Jan F Qvigstad: Trends in monetary policy transparency – comments on Petra M Geraats' paper

Speech by Mr Jan F Qvigstad, Deputy Governor of Norges Bank (Central Bank of Norway), at the conference "International Experience with the Conduct of Monetary Policy under Inflation Targeting", hosted by Bank of Canada, Ottawa, 24 July 2008.

The Charts in PDF-format can be found on the Norges Bank's website.

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The paper by Petra Geraats provides an up-to-date and thorough analysis of the trends in transparency during the last ten years. Her analysis confirms the general trend of improved transparency, but she also provides an interesting analysis of the differences across alternative monetary policy regimes. I am sure Petra's paper will be a key reference in future research and policy discussions on transparency.[1]

As discussed in the paper, transparency can be motivated both by accountability requirements for independent central banks, and by the purpose of enhancing the effectiveness of monetary policy. Both have been important factors behind the process in Norges Bank towards increased transparency.

It is now widely accepted that monetary policy works mainly through private agents' expectations. The widespread influence of the New Keynesian model in academic research on monetary policy and the trend towards using DSGE models in central banks have underpinned the focus on expectations. Michael Woodford puts it in a clear-cut way:[2] "For not only do expectations about policy matter, […] very little else matters". The interest rate set by central banks is normally a very short-term interest rate, which in itself has negligible effects on economic decisions. It is mainly expectations about future policy rates that affect market interest rates and thus economic decisions.

Most central banks communicate future policy intentions in one way or another. The majority of central banks communicate indirectly through forecasts based on technical interest rate assumptions, and by giving verbal signals about future interest rate decisions in policy statements and speeches. With such indirect communication, the market participants gain information about the sign of future interest rate decisions, but may have less information about the size. Until November 2005, Norges Bank used technical interest rate assumptions in the inflation forecasts, but also on some occasions commented on whether the Bank intended to follow a different policy than what seemed to be reflected in market interest rates. Thus, the Bank gave signals about the sign of future policy intentions relative to market expectations, but not on the size.[3] From November 2005, Norges Bank started to use endogenous interest rate forecasts in the Monetary Policy Report. Norges Bank was the

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1 This process has also been acknowledged by the Norwegian parliament: "The majority think that it is a prerequisite for an effective monetary policy that the central bank is open about the interest rate forecasts, and are satisfied with the fact that Norges Bank emphasises this." (Innstilling frå finanskomiteen om Kredittmeldinga 2007, Innst.S.nr.274, s.11.

2 Woodford, M. (2005), "Central-Bank Communication and Policy Effectiveness," paper presented at FRB Kansas City Symposium on "The Greenspan Era: Lessons for the Future," Jackson Hole, Wyoming, August 25-27, 2005.

3 Providing forecasts based on both a constant interest rate and market expectations give information not only about the sign but may also give some guidance about the range. See, for example, the following citation from the Bank of England's Inflation Report of February 2008: "Under market interest rates, the central projection for inflation was a little above the target in the medium term, while under constant interest rates, it was below the target." This suggests that the likely interest rate path lies somewhere between a constant rate and market expectations.

second central bank with endogenous interest rate assumptions, following the Reserve Bank of New Zealand, who introduced it in 1997. More recently, the Swedish Riksbank, the Czech National Bank, and the Central Bank of Iceland have also started to publish interest rate forecasts.

Publishing endogenous interest rate paths raises a number of issues, and there is disagreement among both academics and central bankers on whether being that precise about future policy intentions is beneficial or not. The key issue in the debate is whether such communication implies guidance or noise. Some of the arguments for transparency relate to the beneficial effects when private agents understand the central bank's reaction function, such that market interest rates will adjust more appropriately to economic news.

Publishing the interest rate forecast may not be sufficient to communicate the central bank's reaction function, as one specific forecast does not in itself convey much information about how the central bank responds to various shocks. One could argue that three ingredients are required; 1) the forecasts, 2) how the central bank responds to shocks, and 3) the criteria underlying the forecasts and reaction function.

The first two ingredients provide efficiency in monetary policy, in the sense that private agents knowing the central bank's assessments and reaction function can respond appropriately to economic developments. The third ingredient contributes to a better understanding of the objectives of monetary policy and the link between objectives and policy. This could underpin the credibility of the reaction pattern, and is also important for democratic accountability. In addition, the reaction function could change over time, for example due to a change in how the economy works or an improvement of the understanding of economic mechanisms. The criteria could then give some guidance to the public on how and why the reaction function might change.

Let me briefly explain how Norges Bank communicates the three ingredients of our communication, and let me start with the forecasts. Chart 1 shows the forecasts of the key variables. The uncertainty bands are based on model simulations and reflect estimated variances of the different shocks. (Note that there is also a fan chart for historical values of the output gap, since there is also uncertainty about potential output in retrospect.) Communicating uncertainty through fan charts in the inflation reports was introduced by the Bank of England in 1997. While the fan charts for inflation illustrate that inflation cannot be controlled perfectly by the central bank, this argument does not apply for the policy interest rate. The fan chart for the interest rate serves a different purpose: It illustrates that the interest rate path is not a promise, but a forecast which is uncertain. Moreover, it reflects the central bank's adjustment of the interest rate as a response to new economic developments, which are subject to uncertainty. Petra Geraats argues that central banks should not provide forecasts for the policy rate, since this could be confused with a commitment. She suggests that central banks instead could have forecasts for short-term market interest rates. Our experience is that market participants and the public understand that our forecast for the policy rate is indeed a forecast and not a promise. Due to the close relationship between the policy rate and short-term market rates, it should not, in my view, matter very much whether it is the policy rate or a short-term market rate that is projected.

Let me now turn to the second ingredient; how Norges Bank responds to new developments ("shocks"). Monetary policy becomes more effective if market participants can react adequately to economic news. In order to convey a broader reaction pattern, Norges Bank indicates how the Bank would react should certain disturbances occur. However, since no central bank follows a specific reaction function mechanically, it would be misleading to present a single reaction function specified mathematically. Judgement is always applied when responding to shocks, and a specific reaction function will give a very simplified representation of the reaction pattern. There is thus a trade-off between misleading precision and uninformative generality. Norges Bank tries to balance this trade-off by applying various approaches to communicating the reaction pattern.

First, the Bank presents alternative scenarios in the Monetary Policy Report. Chart 2 illustrates the interest rate response to a positive and negative shock to inflation respectively. The exact specification of the shocks in the illustrations can differ somewhat from one Report to another, but the shifts in the interest rate, and the corresponding scenarios for inflation and the output gap give an indication of how the Bank responds. The shifts are specified such that, if shocks of the same type and size should occur, the alternative interest rate path is the Bank's best estimate of how the interest rate would be set in such a situation.

In addition to presenting policy reactions to new developments, the Monetary Policy Report includes an account of the disturbances that have lead to a change in the interest rate forecast from the previous Report. For example, we see from Chart 3 that our interest rate forecast was revised upwards in the Monetary Policy Report 2 published in June. The shocks contributing to this revision are illustrated in Chart 4. The black line is the difference between the current interest rate path and the path in the previous Report.

The "interest rate account" is a technical model-based illustration of how the change in the interest rate forecast from the previous Report can be decomposed by different exogenous shocks to the model. The illustration shows how changes in the assessment of international and domestic economic variables as well as changes in shock processes have affected the interest rate path, and is based on our core forecasting model. Since the "interest rate account" follows from a specific model, the exact decomposition is model-dependent and should thus be interpreted as a model-based illustration rather than a precise description of the Executive Board's reaction pattern. Notwithstanding this reservation, the "interest rate account" serves several purposes. First, it gives information about the reaction function. Second, it provides a compact summary of the Monetary Policy Report. Third, it is a tool of communicating commitment. Norges Bank aims at influencing expectations in order to stabilize inflation. In this respect, our policy has elements of commitment. The interest rate forecast should reflect economic news and not re-optimisation of monetary policy. With an "interest rate account", the public is better able to check whether the central bank honours past commitments.

Let me turn to the criteria underlying the interest rate forecast and reaction function. Among the few central banks that publish interest rate forecasts, it is common to communicate these in quite general terms.[4] When formulating the criteria, there is a trade-off between being too general, which does not provide very much information, and being too specific, which might overly restrict policymakers' room for manoeuvre and be less robust to changes in the economic landscape. The Bank has developed a set of criteria for an appropriate interest rate path. The criteria serve both the purpose of communicating the reasoning behind the interest rate path to the public and of providing an agenda for the Board discussion, which makes it easier to decide on a particular path.

The criteria used by Norges Bank to assess the interest rate reflect policymakers' general views and assessments. They are therefore not "carved in stone", but can be changed and modified due to new insights. Currently, the Bank uses five criteria, which can be summarized as follows:

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[4] For example, the Swedish Riksbank communicates the criteria behind the forecasts as follows: "The Riksbank's forecasts are based on the assumption that the repo rate will develop in such a way that monetary policy can be regarded as well-balanced. In the normal case, a well-balanced monetary policy means that inflation is close to the inflation target two years ahead without there being excessive fluctuations in inflation and the real economy." (See p.3 in the Riksbank's Monetary Policy Report).

1. Achievement of the inflation target

The interest rate should be set with a view to stabilising inflation close to the target in the medium term. The horizon will depend on disturbances to which the economy is exposed and the effects on the prospects for the path for inflation and the real economy.

2. Reasonable balance between the inflation gap and the output gap

Norges Bank conducts flexible inflation targeting, which implies that stabilising inflation around the target should be weighted against stability in the real economy. The chosen interest rate path should therefore imply a reasonable balance between the objectives if there is a conflict in the short term between stabilizing inflation around the target and stabilizing the real economy. What is meant by a "reasonable" balance is obviously a matter of judgment and is an important element in Board discussions.

In the assessment, potential effects of asset prices, such as property prices, equity prices and the krone exchange rate on the prospects for output, employment and inflation are also taken into account. Assuming the criteria above have been satisfied, the following additional criteria are useful:

3. Robustness

Interest rate developments should result in acceptable developments in inflation and output also under alternative, albeit not unrealistic, assumptions concerning the economic situation and the functioning of the economy.

4. Gradualism and consistency

Interest rate adjustments should normally be gradual and consistent with the Bank's previous response pattern.

5. Cross-checking

It is important to cross-check the Board's judgments concerning the interest rate path against other information. One natural cross-check is market expectations about the future interest rate, as represented by implied forward interest rates (adjusted for risk and term premia). In addition, simple interest rate rules like the Taylor rule and other variants suggested in the literature provide potentially useful cross-checks.

Experiences

What are our experiences of our communication approach? The ultimate objective of our communication is to achieve better outcomes in terms of improved stability in inflation and the real economy. However, with less than three years of being fully transparent about our future policy intentions, it is too early to draw a conclusion regarding macroeconomic stability.

An intermediate objective of communication is to provide a better understanding of the Bank's reaction pattern. One test of this to consider the volatility of market interest rates on the day Norges Bank decides the interest rate. If the new communication approach has been successful, one should expect that the interest rate decisions are more predictable.

Chart 5 shows the magnitude of market rate changes on the day the interest rate is decided. We see that volatility in market interest rates has on average been smaller after we started publishing our interest rate forecasts. Although one cannot exclude the possibility that the reduction in volatility is caused by other factors than policy communication, it seems that our reaction pattern has become somewhat better understood.

Petra Geraats argues that it is important not to delay policy decisions that are not expected by the market just in order to appear predictable. This, she argues, could impair the market's understanding of the central bank's reaction pattern and thus reduce predictability in the medium and long run. I fully share Petra's view. As a general rule, the central bank should do what it considers to be the appropriate thing to do in a given economic situation. Predictability is not a goal in itself. However, one caveat to this rule is that in situations where there is unusually high uncertainty and turmoil in financial markets, it could sometimes be unwise to add more uncertainty through unanticipated policy decisions.

In her survey, Petra Geraats points out that transparency can have both information effects and incentive effects. One incentive effect which is not mentioned in the paper, but which I believe is very important in practice, is the effect transparency has on the internal decision process. This effect is difficult to detect for outside observers, but I have observed how transparency has changed the motivation and discipline of the economists within Norges Bank. By publishing our own interest rate forecast, each sector expert will see how his or her judgment might affect policy. Moreover, by following the principle that what is communicated externally should reflect the internal decision process, we need to think extra hard about what we do internally. Transparency makes the public better capable of evaluating the central bank's analyses and policy assessments. If these are not of sufficient quality, we will be criticised (for example by the Norges Bank Watch, of which Petra Geraats was a member in 2004). Public scrutiny disciplines the internal process and, I believe, results in better monetary policy.