Jarle Bergo: Cyclical developments, monetary policy and the krone exchange rate

Speech by Mr Jarle Bergo, Deputy Governor of Norges Bank (Central Bank of Norway), at Østfold University College, Sarpsborg, 28 September 2006.

The text below may differ slightly from the actual presentation. The speech is based on the assessments presented at Norges Bank's press conference following the Executive Board's monetary policy meeting on 27 September, Inflation Report 2/06 and previous speeches.

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Cyclical developments

The cyclical upturn in the Norwegian economy continues. Growth has been strong since mid-2003.

Real income growth has been solid in both the household and corporate sectors. Household demand, which spurred the recovery, is still on the rise. Many Norwegian export companies are operating at full capacity with solid profit margins. High prices for Norway's export goods have contributed to a strong improvement in Norway's terms of trade. At the same time, there is solid growth in general government demand for goods and services.

Fixed investment has gradually become an important driving force behind the economic upturn.

Over the past couple of years, increased mainland business investment has contributed to the upturn in the Norwegian economy. Corporate profitability is high and companies are positive about the outlook ahead. The order book situation in manufacturing is highly satisfactory, and optimism appears to be high in most business sectors.

According to our regional network, the market situation is also positive for corporate services.

Petroleum investment has reached a high level after three years of strong growth. The large Ormen Lange and Snøhvit projects have contributed to the growth in investment. High oil prices led to buoyant activity even at fields that have been in production for a long period. Investment activity is also expected to remain high after the large development projects are phased out.

Information from the regional network suggests that petroleum investment is generating considerable impulses to activity in Norway's coastal regions. According to the network, suppliers to the petroleum industry are expecting sustained strong growth over the next few months.

Activity in the housing market appears to be buoyant again in 2006. In the past two years, housing investment has risen to a very high level. In 2005, the number of housing starts was the highest since the beginning of the 1980s.

Over the past six months, signs of labour market tightening have come into increasing evidence. Employment has accelerated and unemployment is falling rapidly. It appears that wage growth will be somewhat higher in 2006 than in 2005, as expected. Output has increased more rapidly than capacity over the past two to three years. The margin of idle capacity prevailing at the beginning of the upturn has been utilised.

At the same time, consumer price inflation adjusted for tax changes and excluding energy products (CPI-ATE) remains low and is lower than the inflation target. Other indicators of underlying inflation also show low inflation, albeit not as low as the CPI-ATE. In Norway, price impulses from imported consumer goods have been negative virtually every year since the mid-1990s. This is partly due to increased trade and a shift in imports towards low-cost countries.

The rise in prices for domestically produced goods and services pushed up CPI-ATE inflation until this year. Since the beginning of the year, domestic inflation has edged down, hovering around 1.3 per cent. The rise in prices has been lower than expected for both goods and services. There may be several factors behind the low inflation rate. Strong competition between various producers within the food industry and the construction industry may have had a dampening impact on inflation. In addition, productivity growth in retail trade has been high in the past few years. Intensified competition may also have contributed to curbing the rise in prices for banking and insurance services.

Global growth has been high in recent years. In the US and in China, growth has been high for a long period. Growth picked up in Japan last year, and this year conditions are conducive to increased growth in the euro area. Growth in China is expected to remain strong and contribute to pushing up growth in the global economy. Growth in the US is expected to be somewhat lower. Against this background, it appears that GDP growth among Norway's trading partners will be high again this year and remain firm over the next few years. However, the housing market in the US has weakened more than expected in recent months, and the uncertainty associated with economic developments in the US ahead has increased.

Interest rates are still low among many of our trading partners, in spite of the increases in several countries as a result of rising energy prices and higher consumer price inflation. In the US, there are now expectations that the interest rate peak has been reached, and that it will be lowered in the course of summer 2007. An increase in policy rates is expected in the euro area, Sweden, the UK, Australia, Japan and Switzerland in the coming year, but the increase is expected to be somewhat smaller than a few months ago.

On the whole, the framework conditions for the Norwegian economy are favourable. Strong international growth implies solid growth for the export industry. The rise in export prices is high while the rise in import prices is low. The petroleum sector is generating growth impulses to the broader economy and the interest rate level is low.

However, there is little slack in the Norwegian economy. A steadily rising share of enterprises lacks the capacity to accommodate increased demand, largely because of labour shortages. This must be taken into account in the formulation of monetary policy.

Monetary policy

In 2001, the Government and the Storting (Norwegian parliament) adopted new economic policy guidelines in Norway, partly against the background of the experience of the 1970s and 1980s.

In the period 1972 to 1986, we experienced high and variable inflation. Consumer prices rose almost twice as much as in Germany. At the same time, the value of the Norwegian krone against the German mark was almost halved, which contributed to high imported inflation. During this period, monetary policy was not oriented towards stabilising inflation.

In order to achieve price stability, monetary policy must provide the economy with a nominal anchor. From the mid-1980s, it was recognised that a substantial revision of economic policy was necessary and that the problems created by inflation had to be taken seriously. From 1986 to 1992, Norway operated a fixed exchange rate regime. At that time, the fixed exchange rate was the anchor for inflation in Norway. The difference between inflation in Norway and Germany narrowed substantially. Deteriorating competitiveness as a result of high wage growth would no longer be remedied by means of devaluations. Instead, imbalances in the labour market would be addressed by means of countercyclical policy. Substantial emphasis was placed on the importance of wage formation for employment. Only when wage growth dropped below the level of our trading partners did unemployment begin to fall and the manufacturing sector began to pick up.

The fixed exchange rate policy was not introduced in order to strengthen the internationally exposed business sector. On the contrary, it was a departure from the approach where monetary policy and frequent devaluations had been used to shelter these sectors. The fixed exchange rate was an intermediate target for achieving low and stable inflation.

The exchange rate remained stable up to autumn 1996, partly because wage growth was low and overall demand did not generate pressures in the economy. Gradually, the krone began to show wider fluctuations. The experience of the latter half of the 1990s demonstrated that monetary policy cannot fine-tune the exchange rate. Developments in international financial markets led to more pronounced fluctuations. And more fundamentally, when labour market pressures rose and incomes policy failed, exchange rate developments no longer provided signals to wage formation and fiscal policy. High petroleum revenues, fiscal slippage and expectations of increased government petroleum revenue spending contributed to this. The exchange rate was therefore no longer suitable as a nominal anchor. Towards the end of the 1990s, monetary policy placed emphasis on the fundamental preconditions for exchange rate stability. Monetary policy instruments were oriented in such a way that price and cost inflation was brought down to the price stability objective of the European Central Bank (ECB).

Pursuant to the Regulation of March 2001, the mandate for monetary policy stipulates that monetary policy shall be aimed at stability in the Norwegian krone's internal and external value, thereby contributing to stable exchange rate expectations. At the same time, monetary policy shall underpin fiscal policy by contributing to stable developments in output and employment. The operational objective of monetary policy is low and stable inflation, with annual consumer price inflation of approximately 2.5 per cent over time. The mandate implies that inflation targeting shall be flexible, so that weight is given to both variability in inflation and variability in output and employment.

Monetary policy in Norway is in line with the monetary policy conducted by most central banks in the OECD area.

In 2001, a plan was also drawn up for petroleum revenue spending over the central government budget. Government petroleum revenues are transferred to the Government Petroleum Fund, now called the Government Pension Fund - Global. The plan provides for annual petroleum revenue spending equivalent to the expected real return on the Fund, that is to say 4 per cent of the Fund. A measured increase in petroleum revenue spending provides greater stability in the real economy than a rapid withdrawal.

After this change in monetary policy orientation, a clear distribution of responsibilities among the different components of economic policy was established:

- Monetary policy steers inflation in the medium and long term and can also contribute to smoothing fluctuations in output and employment. The inflation target ensures a nominal anchor for economic agents' decisions about saving, investments, budgets and wages.
- The central government budget - growth in public expenditure - influences the krone exchange rate and the size of the internationally exposed business sector in the medium term. Government expenditure and revenues must be in balance in the long term.
- Wage formation and economic structures and incentives determine how well and how efficiently we utilise our labour resources and other economic resources.

The challenge to monetary policy is how the interest rate should be set ahead in order to prevent disturbances both to inflation and economic growth.

As a general rule, central banks influence the shortest money market rates via the policy rate. However, economic agents' consumption and investment decisions depend more on their interest rate expectations. Hence, monetary policy functions primarily by influencing expectations regarding future interest rates. Economic agents therefore need to understand the central bank's intentions in its interest-rate setting.

In the November 2005 *Inflation Report*, Norges Bank published its own forecast for the interest rate for the first time. The aim is to enhance the predictability of monetary policy. With a predictable monetary policy, market participants can react to new information in a way that contributes to stabilising developments in output and inflation.

Norges Bank's interest rate forecast is based on seeking to achieve an interest rate path that provides a reasonable balance between the objective of stabilising inflation at target and the objective of stabilising developments in output and employment within a reasonable time horizon, normally 1 - 3 years. Interest-rate setting is also assessed in the light of developments in property prices and credit.

Norges Bank forecasts inflation, output and the interest rate simultaneously. There is considerable uncertainty associated with the estimates of capacity utilisation in the economy (the output gap), and there is no simple relationship between developments in capacity utilisation and developments in inflation. It cannot therefore be argued with great conviction that it is possible to identify one particular interest rate forecast that provides the indisputably "best" trade-off in monetary policy. More often than not, there will be a number of possible interest rate paths that might be said to provide a reasonable balance, in view of the uncertainty involved.

The results of balancing this trade-off are published in the *Inflation Report* in the form of a chart that presents central projections for the interest rate, the exchange rate, inflation and capacity utilisation in the economy.

The formulation of a precise inflation target, our projection for the interest rate 3 - 4 years ahead and our desire to achieve a balance between output and inflation stability may perhaps give an impression of excessive optimism with respect to managing the economy and invite a repeat of earlier attempts to fine-tune the economy. But it is important to bear in mind the lessons drawn from the 1970s and 1980s, i.e. high stabilisation policy ambitions may lead to wide fluctuations in the economy, with high and variable inflation. In our conduct of monetary policy, we must not underestimate the uncertainty surrounding the decisions taken.

Even if the Bank publishes a forecast for the interest rate, this does not mean that the interest rate will follow the forecast throughout the projection period. Forecasts of inflation, output, the interest rate and other variables are based on an assessment of the current situation and a perception of how the economy functions. Disturbances to the economy may result in changes in the forecasts. Data revisions imply that the current economic situation is not fully known. Our ambition must be to reduce uncertainty with regard to our own response pattern. That actual interest rate developments will deviate somewhat from Norges Bank's forecast will probably be the rule rather than the exception.

Overall, inflation measured by the CPI-ATE is projected to pick up gradually over the next three years towards 2.5%. Developments since June have resulted in somewhat lower inflation than expected, and we must take this into account when drawing up the next *Inflation Report*. Looking ahead, labour shortages are expected to push up wage growth this year and next. Pressures in the economy are expected to continue to build up before receding towards a normal level.

The forecasts are uncertain and we also attempt to shed light on this. The figure illustrates the uncertainty surrounding the forecasts. The wider the fan chart is, the more uncertain the forecast. The uncertainty implies that the interest rate should normally be changed gradually, so that we can assess the effects of interest rate changes and other new information about economic developments.

Changes in forecasts are nothing new to financial market participants, who frequently change their expectations concerning future interest rates as the economy is exposed to disturbances. The deviation between market expectations and the actual interest rate has been substantial in periods. There is no reason to believe that Norges Bank will not also have to reassess its interest rate forecasts as new information emerges about economic developments.

According to the monetary policy strategy in *Inflation Report* 2/06, the sight deposit rate should be in the interval 2¾ - 3¾ per cent in the period to the publication of the next *Inflation Report* on 1 November, conditional on economic developments that are broadly in line with projections. Monetary policy is oriented towards a gradual increase in the interest rate - in small, not too frequent steps - towards a more normal level.

The analyses in *Inflation Report* 2/06 were based on a gradual increase in the interest rate towards a more normal level. In the first six months of 2006, the key rate was increased in two increments of 0.25 percentage point. There were prospects that the interest rate would rise further at about the same pace.

At the meeting on 27 September, Norges Bank’s Executive Board decided to leave the key rate, sight deposit rate, unchanged at 3.00 per cent. The background for the decision was formulated as follows:

"There is now little slack in the Norwegian economy. A steadily rising share of enterprises lacks the capacity to accommodate increased demand, largely because of labour shortages. The labour market has grown considerably tighter, and there are several signs that wage growth is picking up. Developments in aggregate demand, output and employment point to a higher interest rate.

At the same time, the rise in consumer prices is slowing, and the rise in prices excluding energy products is unexpectedly low. This suggests a continued low interest rate."

The Executive Board found that the strategy in the *Inflation Report* and overall new information warranted that the interest rate should be left unchanged at this meeting.

The Executive Board also stated that:

"Continued high capacity utilisation and growth will probably lead to a gradual pick-up in inflation. The interest rate will therefore be set so that monetary policy gradually becomes less expansionary."

Exchange rate developments

I have been asked in particular to discuss the krone exchange rate and the foreign exchange market. Exchange rate movements are difficult to project in the short and medium term. In the inflation reports, the exchange rate projections are based on the theory of uncovered interest rate parity, which postulates that the return on financial investments is the same, irrespective of the country invested in. According to this theory, the excange rate will remain stable if the interest rate differential against other countries is small.

In practice, this is not always the case. On the contrary, studies show that short-term exchange rate developments can best be described by means of a random walk process. This means that the best one-day ahead krone projection is the same-day exchange rate.

In the longer term, we nonetheless believe that monetary policy and the interest rate differential against other countries are important exchange rate determinants. However, there will be short-term exchange rate fluctuations not necessarily in tandem with the interest rate differential.

The chart shows the effective exchange rate for Norway and other small countries with inflation targeting. The fluctuations in the Norwegian krone are not particularly wide compared with the exchange rates of Switzerland, the UK and Sweden. In relation to the euro, the krone exchange rate has still varied between 7.22 and 9.25 since mid-1998.

If such variations feel uncomfortable, it is possible to hedge against them. The forward exchange and options markets have expanded in recent years. A deeper market reduces transaction costs and it is easier to find counterparties. This has provided companies with greater scope for hedging against short-term foreign exchange risk. The use of instruments that reduce the risks associated with a floating krone is also increasing in Norway.

However, in the somewhat longer run, exchange rate changes will have an impact. This is important if the exchange rate is to act as a shock absorber: When economic activity is high, an appreciation of the krone will restrain activity. Conversely, when there is a need for stimulating the economy, a weaker krone will contribute to growth.

Over a somewhat longer period, it is not the nominal exchange rate that is the most important. It is developments in competitiveness that is of the greatest significance for the business sector.

The chart shows labour costs in Norway compared with trading partners, calculated using a common currency. The real exchange rate measured by relative labour costs in a common currency is an expression of the cost competitiveness of Norwegian companies.

The real exchange rate has varied considerably over time. Nevertheless, there has been a tendency for the real exchange rate to revert to earlier levels. The point for 2006 shows the real exchange rate with the wages projections for 2006 presented in the latest *Inflation Report* and the exchange rate level so far this year.

The real exchange rate has been stronger in recent years than in the latter half of the 1990s, largely because of a stronger nominal exchange rate. The corollary to this is a marked improvement in Norway's terms of trade. The sharp rise in prices for oil and other Norwegian export products have contributed to the appreciation of the krone in recent years. The real krone exchange rate has appreciated because the Norwegian economy is faring well.

Developments in the real krone exchange rate do not provide a full description of competitiveness. Relative hourly labour costs are taken into account, but not productivity growth. If higher relative hourly wage growth in a country partly reflects higher productivity growth, an appreciation of the real exchange rate by this measure will not necessarily imply a deterioration in competitiveness.

The analyses in *Inflation Report* 2/2006 point towards a relatively stable exchange rate and somewhat higher wage growth in the next few years. As a result, the real exchange rate will remain at a relatively high level. With a reasonable degree of certainty, it can be said that the nominal exchange rate will swing more than that implied by our projections. Given the other assumptions in the *Inflation Report*, our best projections for the coming years is that the krone will hover around this level.

It is not easy to project the nominal exchange rate, but perhaps we can provide an indication of the movement in the real exchange rate in the very long term:

An economist at Norges Bank, Farooq Akram, has analysed the fundamental equilibrium real exchange rate for the Norwegian krone[1]. He takes into account that a steadily smaller share of our imports will be covered by current petroleum revenues and the return on the Government Pension Fund - Global.

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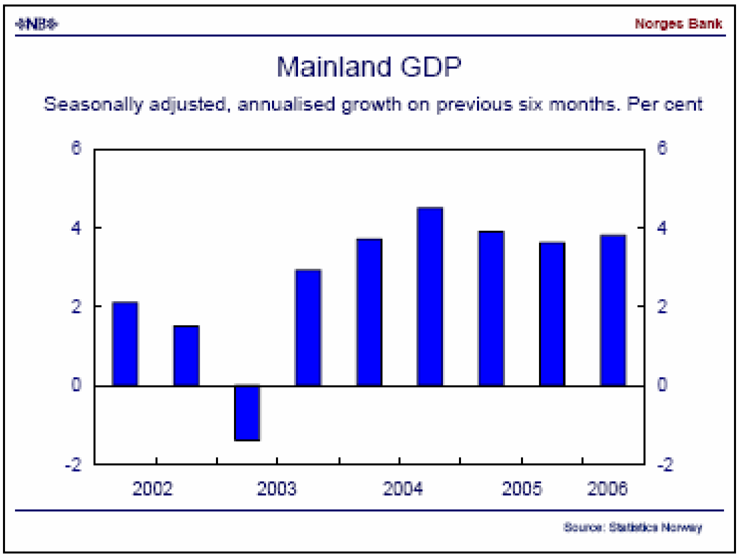
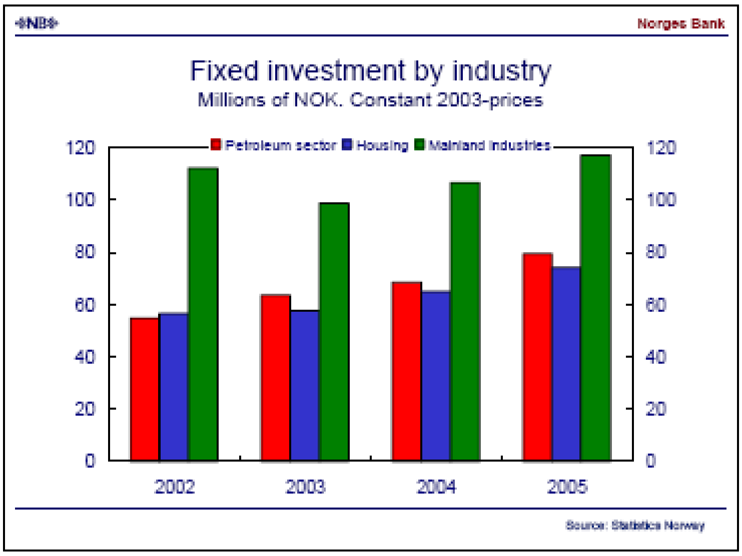
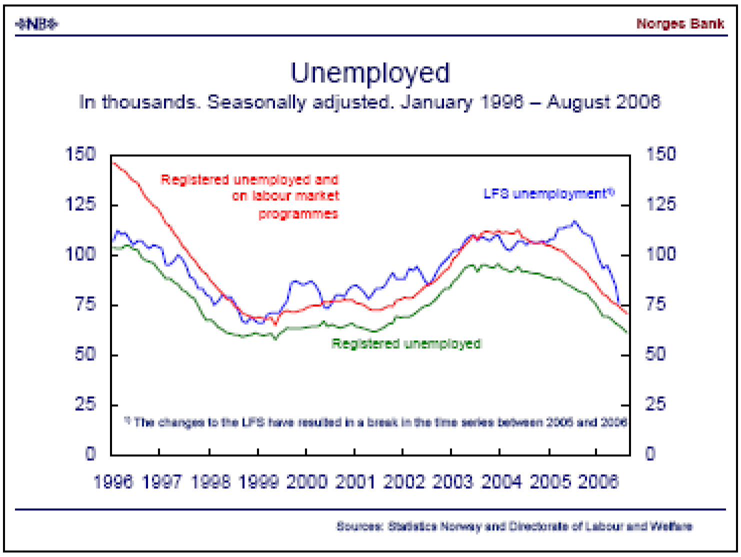
1 Q, Farooq Akram. Oil wealth and real exchange rates: The FEER for Norway. Working Paper 2004/16

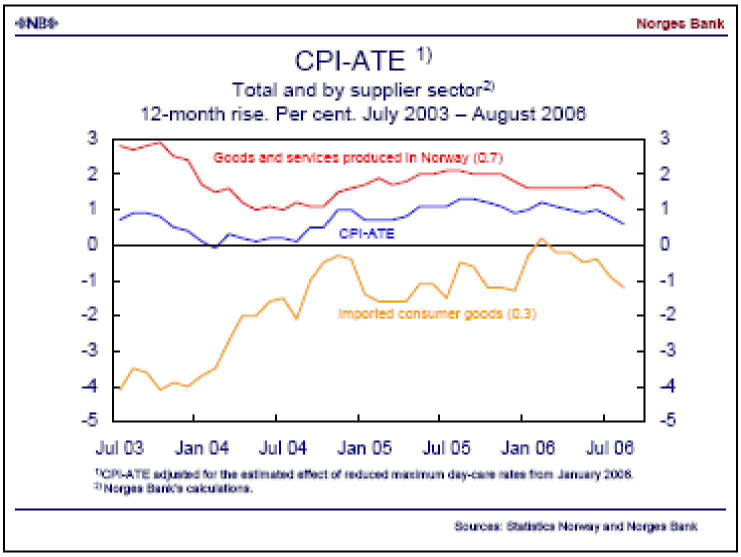
Rough estimates based on this study indicate that the real exchange rate that maintains the trade balance when petroleum wealth no longer accounts for the same share of the economy will be more in line with the real krone exchange rate prevailing in the 1960s - before oil production started.

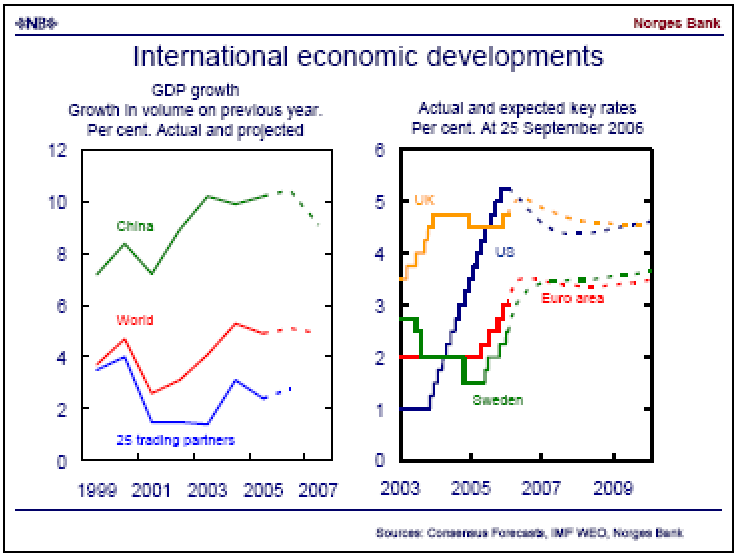
This depreciation can come about either by lower price and wage inflation in Norway than among trading partners or by a nominal weakening of the krone. The latter will probably be the least painful and also the most likely scenario as the krone exchange rate is floating.

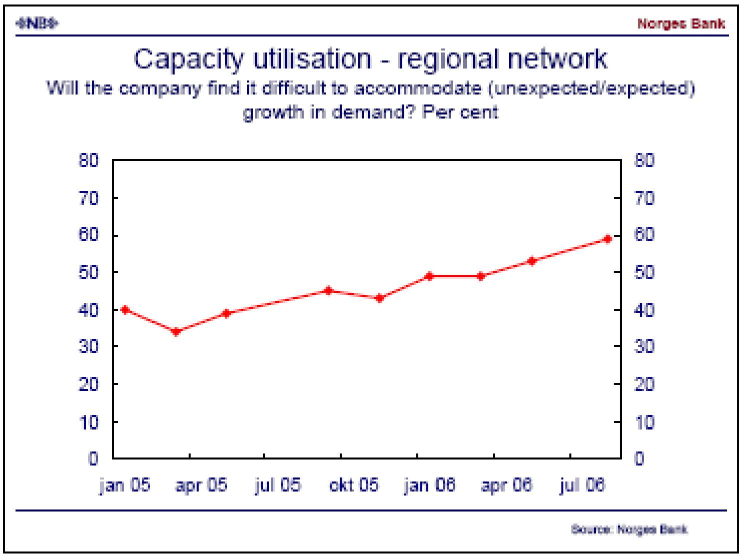




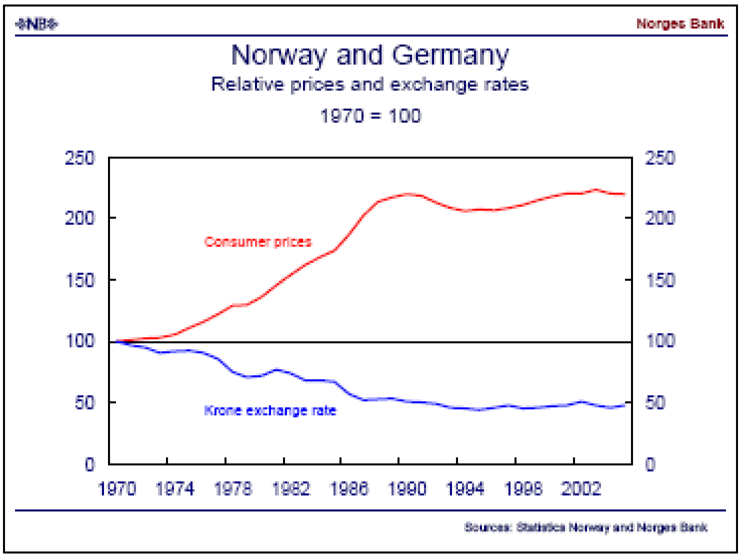

Norges Bank
Unemployed
In thousands. Seasonally adjusted. January 1996 – August 2006
Registered unemployed and on labour market programmes
LFS unemployment1)
Registered unemployed
1) The changes to the LFS have resulted in a break in the time series between 2005 and 2006
150
125
100
75
50
25
0
1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006
Sources: Statistics Norway and Directorate of Labour and Welfare


Norges Bank
CPI-ATE 1)
Total and by supplier sector2)
12-month rise. Per cent. July 2003 – August 2006
Goods and services produced in Norway (0.7)
CPI-ATE
Imported consumer goods (0.3)
3
2
1
0
-1
-2
-3
-4
-5
Jul 03
Jan 04
Jul 04
Jan 05
Jul 05
Jan 06
Jul 06
1)CPI-ATE adjusted for the estimated effect of reduced maximum day-care rates from January 2006.
2) Norges Bank's calculations.
Sources: Statistics Norway and Norges Bank

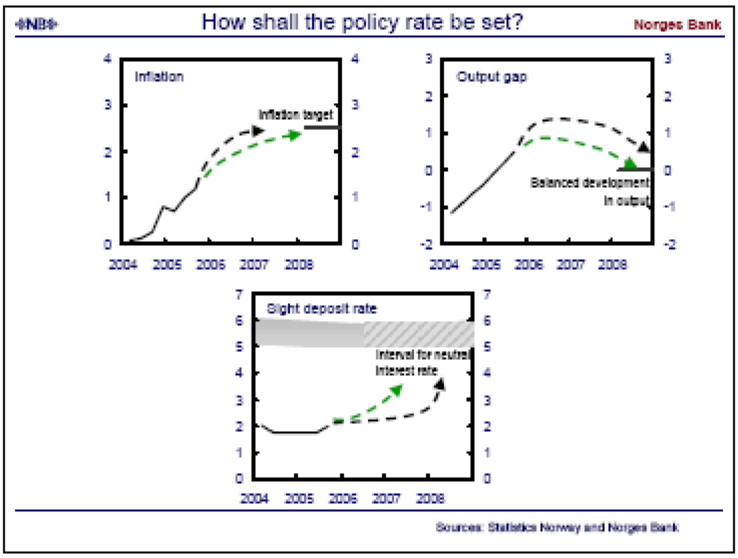

Norges Bank
International economic developments
GDP growth
Growth in volume on previous year.
Per cent. Actual and projected
China
World
25 trading partners
12
10
8
6
4
2
0
1999 2001 2003 2005 2007
Actual and expected key rates
Per cent. At 25 September 2006
UK
US
Euro area
Sweden
6
5
4
3
2
1
0
2003 2005 2007 2009
Sources: Consensus Forecasts, IMF WEO, Norges Bank



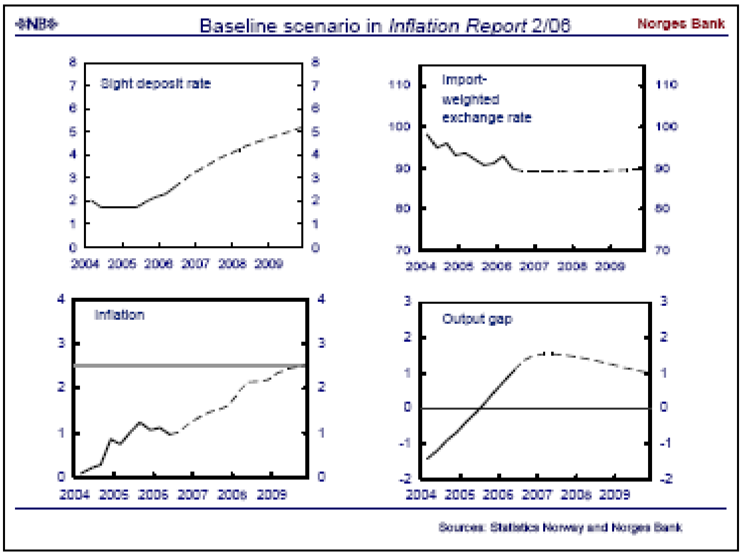
NB
Norges Bank
Capacity utilisation - regional network
Will the company find it difficult to accommodate (unexpected/expected) growth in demand? Per cent
80
70
60
50
40
30
20
10
0
jan 05
apr 05
jul 05
okt 05
jan 06
apr 06
jul 06
Source: Norges Bank



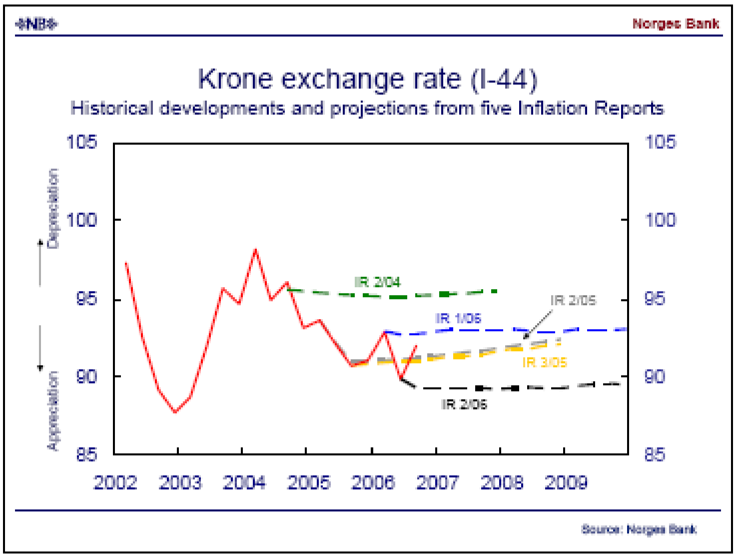
NB
Norges Bank
Norway and Germany
Relative prices and exchange rates
1970 = 100
250
200
150
100
50
0
Consumer prices
Krone exchange rate
1970
1974
1978
1982
1986
1990
1994
1998
2002
Sources: Statistics Norway and Norges Bank



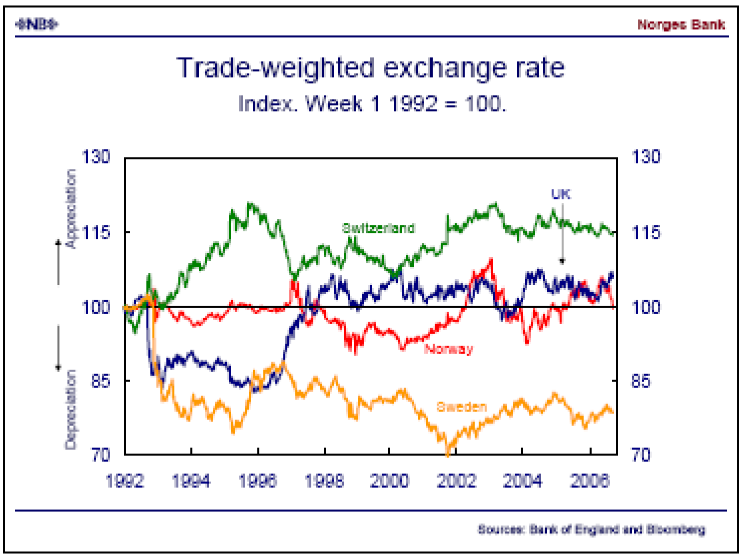
NB
How shall the policy rate be set?
Norges Bank
Inflation
Inflation target
Output gap
Balanced development in output
Sight deposit rate
Interval for neutral interest rate
2004
2005
2006
2007
2008
Sources: Statistics Norway and Norges Bank



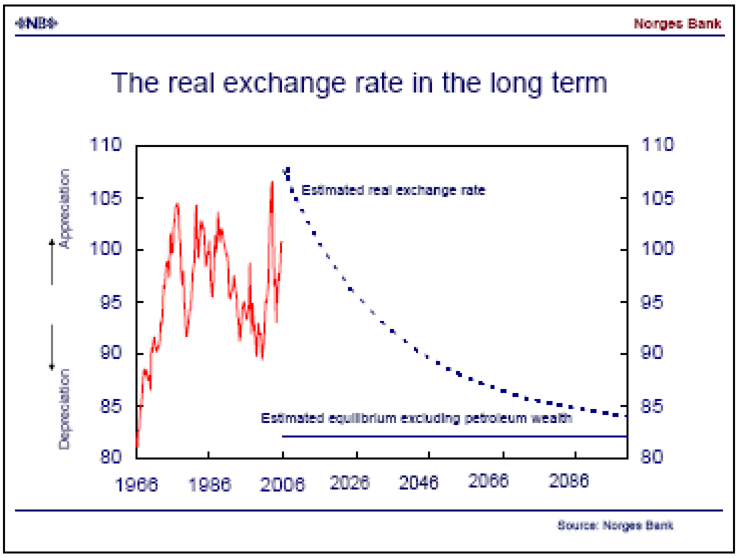
NB
Baseline scenario in *Inflation Report* 2/06
Norges Bank
Sight deposit rate
Import-
weighted
exchange rate
Inflation
Output gap
2004 2005 2006 2007 2008 2009
Sources: Statistics Norway and Norges Bank



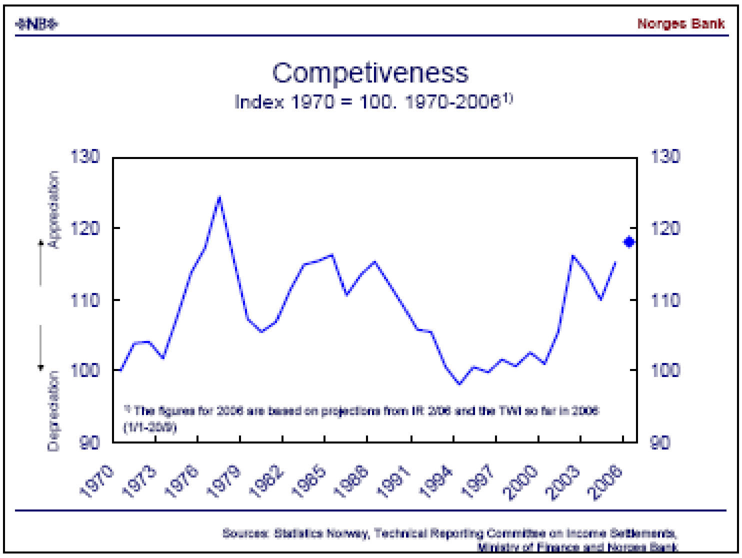
NB
Norges Bank
Krone exchange rate (I-44)
Historical developments and projections from five Inflation Reports
Depreciation
Appreciation
IR 2/04
IR 2/05
IR 1/06
IR 3/05
IR 2/06
2002 2003 2004 2005 2006 2007 2008 2009
Source: Norges Bank



NB
Norges Bank
Trade-weighted exchange rate
Index. Week 1 1992 = 100.
Appreciation
Depreciation
UK
Switzerland
Norway
Sweden
1992 1994 1996 1998 2000 2002 2004 2006
Sources: Bank of England and Bloomberg



NB
Norges Bank
The real exchange rate in the long term
Appreciation
Depreciation
Estimated real exchange rate
Estimated equilibrium excluding petroleum wealth
110
105
100
95
90
85
80
1966
1986
2006
2026
2046
2066
2086
Source: Norges Bank



NB
Norges Bank
Competiveness
Index 1970 = 100. 1970-2006[1)]
Appreciation
Depreciation
130
120
110
100
90
1970
1973
1976
1979
1982
1985
1988
1991
1994
1997
2000
2003
2006
1) The figures for 2006 are based on projections from IR 2/06 and the TWI so far in 2006 (1/1-20/9)
Sources: Statistics Norway, Technical Reporting Committee on Income Settlements, Ministry of Finance and Norges Bank