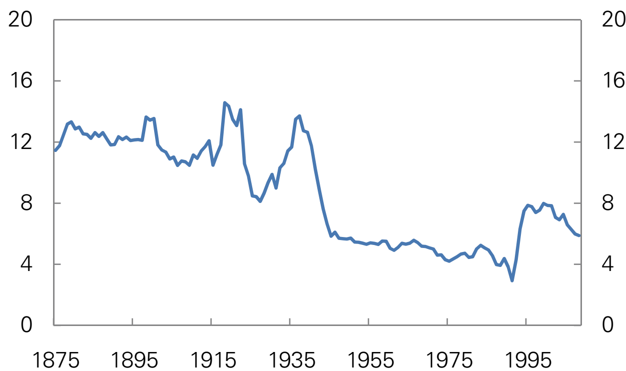
I cannot discuss the interaction between the housing market and household debt without touching upon housing taxation. Housing capital represents a large share of household wealth. The taxable benefit for owner-occupied dwellings, which in any event was based on setting the value of dwellings at a low level, was removed in 2005, while the deduction in income for debt interest was retained. Owner-occupiers can thereby deduct expenses in connection with earning income but are not taxed on the benefit. With this tax wedge, the interest rate level that is right for households is too high for firms. It shields borrowers from a higher interest rate in upturns and thus has a stronger impact on house prices.

It would not be appropriate to increase housing taxation now, but a reform is to be recommended when the turnaround occurs.

Economic agents can be myopic. It is short-sighted to base assessments of sustainable levels of debt on today's variable interest rates. Long-term, fixed interest rates

5 Different indicators of underlying inflation were close to 3 per cent in 2008, while the rise in total consumer prices was 3.8 per cent.

Chart 20 Banks' equity capital.[1)]
Per cent of total assets. 1875 – 2008 (Q3)



[1)] Includes savings and commercial banks

Sources: Klovland (2007), Statistics Norway and Norges Bank

Figures for banks' equity capital before 1918 are based on: Jan Tore Klovland (2007): "A reconstruction of the balance sheets of savings banks in Norway 1822-1875" and "A reconstruction of the balance sheets of commercial banks in Norway1848 – 1900" in Øyvind Eitrheim, Jan Tore Klovland and Jan F. Qvigstad (Ed.) (2007): "Historical Monetary Statistics for Norway – Part I" Norges Bank's Occasional Papers, No. 38, Oslo. Statistics Norway is the source for figures from 1919 to 1995. Norges Bank is the source for figures from 1996.

provide a far better guideline in this context. Homebuyers, and the banks providing their mortgages, must take into account that variable rates over time will be around 6 per cent, sometimes higher.

There are also other sources of fluctuations in credit and property prices.

Banking is procyclical. In upturns, loan losses are low, increasing banks' profits. Access to equity capital is ample, providing the basis for strong lending growth.

Losses increase in downturns, and the supply of equity capital can dry up, compelling banks to restrict their lending. The impact is stronger since the value of property used as collateral fluctuates in step with cyclical developments. At the same time, counterparties and rating agencies may require higher capital levels. When credit is rationed by banks with large market shares, in regional or national terms, sound investment projects are also postponed. This results in an adverse feedback loop, with banks incurring higher loan losses and weaker earnings – as economic activity stalls.

Banks operate with very low levels of equity capital. A manufacturing enterprise or a firm in the service sector should preferably have an equity ratio of between 30 and 70 per cent, depending on the level of risk involved. Banks can operate with a far lower level of equity capital because they are supposed to diversify risk, have sound management systems and be well regulated and under supervision.

In Norway, banks' equity capital makes up six per cent of their assets. Before the Second World War, the ratio was over 10 per cent, falling to five per cent in the postwar period. Government capital injections resulted in a rise in equity capital at the beginning of the 1990s, but the ratio has fallen again in recent years (Chart 20).

Equity capital in investment banks in the US and Europe was very low, as low as 2-3 per cent of total assets. Many of these banks have now collapsed.

The authorities in many countries are working to enhance financial market resilience. For Norway, it would not be appropriate to return to the regulatory regime of the postwar period. Interest rate regulation, credit budgets, a wide range of state banks, regulation of cross-border capital movements and a fixed exchange rate are not the answer.

Instead, new and higher capital requirements must be imposed on banks.

Banks calculate how much capital they need using their own risk models. The models capture losses and gains previously generated by lending. Equity capital requirements are determined by historical credit performance. One drawback is that the historical basis for the models, and hence for the risk assessments, is too limited. With losses now rising, as a result of the abrupt and pronounced turnaround, banks must increase equity capital. Thus the rules governing capital requirements amplify the economic cycle.

Three changes are particularly relevant:

First, for a given risk assessment, capital requirements must be higher.

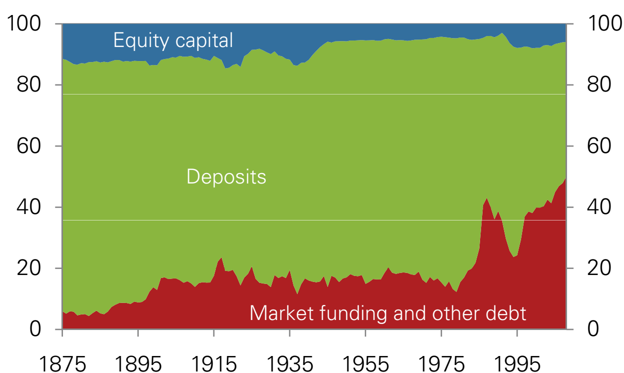
Second, banks must not be able to reduce capital below a minimum level even if they extend loans that, according to the models, seemingly involve low risk.

Third, banks must build up strong capital buffers over and above the minimum requirement in normal times. Then the banks would not have to increase capital when the turnaround occurs. On the contrary, they would be able to absorb losses, thereby avoiding the need to ration credit in bad times.

Norwegian banks do not have sufficient buffers today to safeguard their own, their shareholders' or the economy's best interests. That is why the government is now supplying risk capital. There should be no doubt that banks have the capital they need.

In addition, banks' funding methods make them vulnerable (Chart 21). Earlier, Norwegian banks primarily obtained funds through deposits by households and enterprises. In recent years, banks have borrowed heavily in both domestic and foreign markets. During the crisis, this proved to involve high liquidity risk for banks. Long-term credit markets have now dried up. The government and Norges Bank have therefore taken on the role of

Chart 21 Banks' sources of funding in Norway[1)]
Per cent of total assets. 1875 – 2008 (Q3)



[1)] Includes savings and commercial banks

Sources: Klovland (2007), Matre (1992), Statistics Norway and Norges Bank

Figures are taken from the same sources as in chart 20, and from Hege Imset Matre, H. I. (1992): "Norske forretningsbanker 1848 – 1990: En tilbakeføring av forretningsbankstatistikken" (Norwegian commercial banks 1848-1990). Report No 41 from the research programme Det nye pengesamfunnet.

lender. In the future, in regulations and in practice, deposits must again take precedence as the largest source of funding for banks. Bonds collateralised by high quality mortgages will probably also be important.

Higher capital requirements and new funding terms will result in higher costs for banks. Depositors and borrowers will have to foot the bill, and interest margins will probably rise. Banks' competitiveness will also deteriorate. The bond market and other markets where there is direct contact between borrower and lender will gain a competitive advantage. New requirements for banks must also be followed up, again with improved regulation.

The group comprising the twenty largest economies in the world[6] are now discussing how to tackle the crisis and prevent it happening again. It will be important to avoid protectionism and trade wars.

Moreover, the ambition is to establish a new and more sustainable financial architecture.

Markets are integrated and banks are global, while the supervisory authorities are national and the application of rules varies. Supervisory authorities must be strengthened and adopt a uniform approach to banks, and regulations must be improved. National supervisory authorities have tended to be reluctant to impose stringent requirements on their banks for fear that their competitiveness will deteriorate. It is important to avoid such slippage in the rules towards an agreed minimum level that is too low. For Norway, it is essential that rules are applied stringently and uniformly in all the Nordic countries since banks based in Sweden and Denmark have large market shares in Norway and Norwegian banks have ambitions in Scandinavia.

In recent years, there has been little cooperation across countries in the field of macroeconomic policy. The view has been that all is well as long as each country keeps its own house in order. This is an important point of departure, but we have now presumably learned that imbalances and risk arise when large countries do not sufficiently take into account that their own choices also influence those of others.

The International Monetary Fund (IMF) must be given a more important role. The Fund must enhance its surveillance activities and its advice must be acted upon to a greater extent. However, this probably requires changes in the IMF's governance structure. Countries that are now gaining in economic strength are seeking greater influence. The IMF must also improve its reputation in these countries.

Government wealth and saving

International capital markets have been a boon to Norway. We drew on borrowing opportunities abroad when the petroleum industry was being built up. We did the same in order to expand welfare schemes and to finance the countercyclical policy of the mid-1970s and the early 1990s. National oil and gas resources are now converted into equities and bonds abroad.

Other small industrial countries are also making active use of global capital markets. Our neighbouring country Sweden has recorded large balance-of-payments surpluses. Switzerland has a high level of saving and a recurring surplus. Australia, on the other hand, has been able to record a deficit since 1975.

This year we are celebrating the works of the Nobel Prize-winning author Knut Hamsun. In the small community of Polden, in the Hamsun trilogy August, far away from large capital markets, the inhabitants live impoverished lives, subsisting on a little fishing and agriculture. But the community changes when wealth arrives in the form of a herring windfall.

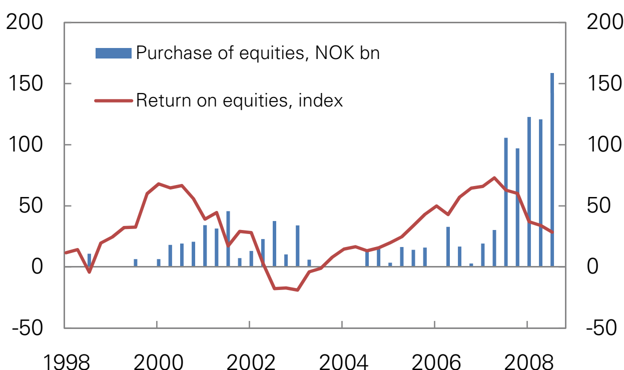
August says:

"*... you're not to plant anything you can eat near your door. It doesn't look right. I've got something better to put there – bushes, garden shrubs.*" [7]

[6] G20: group comprising 19 countries and the EU. Member countries are among the world's largest economies and include members of the G7.

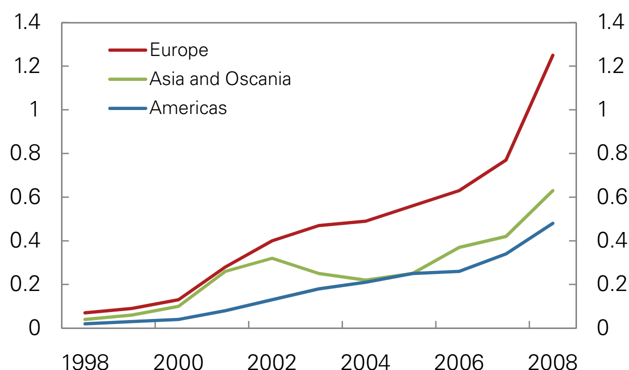
[7] Knut Hamsun (1976): "August". In *Samlede Verker* 11, Gyldendal Norsk Forlag, p. 120. (Unofficial translation by Norges Bank's translators)

Chart 22 Purchase of equities. Billions of NOK. Return on equities. Index. 1997 Q4 = 0. 1998 Q1 – 2008 Q3



Source: Norges Bank

Chart 23 Ownership interests in stock markets. Per cent. 1998 – 2008 (Q3)



Sources: FTSE and Norges Bank

Farming is abandoned, and then, a few years later, the herring disappears.

The Norwegian government has not followed August's advice, but has spread its wealth. It is partly invested in ownership interests in Norwegian companies, partly in infrastructure, partly in oil and gas and partly in equities and bonds abroad. When there are prospects of markedly slower growth, as is the case now, the value of all government assets falls. This also applies to buildings, roads, the power supply and other infrastructure where the government does not concern itself with regular valuations.

Investments abroad by the Government Pension Fund – Global are also spread between equities and bonds from all over the world. The equity portion is now being increased from 40 to 60 per cent.

A long-term investor receives extra compensation because the value of equities fluctuates considerably. Many are now incurring losses on equities and corporate bonds. This experience will result in higher required returns in the future.

Under the Fund's strategy, more equities will be bought when equity prices fall and fewer when they rise (Chart 22). The Fund therefore purchased a large volume of equities from 2001 to 2003 and is buying a considerable volume now. Of the equities now owned by the Fund, 40 per cent were purchased last year when prices were moving down.

As a result, ownership in the business sector in the US, Europe and Asia has increased (Chart 23) – in companies' human capital, in their machinery and equipment, brands and organisation. In the long run, and even though many companies have now folded, it may perhaps be at least as safe as extending loans.

Conclusion

Let me conclude.

At the moment, activity is falling in the Norwegian economy, as elsewhere. The source of the downturn is external. We cannot shield ourselves from its impact, but we can decide how we will address the turnaround. The global financial highway is now being modernised and overhauled. It is essential that traffic again flows smoothly.

Rimbereid asks:

"In which landscape
will we lay our next lucrative track?" [8]

Norway has a credible and robust economic policy, and a business sector that is quick to adapt. This is a good point of departure.

[8] Øyvind Rimbereid, 2008: *Herbarium*, p.54. (Unofficial translation by Norges Bank's translators)