Flexible inflation targeting

Speech by Governor Svein Gjedrem at the Norwegian School of Management (Børsgruppen BI) on 29 March 2004

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 11 March, Inflation Report 1/04 and on previous speeches.

The mandate for monetary policy in Norway

In many countries, the conduct of monetary policy is delegated to the central bank. In Norway, the responsibility for interest rate decisions was delegated to Norges Bank in 1986.

The mandate for the conduct of monetary policy was laid down by the Ministry of Finance in the Regulation on Monetary Policy of 29 March 2001.

The first sentence in the monetary policy mandate refers to the value of the krone. Stability in the internal value of the krone implies that inflation must be low and stable.

The Regulation also states that monetary policy shall be aimed at stability in the external value of the krone. The krone exchange rate fluctuates from day to day, from week to week, and from month to month. We have open trade with other countries and free capital movements. We do not have the instruments to fine-tune the krone exchange rate. But when monetary policy is oriented towards low and stable inflation, this will contribute to a stable krone exchange rate over time.

The inflation target is a vehicle for, not an obstacle to, monetary policy's contribution to stabilising output and employment. This objective is also expressed in the Regulation on Monetary Policy. If demand for goods and services is high and there is a shortage of labour, there will normally be prospects of higher inflation. When interest rates are increased, demand falls and inflation is kept at bay. If demand is low and unemployment rises, there will be prospects of lower inflation. The interest rate will then be lowered.

The mandate implies that inflation targeting must be flexible, so that emphasis is given to variability in both employment and inflation.

The second paragraph of the mandate specifies what Norges Bank is required to do.

The operational target of monetary policy as defined by the Government is inflation of close to 2.5 per cent over time. The target is symmetrical - it is just as important to avoid an inflation rate that is too low as an inflation rate that is too high.

The inflation target provides economic agents with an anchor for inflation expectations. It therefore influences their decisions concerning saving, investment, budgets and wages. History shows that there is no long-term trade-off between lower unemployment or stronger economic growth and higher inflation. We witnessed this in the 1980s, when growth was low and inflation high. The task of monetary policy is to provide a nominal anchor. Low and stable inflation is such an anchor.

In the long run, output is determined by the supply of labour and capital and by the ability to adapt, but in the short and medium term monetary policy can also have an impact on the real economy.

The economy grows over time. Output moves in waves. Output will in some periods lie below trend growth and in others above trend. The difference between trend output and actual output is called the output gap. Stabilising output growth means that one seeks to maintain actual output near trend.

The output gap provides an indication of pressures in the real economy. Developments in the output gap provide a basis for assessing output stability and can thus also shed light on domestic inflationary pressures in the economy. When the economy is booming, the output gap is positive. When the economy is at a low ebb, the output gap is negative.

We have had pronounced economic cycles in the Norwegian economy. The downturn at the beginning of the 1990s was followed by an upturn from 1993. This upturn peaked in 1998. There was a shift from a recovery to a period of strong expansion. Growth came to a halt in 2002. An upturn is now in progress.

The output gap is one of a number of indicators used by Norges Bank that together indicate whether growth and the level of activity in the economy are high or low in relation to trend. These indicators show that the economy has experienced a soft landing after the long period of high cost inflation in Norway and sluggish external activity.

The wage gap is one of the indicators used in addition to the output gap. The wage gap is an indicator of the social partners' perception of employment and labour shortages. The wage gap is defined as the difference between wage growth in Norway and wage growth that over time is consistent with stable economic developments. From 1990 to 1995, when unemployment was relatively high in Norway and actual output was below potential, wage growth in Norway was lower than that of its trading partners. From 1997, however, the wage gap was positive. In this period, resource utilisation increased markedly. Towards the end of the period, the wage gap narrowed as resource utilisation approached a more sustainable level. There seems to be a close relationship between this wage gap and resource utilisation in the economy as Norges Bank measures it by the output gap.

Normally, the interest rate is set with a view to achieving inflation of 2½ per cent at the two-year horizon.

Norges Bank operates a flexible inflation targeting regime, so that weight is given to variability in inflation as well as to variability in output and employment. The impact of monetary policy also occurs with a lag.

The choice of a two-year horizon is thus based on striking a balance between variability in inflation and variability in output and employment, and a perception of how interest rates influence these variables. If extraordinary conditions prompt Norges Bank to apply a different time horizon than two years, the Bank will provide an assessment of this. The same applies if special emphasis is placed on developments in financial markets.

Norges Bank's monetary policy instrument is the key rate. Norges Bank's key rate (the sight deposit rate) affects short-term money market rates[1], and expectations concerning future developments in the key rate are decisive for banks' deposit and lending rates and bond yields.

It may be useful to distinguish between three channels through which monetary policy operates:

The demand channel: As interest rates fall, household and municipal consumption and investment will tend to accelerate. This is because they have more money left over after servicing their debt and because borrowing is less expensive. Corporate finances are strengthened and investment may become more attractive. Higher demand leads to higher output and employment. Wage growth may pick up. Higher wage growth combined with higher profit margins will result in higher inflation.

The exchange rate channel: The effect of interest rate changes may be amplified because the interest rate also affects the krone exchange rate. When interest rates are lower, more people will borrow money and fewer will invest in NOK. Lower interest rates will thus normally lead to a depreciation of the krone. Imported goods will then become more expensive and inflation will accelerate. A weaker krone also boosts exports and improves profitability in Norwegian business and industry. The effect on the exchange rate of a change in interest rates will vary as themes and sentiments shift in the foreign exchange market.

The expectations channel: We believe that expectations play an important role in price and wage setting. Expectations concerning future inflation and economic stability have considerable impact, not least in the foreign exchange market. Inflation expectations also influence wage demands and have an effect when companies adjust their prices. It may be difficult to form an opinion about how expectations are generated. Confidence in the inflation target may provide an anchor. Past inflation rates may also influence what we think inflation will be in the future. There is thus an interaction between inflation expectations and inflation.

If there is confidence in monetary policy, expected inflation will be equal to or close to the inflation target. This contributes to stabilising inflation around the target. The expectations channel thus amplifies the effects of monetary policy. We therefore place considerable emphasis on ensuring that households, companies, the social partners and financial market participants are confident that inflation will remain low and stable.

Interest rate changes affect inflation with a lag. The effect will vary in strength. An up-to-date and correct picture of the current situation is necessary to make accurate projections for the period ahead.

In autumn 2002, Norges Bank established a regional network as a tool to gauge the level of activity in the Norwegian economy. Official statistics and evaluations of developments in financial markets will continue to be the main basis for our assessments, but due to the time lag and revisions of such statistics, supplementary information is useful.

The regional network provides up-to-date information on the state of the Norwegian economy. Regular communication with local contacts in Norway's business and community life provides us with information that supplements available official statistics. It also provides us with supplementary information about areas not covered by official statistical sources, and we learn which issues are of particular concern to enterprises.

The network consists of companies, organisations and municipalities throughout Norway. In five rounds of talks each year, we engage in discussions with business and community leaders on financial developments in their enterprises and industries, with about 250 visits in each round. The selection of contacts represents the production side of the economy, both industry-wise and geographically. The network comprises around 1000 contact persons.

The krone exchange rate is an important channel for monetary policy.

The krone fluctuates. This is not surprising because other countries' currencies also fluctuate. The krone exchange rate is the price of our currency measured in a foreign currency. Developments in other countries are just as important for the krone as developments in the Norwegian economy. Capital flows freely and flows can change rapidly. This can spill over to exchange rates and interest rates as well as output and employment.

A structural feature of open economies like the Norwegian economy - with a national currency - is that the exchange rate fluctuates. The Norwegian krone does not stand out as particularly unstable. On the contrary, in countries like Sweden, the UK, Switzerland, Australia, Canada and New Zealand, exchange rate fluctuations are as wide - or wider - than in Norway.

There is a cost involved for businesses in hedging against fluctuations in the krone. A krone that is stable - but too strong - also entails costs in the form of low activity. Similarly, a krone that is stable - but weak - is a source of high inflation.

Petroleum revenues generally provide substantial, but uneven currency inflows into Norway. The currency flows might have resulted in a strong krone and substantial variations in the exchange rate. This tendency is countered when the annual use of petroleum revenues over the central government budget is predictable and independent of annual revenue inflows, and the remainder is invested abroad. The capital outflow through the Petroleum Fund contributes to both curbing the appreciation of the krone and maintaining its stability.

Norges Bank has not defined an exchange rate target. Nevertheless, developments in the krone are of considerable importance to interest-rate setting because exchange rate developments have an impact on inflation and output. When there are prospects of moderate economic activity, low wage growth and low inflation, Norges Bank will reduce the interest rate. This will normally result in a depreciation of the krone. Prices for imported goods and services will increase. A weaker krone strengthens the competitiveness of Norwegian enterprises and indirectly leads to higher output, employment and inflation.

Themes in foreign exchange markets shift. In periods, investor focus on stock returns feeds through to exchange rate movements. During periods of political and economic unrest, investors may choose individual currencies as a safe haven - often the Swiss franc. In autumn 2002, the Norwegian krone was probably also perceived as a safe haven. Wide fluctuations between major currencies have a tendency to result in a weaker krone. In the past 12-18 months, developments in the interest rate differential between Norway and other countries appear to have had a particularly marked impact on our currency. Norwegian interest rates have been pushed down towards the level prevailing abroad.

Although the krone may fluctuate in the short term, it will generally stabilise over time. When inflation has been higher in Norway than among our trading partners for a longer period, the krone has generally depreciated. When inflation in Norway is expected to be broadly in line with that of other countries, the exchange rate will normally also return to its normal range following periods when the krone has been particularly strong or particularly weak. This provides a basis for stable exchange rate expectations.

Monetary policy and financial stability

House prices and developments in household credit influence consumption and housing investment. We seek to take account of these indirect effects in our interest-rate setting. Sharp increases in asset prices and debt accumulation may pose a risk to economic stability. With a view to mitigating this risk, it will be appropriate in some situations to apply a somewhat longer time horizon than the usual two years to attain the inflation target.

Household debt has increased sharply over the past decade. Developments in debt in the 1990s may partly be interpreted as a delayed adaptation to the deregulation of the housing and credit markets in the 1980s after many households experienced financial difficulties following the relaxation. Household assets and debt and housing wealth have risen at a markedly faster pace than disposable income, and housing wealth has grown more than net debt from 1994 up to the present. The Norwegian economy has experienced both upturns and downturns since 1994, and activity is now approximately on a par with the level prevailing in 1994. These changes must therefore be regarded as structural changes.

We have limited scope for restraining structural changes that occur when households increase their debt over several years to invest in housing and other property and assets. An interest rate that would effectively restrain these structural adjustments would also have an adverse impact on output and employment.

The interest rate can be used to reduce credit demand. At present - with low interest rates abroad and a close link between domestic interest rates and the krone - a tighter monetary policy would restrain credit demand primarily because job security would be reduced.

A flexible inflation targeting regime reduces the possibility of exposing households to a double shock in the form of higher unemployment and higher interest rates, as was the case prior to the banking crisis in the beginning of the 1990s. If the economy is exposed to disturbances that may lead to higher unemployment, inflation will normally decline and interest rates will be lowered. In the present situation, credit developments are giving ambiguous signals to our interest-rate setting.

Debt accumulation is high only in the household sector. There is little borrowing activity in the enterprise sector. Overall credit growth is in line with long-term growth in the economy. There is, however, still a risk that total credit will show marked growth in the medium term.

Why is inflation so low?

External cyclical developments and events have had considerable implications for developments in the Norwegian economy.

The international upturn came to a halt in 2000. The bubbles in the equity markets burst. Many years of high investment had led to excess capacity in some industries, and unemployment increased. The terrorist attacks on 11 September 2001 put a new damper on economic activity. From summer 2002 to spring 2003, a highly unusual accumulation of negative events in the global community - accounting scandals, fear of terror, war and disease - put a brake on growth.

The US key rate, which was sharply reduced at the beginning of the downturn, has subsequently been reduced further. Interest rates have also remained low in the euro area. Key rates are now historically very low for several of our most important trading partners. Long-term interest rates are also very low.

The economic situation in Norway remained firmer for a long period, and wage growth was surprisingly high in 2002. There was less scope for low interest rates than among our trading partners. As a result, the interest rate differential against other countries widened. This had a substantial impact on krone exchange rate developments.

In addition, special circumstances in the global economy led to a stronger krone than might have been expected from the higher interest rate differential alone. Themes in foreign exchange markets shift. In autumn 2002, the Norwegian krone was probably also perceived as a safe haven. Norwegian interest rates have been pushed down towards the level prevailing abroad.

In 2003, the interest rate differential narrowed as a result of monetary policy easing. The interest rate has been reduced by 5¼ percentage points and is now approximately the same as among our trading partners. The krone has depreciated by about 6 per cent over the past year and the krone exchange rate, measured by the import-weighted index I-44, is now at about the level prevailing in March 2002. This is approximately on a par with the average for the 1990s. In the past [two weeks], the krone has [appreciated again somewhat].

Under a flexible inflation targeting regime, monetary policy shall contribute to stability in both inflation and output. The output gap was only marginally negative in 2003. Other indicators for the real economy present a similar picture. The economy has experienced a soft landing, but inflation is too low.

In February, inflation stood at -0.1 per cent. Excluding some temporary, technical factors, which combined account for 3-4 tenths of a percentage point, three main factors explain the substantial deviation from the inflation target:

- First, the global downturn had considerable implications for the impact of interest- rate setting in Norway, via the exchange rate and other channels. The strong krone contributed to low inflationary pressures. The depreciation in the krone exchange rate since January 2003 has not resulted in a significant rise in prices for imported consumer goods, as might have been expected.
- Second, low external inflation and rapid shifts in the international division of labour has resulted in a fall in prices for imported goods and services. This also applies when these prices are measured in terms of what Norwegian importers pay in foreign currency. The change in trade patterns has made a considerable contribution to the sharp decline in prices for clothing, footwear and audiovisual equipment. Rapid technological advances have also pushed down prices for audiovisual equipment.
- Third, competition has probably increased in the retail industry and other service sectors in Norway in recent years.

In the first round, heightened competition affects companies' profit margins. But enterprises will respond by reducing their costs, to a certain extent within the individual business. Subcontractors will also be required to reduce their prices and enhance efficiency.

Increased competition therefore usually triggers higher productivity growth in the economy. Low inflation may therefore be matched by higher productivity.

Why is it an advantage for inflation to be higher than zero?

Inflation has fallen in a number of countries. But there are several reasons why it is an advantage for inflation to be higher than zero.

- The structure of the economy is in flux. Demand for qualified labour is changing. This requires changes in relative wages. There are rigidities in nominal wage growth. Nominal wages do not readily fall. With some inflation, relative wages can change without a fall in nominal wages. There may also be rigidities in the pricing of goods and services. Some degree of inflation will thus oil the economic machinery.
- In periods, inflation and economic growth will be low. It is then appropriate for real interest rates to be low, or even negative. Nominal interest rates cannot be set below zero. If inflation becomes entrenched at a low level or near zero, the interest rate will be less effective as an instrument.
- There are different ways of measuring inflation. The consumer price index tends to overestimate actual inflation. The most important source of measurement errors is probably the difficulty of distinguishing between changes in the quality and price of goods. In other countries, findings show that the consumer price index overestimates actual inflation to the order of ½ -1 per cent.

The economic outlook

There are clear signs that the global economy has passed the trough. However, while the outlook is brighter, price inflation is still low and interest rates are being kept unusually low. Economic growth is high again in the US, but there is still excess production capacity and very low inflation. Workforce reductions may no longer be as severe, but companies are not hiring new staff. It may take some time before interest rates are increased substantially in the US. Growth in Asia is solid, but a global rise in interest rates is unlikely to start there.

Inflation is higher in the euro area than in the US and approximately in line with the monetary policy objective defined by the European Central Bank. In the euro area, however, capacity utilisation is very low, unemployment high and the outlook for growth is weaker. Recently, inflation has decelerated slightly. Against this background, it will probably also take time before interest rates rise markedly in the euro area. Interest rates abroad have been unusually low for 2½ years, and it appears they will remain low for a period ahead. This poses a challenge to monetary policy in Norway.

In Norway, output growth has picked up after a pause. The interest rate is an effective instrument. The interest rate reductions since 2002 have contributed to the turnaround and a soft landing for the economy.

Monetary policy easing has been implemented with a view to bringing inflation up towards the target within the two-year horizon. Core inflation will nevertheless be lower than the inflation target for a period.

The inflation outlook was assessed in Inflation Report 1/04, presented on 11 March 2004. Under the assumption that the interest rate and the exchange rate will move in line with forward market expectations, the projections in the Inflation Report indicate that inflation will be close to target at the two-year horizon. Inflation will rise considerably in the course of 2004, primarily owing to the unwinding of the effects of the krone appreciation in the near term. The krone has now returned to its previous level so that the effect of the appreciation will be reversed. In the somewhat longer term, interest rate reductions will also have an effect through increased demand in Norway. On balance, the easing of monetary policy this year, including the weakening of the krone exchange rate, has substantially contributed to bringing inflation back to target.

Mainland GDP growth is projected to pick up markedly this year and remain relatively high in 2005 and 2006. With this path for total output, the output gap, as measured here, will shift to slightly positive in 2005 and 2006 from slightly negative this year.

A path that is in line with the projections in Inflation Report 1/2004 provides a reasonable balance between the prospects for reaching the inflation target and stable developments in the real economy.

The aim of monetary policy is higher inflation. It is appropriate to be particularly vigilant with regard to developments in consumer prices, but consumer prices may show random variations from one month to the next. Later this year, we will receive confirmation of whether consumer prices are rising in line with our projections. When inflation increases from a very low level, this will provide a basis for gradually moving towards a more normal short-term interest rate level in Norway. This may counter excessive credit growth and excessive pressures on domestic resources in the medium term. Interest rate developments in other countries may also have a considerable impact on the krone and hence on Norwegian interest rates.

At its meeting on 11 March 2004, the Executive Board decided to reduce the interest rate by 0.25 percentage point. In reaching its decision, the Executive Board had weighed the objective of bringing inflation back to target and stabilising inflation expectations against the risk that output growth may eventually become too strong. Furthermore, according to the Executive Board's assessment, with a sight deposit rate of 1.75 per cent at present, the probability that inflation two years ahead will be lower than 2½ per cent is greater than the probability that it will be higher.

Footnotes

[1] Norges Bank uses market operations to ensure that the banking system as a whole has sight deposits with Norges Bank at the end of each day. The sight deposit rate is thus the banks' marginal deposit rate, and the short-term money market rates are normally close to the sight deposit rate. Norges Bank's system for managing interest rates is described in L.C. Kran and Grete Øwre (2001): "Norges Bank's system for managing interest rates", *Economic Bulletin* 2/01, Norges Bank.