

# The role of central banks: a Norwegian perspective

Speech by Governor Øystein Olsen at the Official Monetary and Financial Institutions Forum (OMFIF) in London on 1 November 2016

## Introduction

Let me begin by thanking the OMFIF for the opportunity to speak to you today about the monetary policy regime in Norway. Like other central banks, the central bank of Norway is facing new challenges in a post-crisis environment of persistently low interest rates and uncertainty. Today I want to focus on how Norges Bank is responding to those challenges.

Inflation targeting was formally introduced as a framework for monetary policy in Norway 15 years ago. As in other inflation-targeting countries, our inflation targeting regime has become more flexible over time. The operational target of monetary policy in Norway is annual consumer price inflation of close to 2.5% over time. However, according to the mandate, interest rate setting should seek to achieve a reasonable balance between inflation and capacity utilisation. Monetary policy should also be robust, taking uncertainty into account and seeking to avoid adverse outcomes. I will return to this topic in the following. The reasoning behind the policy rate decision taken by Norges Bank's Executive Board is published in our *Monetary Policy Report*.

The evolution of inflation targeting in Norway reflects the practical experience we have gained since it was introduced. The trade-offs have been challenging at times. In these past 15 years, the Norwegian economy has been exposed to different types of shocks. The supply side has been influenced by increased labour immigration following EU enlargement in 2004. The legacies from the financial crisis have posed challenges that monetary policy has had to address. And not least, the Norwegian economy has had to contend with wide fluctuations in the terms of trade.

### *Chart: Performance*

Inflation targeting has performed well over the past 15 years taken as a whole. When inflation targeting was introduced, inflation had already come down after years at an elevated level and has since been low and relatively stable. At the same time, monetary policy has helped to moderate fluctuations in the real economy. Flexible inflation targeting has functioned well. The monetary policy framework has provided sufficient flexibility to address the shocks that have hit the economy.

## Long-term interest rates have fallen

*Chart: International interest rates*

In recent years, monetary policy has faced a new challenge in many countries. The interest rate level that is consistent with balanced developments in the economy has fallen. This is reflected in the low level of global interest rates. The decline in real interest rates has been particularly marked over the past 15-20 years. In 2001, when inflation targeting in Norway was adopted, real long-term interest rates were around 3 percent. Now, the same interest rates are around zero.

*Chart: Forces driving the fall in the global real interest rate*

The causes of the decline in interest rates are complex. In recent years, extraordinary measures by many central banks have pushed down long-term rates. Over a longer time horizon, the factors behind the decline in interest rates are more structural in nature. The savings glut in emerging economies, particularly China and oil exporting countries, has been one important factor. Savings have probably also increased in many countries as a result of demographic developments and a more uneven distribution of income. At the same time, investments in many advanced economies have been low, possibly reflecting prospects for low returns on investment in productive capital. In the wake of the financial crisis, conditions of a more cyclical nature have also contributed to the fall in interest rates. While deleveraging has pulled up savings, greater uncertainty may have dampened the willingness to invest.

These developments have consequences for monetary policy. The level of the real interest rate that is consistent with balanced developments in the economy is usually referred to as the neutral interest rate. The difference between the actual real interest rate and the neutral real interest rate provides an indication of whether monetary policy is expansionary or contractionary. A real interest rate that is below the neutral rate stimulates economic growth, while a higher real interest rate dampens growth.

The neutral interest rate is not directly observable. Central banks must nevertheless form a perception of how expansionary or contractionary monetary policy is. In the past few decades, international estimates of the neutral real interest rate have fallen and are now at 1 percent or below in many countries (see Rachel et al (2015), Laubach et al (2015), Hamilton et al (2015), Constâncio (2016) and Zhu (2016)). Obviously, international interest rate developments affect Norwegian interest rate setting, particularly through the exchange rate channel. And Norges Bank's estimate of the neutral interest rate has been gradually revised down in pace with international developments. The Bank's forecasts are now based on the assumption that a neutral nominal money market rate in Norway will be between 2½ percent and 3½ percent in the coming years. The associated neutral nominal key policy rate is somewhat lower.[\[1\]](#)

The low level of the neutral interest rate raises a number of issues. Today, I would like to focus on two aspects that have been given weight in recent years in Norges Bank's assessment of a robust interest rate path. The first is that the effect of changes in the policy

rate tends to be more uncertain when the rate is very low. The second relates to the challenge persistently low interest rates pose to financial stability.

## Greater uncertainty about the effect of the policy rate

Monetary policy decisions are made under uncertainty. Central banks operate in an environment of uncertainty regarding the current situation, the driving forces in the economy and the functioning of the economy.

Much of this uncertainty is associated with conditions beyond the influence of monetary policy. For Norway, these conditions include the oil price and economic developments among trading partners. These variables are treated as exogenous factors in our analysis. However, the uncertainty associated with the effect of monetary policy is of a different nature in that it relates to the functioning of the economy – and the effect of the policy rate in particular.

### *Chart: Norway - Interest rates*

For the transmission mechanism of monetary policy to function normally, changes in the policy rate must pass through to the bank lending and deposit rates faced by households and enterprises. In Norway, the latest policy rate cuts have had a broad impact on banks' interest rates. Lending and deposit rates for households are both approximately one percentage point lower now than when the key policy rate was reduced in December 2014, from a level of 1.5 percent. Rates facing enterprises have also fallen. Banks' profitability and net interest income have remained solid in the same period.

At the same time, given the current low interest rate level, we are navigating in uncharted waters. Banks' response to changes in the policy rate may differ from their usual behaviour. Households and enterprises may also respond differently to interest rate changes when interest rates are already at a low level. So far, there is no clear indication that historical relationships have collapsed, but nor do we have experience with such low interest rates over such a long period of time. It may also be difficult to predict financial market reactions to very low and negative real interest rates.

As early as 1967, US economist William Brainard discussed how central banks should respond to economic shocks when there is uncertainty about the impact of the policy rate on the economy. He concluded that the policy rate should be used with greater caution when uncertainty about its effect increases (Brainard (1967)). This involves a trade-off that can be illustrated graphically.

### *Chart: Monetary policy and uncertainty*

This chart describes a situation where the policy rate is used to counteract the effect of a negative shock to the real economy. Two different interest rate paths are shown. The uncertainty is illustrated using bands around the expected paths for the policy rate, inflation and the output gap. In the scenario denoted by the blue line, the central bank does not take the uncertainty associated with the interest rate into consideration. In contrast, the yellow

line represents a scenario based on a more cautious monetary policy response to the perceived uncertainty involved.

The expected real economic costs of a more cautious response – as measured by the output gap – are somewhat higher, and inflation moves further from the target. In that respect, this is a less appropriate path for the policy rate. But there is also a benefit: uncertainty about the future path is substantially reduced. As you can see in the chart, the uncertainty bands around inflation and output have narrowed. When choosing between the two paths, the benefits must be weighed against the costs.

In principle, a robust monetary policy should take account of uncertainty regarding the functioning of the economy. The policy rate in Norway has come down to a low level, approaching a lower bound. This has increased the uncertainty about the effect of monetary policy. Norges Bank has taken this uncertainty into account over the past year and reacted somewhat less to new information, whether the information has pulled in the direction of a lower or a higher policy rate. It has been appropriate to respond with caution.

## **Low interest rates could be a precursor to financial instability**

A period of low interest rates can engender financial imbalances. There is a risk that growth in property prices and debt will become unsustainably high over time. With high debt ratios, households are more vulnerable to cyclical downturns. In the event of a reduction in household income, debt burdens may become heavy to bear, forcing households to reduce spending on consumption, with a deeper downturn as a result. For Norges Bank, the consideration of restraining the build-up of financial imbalances has long been an element of a robust monetary policy. The aim is to mitigate the risk of particularly adverse economic outcomes further ahead.

*Chart: Estimated path for consumption during recessions*

A recently published study by Norges Bank examines developments in private consumption during recessions. The analysis is based on data from 61 international recessions in the past four decades (Hansen et al (2015)). An important outcome is shown in this chart. The chart compares two different paths for consumption during a recession. The blue line shows the average path, while the yellow line shows the path following a period of high debt growth. The results confirm that high debt growth ahead of a recession leads to a deeper downturn. It also takes longer for the economy to recover.

*Chart: Monetary policy and financial stability*

When financial imbalances are building up, the probability of a deep recession may increase. This is illustrated in this chart by the blue lines. The uncertainty bands around inflation and the output gap are highly asymmetrical. Monetary policy can dampen vulnerabilities by keeping the interest rate somewhat higher than would otherwise have been the case – in other words, by “leaning against the wind”. This policy is illustrated by the red lines. By keeping the interest rate higher, the risk of a deep economic downturn is reduced. The

uncertainty bands are more narrow and symmetric. But this policy also entails a short-term cost: capacity utilisation is lower, and inflation may stay below target.

The aim of “leaning against the wind” is to achieve an improved path for inflation, output and employment over time. This is in line with our central bank mandate. Flexible inflation targeting with a sufficiently long horizon should take financial stability into account if the situation so allows and so warrants.

At the same time, it should be stressed that regulation and surveillance of financial institutions are the first line of defence against shocks to the financial system. And in the years following the financial crisis, the regulatory framework has been strengthened. But that does not mean that our work is done. The financial system is in constant flux. Economic agents in search of yield will seek out new opportunities. Today’s regulations are not necessarily well suited to meet tomorrow’s challenges. We still need more knowledge about the use of macroprudential tools. The prospect of a persistently low neutral interest rate has made this work even more important.

## Conclusion

Let me conclude by noting that in spite of the demanding task monetary policy has faced globally in the aftermath of the Great Financial Crisis, it is difficult to see alternative strategies to today’s flexible inflation targeting framework. The framework did not hinder a powerful response when the financial crisis erupted. Inflation expectations were firmly anchored. This enabled central banks to reduce the amplitude and length of the downturn. In Norway, the monetary policy regime also functioned effectively in the face of the sharp fall in oil prices.

A lower neutral interest rate level has complicated, but not prevented, monetary policy from fulfilling its role as the first line of defence in countering cyclical fluctuations in the economy. Recent years have also shown that central bank toolkits can contain more than policy rates.

The complex task facing advanced economies of enhancing productivity and promoting employment growth as populations age is clearly beyond the power of monetary policy. Other policy action is needed to address this task. Boosting potential output growth is a key priority in itself, and higher potential growth would also help to raise the neutral interest rate and reduce the risk of overburdening monetary policy.

An inflation targeting regime is a constant reminder that controlling inflation is the central bank’s main monetary policy objective. At the same time, monetary policy cannot be strictly rule-based – it must be flexible and robust. Economic models are useful and necessary tools for constructing an appropriate interest path. But no model is capable of fully capturing the complexity of the trade offs. Moreover, given the uncertainty associated with the functioning of the economy, it is neither possible nor desirable to fine-tune economic developments. Because even the most advanced models cannot reproduce the complexity of economic mechanisms or of the trade-offs facing central banks, interest rate decisions must also be based on sound judgment.

Thank you for your attention.

## References

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## Footnotes

1. The spread between the money market rate and the expected key policy rate (the interest rate premium) can vary somewhat over time (see Lund et al (2016) for a discussion of the premium in the Norwegian three-month money market rate).