Executive summary

The Centre for Monetary Economics (CME) at the BI Norwegian School of Management has for the fifth time invited a committee of economists for *Norges Bank Watch* with the objective of evaluating monetary policy in Norway. The committee for *Norges Bank Watch 2004* consists of Hilde C. Bjørnland (University of Oslo), Thomas Ekeli (Pareto Securities), Petra M. Geraats (University of Cambridge) and Kai Leitemo (BI Norwegian School of Management). Norges Bank Watch 2004 is funded by the Ministry of Finance. However, Norges Bank Watch 2004 is fully independent and the views and recommendations in this report may not correspond to those of the Ministry of Finance.

The main task of the committee has been to evaluate how well Norges Bank has fulfilled its monetary policy mandate given by the Norwegian Government on 29 March 2001. In particular, the committee has reviewed Norges Bank's interpretation of the mandate and finds that its interpretation is insufficiently flexible. In addition, the committee has assessed Norges Bank's monetary policy strategy and decision making process and considers them suboptimal and inefficient. Furthermore, the committee has evaluated Norges Bank's forecasts and interest rate decisions in 2003 and has detected persistent forecast errors as well as policy mistakes that kept monetary policy too tight at the end of 2002 and early in 2003 and perhaps too loose at the end of 2003. The committee has also assessed Norges Bank's use of indicators for underlying inflation and the output gap, and concludes that its measures are poor and need improvement. Finally, the committee has evaluated Norges Bank's public communication and transparency and finds that despite increased public communication, there is still a notable lack of transparency.

MONETARY POLICY IN 2003

Difficult economic environment

The economic environment in recent years has been challenging for monetary policymakers worldwide. The bursting in 2000 of an historic investment and equity market bubble has driven cyclical developments. In addition, inflationary pressures have been dampened by globalisation, illustrated by the profound consequences of China's increased involvement in the global economy and intense competitive pressures. There has also been heightened geo-political uncertainty, clouding the outlook for the world economy and the oil price. Furthermore, Norwegian policymakers have had to cope with unusually high wage growth and large exchange rate fluctuations.

Massive forecast failures

In the forward-looking framework of flexible inflation targeting that Norges Bank subscribes to, economic forecasts are the cornerstone for designing monetary policy because they indicate the need to adjust policy in light of economic developments. The experiences of the past two years are in this respect disturbing. Norges Bank's forecasts in the autumn of 2002 painted a picture of robust economic growth and inflation near its 2.5 per cent target, apparently justifying a high interest rate of 7 per cent. However, the national accounts today show that the mainland economy was then sliding into recession. In addition, annual core inflation plunged far below its expected path, ending up at only 1.1 per cent in 2003, using Norges Bank's preferred measure of the CPI adjusted for taxes and energy prices (CPI-ATE). This is far outside the 90 per cent confidence intervals for the Bank's forecasts as well as the +/- 1 percentage-point range around the inflation target stipulated by the government. It is also disconcerting that the forecast errors during the past 18 months appear to be persistent.

These forecast failures raise important questions with regard to the robustness of the Bank's policy decisions. Since the central bank forecasts are crucial in setting the optimal interest rate, it is essential to conduct a timely and thorough search for the sources of forecast failures in order to improve future forecasts and reduce the chance of policy errors. In that respect, we find that Norges Bank's efforts should be strengthened by implementing more frequent, relevant and rigorous evaluations of its forecasts.

Monetary policy too tight in early 2003

With the benefit of hindsight, one may easily draw the conclusion that monetary policy in late 2002 and early 2003 ought to have been less restrictive. But to conclude whether Norges Bank's interest rate decisions were appropriate, the assessment of the conduct of monetary policy should primarily be based on the information available to the central bank at the time (i.e. an *ex-ante* rather than an *ex-post* perspective).

This committee shares the assessment of Norges Bank Watch 2003 that by not correcting the policy errors made in the second half of 2002 quickly, monetary policy at the start of 2003 ended up being too tight. We also find evidence that the Bank ignored the signals provided by its own forecasts and paid insufficient attention to other forecasters. In cases where Norges Bank's projections differ significantly from other independent forecasts (e.g. by Statistics Norway), the

Bank should conduct a closer scrutiny of the causes and construct alternative risk scenarios to render its monetary policy strategy more robust.

Dramatic easing as economy is recovering

2003 was an effervescent year for Norges Bank, starting off with the sight deposit rate at 6.5 per cent, an economy in recession and inflation sliding far below the target. An historic easing of policy took the key rate to 2.25 per cent by the end of the year (and down to 1.75 per cent in March 2004).

In an effort to correct the forecast and policy errors made in the second half of 2002, Norges Bank found itself in the unusual situation of lowering interest rates by a 100 basis points both in June and August 2003, and another 50 basis points to 2.5 per cent in September, at the same time as the economy was recovering. Norges Bank deserves credit for an easing of policy in 2003 that has bolstered confidence in an economic expansion and a return of inflation towards its target. However, the decisions in the spring and summer of 2003 highlight what we see as structural weaknesses in the Bank's forecasting and decision making procedure.

The substantial interest rate reductions in August and September 2003 were based on a strategy discussion that took place in early June, which in turn was based on preliminary forecasts for the June Inflation Report (probably conducted in the second half of May). Norges Bank's tradition of only publishing three Inflation Reports a year meant that the forecasts in the June Inflation Report were based on GDP-data published in March 2003, covering the end of 2002 only. Thus, these big interest rate cuts were not based on up-to-date forecasts, using the most recent quarterly data. Instead, the Executive Board should discuss strategy and forecasts closer to the implementation of policy, and the monetary policy decisions and publications of the Inflation Reports should be better synchronized with releases of new and updated national accounts figures. In addition, the Inflation Report should be issued four times a year and include a quarterly estimate of the output gap, for which the Bank should employ more sophisticated methods to get a better grip on where the economy is in the cycle.

Insufficient flexibility

Norges Bank's interest rate setting in the second half of 2003 and early 2004 was increasingly responding to large, persistent downward surprises in current (CPI-ATE) inflation instead of relying on its forecasts. The risk of deflation needs to be taken seriously by a central bank and a declining trend in core inflation below the target justifies prompt central bank action. However, we are concerned that the Bank's focus on CPI-ATE may have resulted in an overreaction in policy.

Although underlying inflation has clearly decelerated, there are a number of factors that suggest that the CPI-ATE measure exaggerates this development. In our investigation of other measures of underlying inflation, we find support for the argument that underlying price pressures are probably not as weak as suggested by CPI-ATE. Alternative statistical measures indicate that inflation has fallen to a lesser extent. While the annual average for CPI-ATE inflation was 1.1 per cent in 2003, the other measures we considered actually range from 1.9 to 2.8 per cent.

In addition, one should not exaggerate fears of a deflationary spiral in the Norwegian economy, considering the fact that the real economy has continued to improve, income growth for households and the corporate sector has been robust, and housing and equity prices have risen briskly. We therefore think that with the continued lowering of interest rates at the end of 2003 and early 2004, Norges Bank runs the risk of making monetary policy too loose.

We also find that Norges Bank is not availing itself of the flexibility provided for in the monetary policy mandate. By exploring alternative measures of underlying inflation and by implementing an optimal monetary policy strategy with a flexible horizon, the interest rate setting would be more robust and less prone to policy mistakes. Norges Bank could then also attain a lower volatility in interest rates, softening the impression that the Bank ranks among the most aggressive central banks.

MANDATE, STRATEGY AND TRANSPARENCY

Flexibility of mandate

The flexibility of inflation targeting depends on a number of factors, namely the target range, the target horizon, the presence of escape clauses and the extent to which other objectives (like output and exchange rate stabilisation) are emphasised explicitly in the mandate.

Norges Bank has decided to adopt a horizon of two years in which the inflation target shall be reached. The motivation for a target horizon of two years (in contrast to a shorter horizon) is that by returning inflation more slowly to its target, the variability of output is reduced. However, new analysis from Norges Bank suggests that the full effect of monetary policy actions on inflation takes longer than the two to three years previously anticipated. When the full effect of a monetary policy action exceeds the target horizon, interest rates need to be adjusted excessively, creating interest rate volatility. The two-year horizon therefore works as an unnecessary constraint on monetary policy, producing more volatility in macroeconomic variables.

The monetary policy mandate states that Norges Bank should ignore the direct effects on consumer prices resulting from changes in interest rates, taxes, excise duties and extraordinary temporary circumstances when setting interest rates. However, in its interpretation of the mandate, Norges Bank has decided that it shall target a core measure of inflation called CPI-ATE, which only disregards the direct effect of changes in energy prices and taxes. In that sense, Norges Bank is not fully utilising the flexibility provided by the escape clauses in the mandate. Given the limitations of measures of core inflation, Norges Bank should also pay attention to other measures than CPI-ATE when deciding on its monetary policy stance.

The mandate of Norges Bank states that in addition to the operational target for inflation, monetary policy should contribute to stable expectations concerning exchange rate developments. Norges Bank has interpreted this as referring to the long run only. Generally, exchange rate and inflation stability are not compatible in the medium term, so a clarification of the mandate is desirable in this respect to ensure that it is in accordance with the government's intentions.

Suboptimal monetary policy strategy

Norges Bank has a monetary policy strategy of inflation forecast targeting that involves adjusting the interest rate so that the two-year ahead forecast for inflation equals the inflation target. There are three problems with this strategy.

First, the inflation forecast targeting strategy induces so-called time inconsistency in the sense that the desired interest rate path adjusts as the end point of the two-year target horizon changes over time. As a result, inflation reaches the target too slowly, which could be prevented by focusing on a projected interest rate path and only updating it in response to new information.

Second, the strategy ignores that a fixed two-year horizon is not optimal in response to all shocks. Some shocks may be easily stabilized without inducing output volatility, whereas others may be more pernicious. So, it would be desirable to adopt a flexible target horizon.

Third, the monetary policy strategy only focuses on the end of the target horizon, thereby ignoring potentially large fluctuations in inflation and output over the horizon. Instead, Norges Bank should set interest rates that stabilize the path of inflation and output continuously over time, not just at the end of the target horizon.

In line with Norges Bank Watch 2002 and 2003, we recommend that Norges Bank abandons its current strategy and publishes the optimal interest-rate path that is projected to produce the greatest stabilization of inflation and output over time. The Bank should also systematically address the role of uncertainty in monetary policymaking.

Lack of transparency

Norges Bank significantly increased its public communication in 2003. Although the Bank is releasing more and more material, it has not yet succeeded in making monetary policy in Norway fully transparent.

First of all, there is some murkiness about the institutional framework for monetary policy. In particular, it would be desirable to strengthen the formal independence of Norges Bank in interest rate setting and its accountability. Moreover, the current practice that the Governor has to submit the anticipated interest rate decision to the Ministry of Finance the day before the monetary policy meeting of the Executive Board should be discontinued. Instead, Norges Bank should only inform the Ministry of Finance immediately after the Executive Board has made the interest rate decision, before the public announcement and implementation of the decision.

There is also a notable lack of transparency about the economic information relevant for monetary policy decisions. We recommend that Norges Bank issues its Inflation Report at quarterly frequency and incorporates the current Strategy Document as well as some additional data, projections and evaluations. Furthermore, it should be endorsed by the Executive Board, describe its view at the monetary policy meeting, and be published within a week of the interest rate decision.

There is even less detailed information about the Executive Board's discussion and assessments on which the monetary policy decision is based. To remedy this, Norges Bank should release attributed voting records at the policy announcement, and publish non-verbatim, unattributed minutes of the monetary policy meetings of the Executive Board within three weeks of the interest rate decision.

To provide clarity about its policy stance, Norges Bank should release an explicit policy inclination together with the interest rate decision, preferably in the form of a projected path for the policy rate over several quarters.

Implementation of these recommendations would improve both the efficiency of external communication and the quality of the internal decision process at Norges Bank.

OVERALL ASSESSMENT

The monetary policy mandate in Norway specifies an inflation target of 2.5 per cent annual inflation, with a tolerance margin of +/- 1 percentage point. Using the inflation measure that the Bank has decided to focus on, Norges Bank failed to meet its objectives as the annual rate of CPI-ATE inflation was 1.1 per cent in 2003.

However, our analysis shows that other measures of underlying inflation, which might even be closer to the specifications provided by the Bank's mandate, ranged from 1.9 to 2.8 per cent in 2003. Although this is consistent with the inflation target, our evaluation shows that there is much scope for improvements to monetary policy making in Norway.