Norges Bank Watch 2012

An Independent Evaluation of Monetary Policy in Norway

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[1] Vredin's contributions to this report were made before February 1, 2012, during Vredin's time as CEO of SNS (Centre for Business and Policy Studies), Stockholm. During February – April 2012 Vredin will be working as an advisor at Norges Bank.

Contents

FOREWORD

Each year the Centre for Monetary Economics (CME) at The Department of Economics, BI Norwegian School of Management appoints an independent group of experts to evaluate monetary policy in Norway.

This year the committee consists of Ragnar Torvik, Professor of Economics at Norwegian University of Science and Technology - NTNU, Anders Vredin, former Head of SNS - Centre for Business and Policy Studies in Stockholm, and Bjørn-Roger Wilhelmsen, Senior Analyst at Swedbank First Securities. The committee is solely responsible for the report and the views therein. The report does not necessarily represent the views of the CME or of its members.

The Ministry of Finance partly funds the Norges Bank Watch reports, which contain useful information and analyses for the Ministry's evaluation of monetary policy that is presented each year in a White Paper to Parliament.

Oslo, 28 February 2012

Centre for Monetary Economics

Arne Jon Isachsen

EXECUTIVE SUMMARY

The conduct of monetary policy in 2011 is discussed in Chapter 2. Given the significant uncertainties about developments in the world economy and the dilemma of how to balance various risks, it is difficult to argue that Norges Bank has made any major mistakes. The key policy rate was increased in the first half of 2011 when economic growth was gaining momentum, and it was reduced again in December after the economic outlook had worsened.

That being said, whether one sees monetary policy in Norway as well balanced during 2011 or not depends on whether financial stability should be viewed as an independent objective for the central bank or not. If an extra weight should be given to financial stability in monetary policy – and we have sympathy for that idea – Norges Bank could, in principle, have raised the interest rate earlier and more during the first half of 2011. The cut in December could then be questioned. But if one does not accept that financial stability should be an objective for monetary policy in addition to the objective of stabilising output and inflation over the medium term, it is easier to come to the conclusion that monetary policy in 2011 was well balanced.

As such, the exact size and timing of interest rate movements is a quantitative problem that cannot be addressed until the qualitative question about the central bank's responsibility for financial stability has been clarified. We conclude that there is considerable room for improvement in Norges Bank's communication of monetary policy. In particular, the role of financial stability for monetary policy needs to be clarified.

NBW has looked for potential improvements in Norges Bank's analyses and communication about the links between monetary policy and financial stability, and Chapter 3 is devoted to a discussion of such links. This is done in three steps. The first step is to discuss how the degree of financial stability influences the effects of monetary policy on inflation and output, i.e., the so-called transmission mechanism. This question is relevant regardless of whether one thinks that financial stability should be a separate objective for monetary policy or not. The second step concerns whether the central bank should have any responsibility for financial stability and, if so, whether this should have any implications for monetary policy (in addition to the effects via the transmission mechanism). Finally, a third set of questions arise about how the central bank's responsibility for financial stability can be separated from similar tasks carried out by other authorities.

Regarding financial stability and the transmission mechanisms of monetary policy, we conclude that Norges Bank should clarify how changes in the degree of financial stability, as reflected, for example, in market interest rate spreads, influence the Bank's forecasts and policy decisions. In October 2011 Norges Bank significantly revised its estimate of the average money market premium during 2011 and 2012. The revision could, in principle and in isolation, explain the entire interest rate cut in December. But the size of this policy move caught many observers by surprise. This suggests that there is a room for more transparency in this context. We also think that changes in the transmission mechanism should be included among the listed main criteria for an appropriate interest rate path.

In Chapter 3 we also note that Norges Bank's formal mandate when it comes to financial stability is unclear and needs to be clarified. We present several arguments from international experts suggesting that central banks should be responsible for financial stability. This does not necessarily imply that central banks (rather than e.g. financial supervisory authorities) should have the main responsibility for financial stability (at the macro level), or that financial stability concerns should influence interest rate policy – but many experts do indeed make such recommendations.

There is also much discussion about which institution should be allocated new macroprudential instruments. We think that Norges Bank rather than the Financial Supervisory Authority of Norway (FSA) should be responsible for macroprudential policies. But there are many difficult issues related to this question that remain to be solved, as has been thoroughly elucidated in an excellent recent report from the Ministry of Finance, Norges Bank and the FSA.

The independence of Norges Bank is discussed in Chapter 4. The Ministry of Finance and Norges Bank both view Norges Bank as very independent. Still, several issues relating to central bank independence might suggest that, at least on paper, Norges Bank is not among the most independent of central banks. In addition, there have traditionally been strong informal ties between the Ministry of Finance and Norges Bank. For instance, a governor without work experience in the Ministry has not been appointed since the Second World War.

But the link between the Ministry of Finance and Norges Bank is not just an informal one. Section 2 of the Norges Bank Act states:

> *"Before the Bank makes any decision of special importance, the matter shall be submitted to the ministry."*

Moreover, Section 2 continues:

> *"The King in Council may adopt resolutions regarding the operations of the Bank. Such resolutions may take the form of general rules or instructions in individual cases. The Bank shall be given the opportunity to state its opinion before such resolutions are passed. The Storting shall be notified of resolutions as soon as possible."*

Thus, according to the Norges Bank Act, the government may change decisions made by Norges Bank. Thus, compared to many other central banks, Norges Bank is not, on paper, very independent. We discuss different arguments related to this and argue that Norges Bank should be made more independent. We also argue that price stability should, as in most other countries, be explicitly defined in the legislation as one of Norges Bank's primary responsibilities.

A key issue in institutional design is the role of checks and balances when the government delegates decision-making power to independent institutions such as the central bank. The more independent the central bank, the stronger checks and balances there should be inside the bank. Compared to most other central banks, the Executive Board of Norges Bank has additional duties in that they are also responsible for the operations of NBIM. It may thus seem paradoxical that the external members of the Executive Board are only part-time. Moreover, new policy instruments related to macroprudential regulations will in the future most likely imply even greater responsibilities and work load (even if these policy instruments should be allocated to the FSA).

This naturally raises the question of whether the responsibilities of the external members of Norges Bank's Executive Board are outgrowing the current institutional design. We argue that the internal checks and balances need to be strengthened, and that the current part-time involvement of the external Executive Board members is not entirely consistent with their responsibilities. We also argue that more information about the discussions between the members of the Executive Board should be published.

1. INTRODUCTION

In an international context, i.e. in comparison with relevant benchmark countries, current macroeconomic developments in Norway are very favourable. GDP growth is high, capacity utilisation close to normal, unemployment low, savings are high and inflation – despite the strong economy – is below the 2.5% target. Stabilisation policy would not seem to be facing any major challenges in the short run.

But this does not mean that this fortunate situation should be taken for granted. The global economy still faces considerable uncertainty and the risk of new severe disturbances is high. There are always temptations for policy makers to be short-sighted. The need for institutional reforms and the trade-off between present and future generations is much discussed all over the world. Also Norway has reason to examine whether the country's institutions are sufficiently robust to secure favourable long-term economic developments.

In Section 2 we review and comment on Norges Bank's monetary policy during 2011. We raise the question of whether monetary policy has been affected not only by the outlook for inflation and capacity utilisation, but also by financial stability concerns. This question could also be raised about monetary policy in many other central banks. In Section 3 we discuss various links between monetary policy and financial stability that require more analysis – in order to evaluate and predict monetary policy.

In Section 4 we discuss Norges Bank's independence. It is widely recognized that a clear price stability objective, independence and transparency have improved monetary policy in many countries over the past 15 – 20 years, compared with the situation in the 1970s and 1980s. Central bank independence, however, needs to be discussed in a new light, given the greater emphasis, internationally, on central banks' responsibilities for financial stability. Good arguments can be made for institutional reforms that would increase Norges Bank's independence, even using Norges Bank's existing mandate. The need to clarify Norges Bank's responsibility for financial stability makes the arguments for institutional reforms even stronger.

The committee for Norges Bank Watch 2012 met with the Ministry of Finance on November, 23 2011 and with Norges Bank on November, 25 2011. We wish to thank Norges Bank for supplying us with useful data as well as assistance with language editing.

The committee would also like to thank Arne Jon Isachsen and Erling Steigum for constructive comments.

The views presented, and the recommendations made, are those of the authors alone. All recommendations are unanimous.

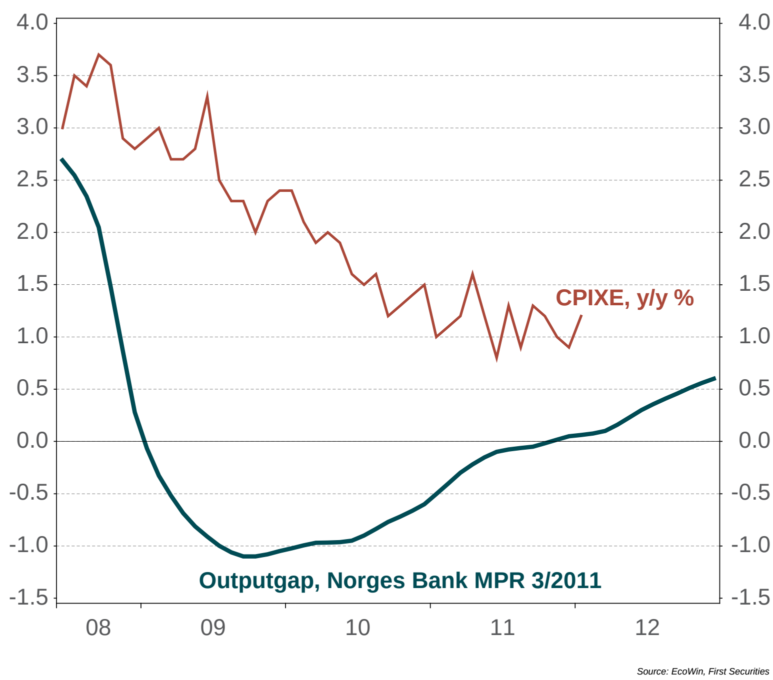
2. MONETARY POLICY IN 2011

The key policy rate stood at 2% at the beginning of 2011, having remained unchanged since the 25 bp increase in May 2010. The projections in the last Monetary Policy Report (MPR) in 2010 were consistent with stable interest rates until around mid 2011 and a gradual increase thereafter.

The relatively low level of the interest rate was primarily motivated by the considerations of bringing consumer price inflation back to the 2.5% target over the medium term. "Underlying inflation" was around 1% at the turn of the year 2010/2011.

However, the outlook for inflation was dominated by two offsetting factors. On the one hand, inflation was considered to pick up as capacity utilisation increased, supported in particular by stronger growth in household demand. In early 2011 output was considered to be a little below potential, but by mid-2011 the output gap was estimated to have closed (see Chart 2.1).

Chart 2.1: Output gap and CPIXE inflation



On the other hand, high uncertainty about economic prospects abroad, in particular in the euro area, weighed down on the inflation outlook through two channels: 1) Differences between the Norwegian and the international economy, including differences in interest rates, entailed a risk of a stronger NOK exchange rate; 2) The growth outlook in Norway became more uncertain, too.

Judging by a simple Taylor-style monetary policy rule, a normal level of capacity utilisation (closed output gap) suggests in isolation a normal interest rate level, whereas an inflation gap of 1.25% would in isolation require a key policy rate some 2 percentage points below normal. Any estimates of the "normal" interest rate level are associated with a considerable amount of uncertainty. But, if the normal level of the key policy rate in Norway is assumed to be around 4.5%, a key policy rate of around 2.5% appears to be well balanced according to a standard flexible inflation targeting strategy.

Beside the medium-term outlook for growth and inflation, other factors seem to have influenced monetary policy in 2011 as well:

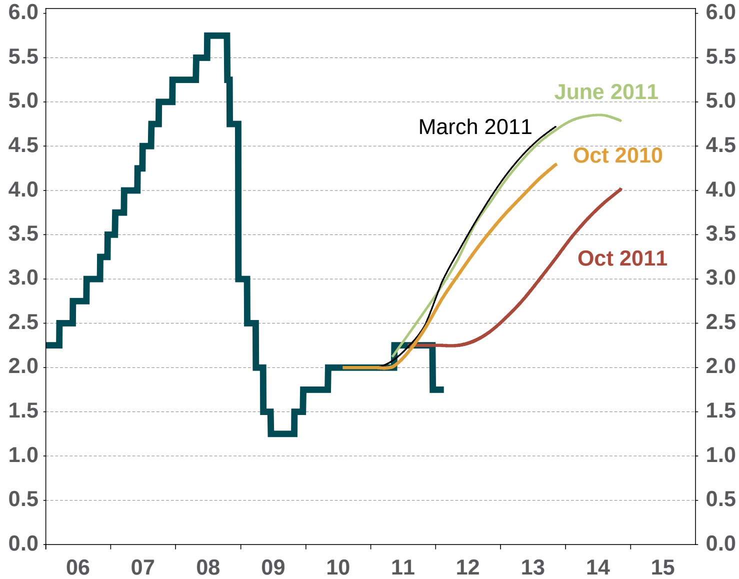
- Transmission channel of monetary policy: The spread between the key policy rate and market interest rates remained higher than expected during the year, especially in the second half of the year, leading to upward pressures on household borrowing costs.
- Interest rate smoothing: There is little purpose in reducing the key policy rate by a small margin for a short time if the expectation is that the policy rate will soon have to be raised even more.
- Financial stability: The consideration of guarding against the risk of a boom-bust cycle in household debt and house prices that could disturb activity and inflation further ahead was mentioned in press releases and monetary policy reports, but we are uncertain how much weight these considerations were given in practice.

Norges Bank decided to lift the interest rate path somewhat in the March MPR and the key policy rate was increased to 2.25% at the Executive Board meeting in May. Prospects for interest rates were revised up further in the June MPR.

However, the international economic outlook changed dramatically over the summer and prospects for the Norwegian key policy rate changed accordingly. Norges Bank decided to leave interest rates on hold in August, September and October, before reducing them by 50 bp to 1.75% in December.

As the situation was different between the two periods January-June and August-December, the discussion of the conduct of monetary policy in these two periods is done separately in two different sub-sections. The third sub-section examines the role of financial stability in monetary policy in 2011.

Chart 2.2: Sight deposit rate and projections



Source: EcoWin, Swedbank

2.1 January – June: higher capacity utilisation in Norway dominated

The first monetary policy meeting of the Norges Bank Board in 2011 was on **26 January.** The Board decided to leave its key policy rate on hold at this meeting, a decision which was widely expected. This decision was consistent with the interest rate projection outlined in MPR 3/10; the baseline scenario in the Report was to keep interest rates on hold until mid-2011 and increase them gradually thereafter.

In the press release following the decision, the Board put emphasis on the recovery in world output, which was continuing at a stronger pace than expected but was still too weak to reduce unemployment significantly. In Norway, household demand appeared to have strengthened somewhat more than expected and housing starts had picked up. The Board also noted that the rise in house prices had gained speed. The risk of future financial instability was cited as a reason not to keep the key policy rate "low for too long", even though household borrowing had not increased substantially.

However, at the meeting in January these considerations were offset by the risk of a stronger NOK that could keep inflation below target.

The positive growth momentum in Norway and abroad continued in the period up to the next Board meeting on **16 March**, at a faster pace than the Board expected in the previous monetary policy report. While inflation was low, the Board made a reference to the risk of higher-than-expected wage growth in the context of higher capacity utilisation.

Moreover, house prices had continued to increase and there were signs of higher credit demand, even though there was no surge in credit growth. Against this background, the Executive Board noted that:

"*a low interest rate level over time could lead to financial instability*" (Monetary Policy Report 1/11, p. 7).

But the Board was of the opinion that these concerns had to be weighed against the potential effect of higher interest rates on the krone exchange rate, which could lead to even lower inflation.

The Norges Bank Board revised up the interest rate projection in MPR 1/2011. One reason behind this move was expectations of higher interest rates among trading partners, which were considered to dampen the pressure on the NOK exchange rate. Moreover, the Board also emphasised that stronger growth prospects were expected to push up inflation over the medium term.

Interestingly, when accounting for the reasons behind the changes in the interest rate path in the Report (Chart 2.3), the Board said that:

"*Without smoothing, technical calculations would have implied a slight, albeit brief fall in the key policy rate*" (Monetary Policy Report 1/11, p 22)

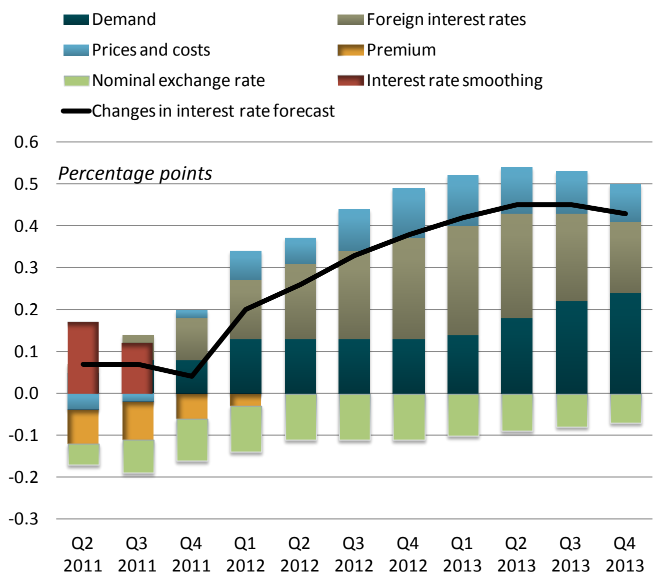
Because money market premiums were higher and the NOK exchange rate stronger than expected, the Board decided to apply interest rate smoothing to avoid unnecessary volatility in interest rates (first a cut, before hiking rates a few months later).

Consequently, the key policy rate was left unchanged, as expected by all economists surveyed. The Board cited low inflation and a strong NOK as reasons to keep interest rates low. At the same time, the Board noted that:

"*The considerations of guarding against the risk of future financial imbalances that may disturb activity and inflation somewhat further ahead suggest that the key policy rate should be increased in the near term*" (Monetary Policy Report 1/11, p. 7).

Although it was not surprising that the interest rate path would be revised up, the magnitude of the rise was unexpected. The message that rates were likely to be increased in the near term was communicated in a way that suggested that Norges Bank gave weight to financial stability considerations at this meeting. Expectations of future interest rate hikes by Norges Bank, as implied by market rates, increased a little after the Board meeting.

Chart 2.3: Factors behind changes in the interest rate forecast since MPR 3/2010



The new interest rate forecast (baseline scenario) was consistent with an interest rate hike *"by the end of the first half of 2011"* (Press release 16 March), but it was unclear whether the move would occur at the Board meeting in May or in June. The Executive Board decided to increase the key policy rate by 25 bp to 2.25% at the Board meeting on **12 May**. The decision was expected by 15 of 20 economists according to a Bloomberg poll, while 5 economists expected rates to be left on hold.

The decision to raise rates was motivated by "the consideration of stabilising activity and inflation somewhat further ahead", as the upturn in the Norwegian economy appeared to have gained a firm footing. The decisions by both the ECB and the Riksbank to increase rates in April facilitated the move without leading to a significantly stronger NOK exchange rate. The Bank also made a reference to rising house prices in the press release.

At the same time, some key indicators of world economic growth had declined prior to the Board meeting in May, which questioned the sustainability of the global recovery. The slowdown was associated with the tensions in the Middle East, which pushed up energy prices, as well as the devastating Japanese earthquake, which disrupted the supply chain. However, both developments were considered to only temporarily reduce global growth. Meanwhile, the uncertainty surrounding developments in Ireland, Portugal and

Greece had increased since MPR 1/2011, as reflected by the surge in longer-term government bond yields.

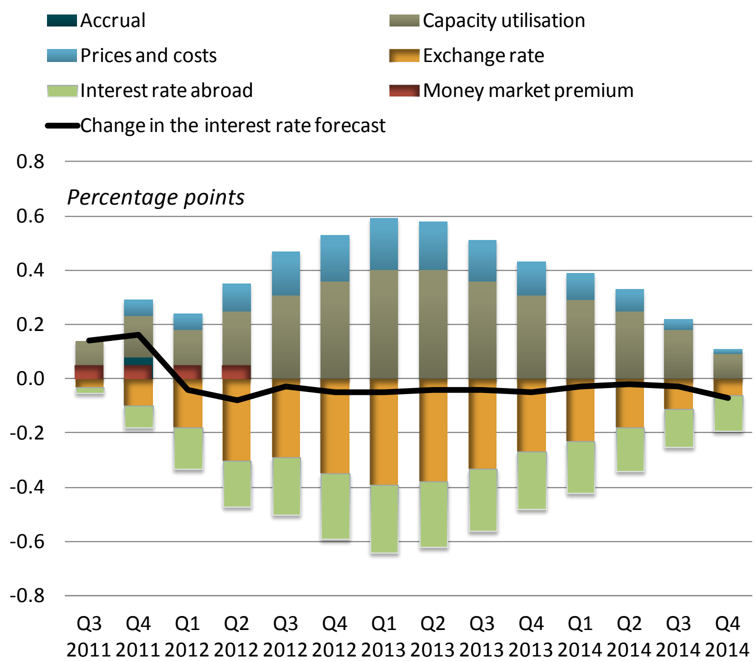
Incoming data continued to suggest that growth in global output was losing momentum in the period up to the Executive Board meeting on **22 June**. Added to that, the turbulence linked to government debt in the so called “periphery” or “programme” countries of the euro area had intensified. As a result, international stock markets fell, expected future interest rates among trading partners declined and CDS prices for European financial institutions rose between MPR 1/2011 and MPR 2/2011 published on 22 June.

Meanwhile, incoming data for Norway were mixed. On the one hand, growth in private consumption was weaker than expected and Norges Bank therefore revised down expectations for mainland GDP growth in 2011 slightly. On the other hand, the unemployment rate had fallen somewhat more than expected and a couple of surveys indicated that capacity utilisation had increased.

When balancing all incoming news, the Executive Board gave particular weight to signs of a tightening labour market and the risk that wage and price inflation could rapidly accelerate if capacity utilisation rose to a high level. Added to that, the Board made a reference to rising home prices and rents in urban markets.

While the Norges Bank Board kept interest rates on hold at this meeting, as expected by all economists surveyed, the baseline scenario in MPR 2/2011 indicated a slightly faster pace of interest rate hikes in the second half of the year than in the previous Report (see Chart 2.4). The interest rate projection was consistent with a 25 bp hike to 2.5% at the next meeting in August. Market interest rates increased.

Chart 2.4: Factors behind changes in the interest rate forecast since MPR 1/2011



2.2 August – December: financial market turbulence intensified

The projections in MPR 2/2011 turned out to be too optimistic. New information over the summer continued to point to weaker growth in the world economy than expected, in particular in the euro area and in the US. Moreover, growth prospects became further depressed by the turbulence in the financial market, which flared up over the summer. Equity prices fell markedly and credit spreads widened.

According to Executive Board's assessment at the monetary policy meeting on **10 August**, the Norwegian economy was still growing at a robust pace broadly in line with what the Board had expected in June. The Board also made a reference to rising home prices and growth in household credit demand.

However, these considerations were offset by the downside risks to growth going forward that had increased substantially due to a much more uncertain environment abroad. Moreover, as the price of bank funding and money market premiums had increased, borrowing costs for households and businesses were at risk of increasing even if the key policy rate were to be left on hold.

As a result, the Norges Bank Board decided to deviate from the baseline interest rate path in MPR 2/2011 and kept the key policy interest rate unchanged at 2.25%. The decision was expected by only 3 of the 14 economists surveyed by Bloomberg. 11 economists forecasted a rise to 2.5%.

The key policy rate remained on hold also after the Board meeting on **21 September**, which was widely expected. In the press statement the Board emphasised that prospects for the world economy had weakened considerably in the course of the summer and that external developments "are also affecting the domestic outlook". Without presenting an updated interest rate forecast, the Norges Bank Board indicated that the key policy rate was likely to "be kept low for a longer period than expected in June". Moreover, in the assessment of risks to this outlook, the Board also mentioned that the key policy rate might be reduced if the Norwegian economy were exposed to new major shocks.

Prospects for lower interest rates were influenced only to a very limited extent by incoming data in Norway, which suggested that "growth remains robust", according to the press release. Moreover, the Board noted that "unemployment has remained stable" and that "housing investment has shown a substantial increase and house prices are still on the rise". However, the Board gave prominence to the weaker outlook in the wake of external developments.

The key policy rate was also kept unchanged at the Board meeting on **19 October**, a decision expected by 21 of the 22 economists surveyed by Bloomberg. One predicted a rate cut. The new interest rate projection in MPR 3/2011 was consistent with a stable key policy rate in Norway until the second half of 2012, although the Board emphasised risks around this forecast in both directions.

The new interest rate outlook was considerably lower than in June. When accounting for the factors behind the downward revision, the Board mentioned expectations of weaker growth abroad, lower capacity utilisation in Norway, lower inflation, lower interest rates abroad and higher money market premiums.

Taken together, these considerations would on balance imply a temporary cut in the key policy rate. However, one of the Board's criteria for an appropriate interest rate path is to change the interest rate gradually. To avoid reducing the key policy rate by a small margin for only a short period of time, the Board included a "supplementary assessment" in addition to the factors mentioned above (see Chart 2.4).

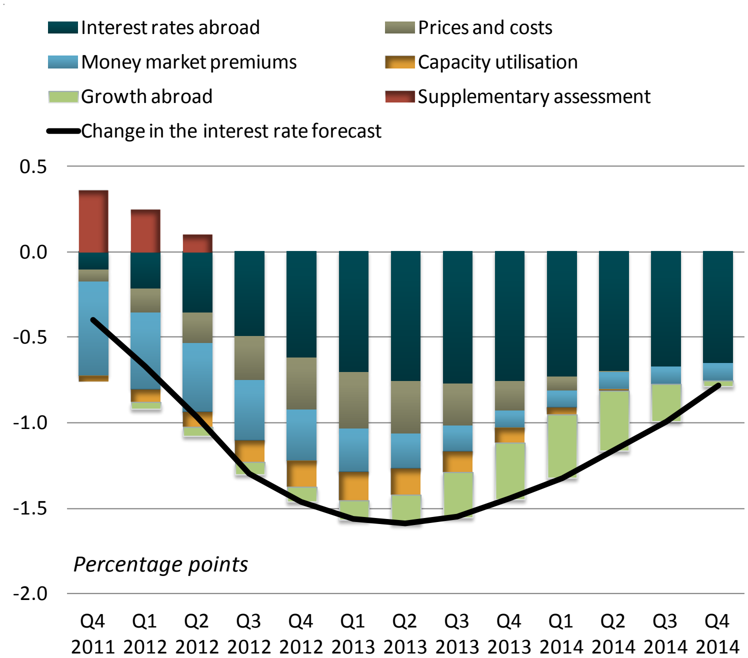
In the assessments behind the new projections, the Executive Board gave weight to the increased level of uncertainty surrounding developments in the global economy, especially in the euro area, and how this was likely to affect Norway. After all, the Board noted that growth in Norway had maintained momentum, even if it was slower than expected in June.

Moreover, the Board also noted that the rise in house prices had picked up and that high demand and housing shortages in the major cities might continue to generate pressures in the housing market ahead. In particular, the Board noted that:

"Low interest rates over time entail the risk of a buildup of imbalances. This suggests that the key policy rate should gradually be raised towards a more normal level" (Monetary Policy Report 3/2011, p. 7)

In MPR 3/11, Norges Bank thus repeated the message emphasised in MPR 1/11: To lower the risk of financial imbalances, the key policy rate might have to be raised (see also section 3.2.3 below). However, considerations related to financial stability were not mentioned among the "factors behind changes in the interest rate forecast" in the Report (see Chart 2.5).

Chart 2.5: Factors behind changes in the interest rate forecast since MPR 2/2011



Finally, at the last monetary policy meeting of the year on **14 December**, the Executive Board decided to reduce the key policy rate by 50 bp to 1.75%. The decision was expected by only 2 of 17 economists surveyed. Ten predicted a 25 bp cut, while 5 predicted an unchanged rate. The reasons put forward for cutting so aggressively was that the turbulence in financial markets had intensified and external growth was expected to be clearly weaker. Moreover, Norwegian money market premiums were markedly higher than assumed in MPR 3/2011, adding to upward pressures on borrowing costs for households and businesses.

As a number of indicators were pointing to weaker growth ahead, the Executive Board was of the view that it was appropriate to reduce the key policy rate at this meeting "in order to guard against an economic setback and even lower inflation".

At the same time, the Board noted that activity in the Norwegian economy was "robust", primarily driven by petroleum investment and housing construction. Moreover, the Board referred to rising house prices and to household debt, which was growing at a faster pace than household income. However, these concerns did not prevent the Bank from reducing the key policy rate more aggressively than the market was expecting.

2.3 How much weight was given to financial stability in 2011?

There is no doubt that the Norges Bank looked at indicators of financial stability, such as house prices and credit growth, when discussing the appropriate monetary policy stance in 2011. The above review of monetary policy in 2011 suggests that financial stability concerns were arguments in favour of *raising* the interest rate path in March and against *lowering* the interest rate in October.

However, as also pointed out by Norges Bank Watch 2011, it is not clear to us that weight is attached to financial stability considerations in practice, in addition to the weight given to inflation and output stabilisation. While it is obvious that indicators of financial stability belong in Norges Bank's reaction function, it is not obvious that Norges Bank is acting as if financial stability is also in the Bank's objective function. In other words, is Norges Bank taking financial stability into account beyond its impact on inflation and output? For example, what happens if there appears to be a conflict between stabilising output and prices on the one hand, and financial stability considerations on the other?[2]

There now seems to be wide agreement that central banks have a responsibility for financial stability *in addition to* the responsibility for price and output stability (see discussion in the next chapter). The discussion in this chapter focuses on the role of financial stability for the key policy rate in 2011.

[2] Differences in opinion between the members of Sveriges Riksbank's Executive Board during 2010 and 2011 is an example of a situation where policy makers have faced such a conflict. The debate about whether ECB's market operations are justified by concerns for monetary policy or financial stability is another example. In retrospect, it also seems that many central banks were facing a conflict between price stability and financial stability when they kept interest rates low before the financial crisis, although the conflict was not obvious at that time (around 2004 – 2006).

As a starting-point for understanding Norges Bank's strategy, it is useful to take a closer look at the "criteria for an appropriate interest rate path" included in the 2011 monetary policy reports:

"

1. *The interest rate should be set with a view to stabilising inflation at target or bringing it back to target after a deviation has occurred. The specific time horizon will depend on the type of disturbances to which the economy is exposed and their effect on the path for inflation and the real economy ahead.*
2. *The interest rate path should at the same time provide a reasonable balance between the path for inflation and the path for overall capacity utilisation in the economy.*

In the assessment, potential effects of asset prices, such as property prices, equity prices and the krone exchange rate on stability in output, employment and inflation are also taken into account.

Assuming the criteria above have been satisfied, the following additional criteria are useful:

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

As a cross-check for interest rate setting, any substantial and systematic deviations from simple, robust monetary policy rules should be explained."

These criteria suggest that house prices and credit are taken into account because these variables influence the outlook for inflation and output. There is nothing in these criteria that suggests that Norges Bank is giving weight to financial stability in addition to its responsibility for price and output stability.

At the same time, however, as the Norges Bank Board repeatedly stressed in press statements during 2010 and 2011:

> "*the consideration of guarding against the risk of future financial imbalances that may disturb activity and inflation somewhat further ahead suggests that the interest rate should be brought closer to a more normal level" (Monetary Policy Report 1/11, p. 7).*

We see two possible but different interpretations of statements like this. According to one interpretation, the words "somewhat further ahead" refer to a horizon that is potentially somewhat longer than what most central bankers would associate with "medium-term"–

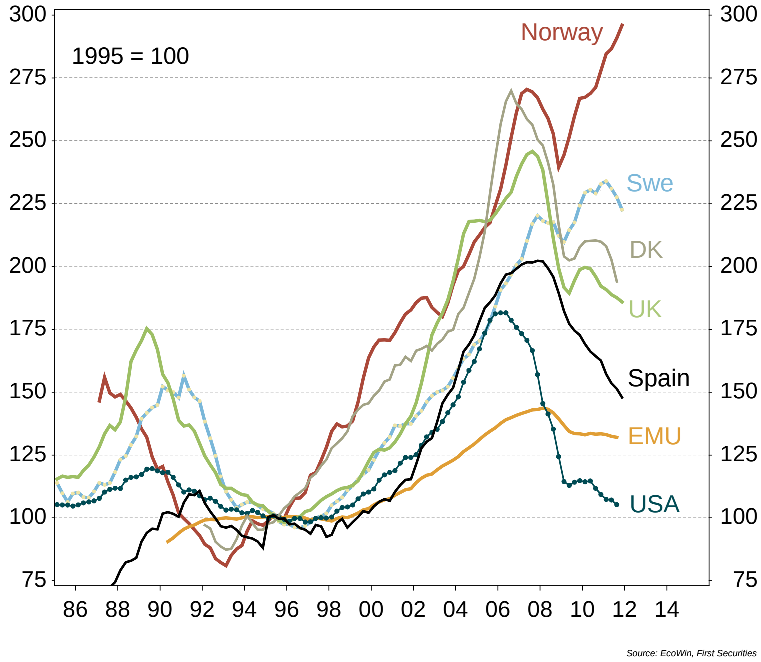
i.e. typically 1-3 years ahead. Then it would perhaps be fair to say that interest rate setting does not take financial stability into account in addition to price and output stability. Norges Bank just considers inflation and output stability in a longer time perspective than normally communicated.

But another possible interpretation is that financial stability concerns do carry some extra weight, i.e. that financial stability is not only a part of Norges Bank's reaction function, but Norges Bank acts as if financial stability also is a part of the objective function. This interpretation seems to be supported by the statements in MPR 3/11 that *"low interest rates over time entail the risk of a buildup of imbalances"*, which *"suggests that the key policy rate should gradually be raised towards a more normal level"*. It is difficult to see that a normalisation of the key policy rate would be required in the near term based on the forecasts for inflation and output presented. However, although the risks of imbalances have frequently occurred in the Bank's statements, we are uncertain about whether these risks are influencing interest rate setting in practice. For instance, in the same report as these imbalances were metioned as a reason to raise the key policy rate gradually, the key policy rate was projected to remain low and stable for about a year ahead. And at the next meeting, the Norges Bank decided to cut the key policy rate by 50 bp.

In the first half of the year, rising home prices and the risk of future financial imbalances were cited as reasons for not keeping the key policy rate low for too long. But since the Board also projected that the increase in capacity utilisation would lead to higher inflation over the medium term, there was not necessarily any conflict between a forward-looking flexible inflation targeting strategy and financial stability concerns in the first half of the year. Moreover, among the factors that had contributed to changes in the interest rate forecasts, there were no references to financial stability concerns (see Charts 2.3, 2.4 and 2.5). However, this does not rule out the possibility that the level of the interest rate path was affected by such concerns. The statement about the need to bring the interest rate back to *"a more normal level"* to lower the *"risk of a buildup of imbalances"* may suggest such a connection.

In the second half of the year, indicators were pointing to weaker growth and lower inflationary pressures, which convinced Norges Bank to delay interest rate hikes and then to cut the key policy rate in December. However, there were no signs that indicators of financial stability were changing course: household credit growth remained higher than long-term income growth and home prices were rising quickly (see Chart 2.6). In fact, the Norges Bank Board noted in October that "the rise in house prices had picked up".

Chart 2.6 House prices deflated by CPI. Indices, 1995=100



In the second half of 2011, a conflict seemed to have emerged between the considerations of output and inflation stability on the one hand and financial stability considerations on the other. The decision to abandon a planned interest rate increase in August and then to cut the key policy rate in December may indicate that financial stability considerations were not very important for monetary policy. The size of the interest rate cut in December took financial markets by surprise, which suggests that Norges Bank placed less weight on financial stability than expected. At the same time, financial stability concerns may have prevented an even more aggressive easing of monetary policy in the second half of 2011.

2.4 NBW view

During 2011, central banks almost all over the world have struggled with the dilemma of how to balance various risks. Low levels of capacity utilisation have been an argument in favour of lower interest rates, while high debt levels have been the argument against. As regards the primary objective of monetary policy, price stability, central banks in different countries have faced quite different problems. Countries with depreciating currencies have experienced higher-than-targeted inflation rates, while inflation has persistently been below target in countries with appreciating exchange rates. The balance of risks shifted during 2011. In the beginning of the year, forecasts of economic growth were still relatively optimistic and there was reason to expect that interest rates would gradually increase. During the second half of the year, the outlook for the world economy, especially Europe, became much more negative.

In comparison with other countries, Norway has been in a very favourable, albeit still difficult, situation. The level of capacity utilisation was considered to be normal, which in isolation would suggest that the interest rate level should be normal too. However, inflation has been, and has been expected to remain, low. Norges Bank has explicitly stated that looking at inflation alone, it would have been possible to lower the interest rate more and earlier than in December.

Whether one sees monetary policy in Norway as well balanced during 2011 or not depends on whether financial stability should be viewed as an independent objective for the central bank or not. If one supports such an objective, the Norges Bank could have increased the interest rate earlier and more during the first half of 2011 and refrained from lowering the key policy rate by 50 bp in December. If one does not accept that financial stability should be an objective for monetary policy, but that it is enough to consider house prices and credit as part of the Bank's reaction function, monetary policy in 2011 more clearly appears to have been well balanced.

Careful judgment is necessary in situations when there is considerable uncertainty about developments in the world economy and policymakers face difficult choices, and it is difficult to argue that Norges Bank has made any major mistakes. But in the view of NBW, there is considerable room for improvement in Norges Bank's communication of monetary policy. The role of financial stability for monetary policy needs to be clarified, in particular whether financial stability is in the Bank's reaction function or in the objective function.

A speech by Governor Gjedrem in autumn 2009 (Experiences with the financial crisis) suggests that financial stability is not part of the objective function:

"The Ministry of Finance has not suggested, and Norges Bank has not requested, that house prices should be given particular weight."

If an extra weight should be given to financial stability in monetary policy – and we have sympathy for that idea – Norges Bank could, in principle, have raised the interest rate earlier and more during the first half of 2011. The cut in December could then be questioned. But the exact size and timing of interest rate movements is a quantitative problem that cannot be addressed until the qualitative question about the central bank's responsibility for financial stability has been clarified.

3. LINKS BETWEEN MONETARY POLICY AND FINANCIAL STABILITY

The traditional and simple strategy of flexible inflation targeting does not imply that financial stability is irrelevant in the pursuit of monetary policy. But it does imply that, at least in normal times, it is relevant only to the extent that financial instability would destabilise output and inflation, and that financial stability is not an independent monetary policy target when setting the interest rate.

This monetary policy strategy has, however, been challenged by the international economic downturn over the last few years:

- Financial instability has been a more important source of fluctuations in inflation and output than standard forecasting models have been able to capture;
- Central banks' decisions have been influenced by concerns about financial stability, seemingly in addition to their objectives for inflation and economic activity;[3]
- Central banks have taken measures to promote financial stability that have affected the stability of inflation and output;
- It has sometimes been unclear whether central banks' decisions have been primarily directed by a financial stability objective or by the objectives of price and output stability.

The experiences from the recent crisis (primarily in the US and Europe) have led to proposals for how policy makers should "rethink macroeconomic policy" (Blanchard et al., 2010) and "rethink central banking" (Eichengreen et al., 2011). It is too early to draw any strong and definite policy conclusions from this ongoing rethinking, but NBW 2012 recommends Norges Bank to be as open as possible – in line with Norges Bank's generally high degree of transparency – about how the links to financial stability influence monetary policy.

Looking for potential improvements in Norges Bank's analyses and communication about the links between monetary policy and financial stability, the view of NBW 2012 is that it is useful to think about these issues in a sequence of steps.[4] First, how does the degree of financial stability influence the effects of monetary policy on inflation and output, i.e. the so-called transmission mechanism? This question is relevant even if one wants to stick to the traditional and simple strategy of flexible inflation targeting (where financial stability is not a separate objective for monetary policy). Second, does the

[3] We consider the decisions taken by ECB, Sveriges Riksbank and Norges Bank during 2011 as examples of this.
[4] This also appears to be roughly the scheme followed in Norges Bank's internal MAFI project.

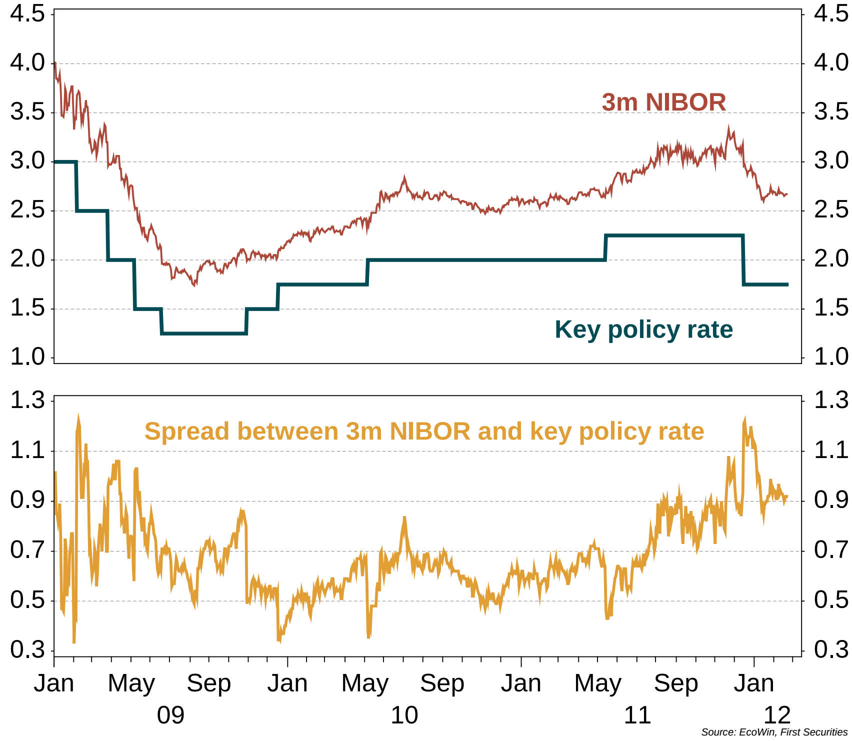
central bank have an objective for financial stability that is intended to influence monetary policy also under normal circumstances? Third, if the central bank has some responsibility for financial stability, how should this task be separated from similar tasks undertaken by other authorities, e.g. the FSA?

3.1 Financial stability and the transmission mechanism

Monetary policy influences aggregate inflation and output via the supply of credit. Under normal circumstances, the central bank implements monetary policy through variations in short-term interest rates on loans to (and/or deposits from) private banks. Under normal circumstances, changes in the central bank's key policy rate(s) are more or less directly reflected in private banks' interest rates (and credit volumes) to households and firms. One aspect of financial instability is that these links break down or at least change. If so, this will influence the central bank's monetary policy even if financial stability as such is not an objective of monetary policy.

The relevance of financial instability for monetary policy in Norway is illustrated in Chart 3.1. From mid-2009 to mid-2011, the spread between the key policy rate and the 3-month money market rate mostly fluctuated in the interval 0.5 – 0.7 per cent. In early 2009, the spread was higher and more volatile, reflecting instability in financial markets that weakened the transmission of monetary policy to banks' lending rates. During the second half of 2011, the spread increased again.

Chart 3.1 Spread between money market rate and key policy rate



In its communication, Norges Bank often comments on the development of risk premiums and spreads between the key policy rate and market rates. In the view of NBW 2012, it would be useful if Norges Bank could be more explicit on how risk premiums and spreads affect the forecasts for inflation, output and the key policy rate.

To make this recommendation a little more specific, consider the change in Norges Bank's views on the money market premium during 2011 (the difference between the 3-month money market rate and the expected key policy rate). In March and June, this premium was expected to decline by between 50 bp and 25 bp between 2011 and 2012. It was stated that this, in isolation, implied an increase in the policy rate. In October, the estimated money market premium was revised upwards by 50 bp, for both 2011 and 2012 (and by 25 bp for 2013 and 2014). In principle, this revision – "in isolation" – could explain the entire 50 bp cut in the interest rate in December. The large quantitative importance of the money market premium is obvious in the decomposition of the changes in the interest rate forecast (see Chart 2.4). But this potentially very important factor is not so conspicuous in Norges Bank's verbal explanations. In particular, instability in the transmission mechanism is not included among Norges Bank's four main "criteria for an appropriate interest rate path". This also implies that no explicit discussion of changes in spreads is included in the otherwise very thorough and illuminating section on "assessment of the interest rate path" in the MPR. If the links between spreads in market interest rates and monetary policy had been better explained, perhaps the policy decision in December would have been less surprising.

It would also be informative if Norges Bank could explain under what circumstances policy instruments other than the ordinary policy rate (e.g. “credit easing”, “quantitative easing”) are likely to be used in the implementation of monetary policy, depending on how the transmission mechanisms are affected by conditions in financial markets.

3.1 Monetary policy and the objective of financial stability

3.2.1 Norges Bank’s mandate

Norges Bank has to monitor financial stability to make decisions on the appropriate monetary policy to stabilise inflation and output. Financial stability may also be an objective in its own right, but Norges Bank’s responsibilities in this area appear to be somewhat unclear.

The Norges Bank Act states that the Bank shall “promote an efficient payment system”. According to the information on the Bank’s website, Norges Bank’s mandate and core responsibilities include “promoting robust and efficient payment systems and financial markets”. According to a closely related formulation on the financial stability page, Norges Bank shall “promote financial stability and contribute to robust and efficient financial infrastructures and payment systems”.

The text also includes a definition of financial stability:

> “*Financial stability implies a financial system that is robust to disturbances and is capable of ensuring funding, executing payments and distributing risk efficiently. Experience shows that financial instability builds up in periods of strong credit growth and asset price inflation.*”

Apparently there are official presentations of Norges Bank’s responsibilities that are somewhat wider than the formulations in the Norges Bank Act. But it is not easy, based on the quotations above, to decide whether financial stability is (1) exactly the same thing as “an efficient payment system” (the formulation used in the Norges Bank Act), or (2) whether this is a separate objective, in addition to price and output stability, or whether financial stability alone is viewed as a prerequisite for price and output stability. In the view of NBW 2012, there is a need for more transparency about these issues.

It deserves to be noted that although Norges Bank's mandate regarding financial stability can be said to be somewhat unclear, it does in some sense have a higher legal status than price stability. Price stability is not an objective mentioned in the Norges Bank Act. This objective instead appears in a separate Regulation on Monetary Policy.

3.2.2 The international discussion

Bernanke (2011) notes that

> *"in the decades prior to the crisis, monetary policy had come to be viewed as the principal function of central banks; their role in preserving financial stability was not ignored, but it was downplayed to some extent. The financial crisis has changed all that. Policies to enhance financial stability and monetary policy are now seen as co-equal responsibilities of central banks."*

Eichengreen et al. (2011, p. 3) are more vocal, arguing that

> *"the traditional separation, in which monetary policy targets price stability and regulatory policies target financial stability, and the two sets of policies operate largely independent of each other, is no longer tenable."*

Eichengreen et al. (2011, p. 3) moreover discuss traditional arguments against letting financial stability impact interest rate setting, but conclude that (p. 6)

> *"inflation-targeting central banks may want to stray below target when conditions are "boom-like" – when rapid asset price growth is accompanied by substantial credit expansion – since policy would otherwise become asymmetric and exacerbate macroeconomic volatility."*

This is consistent with Woodford's (2012, p. 7) views:

> *"I believe that it is appropriate for a 'flexible inflation targeting' central bank to endeavour to balance financial stability objectives against both its price stability objective and its concern for output-gap stabilisation, when choosing among alternative short-run paths for the economy at a given conjuncture."*

Bryant, Henderson and Becker (2011), on the other hand, argue that there is a "rough consensus" that

> *"Monetary policy is relatively better suited for achieving stability of inflation and resource utilization, and macroprudential policies are relatively better suited for achieving financial stability".*[5]

But they also note that

> *"The strong opposition to the general idea of leaning against the wind, interpreted broadly as putting greater emphasis on financial stability, has softened."*

NBW 2012 draws two conclusions from the international discussion:

i. Although the issue has not been sorted out analytically once and for all, there now seems to be wide agreement that central banks have a responsibility for financial stability *in addition to* the responsibility for price and output stability. That is, price, output and financial stability are three different objectives and they are not perfectly correlated.
ii. There is less agreement among experts whether this also implies that monetary policy, defined as the setting of a short-term interest rate, should be influenced by the degree of financial stability.

Against this background, Norges Bank cannot, on theoretical grounds, be criticised for having given some weight to financial stability in its interest rate decisions in 2011. How important financial stability has been for monetary policy in practice is however unclear, as pointed out in the previous chapter. Furthermore, the argument that it may theoretically be justifiable to give some weight to a financial stability target in monetary policy does not, of course, imply that such considerations were also justified in Norway during 2011. Again, it is NBW's opinion that there is a need to improve policy analysis and communication, although we are less convinced that better analysis and communication would have changed policy during 2011.

[5] "Svensson (2012) makes the same argument in a comment on Woodford (2012)."

3.2.3 The discussion in Norway

As regards Norges Bank, there have been previous evaluations of the interaction between financial stability and monetary policy. Fridriksson (2010, p. 9) concludes that

> *"The contribution of FST in the meetings where it participates might possibly be better coordinated with or integrated into the general preparations in the PPO; some of the analysis presented by the FST might perhaps be a logical part of the analytical preparatory work in PPO."*

FST (Norges Bank Financial Stability; PPO is the Monetary Policy wing) now seems to be more integrated in the decision on which interest rate to set. Previously FST gave advice on an appropriate interest rate decision, based on financial stability considerations only. Currently, FST provides specific advice on the appropriate interest rate, which forms part of the background for the advice on which interest rate the Executive Board should decide on. In this way FST has been given a more integrated role with more direct involvement in the monetary policy process.

Norges Bank Watch 2011 saw room for improvement in the way Norges Bank communicated the influence of financial stability considerations in setting the interest rate, writing that (p.5)

> *"Norges Bank argues that both financial stability and price stability considerations should be important when making monetary policy decisions. Yet, it is not clear to us what weight is attached to each consideration and how specific analysis and recommendations from financial stability is integrated into the actual monetary policy framework.*
>
> *The committee suggests that Norges Bank makes it clearer as to how the issues of major concern in financial stability influence monetary policy decisions in practice. In particular, judgment as to how the risk of future financial imbalances may (or may not) disturb activity and inflation somewhat further ahead could be more emphasized."*

On the one hand, Norges Bank seems to subscribe to the traditional view that indicators of financial instability only matter in so far as they affect the forecasts of inflation and GDP . In their "Criteria for an appropriate interest rate path" which has been included in all the 2011 monetary policy reports, the Bank states that

> *"The interest rate path should at the same time provide a reasonable balance between the path for inflation and the path for overall capacity utilization in the*

> *economy. In the assessment, potential effects of asset prices, such as property prices, equity prices and the krone exchange rate on stability in output, employment and inflation are also taken into account."*

Moreover, in commenting on the central bank's loss function, the bank notes that

> *"Situations may arise where the weight will be given to considerations other than those expressed in the simple loss function. In certain situations, for example, a more aggressive interest rate response than usual may be necessary to prevent particularly adverse outcomes."*

One interpretation of this may be that Norges Bank sticks to the view that in interest rate setting financial stability only matters in *normal* times through its effects (via various transmission mechanisms) on inflation and the output gap in the loss function, but also that there may be extraordinary situations where financial stability becomes an objective in itself and the normal loss function is sidestepped.

But on the other hand, in MPR 3/2011 Norges Bank argues that (p. 8)

> *"Low inflation suggests in isolation that the key policy rate should be lowered. But the key policy rate is already low. Capacity utilisation is close to a normal level. Low interest rates over time entail the risk of a buildup of imbalances. This suggests that the key policy rate should gradually be raised towards a more normal level."*

Reading this, the NBW 2012 committee gets the impression that Norges Bank also gives some weight to financial stability under relatively normal circumstances. In light of the simple loss function, the interest rate should have been *lowered* in June and October 2011 (since inflation pulls in that direction while capacity utilisation is close to normal). But this is not done, since it entails the risk of a buildup of imbalances. In MPR 3/2011 interest rate smoothing and a "supplementary assessment" is explicitly mentioned, in MPR 2/2011 interest rate smoothing is also applied but less explicitly. We suspect that financial stability concerns were relevant on both these occasions.

Thus, this gives the impression that the interest rate is set in light of financial stability considerations that do not arise from the variables in the loss function, and thus that Norges Bank does not subscribe to the traditional view of inflation-targeting central banks (but to the more flexible policy advocated by e.g. Woodford above). Alternatively, the situation in June 2011 may be an example of an extraordinary situation in which the loss function should be put aside. If that was the case, this should have been stated explicitly.

3.3 Norges Bank's and other authorities' responsibilities for financial stability

Most economists agree that financial institutions have an incentive to take on too much risk compared to what is socially optimal. A main reason for this is the asymmetric distribution of gains and losses; if risk pays off, the financial institutions receive the gains, if risk does not pay off, then the government may take part of the losses. The reason for this is explicit or implicit government guarantees.

The traditional view is that in order to limit such excessive risk-taking, 'microprudential' overview and regulation is necessary. The term 'microprudential' refers to a regime where each financial institution is viewed in isolation, and thus overview and regulation can be thought of as a partial equilibrium approach.

Due to recent experience, many now argue that 'macroprudential' regulation is also necessary. Behind the term 'macroprudential' is a concern that there are systemic risks that affect the whole financial system and the macro economy. In this view microprudential regulation is a necessary but not sufficient condition for financial stability. A general equilibrium approach to financial regulation is necessary. Such an approach implies that the external effects that decisions in financial institutions have on other institutions are taken into account, and that the effects on the macro economy as a whole are considered. A particular implication of this is that macroprudential regulation is time-varying; for instance that capital requirements depend on overall macroeconomic conditions. For an overview and discussion of different macroprudential tools, see Hanson et al. (2011).

A key question in the institutional design of macroprudential tools is who should administer these new policy instruments. Several observers have also contended that these new tools have further implications also for the transparency and independence of the institution(s) that administer them, a point to which we return below.

As regards who should be responsible for macroprudential policy, the discussion centres on whether the central bank or another institution outside the central bank should be responsible. See for example the discussion in Natvik (2011). There are also institutional designs that aim to combine the two, for instance the proposal by NOU 2011:1 to let the FSA undertake policy decisions, while Norges Bank plays a key role in *advising* on which policy should be undertaken. The Commission writes the following:

> *"The Commission proposes that Norges Bank is provided a clearer formal responsibility to periodically provide accurate advice on the use of discretionary measures in macro regulation of the financial system. Norges Bank should provide the advice in the form of publicly available submissions to the Ministry of*

> *Finance and the FSA. The FSA should explain what it does to follow up the recommendations from Norges Bank, or why it has decided to not follow up the recommendations. The Ministry of Finance should explain the recommendations, assessments and actions to the Parliament, for example in the form of a report."*

A key starting-point in the discussion of who should be responsible for macroprudential policy is policy coordination. The tools of macroprudential policy will be dependent on, and will affect, the macroeconomic stance. In the same way, the optimal interest rate will be dependent on, and will affect, the macroeconomic stance. It follows that macroprudential policy will depend on the interest rate, and vice versa. Institutional design must take this into account.

A simple and obvious solution to this is to have one institution, in this case the central bank, decide both macroprudential policy and the interest rate. In this case one achieves, at least in theory, the optimal policy mix of the policy instruments and avoids strategic interactions between different policy makers.

There are, however, also arguments against such an institutional design. One such argument is related to the Condorcet jury theorem: with uncertainty as regards the optimal policy, the expected quality of policy is better when formed as the average opinion of multiple actors. The reason for this is simply that with uncertainty the mean opinion has a lower variance around the true state of the economy than the opinion of a single actor.

A counter-argument could be that the solution to such policy uncertainty is not to let multiple institutions decide policy, but rather to let multiple persons within the institution that decides policy be allocated decision-making power. In this way one can achieve the Condorcet gain without losing the coordination gain.

Such an argument clearly has relevance. It shows that the Condorcet argument per se is not sufficient to argue for a separation of policy between different institutions. For such an argument to be valid, one must in addition argue that allocating decision-making power to multiple members within one institution does not achieve the same Condorcet gains as allocating decision-making power to multiple institutions. There are at least two arguments why this may be the case. Then first one relates to 'groupthink', the phenomenon that agents within a group may develop a way of interacting that leads them to make the same, or similar, mistakes. A policy implication of such groupthink may be that Condorcet gains are best achieved by allocating decision-making power to multiple institutions.

The second argument relates to information differences; for instance, because those members of e.g. the central bank Executive Board who have this engagement as a part-time position are on average less well informed than those who are board members on a full-time basis. In such a situation, the quality of information may be improved by either allocating decision-making power to an additional institution or by reducing the information differences between the members of the central bank Executive Board, a point to which we return below.

Another argument against having the central bank decide all the policy instruments could be that of independence from politicians. Tightening capital requirements may not always be popular or politically desirable in the short term, and thus such a policy may be prone to time inconsistency problems in a similar way to interest rate policy. Given this, a goal of the institutional design may be to limit the possibility of political interference.

It is not, however, quite clear in which direction this latter argument pulls. On the one hand, it could be argued that having all instruments in one institution makes it tempting to concentrate political pressure against this institution, while if policy instruments are allocated to different institutions, this may be more difficult. This seems to be the position of Eichengreen et al. (2011, p. 10), who argue that if the central bank is responsible for macroprudential regulation

> *"One disadvantage is that it makes the central bank more susceptible to political interference."*

On the other hand, it could also be argued that having the central bank decide on macroprudential policy reduces susceptibility to political interference, because when policy instruments are collected at one institution it becomes more transparent who is responsible.

An additional argument that could be used against having the central bank decide on macroprudential policy is that of the concentration of power and workload. First, given that the central bank is an independent institution, it may be seen as unhealthy to allocate even more power than this institution already has. In general, it could be argued that the more checks and balances there are within the central bank, the more power it can be allocated. But the checks and balances internally in Norges Bank could be seen as weaker than those in many other central banks, since the external members of the Executive Board of Norges Bank only hold part-time positions. This gives the two internal members at the Executive Board, the governor and the deputy governor, considerable agenda-setting powers. Moreover, it could be argued that with the current organisation of Norges

Bank, where the Executive Board is responsible for NBIM and thus has additional responsibilities compared with other central banks, allocating an even larger workload to an Executive Board where 5 out of 7 are part-time members adds on too much work (given that the current institutional design of Norges Bank is kept unchanged).

Internationally, there seems to be a growing consensus that macroprudential policies need to be closely integrated with traditional monetary policies. For example, Bryant et al. (2011, p. 94) note that

> *"The view that decisions for monetary policy and for macroprudential policies should be managed in a more integrated, coordinated fashion is gaining ground among those who must make these decisions."*

Eichengreen et al. (2011, p. 9) are explicit in such a recommendation, writing that

> *"While there is little consensus as to the best model, our contention that financial stability should be a core objective of the central bank increases the weight of arguments for giving central banks primary responsibility for regulatory matters. If central banks have a mandate to ensure financial stability and also the powers needed to wield macroprudential corrective instruments, they can optimally choose trade-offs between the use of the interest rate instrument and macroprudential measures."*

This recommendation is consistent with the conclusion drawn by Goodhart (2011): "The M-PA [macro-prudential authority] *has* to come under the aegis of the CB".

Several observers who argue that macroprudential policy should be undertaken by the central bank contend that this has implications for central bank independence. For instance, Blanchard et al. (2010, p. 12-13) argue that:

> *"If one accepts the notion that, together, monetary policy and regulation provide a large set of cyclical tools, this raises the issue of how coordination is achieved between the monetary and the regulatory authorities, or whether the central bank should be in charge of both.*
>
> *The increased trend toward separation of the two may well have to be reversed. Central banks are an obvious candidate as macroprudential regulators. They are ideally positioned to monitor macroeconomic developments, and in several countries they already regulate the banks. "Communication debacles during the crisis (for example on the occasion of the bailout of Northern Rock) point to the*

> *problems involved in coordinating the actions of two separate agencies. And the potential implications of monetary policy decisions for leverage and risk taking also favor the centralization of macroprudential responsibilities within the central bank. Against this solution, two arguments were given in the past against giving such power to the central bank. The first was that the central bank would take a "softer" stance against inflation, since interest rate hikes may have a detrimental effect on bank balance sheets. The second was that the central bank would have a more complex mandate, and thus be less accountable. Both arguments have merit, and at a minimum, imply a need for further transparency if the central bank is given responsibility for regulation. The alternative, that is, separate monetary and regulatory authorities, seems worse."*

Also, a similar view is echoed by Eichengreen et al. (2011, p. 10) who find that

> *"If, on balance, the decision to make the central bank the macroprudential supervisor, this approach should go hand in hand with measures to strengthen its independence from political pressure."*

Thus, according to recent international literature, the view on the allocation of macroprudential tools cannot be viewed independent of the institutional design of the central bank. Moreover, allocating new policy instruments to the central bank may have implications in the direction of making the central bank more independent. In turn, making the central bank more independent may also, in particular in Norway where 5 of 7 Executive Board members are part-time, have implications in the direction of strengthening the checks and balances within Norges Bank.

3.4 NBW view

As we have already pointed out, in Chapter 2, we think Norges Bank should improve its communication about the relevance of financial stability for monetary policy. In this chapter we have stressed that Norges Bank's formal responsibility for financial stability must be clarified, something which is not under the control of Norges Bank. But the Bank can clarify how changes in the degree of financial stability (e.g., via the money market premium) influence the Bank's forecasts and policy decisions. The degree of financial stability affects the transmission of monetary policy irrespective of whether the central bank has a separate objective for financial stability or not. During 2011 the money market premium was initially expected to decline, but instead it increased during the second half of the year. If such changes in the transmission mechanism of monetary policy were included among the listed main criteria for an appropriate interest rate path, they would also be part of the regular assessments of the interest rate path. This would be an improvement in Norges Bank's communication (and perhaps analysis).

Many international experts suggest that the central bank should not only pay attention to financial stability because it affects the transmission mechanism of monetary policy, but that financial stability should also be an objective in its own right. There is less agreement about whether financial stability should be controlled by monetary policy or primarily by other instruments. Many international experts want to give the central bank, rather than the FSA, the primary responsibility for macroprudential policies. In line with many (but not all) international experts, NBW holds the view that Norges Bank rather than the FSA should be responsible for macroprudential policies. But there are many difficult issues related to this issue that remain to be solved, as has been thoroughly elucidated in an excellent recent report from the Ministry of Finance, Norges Bank and the FSA.

4. THE INDEPENDENCE OF NORGES BANK

4.1 Central bank independence – general arguments

The question of institutional design when citizens or the government delegate political decision-making power has been much discussed. A widespread view is that when decision-making power is delegated to legislative bodies or institutions, then the role of checks and balances becomes crucial. Such a view has a long history, and was clearly articulated as early as in 1788 by James Madison in the Federalist Papers, where he wrote:

> *"In framing a government which is to be administered by men over men, the great difficulty lies in this: you must first enable the government to control the governed; and in the next place oblige it to control itself. A dependence on the people is, no doubt, the primary control on the government; but experience has taught mankind the necessity of auxiliary precautions." (Federalist Papers, # 51, 1788).*

Madison's `auxiliary precautions' later came to be known as checks and balances, and included a separation of powers between the executive and a bicameral legislature. The initial reasoning behind checks and balances focused on the case where citizens, through elections, delegated power to politicians. Later reasoning on checks and balances has expanded to the case where the government delegates decision-making power to independent institutions.

The modern literature on checks and balances, such as Persson et al. (1997, 2000), shows in formal models that checks and balances are desirable because such an institutional design brings policy more into line with the preferences of those who delegate political power. Acemoglu et al. (2011) show different ways of designing checks and balances, how they improve the quality of policy, but how despite this they may not constitute an equilibrium institutional design because some groups or actors may see it in their own interests to dismantle them.

The government's temptation to generate excessive inflation in the short run (e.g., in order to raise more seignorage or to stimulate aggregate demand) may require limits to be set on the immediate political influence on the central bank. It may be in society's interests to delegate monetary policy to an independent central bank that gives relatively high weight to stabilising inflation.[6] But central bank independence is a matter of degree, both theoretically and in practice. The central bank's mandate may be formulated so as to give the bank a high or low degree of independence. Similarly, the rules governing how the central bank's board and governor are appointed obviously affect the degree of independence. But the mandate and the appointment rules can always be changed. If politicians can easily change the rules, the central bank may be less independent in practice than formally.

In general, the more independent an institution such as the central bank is, the more checks and balances are desirable within the institution. Also, the greater responsibilities such an institution has for policy, the more important are checks and balances. There are several reasons for this. First, by balancing power within the institution, control is ensured even if policy has been delegated. Second, checks and balances prevent single actors or groups from tilting the institution in their own personal direction. Third, independent institutions without internal checks are prone to inefficiency – thus granting monopoly rights to decide policy may also come with a cost. Checks and balances act as a substitute for the efficiency-enhancing effects of the missing competition.

Rules that enhance transparency can provide checks and balances. Transparency can accomplish this in many different ways. First, if the central bank is very transparent about its analyses and decision-making processes, financial markets and the public at large will be able to verify the actual degree of independence. Do politicians seem to have any direct influence on the central bank's decisions? Second, transparency makes it easier for the central bank's principal (the government or the parliament) to hold the central bank accountable for its actions, ensuring that the institution does not become more independent than intended. Third, transparency may give the central bank incentives to be more efficient.

4.2 Central bank independence – Norway

The Ministry of Finance and Norges Bank both view Norges Bank as very independent. Still, there are several issues relating to central bank independence where it could be argued, at least on paper, that Norges Bank is not among the most independent of central banks.

The Norges Bank Act of 24 May 1985 (with subsequent amendments) is the main legislation governing the organisation and operation of Norges Bank. The Executive Board of Norges Bank has the governor as its chairman, the deputy governor as deputy

[6] See Rogoff (1985) for a theoretical example.

chairman, five external part-time members and two external part-time alternate members (that attend all meetings and seminars). The governor and the deputy governor are appointed for six-year terms which can be renewed once (for each position). The remaining members of the Executive Board are appointed for four-year terms. These members may serve several terms with a maximum total appointment of twelve years. All appointments are made by the government (the King in Council).

As all members of the Board are appointed by the government, and also depend on the government for renewal of their terms, it could be argued that the Executive Board of Norges Bank is not very independent. Such an institutional arrangement is in contrast to for instance Sweden, where the executive board and the governor are appointed by a Governing Council appointed by parliament and where the government has no direct influence over these appointments.

The relatively long terms for the governor and the deputy governor can be seen as making the central bank more independent. The fact that the whole Executive Board is not appointed simultaneously pulls in the same direction.

The Executive Board normally meets every third week and is the executive and advisory authority in connection with the core tasks of Norges Bank. The Executive Board functions as a unified group and the members are collectively responsible for the decisions of the Bank. The external members hold part-time positions.

As regards monetary policy decisions, there is a significant asymmetry between the two internal members and the rest of the Board. The governor and the deputy governor work full time together with the staff of the Bank to prepare and propose an interest rate decision, while the external members have no separate staff and have other full.-time jobs outside Norges Bank. If the Board is meant to play an active part in the interest rate decision, this is a challenging form of organisation. This is especially so since the Board has additional very important duties, such as the responsibility for NBIM.

There are potential downsides to this way of organising the interaction between the external and internal members of the Executive Board. The role of the external members of the Executive Board as a checks and balances institution is weakened when the institutional design is so asymmetric. Moreover, when the workload of the external members is large relative to the time they are meant to use for this work, it becomes more difficult to ensure that the background information underlying the interest rate decision holds top quality.

The governors and deputy governors have in several cases been economists with a background as active politicians. However, the most recent governors and deputy governors have not had such an active political background. Traditionally, the governors and deputy governors have had a background as government officials and in Norges Bank. The ties to the Ministry of Finance seem particularly strong. A governor without work experience in the ministry has not been appointed since the Second World War.

The link between the Ministry of Finance and Norges Bank is not just an informal one. Section 2 of the Norges Bank Act states:

> *"Before the Bank makes any decision of special importance, the matter shall be submitted to the ministry."*

It is not specified which decisions that are of special importance. There seems to have been some development in this over time. For instance, it used to be the case that when it was decided that some coins were to be withdrawn from circulation, this was a decision submitted to the ministry, but recently such decisions have not been submitted.

The main decision submitted on a regular basis is the decision on the interest rate. The day before the Executive Board meets to decide on the interest rate, the governor and the deputy governor visit the Ministry of Finance to inform the ministry about the interest rate they are going to recommend to the Executive Board. The Executive Board then meets the following morning and decides on the interest rate. The Ministry of Finance is then informed about the decision via a letter at 1 p.m. and the interest rate decision becomes public information one hour later.

According to the Ministry of Finance and Norges Bank, this system does not imply that the ministry has a "hands-on approach" to the interest rate decision. When the proposed interest rate is submitted, the ministry never interferes. Thus it could be argued that this is just an arrangement that makes information exchange effective and allows the ministry to be informed before the market. This may be desirable, for instance because the Minister of Finance may have to answer questions about the background for the interest rate decision and thus needs to be well informed.

On the other hand, it could be argued that having Norges Bank *submit any decision of special importance* to the Ministry of Finance limits the independence of Norges Bank. In particular this can be said to be so in light of the continuation of Section 2 of the Norges Bank Act, which states:

> *"The King in Council may adopt resolutions regarding the operations of the Bank. Such resolutions may take the form of general rules or instructions in individual cases. The Bank shall be given the opportunity to state its opinion*

before such resolutions are passed. The Storting shall be notified of resolutions as soon as possible."

Thus, according to the Norges Bank Act, the government may change decisions made by Norges Bank.

There are several issues to be discussed here. First, if the main reason for this system is that the Ministry of Finance shall be well informed, this does not seem to be reflected in the wording of the Act. If conveying information were the main issue, this could be achieved through alternative arrangements. For instance, in Sweden the ministry is informed about the interest rate decision *after* it has been taken, but before it becomes public.[7]

Second, it is important to realise that the only instance where this section of the Act has been used was in 2001 with the introduction of an inflation-targeting regime. Clearly, this was not an instance where the government used this to change a decision made by Norges Bank, but rather to formalise a policy Norges Bank saw as an improvement. Thus the government has never used Section 2 of the Norges Bank Act to instruct Norges Bank to change policy against its will. Against this background, it could be argued that the combination of *submit any decision of special importance* and *instructions in individual cases* has very limited practical consequences.

On the other hand, such a view is not in accordance with basic game theory literature on policy interaction between different public bodies (such as legislative bargaining models where Baron and Ferejohn (1989) and Diermeier and Feddersen (1998) are important contributions). As the literature makes clear, if one body has to have the approval of another to undertake policy decisions, the policy proposal will be adjusted to fit. Hence, there will never be instruction. But this does not imply that the body with the right to instruct does not influence policy; on the contrary, the observation that the right to instruct policy is not used may mean that influence on policy is in fact very strong.

Third, it should be noted that using the right to instruct implies that Norges Bank has the right to state its view and that notifying the parliament is required. It follows from this that if the government gives instructions to Norges Bank in the event of disagreement, it is a process that will be public. This may make it rather costly for the government to use its right to instruct in a situation where it disagrees with the policy of Norges Bank.

[7] It may of course be argued that, formally, the Ministry of Finance is only informed about the actual interest rate decision after it has been taken. But since the governor and the deputy governor inform the Ministry of Finance the day before the decision what they intend to suggest to the Executive Board, the government does in practice receive relevant information before the decision is taken.

Fourth, the right to instruct may conceivably have a disciplinary effect on politicians in power, preventing them from launching populist attacks on the central bank. With the right to instruct, such attacks become more difficult as they will be met with a demand for action. The possibility of instruction may thus influence the political debate, making it more sober and characterised to a lesser extent by short-term considerations and populism.

Three other aspects of Norges Bank's independence are worth mentioning. First, Norges Bank is counted as one of the most transparent central banks in the world. The high degree of transparency partly compensates for the low degree of formal independence and weak internal checks and balances discussed above.

Second, a Supervisory Council is part of the checks and balances system in Norges Bank. The Council supervises the operations of the Bank and ensures that Norges Bank operates in accordance with the Norges Bank Act. The Council supervises the Executive Board to ensure that the Board's management and control of the Bank's administration and operations are satisfactory, and that appropriate procedures have been established to ensure that the Bank's activities are conducted in accordance with legislation. The Council consists of 15 members that are appointed for four-year terms by the political parties represented in parliament, and submits an annual report to parliament on its supervision of the Bank. The Supervisory Council does not play an active day-to-day role and, although its work load is rather limited, it plays an important role as a control mechanism.

Third, in contrast to the legislation for most other central banks, the Norges Bank Act of 1985 does not explicitly mention price stability as a main responsibility of Norges Bank. In general, the more independent the central bank is, the more important it becomes that the mandate is specified precisely in the law. For this reason, it could be argued that if legislation is changed to allow Norges Bank to be more independent, then it is also natural to introduce price stability as the explicit responsibility of Norges Bank. In contrast to most other central banks, the Executive Board of Norges Bank has additional duties in that it is also responsible for the operations of NBIM. It may therefore seem paradoxical that the external members of the Executive Board are only part-time. Moreover, new policy instruments related to macroprudential regulation will in the future most likely involve even greater responsibilities and work load (even if these policy instruments should be allocated to the FSA). This naturally raises the question if the responsibilities of the external Executive Board members of Norges Bank are outgrowing the current institutional design. [8]

[8] The role of the external Executive Board members has also been discussed before, e.g. in NBW 2005.

To what extent the Supervisory Council, politicians in general, financial markets and the general public are able to evaluate Norges Bank's activities (and the influence from various members of the Executive Board) depends on the openness of the Bank. Norges Bank is generally counted as one of the world's most transparent central banks. But there is still room for improvement. Previous versions of NBW have been relatively consistent in calling for more information to be published from the meetings of the Executive Board. NBW 2010 (p. 37) concluded that

> *We suggest that non-attributed minutes could be published, in order to strengthen the accountability and further improve transparency. These minutes could note without attribution to individual members which issues were discussed and what arguments were presented, as well as how (if) individual members have voted.*

A similar view is echoed in NBW 2011 (p. 5):

> *The committee believes that a record of the discussion that has preceded the decisions at the Executive Board's meetings would be very useful and make monetary policy more transparent and credible. Making such information available would require minutes to be released from the policy meetings.*

There has been some progress on these issues. In MPR 3/11, page 7, the Executive Board's assessment is discussed, including particular arguments that were discussed at specific previous meetings.

The part-time position of the external Board members is an argument that has been used against proposals to publish minutes or voting records from the interest rate meetings. Given the institutional design, this may be a valid argument. Also, if the role of the Board is seen as more of an insurance mechanism that can pull the brake if things really get out of hand than playing an active part in reaching the optimal interest rate at each meeting, then minutes or voting records may distort the focus of the members. Also, minutes or voting records may result in individuals using their position to promote themselves rather than the collective interests of Norges Bank. Moreover, minutes could prevent a frank discussion and make members afraid of asking 'stupid' questions.

On the other hand, such arguments come at the cost of less transparency. Also, one could make the argument that releasing more information from the meetings increases the incentive for members of the Board to perform their work well.

4.3 NBW view

In the view of NBW, there is a need for reforming the institutional framework for Norges Bank. If Norges Bank is to be given a greater responsibility for macroprudential policies, its expanded mandate must be clearly specified and the Bank's independence increased to create good conditions for accountability and efficiency in policy making. If Norges Bank is not to be given greater responsibility for macroprudential policies (and this role is given to the FSA instead), there will still be a need for reforms, but partly for other reasons. First, Norges Bank has a relatively low formal degree of independence today. Second, if the FSA is given responsibility for macroprudential policies, its decisions may have substantial implications for monetary policy, and whether (and how) the policies of the different authorities should be coordinated must be clarified in new legislation.

NBW's recommendations may be summarised as follows:

- Norges Bank should not be required to inform the Ministry of Finance about its interest rate recommendation before the Executive Board meeting.
- Given the extensive responsibilities of the Executive Board (and especially if their responsibilities are increased further, e.g. with respect to financial stability), the situation of the external members of the Board should be strengthened. For instance, their current part-time involvement is not entirely consistent with their responsibilities.
- If the formal independence of Norges Bank is increased, it seems natural to specify in the legislation that price stability is one of Norges Bank's primary responsibilities.
- More information about the discussions between the members of the Executive Board should be published (in line with the suggestions made by NBW 2010 and 2011).

REFERENCES

Acemoglu, D., J.A. Robinson and R. Torvik (2011). “Why do voters dismantle checks and balances”, NBER Working paper No. 17293.

Baron, D. and J. Ferejohn (1989). “Bargaining in legislatures”, *American Political Science Review* 83, 1181-1206.

Bernanke, B.S. (2011). “The effects of the great recession on central bank doctrine and practice”, speech given at the Federal Reserve Bank of Boston October 11th 2011, available at: http://www.federalreserve.gov/newsevents/speech/bernanke20111018a.htm

Bryant, R.C., D.W. Henderson and T. Becker (2011). “Maintaining financial stability in an open economy. Sweden in the global crisis and beyond”, SNS Forlag November 2011.

Diermeier, D. and T. Feddersen (1998). “Cohesion in legislatures and the vote of confidence procedure” , *American Political Science Review* 92, 611-621.

Eichengreen, B., M. El-Erian, A. Fraga, T. Ito, J. Pisani-Ferry, E. Prasad, R. Rajan, M. Ramos, C. Reinhart, H. Rey, D. Rodrik, K. Rogoff. H.S. Shin, A. Velasco, B. Weder di Mauro and Y. Yu (2011). “Rethinking central banking. Committee on international economic policy and reform”, Brookings Institution, Washingthon DC.

Fridriksson, I. (2010). “The monetary policy report process in Norges Bank”, report to Norges Bank 12/16/2010.

Gjedrem, S. (2009). “Experiences with the financial crisis”, Lecture at the Centre for Monetary Economics (CME)/BI Norwegian School of Management on 30 September 2011

Goodhart, C.A.E. (2011), “The Macro-Prudential Authority: Powers, Scope and Accountability”, Special Paper 203, LSE Financial Markets Group Paper Series, October 2011.

Hanson, S.G., A.K. Kashyap and J.C. Stein (2011). “A macroprudential approach to financial regulation”, *Journal of Economic Perspectives* 25, 3-28.

Natvik, G.J. (2011). “Om interaksjon mellom pengepolitikk og tidsvarierende makroregulering av finanssektoren”, Norges Bank Staff Memo Nr. 11, 2011.

Persson, T., G. Tabellini and G. Roland (1997). “Separation of powers and political accountability”, *Quarterly Journal of Economics* 112, 1163-1202.

Persson, T., G. Tabellini and G. Roland (2000). “Comparative politics and public finance”, *Journal of Political Economy* 108, 1121-1161.

Rogoff, K. (1985), “The Optimal Degree of Commitment to an Intermediate Monetary Target”, *Quarterly Journal of Economics* 100, 1169-1190.

Svensson, L.E.O. (2012), “Comment on Michael Woodford, “Inflation Targeting and Financial Stability””, published in *Sveriges Riksbank Economic Review 2012:1*

Woodford, M. (2012), “Inflation Targeting and Financial Stability”, published in *Sveriges Riksbank Economic Review 2012:1*