## Inflation targeting and the interplay in economic policy

Address by Governor Svein Gjedrem to the Finance Group at the Norwegian School of Economics and Business Administration, 16 October 2002

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 18 September and on previous speeches.

Monetary policy is conducted by Norges Bank according to the guidelines laid down by the Government in the Monetary Policy Regulation. The most important monetary policy instrument is the interest rate on banks' deposits with Norges Bank (the sight deposit rate). The sight deposit rate forms a floor of the corridor for short-term money market rates and influences banks' lending and deposit rates. Norges Bank's Executive Board assesses the interest rate at a separate meeting every six weeks.

A year and a half ago, the Government and the Storting adopted new guidelines for economic policy. Over time, the use of petroleum revenues is to be equivalent to the expected real return on the Government Petroleum Fund, i.e. 4 per cent of the Fund.

When the use of oil revenues is linked to the structural, non-oil deficit, automatic stabilisers can function. This means allowing higher tax revenues to strengthen the budget balance during a boom in the economy, and to have the opposite effect during a downturn.

Norges Bank shall set the key rate with a view to maintaining low and stable inflation. The inflation target is set at  $2\frac{1}{2}$  per cent.

There are good reasons why monetary policy is oriented towards keeping inflation low and stable. There are high costs associated with high inflation. It increases uncertainty about future income and expenses among households and enterprises. This will result in unsound investments and wider fluctuations in the economy. It is equally important to avoid deflation, a fall in prices, because this often accompanies and can amplify a downturn.

Low and stable inflation provides households and enterprises with a clear indication of changes in relative prices. This makes it easier to make the right decisions and contributes to greater price stability in financial and property markets than would otherwise have been the case. This is the best contribution monetary policy can make to economic growth and stability.

We have had four periods of very high inflation over the past 100 years; during the two world wars, the Korean War and a 15-year period from the first half of the 1970s to the second half of the 1980s. In Norway, very high inflation is a wartime phenomenon and a

1970s and 1980s phenomenon. Substantial real economic losses and financial instability have followed in its wake. High inflation was a costly affair.

The fourth period of high inflation was unlike the three previous periods. In the 1970s and 1980s, inflation accelerated gradually. It was not as high as during the two world wars, but it took a long time for the level to fall. The fixed exchange rate system of the post-war period, the Bretton Woods system, broke down in 1971. The Yom Kippur War followed two years later, with the OPEC countries' oil embargo and the first oil crisis. The sharp increase in oil prices led to a fall in productivity growth and to stagnation and higher unemployment in Western economies. Inflation took root in many countries at the same time.

In Norway, the welfare state was rapidly developed and transfers to the business sector increased considerably, partly because we were expecting substantial oil revenues in the future. Economic policy sought to build a bridge over what was expected to be a temporary downturn in the global economy. This resulted in a contest for economic resources between the business sector and the public sector - between the internationally exposed and sheltered sectors.

Economic developments in Norway were characterised by high and variable inflation, resulting in wide swings in output and employment. With a policy of low interest rates and devaluations, inflation took root.

During the period of low interest rates and devaluations in the 1970s and 1980s, the Norwegian economy was without a nominal anchor. The fixed exchange rate policy introduced in 1986 reinstated monetary policy as an instrument of economic policy and laid the foundation for more stable economic developments. With the free flow of capital, deep capital markets and the phasing-in of oil revenues into the Norwegian economy, it is appropriate to set interest rates using an inflation targeting regime.

Interest rates influence inflation through their impact on domestic demand and on the market for NOK.

When interest rates rise, it is more profitable to save and more costly to borrow. This dampens consumption and investment and hence aggregate demand. Lower demand in turn curbs the rise in prices and wages.

Higher interest rates make it more attractive to take krone positions and borrow in foreign currency. As a result, higher interest rates normally lead to an appreciation of the krone. This reduces prices for imported goods. In addition, a strong krone reduces activity and profitability in the internationally exposed sector.

It is important to be aware of the relationships between employment, output and inflation. If there is a shortage of labour and other economic resources, a tight monetary policy stance will reduce inflation by affecting aggregate demand. Conversely, when unemployment is high, low interest rates will stimulate demand, which contributes to stable wages and prices. A monetary policy stance that is oriented towards stabilising inflation will also contribute to stabilising aggregate output and employment.

In the long term, monetary policy determines the average level of inflation. Output is determined by the supply of labour, capital and technology and by productivity growth. Attempts to increase output beyond the total capacity of the economy will lead to inflation in the long run.

What monetary policy can do is to maintain stability without unnecessary fluctuations in output and employment. Overall employment is also influenced by wage formation. If wages increase at an unsustainable pace, employment will decline and unemployment will gradually increase. Monetary policy cannot prevent an increase in unemployment that is due to a wage-driven cost shock.

The inflation target provides economic agents with a nominal anchor.

When the authorities delegate the conduct of monetary policy to the central bank according to a defined mandate, credibility, confidence and consistency will all be strengthened, because the central bank must adhere to this mandate. This enhances the effectiveness of monetary policy, and increases the possibility for monetary policy to contribute to stability in the economy. This is probably the main reason that the conduct of monetary policy has been delegated to the central bank in all the countries that normally figure in our comparisons.

When there is confidence that monetary policy will contribute to low and stable inflation, it can contribute in the short term - under certain conditions - to smoothing fluctuations in output and demand.

In the short term, there is a trade-off between the objectives of inflation stability on the one hand, and output and employment stability on the other. An aggressive monetary policy will rapidly bring inflation to the target. This will cause wide fluctuations in the real economy. The interest rate can also be changed more gradually, which will have less impact on the real economy but cause more pronounced fluctuations in inflation. By influencing inflation over time, we can ensure that an overly aggressive monetary policy does not in itself cause unnecessary disturbances to the economy.

The impact of monetary policy occurs with considerable and variable lags. Our analyses indicate that a substantial share of the effects of an interest rate change will occur within two years. Two years is thus a reasonable time horizon for achieving the inflation target.

It is nevertheless conceivable that in a situation where a high rate of inflation is accompanied by sluggish economic growth, Norges Bank may decide to apply a somewhat longer time horizon than two years to reach the inflation target of 2½ per cent.

The choice of monetary policy time horizon reflects the fact that there are real economic costs associated with bringing inflation rapidly back to the target. This horizon is an indirect expression of the trade-off between the objectives of, on the one hand, stable output and, on the other, low and stable inflation.

The Government has indicated in the National Budget that monetary policy should be the first to react when the outlook for the economy changes. A situation may nevertheless arise

in which an active use of fiscal policy is required, either because capacity utilisation is particularly low, or because pressures in the economy are very strong.

Under certain conditions, the interplay between monetary and fiscal policy may fail to function. Interplay functions well when the decision-making bodies recognise that one body's decisions influence the decisions of the other. In the absence of such recognition, a decision will not produce the intended result. The economy may move in a highly unfavourable direction, with high interest rates, sluggish economic growth and a deterioration in the state's financial position.

Without coordination, a good result may still be achieved if fiscal policy acts as "leader" and monetary policy as "follower", to use expressions from game theory. The fiscal policy authorities can internalise the monetary policy response pattern. The central bank's response pattern must then be known, so that the fiscal authorities can take this into account.

When the response pattern in monetary policy is known and remains unchanged over time, the social partners can also take any monetary policy response into account when wages are being determined. The "leader" in this interplay - the social partners - can take the response of the "follower" - Norges Bank - into account. This view is most relevant in centralised wage formation. In decentralised wage formation, monetary policy will instead affect wage growth via market mechanisms, by stabilising aggregate demand. A precondition for this interplay to function well is that monetary policy is known and remains consistent over time.

The outcome of this year's wage settlement, which resulted in annual wage growth of 5¾ per cent, indicates that the social partners have not internalised the monetary policy response pattern. Perhaps one of the obstacles has been the choice of wage settlements at a semi-centralised level and the large wage increases for employees outside the two largest employer/employee organisations (NHO and LO). High pay increases also for groups whose wages are determined through individual agreements indicate that the labour market has been tight. However, the rise in salaries for white-collar workers may also reflect weak cost control in enterprises and organisations following a long period of economic expansion.

In the long run, wages must be commensurate with the value added that is generated by workers. Over time, the increase in real wages is therefore determined by developments in labour productivity.

If historic productivity growth persists, an increase in labour costs of around 4½ per cent in the longer term will be consistent with the inflation target. The outcome of the wage settlements we have observed in recent years is not consistent with this. So far, the effects of high wage growth on inflation have been counteracted by low imported inflation.

With little slack in the Norwegian economy, strong growth in household consumption is adding to the pressures on prices and wages.

For a long time, a stable exchange rate and cost inflation among our trading partners formed an anchor for wage determination. Since 1998, however, the rise in labour costs in Norway has been around 2 percentage points higher than that of our trading partners. High wage

growth, combined with the global downturn and a strong krone, is having a severe impact on manufacturing.

The outlook suggests that cumulative wage growth in Norway will be a good 15 per cent higher than in other countries from 1998 to 2003. The krone is now about 9 per cent stronger than the average for the 1990s. The appreciation of the krone is probably reversible, but the loss of competitiveness and jobs caused by the high level of domestic wage growth in Norway is difficult to recoup.

Developments in the interest rate differential between Norway and other countries have contributed to strengthening the krone. This year's wage settlement in particular seems to have led to higher interest rate expectations and thereby contributed to strengthening the krone. There is a relationship between wage growth, interest rate expectations and the krone exchange rate. The appreciation of the krone is dampening inflation and is also reducing profitability and employment in the internationally exposed sector.

The recent appreciation of the krone may also be due to developments in the global economy and in international financial markets. Now that share prices have fallen so sharply, investors are looking around for a safe haven. The Norwegian krone, with a relatively high interest rate backed by Norway's oil wealth, may then be an attractive option. Investing in NOK can be perceived as insurance against the possibility of a global economic contraction that is due to high oil prices and fear of war. However, there is a risk associated with investing in NOK. The Norwegian money market is not very liquid, and should there be developments indicating that it is sensible to withdraw from NOK, the exit from the haven may prove narrow. Hence, investors in NOK take on the considerable risk associated with the relatively poor liquidity in the krone market.

Since the beginning of the year, oil prices have risen markedly and it would appear that this year's sharp increase has been accompanied by an appreciation of the krone exchange rate. Even though there is no clear connection between developments in oil prices and developments in the krone exchange rate, the situation in the Middle East may have had an impact on the krone recently.

In Norges Bank's last *Inflation Report* of 3 July 2002, consumer price inflation two years ahead, assuming an unchanged interest rate of 6.5 per cent and a krone exchange rate unchanged from the average rate in the second quarter, was projected at 2¾ per cent. At the monetary policy meeting on the same day, the sight deposit rate was raised by 0.5 percentage point, to 7 per cent.

Norges Bank also presented inflation projections based on an exchange rate equal to the average for June and an interest rate of 7 per cent. Since early this summer, the krone has been in this range.

Consumer prices were slightly higher than projected in June and July, but returned to the level in our path in August and September. Adjusted for tax changes and excluding energy products, the year-on-year rise in consumer prices was 2.2 per cent in September.

Norges Bank's Executive Board left interest rates unchanged at its most recent meeting on 18 September 2002. Norges Bank's key interest rate, the sight deposit rate, therefore remained at 7 per cent. According to Norges Bank's assessment, with an unchanged interest rate, the probability that inflation two years ahead would be higher than 2½ per cent was the same as the probability that it would be lower. It was pointed out that a sharp rise in labour costs is contributing to a relatively high rise in prices for goods and services produced in Norway. At the same time, a persistently strong krone will contribute to restraining prices for imported goods. The strong krone will also have consequences for activity in the internationally exposed sector. Together with prospects for low inflation internationally, the strong krone is the most important force countering the sharp rise in domestic costs.

The central government budget proposal for 2003 is based on a real increase in the use of petroleum revenues of about NOK 2 billion from 2002 to 2003. This implies a structural non-oil deficit of over NOK 30 billion in 2003. Measured as a share of mainland GDP, the structural deficit will increase by just over 0.1 percentage point from 2002 to 2003. This deficit increased by 0.4 percentage point this year. The budget proposal implies a decline in the growth of government budget spending from 2002 to 2003, measured both in real terms and in current prices.

Total direct and indirect tax reductions in 2003 amount to about NOK 10.6 billion. The bulk of these reductions is due to previous decisions, the full effect of which will only be felt in 2003.

The effects of the central government budget for 2003 on developments in the variables that influence monetary policy and interest rate developments will be incorporated in the analysis in *Inflation Report* 3/02, which will be presented on 30 October.

Thank you for your attention.