

## Jarle Berge: Monetary policy challenges and experiences in Norway

Speech by Mr Jarle Berge, Deputy Governor of Norges Bank (Central Bank of Norway), for the Norwegian Shipping Club, Oslo, 4 September 2006.

*Please note that the text below may differ slightly from the actual presentation. The address is based on the assessments presented at Norges Bank's press conference following the Executive Board's monetary policy meeting on 16 August, Inflation Report 2/06 and on previous speeches.*

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### Introduction

Monetary policy in Norway is oriented towards low and stable inflation, with annual consumer price inflation of close to 2.5 per cent over time. In its conduct of monetary policy, Norges Bank operates a flexible inflation targeting regime, so that weight is given to both variability in inflation and variability in output and employment.

Monetary policy functions through an interaction with other components of economic policy. Among other things, this interaction must take into account that the Norwegian economy is exposed to strong external influences, particularly through developments in oil and gas prices. Oil gives us an economic asset that is not available to many other countries, but it also poses considerable challenges.

First, when oil is extracted and sold, our national wealth is transformed from petroleum wealth into financial assets. Norway's national wealth belongs not only to our generation, but also to future generations. The authorities must therefore exercise fiscal discipline, taking into account long-term considerations.

Moreover, the size of the cash flow from petroleum activities varies considerably. If petroleum revenues were to be used as they accrue, this would lead to wide fluctuations in demand in the Norwegian economy and thereby amplify cyclical fluctuations.

Third, the use of petroleum revenues will have an impact on competitiveness in Norwegian business and industry. A high level and wide fluctuations in the use of petroleum revenues will have a negative impact on the operating parameters for internationally exposed industries.

The challenges associated with the emergence of the petroleum sector have contributed to the development of the four main pillars of Norway's economic policy, which were established in the 1990s and in 2001. The pillars are: the oil fund mechanism, the fiscal rule, a floating exchange rate and inflation targeting.

The Government Petroleum Fund was established in 1990 with a view to safeguarding long-term considerations in the use of petroleum revenues. The first allocation to the Fund was made in 1996, and the market value of the Government Pension Fund – Global, as the Fund is now called, had reached over NOK 1500 billion at the end of June this year. Under the oil fund mechanism, increased government petroleum revenues are invested abroad. This curbs the impact of oil price fluctuations on domestic demand and output - and on inflation and the krone exchange rate.

A floating krone exchange rate also has a stabilising effect, and the exchange rate normally appreciates in favourable periods and depreciates during adverse periods. A flexible exchange rate can reduce fluctuations in employment and output.

In March 2001, the fiscal rule and new guidelines for monetary policy were introduced. The fiscal rule implies that the central government budget deficit shall be equivalent over time to the expected real return on the Fund, quantified as 4 per cent. The operational target of monetary policy as defined by the Government is inflation of close to 2.5 per cent over time.

This establishes a clear distribution of responsibilities among the different components of economic policy. Monetary policy steers inflation in the medium and long term and can also contribute to smoothing swings in output and employment. The inflation target provides economic agents with an anchor for their decisions concerning saving, investment, budgets and wages. Fiscal policy – growth in public expenditure – influences the krone 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, the structure of the economy and incentives determine how well and how efficiently we utilise our labour resources and other economic resources.

The transition to inflation targeting in 2001 may have appeared at that time, and in Norway, to be a transition to a new and unfamiliar monetary policy system. But today's monetary policy system springs from an historical recognition of what monetary policy can in fact achieve.

In collaboration with the Norwegian School of Economics and Business Administration, Norges Bank has compiled price data from the mid-1600s onwards. History shows that price stability is the norm. High inflation is a phenomenon associated with monetary disturbances in times of war and need, and a 1970s and 1980s phenomenon associated with an unsound macroeconomic policy and undermining of the nominal anchor.

In many countries, including Norway, the perception in the 1960s and 1970s was that strong growth and low unemployment could be achieved if only we were willing to accept somewhat higher inflation. But experience showed that this was not an option. Counter-cyclical policy through the 1970s in Norway and a number of other countries contributed to rising inflation. Inflation expectations were gradually revised upwards and inflation took hold at a high level.

In both economic theory and practical policy, it was gradually recognised that there is no trade-off between inflation and unemployment in the long term. In the early 1980s, many countries again focused on the need to restore confidence in the nominal anchor. In Norway the shift in policy took place in 1986. Following the last devaluation of the krone in 1986, economic policy was oriented towards securing confidence in the fixed exchange rate system. A fixed exchange rate was an intermediate target for achieving low and stable inflation. The fixed rate policy was abandoned in 1992, and the experience of the latter half of the 1990s demonstrated that monetary policy cannot fine-tune the exchange rate. Norges Bank therefore placed increasing emphasis on low and stable inflation.

After almost two decades of high inflation, the rise in prices stabilised in many countries in the 1990s. At the beginning of the 1980s, annual inflation in industrial countries was about 13 per cent. In the course of the following decade, it fell below 2 per cent.

### **Monetary policy in other countries**

The formal framework for monetary policy varies somewhat across countries. Inflation targeting is the norm in small and medium-sized open economies, and has been introduced in more than 20 countries. New Zealand was the first to do so – in 1989. Canada, Sweden, Australia and the UK followed suit in the 1990s.

A number of countries that have not formally introduced inflation targeting have nevertheless oriented their monetary policy towards low and stable inflation in practice. Among them are the euro area countries and the US. Nor does the Bank of Japan have a formal inflation target, but since 9 March this year its monetary policy has been oriented towards achieving an inflation rate of between zero and two per cent in the medium and long term.

In a number of countries, price stability is ranked above managing output and employment. Examples are the UK and the euro area. Price stability is regarded as a condition for monetary policy contributing to stable output and employment.

In the Federal Reserve Act, in the US, the objectives of full employment, stable prices and moderate long-term interest rates are given equal weight. But the Federal Reserve states itself that in the long term stable prices are a condition for sustained output and employment growth.

The introduction of formal inflation targeting has been under discussion in the US for several years. The debate was rekindled with the appointment of Ben S. Bernanke as Chairman of the Federal Reserve on 1 February this year. He has argued that quantifying the concept of long-term price stability may reduce the uncertainty associated with monetary policy and more effectively anchor long-term inflation expectations. In his view, however, the introduction of a long-term inflation target is fully

consistent with current US monetary policy<sup>1</sup>. There has been little interest in US political circles in changing the monetary policy framework<sup>2</sup>.

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 national and international value, and at the same time 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% 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.

The concrete target for inflation varies somewhat among central banks. The inflation target may be formulated as an interval, for example 1-3 per cent, as in New Zealand or, as in Norway, as inflation of close to 2.5 per cent over time.

Partly owing to various disturbances to the economy, inflation cannot be expected to remain at target constantly. Central banks have somewhat varying formulations as to how rapidly inflation should be brought back to the target. Some central banks state that inflation should be brought back to target within a "reasonable time horizon" or "over the medium term". Others have quantified that the inflation target should normally be attained within two years, as in Sweden, or as in Norway, where the interest rate is set with a view to stabilising inflation at the target within a reasonable time horizon, normally 1 – 3 years.

In practice, the monetary policy conducted by most central banks is nonetheless similar. They orient monetary policy towards maintaining low and stable inflation. All central banks will reduce their policy rate when there are prospects of low inflation in the medium to long run and raise it when there are prospects of high inflation.

### **What distinguishes Norges Bank from other central banks?**

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

One difference, however, is that Norges Bank is conducting monetary policy in an oil economy. As a result of the high level of earnings and fluctuations in these petroleum revenues, the most important contribution fiscal policy can make to stabilising the Norwegian economy is to provide a sound, long-term strategy for the use of petroleum revenues. In other words, fiscal policy is subject to the fiscal rule. Attempts to use the central government budget to fine-tune economic activity may have a destabilising effect if these attempts are perceived as a breach of the long-term strategy for the phasing in of petroleum revenues.

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 projection 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.

So far, the Reserve Bank of New Zealand is the only other central bank that has experience in publishing its own interest rate projections. Most central banks that publish projections base their forecasts for developments in the economy on either a constant interest rate or on the assumption that the interest rate will shadow market interest rate expectations.

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<sup>1</sup> Testimony of Ben S. Bernanke, Nomination hearing before the Committee on Banking, Housing, and Urban Affairs, U.S. Senate, November 15, 2005.

<sup>2</sup> Remarks by Governor Edward M. Gramlich, Federal Reserve Board, "The Politics of Inflation Targeting", Paris, France, May 26, 2005.

Norges Bank's practice in this respect is in line with the recommendations of leading academics in the field of monetary policy, such as Professor Lars Svensson<sup>3</sup>: "... announcing the optimal projection – including the instrument-rate projection – and the analysis behind it would have the largest impact on private-sector expectations and be the most effective way to implement monetary policy."

Norges Bank's interest rate projection 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 this trade-off are presented in the *Inflation Report* in the form of a chart that presents baseline scenarios 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 in time and our desire to achieve a balance between output stability and inflation 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 must be expected to be the rule rather than the exception.

We therefore also attempt to shed light on the uncertainty surrounding these variables. The charts show the interest rate projection in the latest *Inflation Report*. The uncertainty is illustrated in a fan chart. 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.

### **The current economic situation**

Allow me to move on from a more general presentation of monetary policy to a closer look at the current economic situation and monetary policy assessments.

Since the marked deceleration of consumer price inflation as from 2003, monetary policy in Norway has been oriented towards bringing inflation up towards the target of 2.5 per cent. The low interest rate level has contributed to substantial growth in demand for goods and services. Petroleum investment,

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<sup>3</sup> Svensson, L.E.O. (2005): "Further developments of inflation targeting". Memo to Sveriges Riksbank's conference: "Inflation targeting: implementation, communication and effectiveness" 10 – 12. June 2005.

favourable prices in important export markets and a strong upturn in the world economy have also contributed to solid growth in the Norwegian economy. So far in the cyclical upturn, the mainland economy has grown by an average of close to 4 per cent annually.

Although the underlying rise in consumer prices has picked up from its trough two years ago, it remains moderate and well below the inflation target, even three years into this cyclical upturn.

The global economy is now in the strongest upturn since the early 1970s. Developments are particularly favourable in Asia, and the situation in a number of countries in Europe appears to be improving. Growth in the US has been high for a long period, but has declined somewhat so far this year. There are prospects that a weaker US housing market may lead to increased household saving and lower consumer demand. The effect of these developments on the global economy will depend on the scale and timing of the correction. International equity markets have stabilised following a turbulent period in May and have edged up through the summer.

Norges Bank's assessment is that global growth will abate somewhat from 2006 to 2007, but will remain solid. However, many observers have pointed out that the risk of weaker developments may have increased somewhat recently.

Interest rates remain low among several of our trading partners, even though they have been raised so far this year in a number of countries as a result of rising energy prices and higher consumer price inflation. In the US, there are now expectations that the interest rate has peaked, and that it will be lowered in the course of summer 2007. A rise in key rates is expected over the next year in the euro area, Sweden, the UK, Australia, Japan and Switzerland. One risk factor is that inflation in the US and the euro area may be higher than expected. In the event, interest rates internationally are likely to rise more than the current outlook would imply and curb growth among our trading partners.

In the past two years, oil prices have doubled, measured in USD. With little spare production capacity, even minor disruptions in supply or demand can have a relatively strong impact on prices. It is likely that global growth will remain buoyant. This may contribute to keeping oil prices at a high level. Recently, oil prices have been around USD 70 per barrel. Brent Blend futures prices have also climbed and indicate that oil prices will remain high for several years to come. Prices for a number of other commodities – including natural gas and some metals – have also risen sharply in recent years. So far, high oil prices have not led to slower growth in the world economy. However, there is a risk that rising or persistently high oil prices may gradually curb growth among important trading partners.

In its June *Inflation Report*, Norges Bank assumed that money market rates among our trading partners would rise gradually over the next three years. The path for domestic and external interest rates does not imply considerable changes in the krone exchange rate. Given solid global growth, demand for goods and services from Norwegian export companies may remain at a high level. A growing number of export companies are facing capacity constraints, particularly in the production of metals and refined petroleum products. Export growth in the years ahead will probably occur in industries such as the engineering and shipbuilding industries. Production growth is now high in these industries and employment is rising after declining over several years.

Capacity utilisation in the Norwegian economy is now higher than normal. Strong global growth is supporting both high demand and favourable prices for the Norwegian export sector. Although petroleum investment is likely to peak this year, prospects of persistently high oil prices will contribute to continued strong demand from the petroleum sector. High oil prices also generate substantial central government revenues and there are prospects of strong growth in the Government Pension Fund – Global in the next few years. This means that spending in line with the fiscal rule will lead to an increase in the structural, non-oil central government budget deficit. We assume that fiscal policy will provide some stimulus to aggregate demand and output in 2008 and 2009. A gradual increase in the interest rate will curb demand growth after a period.

Household debt and house prices have increased markedly over many years to historically high levels. House prices may now seem somewhat high in relation to developments in income, interest rates, unemployment and housing construction. The prospects of a gradual normalisation of interest rates may restrain credit growth and the rise in house prices. The interest burden is low, but will increase as interest rates rise. Intensified competition in the financial sector has contributed to lower interest margins on lending, which has curbed the rise in interest expenses to some extent.

## Monetary policy assessments and strategy

The Executive Board's assessment in *Inflation Report 2/06* was that the interest rate may gradually – in small, not too frequent steps – be brought back to a more normal level, and that the sight deposit rate should be in the interval 2¼ - 3¼ 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 the projections. In the first half of 2006, the interest rate was increased in two increments of 0.25 percentage point, and the *Inflation Report* announced that there were prospects that the interest rate would rise further at approximately the same pace.

In line with this strategy, Norges Bank's Executive Board decided to raise the sight deposit rate by 0.25 percentage point to 3.00 per cent at its meeting on 16 August. As a basis for the decision, it was pointed out that capacity constraints and a shortage of skilled labour are posing a mounting challenge to a number of industries. At the same time, corporate earnings are very high. Local government tax revenues have increased substantially. Household and corporate borrowing remains high. Property prices are rising markedly, and the level of building activity is high. Growth among our trading partners is solid, and a number of countries have raised their policy rates. These factors point to a higher interest rate.

At the same time, underlying consumer price inflation remains low. Clothing and footwear prices fell to a surprising extent in July. Different indicators of underlying inflation range from just under 1 per cent to close to 1¾ per cent, and energy prices are rising sharply. The krone exchange rate has depreciated somewhat recently, but is still fairly strong.

The Executive Board pointed out that the objective of bringing inflation back towards the target and anchoring inflation expectations implies a continued expansionary monetary policy. It is likely that continued high growth in output and employment will result in a gradual pick-up in inflation. The interest rate will therefore be set so that monetary policy gradually becomes less expansionary.

Monetary policy cannot fine-tune economic developments, but it can prevent the largest effects from occurring when the economy is exposed to disturbances. In some situations, it may be appropriate to hedge against particularly unfavourable developments. Norges Bank will continuously assess the effects of changes in interest rates and other new information concerning economic developments.

Thank you for your attention.

Norges Bank

### The four pillars of stabilisation policy

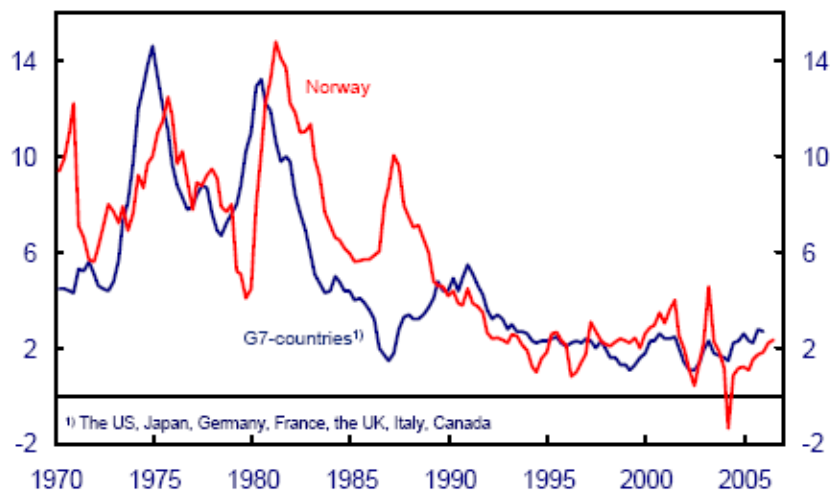
	Fiscal policy	Monetary policy
1990s	The oil fund mechanism	Floating exchange rate
2001	Fiscal rule for steady phasing in of petroleum revenues	Inflation target

## Monetary policy in other countries

- **Bank of England**
  - The Bank's monetary policy objective is to deliver price stability – low inflation – and, subject to that, to support the Government's economic objectives including those for growth and employment.
    - [www.bankofengland.co.uk/monetarypolicy/framework.htm](http://www.bankofengland.co.uk/monetarypolicy/framework.htm)
- **European Central Bank**
  - The (Maastricht) Treaty establishes a clear hierarchy of objectives for the Eurosystem. It assigns overriding importance to price stability
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  - to promote effectively the goals of maximum employment, stable prices, and moderate long-term interest rates
    - [www.federalreserve.gov/pt/pdf/pf\\_2.pdf](http://www.federalreserve.gov/pt/pdf/pf_2.pdf)

## Inflation in the G7 countries and in Norway

Annual change. Per cent



Sources: OECD, Statistics Norway and Norges Bank

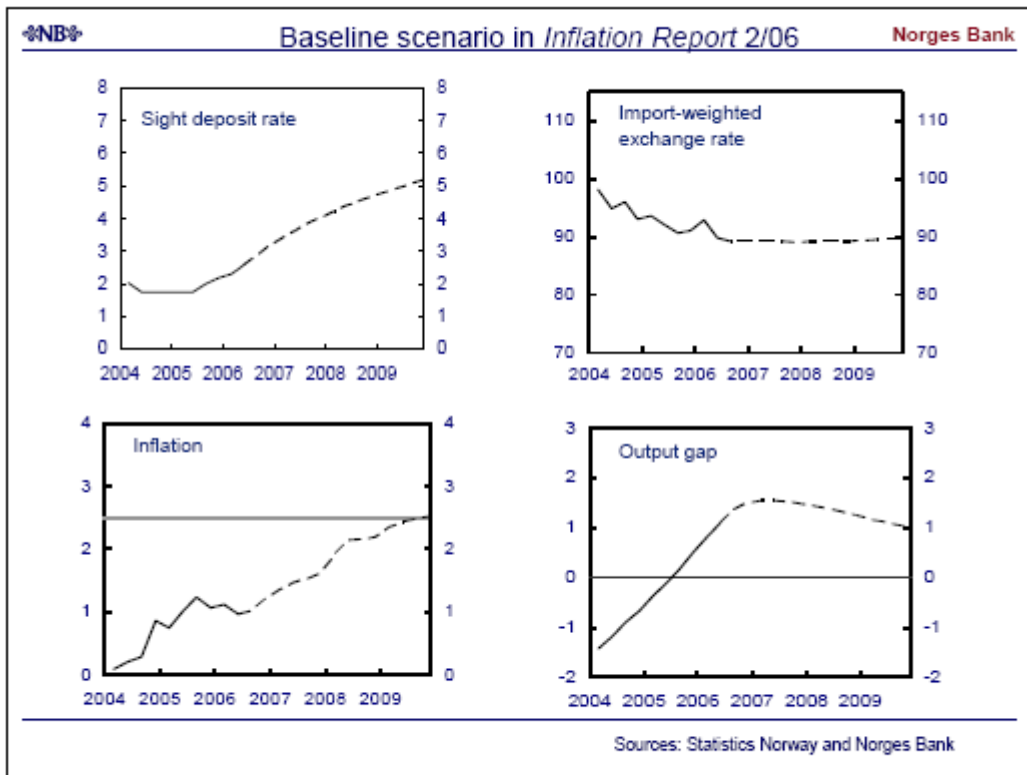
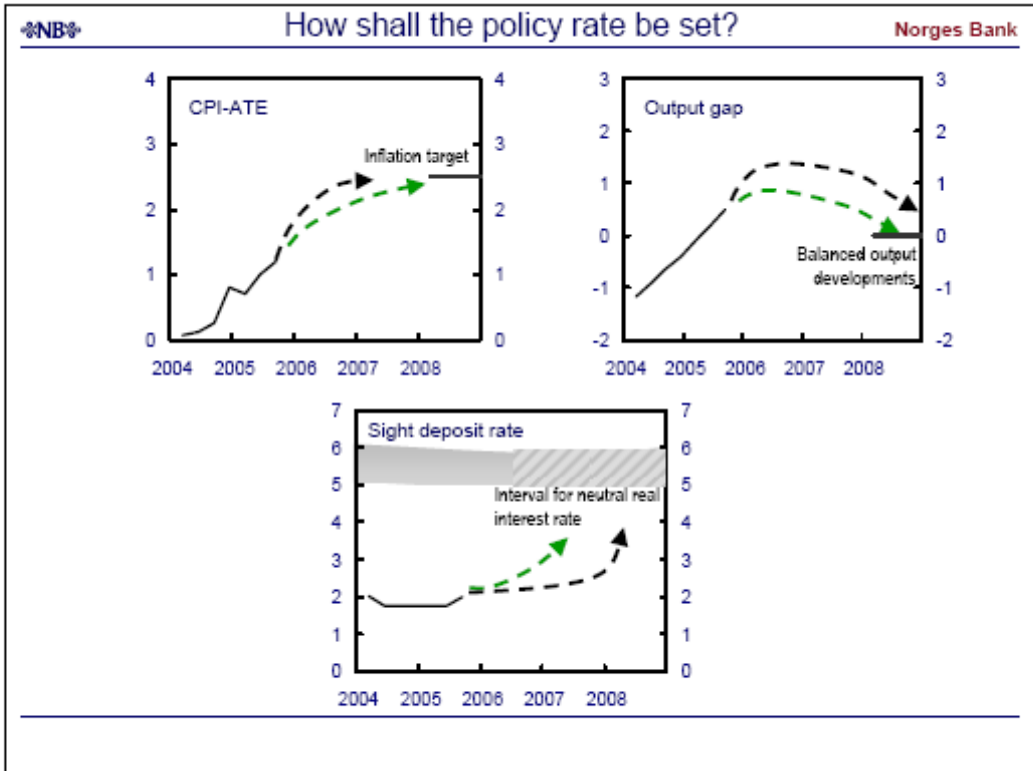
## Monetary policy in other countries

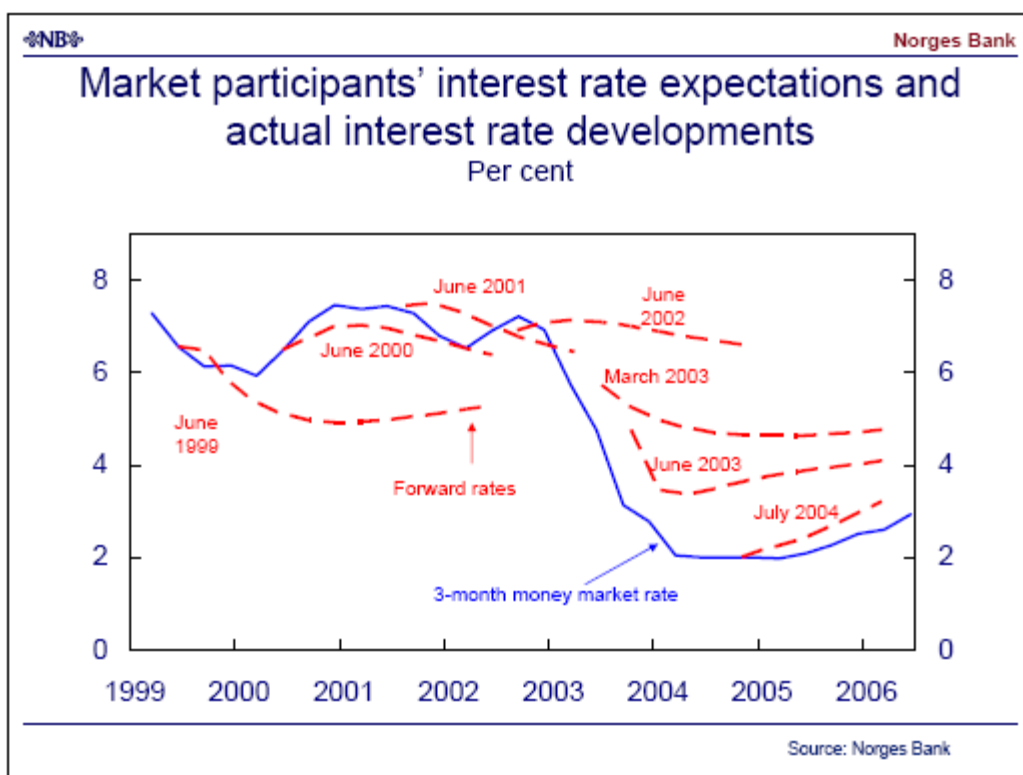
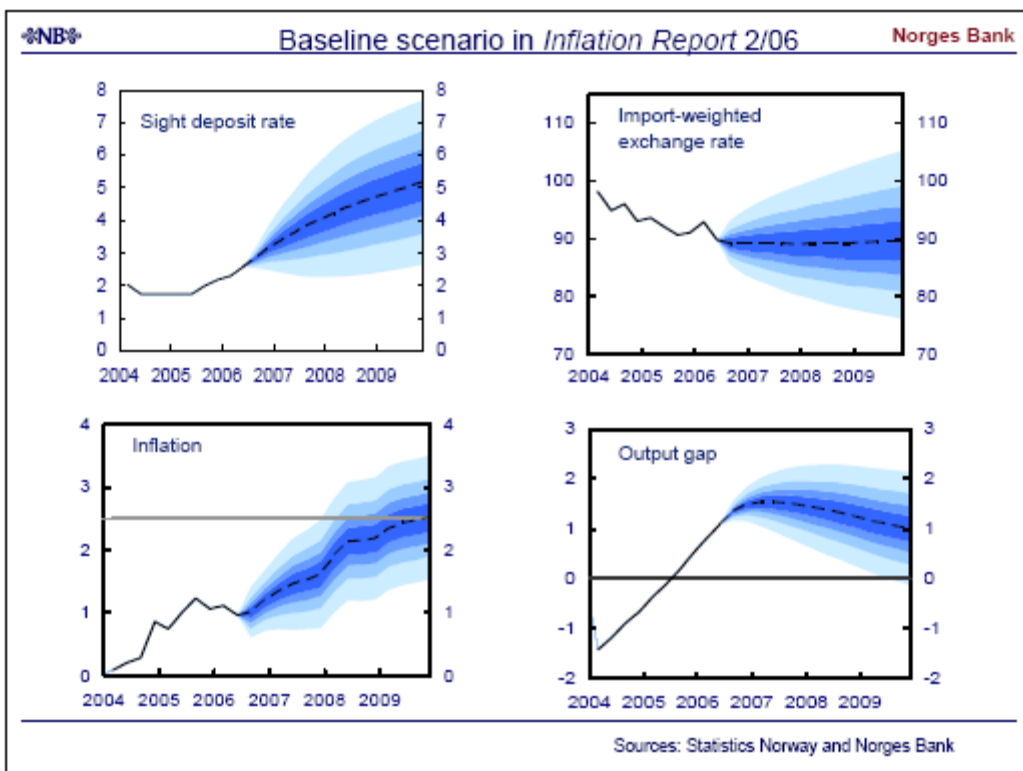
- Bank of England
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## Monetary policy in Norway

- The operational objective of monetary policy is low and stable inflation, with annual consumer price inflation of approximately 2.5% over time.
- Norges Bank operates a flexible inflation targeting regime, so that weight is given to both variability in inflation and variability in output and employment.
- Norges Bank sets the interest rate with a view to stabilising inflation at the target within a reasonable time horizon, normally 1–3 years

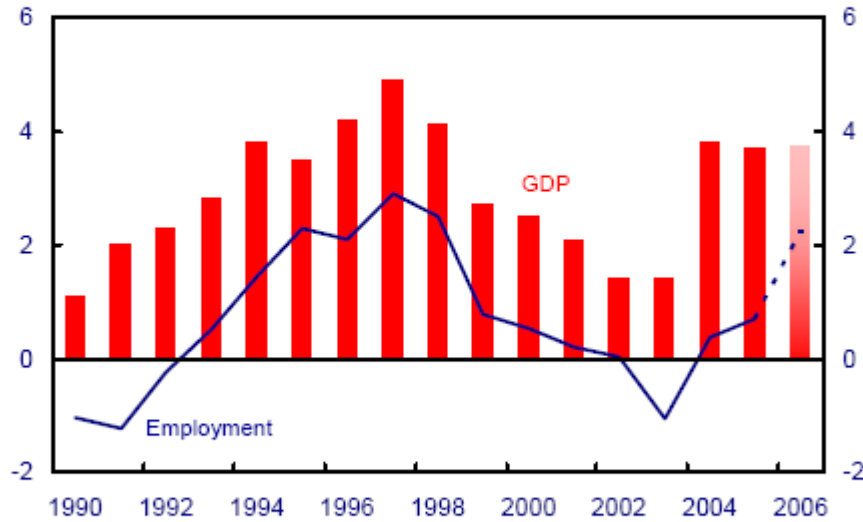






### GDP and employment in mainland Norway

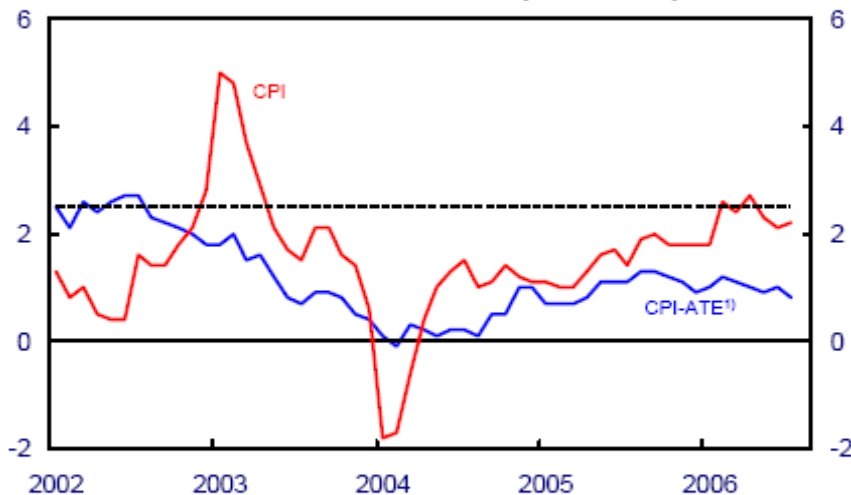
Annual growth. Per cent



Sources: Statistics Norway and Norges Bank

### Inflation

12-month rise. Per cent. January 2002 - July 2006

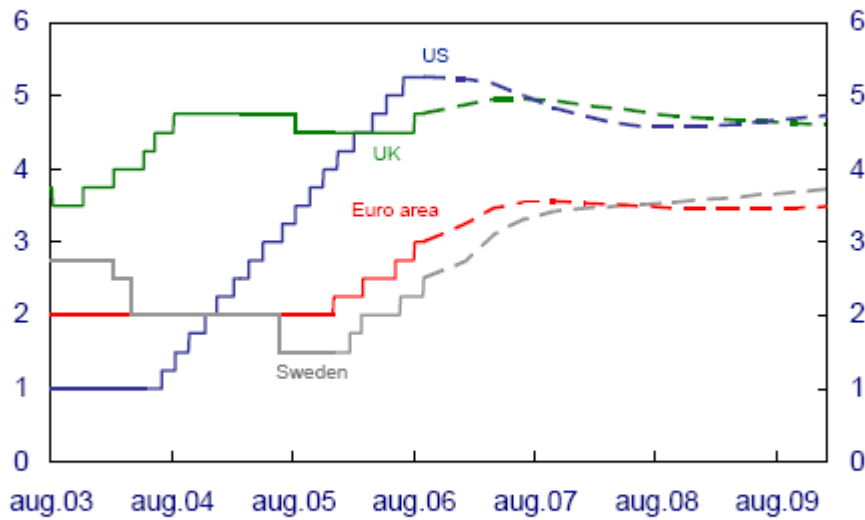


<sup>1)</sup> CPI-ATE: CPI adjusted for tax changes and excluding energy products. A further adjustment is made for the estimated effect of reduced maximum day-care rates from January 2006.

Source: Statistics Norway

### Actual and expected key rates

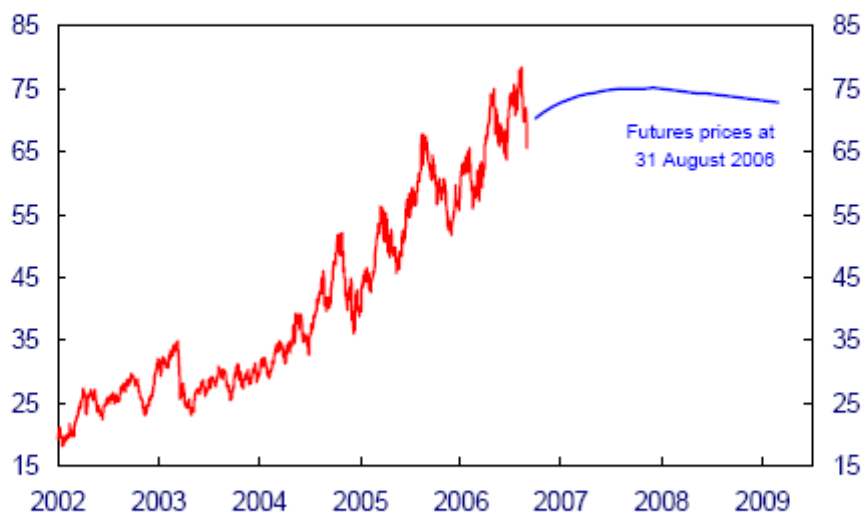
Per cent. At 31 August 2006



Sources: Reuters og Norges Bank

### Brent Blend oil price and futures prices

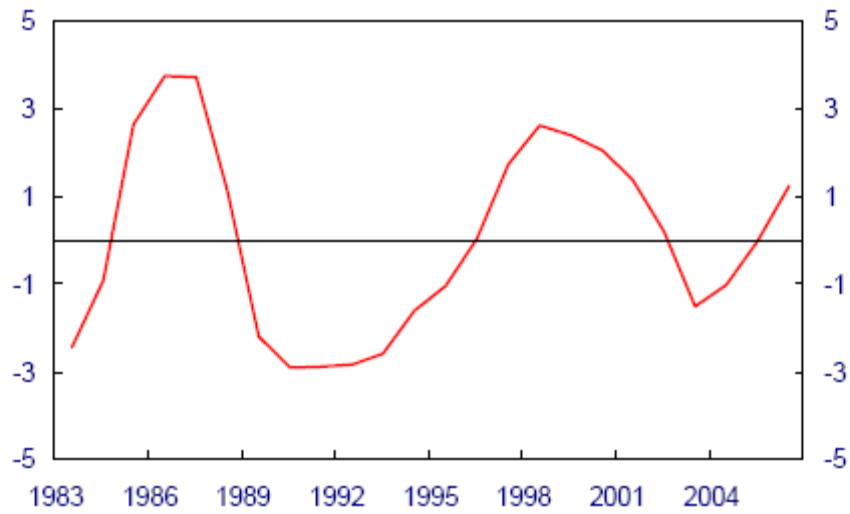
Daily figures. USD per barrel. 1 Jan 02 – 31 Aug 06



Sources: Telerate, IPE and Norges Bank

### Capacity utilisation<sup>1</sup>

Per cent. Annual figures. 1983 – 2006

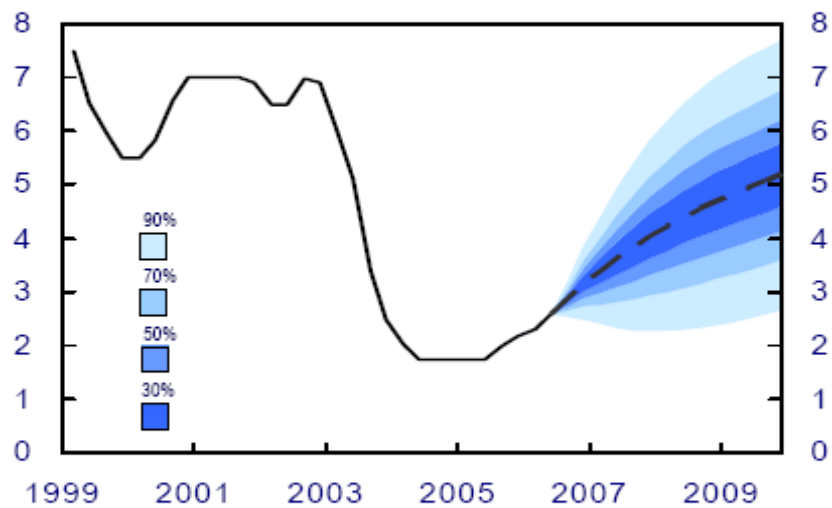


<sup>1</sup> Measured as percentage difference between actual GDP and potential GDP. (Output gap)

Source: Norges Bank

### Sight deposit rate

Baseline scenario with fan chart. Quarterly figures. Per cent



Source: Norges Bank