CENTRAL BANK MONITORING – SEPTEMBER

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IN THIS ISSUE

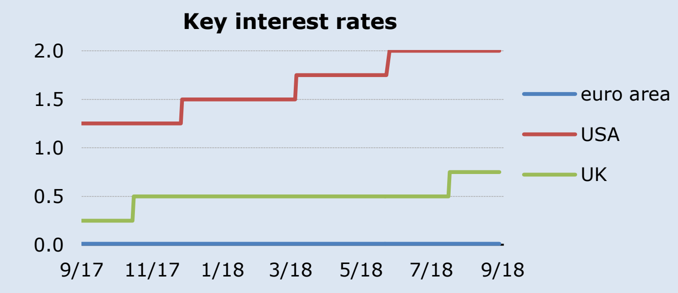
Inflation is close to the inflation targets in most of the economies we monitor, and economic growth is showing solid rates. Some economies are already operating above their potential. The labour markets of most countries are showing historically low unemployment rates and the pace of wage growth is quite brisk. Central banks' policy rates remain generally low, still giving their economies a monetary policy stimulus. Only the Bank of England and the Bank of Canada have raised their interest rates. However, many of the other central banks monitored can be expected to increase their rates in the coming months. The Riksbank expects its first policy rate hike to come in either December this year or February next year, while the ECB is indicating October 2019. At both these banks, a full exit from unconventional monetary policy instruments and the related start of monetary policy normalisation can probably be expected at the end of this year. Spotlight *focuses on the communication of monetary policy decisions and dissenting opinions at central banks. In our* Selected speech*, Bank of England Deputy Governor Ben Broadbent looks back at the quantitative easing undertaken by the BoE and describes its principles.*

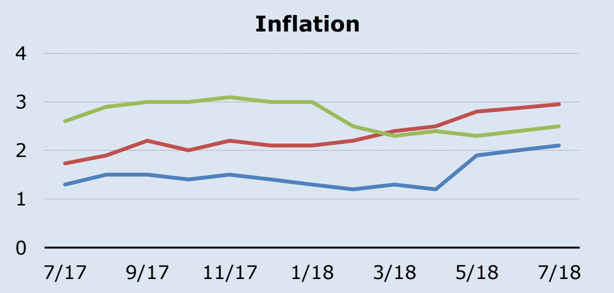
1. LATEST MONETARY POLICY DEVELOPMENTS AT SELECTED CENTRAL BANKS

Key central banks of the Euro-Atlantic area

	Euro area (ECB)	USA (Fed)	United Kingdom (BoE)
Inflation target	<2%[1]	2%[2]	2%
MP meetings (rate changes)	26 Jul (0.00) 13 Sep (0.00)	31 Jul–1 Aug (0.00)	21 Jun (0.00) 2 Aug (+0.25) 13 Sep (0.00)
Current basic rate	0.00%; -0.40%[3]	1.75–2.00%	0.75%
Latest inflation	2% (Aug 2018)[4]	3% (Jul 2018)	2.5% (Jul 2018)
Expected MP meetings	25 Oct 13 Dec	25–26 Sep[5] 7–8 Nov	1 Nov 20 Dec
Other expected events	13 Dec: publication of Eurosystem staff projections	24 Oct: publication of Beige Book	1 Nov: publication of Monetary Policy Summary
Expected rate movements[6]	↑	↑	→

[1] ECB definition of price stability "below but close to 2%"; [2] January 2012 definition of inflation target; [3] deposit rate; [4] flash estimate; [5] meeting associated with summary of FOMC economic forecasts and press conference given by FOMC Chair; [6] direction of expected change in rates in next three months taken from Consensus Forecasts.





The **ECB** kept its policy rates unchanged and expects them to remain at their present levels until at least the end of summer 2019. The market expects the first increase to come in October 2019. The ECB confirmed that the asset purchase programme will run at the current monthly pace of €30 billion at least until the end of September 2018. After that, subject to the current economic situation, the purchases will be reduced to €15 billion a month until the end of December 2018 and will then end. However, the reinvestment of principal payments from maturing securities will be maintained. The GDP growth outlooks for this year and the next were reduced slightly in September compared with the July forecast – from 2.1% to 2.0% for 2018 and from 1.9% to 1.8% for 2019. The outlook for 2020 (1.7%) is unchanged. The inflation outlook was left at 1.7% for 2018, 2019 and 2020.

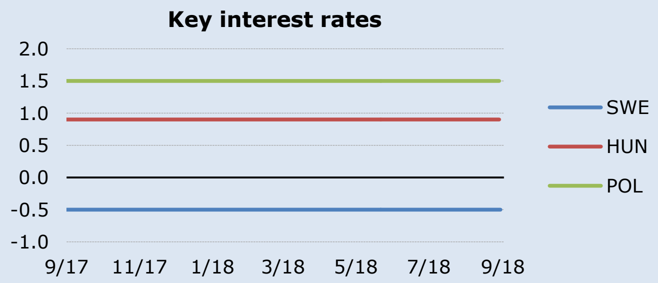
The **Fed** kept the target range of its key interest rate unchanged at 1.75%–2.00% in late July and early August, in line with market expectations. According to the financial market consensus, the rate can be expected to increase by 0.25 pp at the September meeting and then to rise gradually further. Economic growth is rising at a solid rate. The FOMC expects GDP to grow by 2.8% this year and 2.4% in 2019 (June forecast, median). The labour market will strengthen further. The unemployment rate outlook for the next three years is below 4%, although the unemployment rate rose to 4% in June. Inflation is expected to slightly exceed 2% in the years ahead.

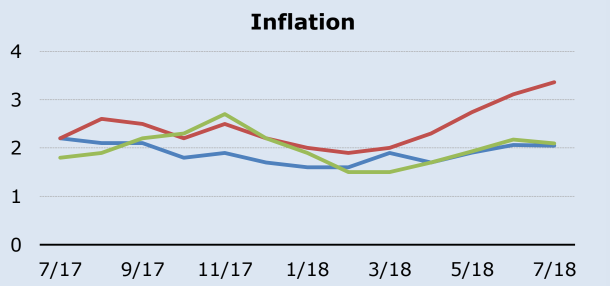
The **BoE** raised its key interest rate by 0.25 pp to 0.75% in August and left it at that level in September. It maintained the stock of government and corporate bond purchases at GBP 435 billion and GBP 10 billion respectively. The latest data from the real economy confirm that the GDP growth slowdown recorded in Q1 was temporary and growth picked up in Q2. The labour market remains tight and nominal unit labour cost growth accelerated. According to the BoE forecast, GDP will rise by 1.75% per year on average in the years ahead. At the same time, the forecast assumes moderate growth in interest rates over the next three years.

Selected central banks of inflation-targeting EU countries

	Sweden (Riksbank)	Hungary (MNB)	Poland (NBP)
Inflation target	2%[3]	3%	2.5%
MP meetings (rate changes)	3 Jul (0.00) 5 Sep (0.00)	19 Jun (0.00) 24 Jul (0.00) 21 Aug (0.00)	10–11 Jul (0.00) 4–5 Sep (0.00)
Current basic rate	-0.50%; -1.25%[2]	0.9%; -0.15%[2]	1.50%
Latest inflation	2.2% (Jul 2018)	3.4% (Jul 2018)	2% (Aug 2018)
Expected MP meetings	23 Oct 19 Dec	18 Sep 16 Oct 20 Nov	2–3 Oct 6–7 Nov 4–5 Dec
Other expected events	24 Oct: publication of Monetary Policy Report	18 Sep: publication of Inflation Report	12 Nov: publication of Inflation Report
Expected rate movements[1]	→	↑	↑

[1] Direction of expected change in rates in next three months taken from Consensus Forecast survey; [2] deposit rate; [3] CPIF – consumer price index including fixed interest rate.





The **Riksbank** left its policy rate at -0.5% and expects it to go up by 0.25 pp in December this year or in February 2019. It is continuing to reinvest redemptions and coupon payments in the market. The volume of bonds purchased amounted cumulatively to more than SEK 330 billion in May. Inflationary pressures are still moderate. Inflation increased to 2%, largely due to rapidly rising energy prices. The Riksbank slightly raised its CPIF outlook for 2018 to 2.2% in its July forecast. According to the forecast, inflation will be at 2.1% and 1.9% in 2019 and 2020 respectively. The Riksbank raised its GDP growth forecast for this year from 2.5% to 2.9% and expects growth of 2.0% next year and 2.1% for 2020. It expects unemployment of between 6.2% and 6.4% over the next three years.

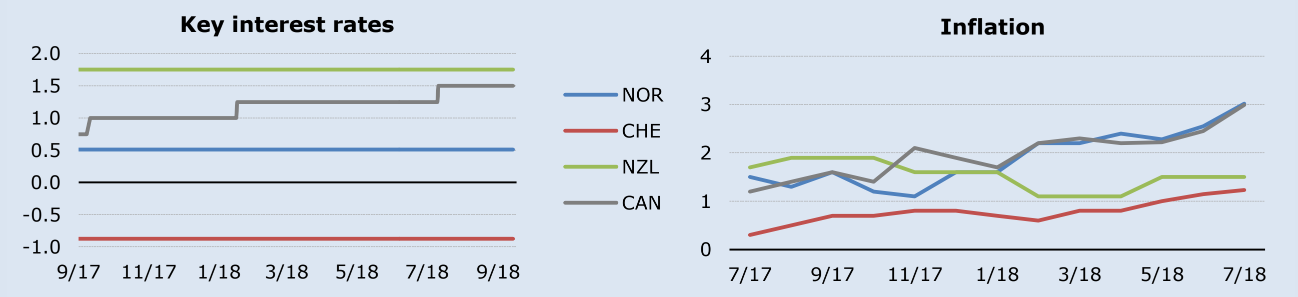
The **MNB** maintained its base rate at 0.9% and its deposit rate at -0.15%. It expects inflation to increase over the medium term due to growth in domestic demand and wages. The Hungarian economy grew by 4.6% in Q2 and is expected to maintain this pace this year; the economy will grow by 4.4% overall in 2018. GDP growth will slow from 2019. Employment is at historical highs and unemployment is still falling. Lending to firms continued to expand at a fast pace of around 12% in Q2 and lending to SMEs even by 16%. According to the MNB, this is due mainly to its previous support programmes. Growth in loans to households (mostly mortgages) was 4.1%. Mortgage bond purchases through the central bank's programme encouraged new primary issues.

The **NBP** left its interest rate unchanged at 1.5% over the past three months. According to a preliminary estimate, the Polish economy maintained its high growth (5.1%) in 2018 Q2. The GDP growth is being driven mainly by strong consumer demand, fuelled by increasing employment and wages. Net exports also contributed significantly to growth in Q2. Despite this, consumer inflation remains moderate. According to the July forecast, the NBP expects GDP growth of 4.6% this year, 3.8% in 2019 and 3.5% in 2020. Assuming a constant 3M WIBOR of 1.72%, the NBP expects inflation of 1.8% in 2018, rising to 2.7% in 2019 and 2.9% in 2020.

Other selected inflation-targeting countries

	Norway (NB)	Switzerland (SNB)	New Zealand (RBNZ)	Canada (BoC)
Inflation target	2%[5]	0-2%	2%	2%
MP meetings (rate changes)	21 Jun (0.00) 16 Aug (0.00)	21 Jun (0.00)	28 Jun (0.00) 9 Aug (0.00)	11 Jul (+0.25) 5 Sep (0.00)
Current basic rate	0.50% -0.50 reserve rate[1]	from -1.25% to -0.25%[2]; -0.75%[3]	1.75%	1.50%
Latest inflation	0.7% (Jul 2018)	1.2% (Aug 2018)	1.5% (2018 Q2)	3.0% (Jul 2018)
Expected MP meetings	20 Sep 25 Oct 13 Dec	20 Sep	27 Sep 8 Nov	24 Oct 5 Dec
Other expected events	20 Sep: publication of Monetary Policy Report	26 Sep: publication of Quarterly Bulletin	8 Nov: publication of Monetary Policy Statement	24 Oct: publication of Monetary Policy Report
Expected rate movements[4]	↑	→	→	↑

[1] Only on reserves exceeding quota; [2] chart displays centre of band; [3] negative deposit rate on banks' account balances held at SNB, graded according to balance amounts; [4] direction of expected change in rates in next three months taken from Consensus Forecasts or, in the case of New Zealand, from RBNZ survey; [5] inflation target lowered from 2.5%.



The **NB** left its interest rate at 0.50% and expects it to increase gradually to 2% at the end of 2021. The NB is signalling that the earliest rate hike can be expected at the September meeting. The Norwegian economy will expand by 2% and the non-oil mainland economy by 2.6% in 2018. The positive output gap is forecasted to widen until the start of 2020, before gradually narrowing. Inflation is projected to approach the 2% target from below. Registered unemployment was at 2.4%, while unemployment according to the Labour Force Survey is at 3.9%. House prices are rising at a rate of 2.5% again after a previous fall. Growth in credit to households is stable at 6% and growth in loans to non-financial corporations slowed to 6% too.

The **SNB** is maintaining the target range for its monetary policy rate (3M LIBOR) in negative territory (at between -1.25% and -0.25%). The rate on banks' account balances with the SNB also remains at -0.75%. The SNB continues to reserve the right to intervene in the foreign exchange market as necessary. It anticipates GDP growth of around 2% and a further fall in unemployment for 2018. The bank raised its inflation forecast for 2018 from 0.6% to 0.9%. It still expects inflation of 0.9% in 2019 but predicts a further rise to 1.6% in 2020 (down, however, from the previously expected 1.9%).

The **RBNZ** left its official rate at 1.75% and expects to maintain it at this level longer than it projected in May (until 2020). Inflation was 1.5% in 2018 Q2 and will rise towards the 2% inflation target only gradually, reaching it in late 2020. Employment is near its peak, close to its maximum sustainable level. Economic growth was 2.7% in 2018 Q1. According to the RBNZ forecast, the economy will expand at a rate of 3% this year.

The **BoC** raised its key rate by a further 0.25 pp to 1.50% in July to support a return of inflation to the inflation target, as the economy is operating close to its capacity and inflation is above the target. It expects inflation to return to the target early next year. Core measures of inflation are at levels of around 2%. The Canadian economy grew by 2.9% in Q2, as the BoC had forecast. GDP growth is expected to slow in Q3 due to fluctuations in energy production and slower export growth.

2. NEWS OVER THE LAST THREE MONTHS

This year's Jackson Hole conference deals with changing market structures and their implications for monetary policy

The main topic of this year's symposium of central bankers and academics in Wyoming was changing market structures and their implications for monetary policy. The issues discussed included the impact of rising online sales on pricing and the consequences for monetary policy transmission and the effect of digitisation and new technology on central banks in general. Also on the agenda was a presentation on the potential negative impacts of increasing market concentration on competition and productivity growth.

The conference was opened by Fed Chairman Jerome Powell with a speech on monetary policy in a changing economy. In his speech, he confirmed the current course of monetary policy normalisation through gradual interest rate hikes, which he says are necessary to maintain sound growth of the US economy. He did not comment explicitly on the statements made by Donald Trump, who, despite the neutrality that US presidents have traditionally maintained towards the Fed, has criticised the rate increases as a factor slowing economic growth. Powell's speech can thus be seen as a demonstration of the central bank's independence.

Speeches were also given by representatives of the academic community and by current and former central bankers, including BIS head and former Bank of Mexico governor Agustín Carstens, Bank of Canada Governor Stephen S. Poloz and former Indian central bank governor and University of Chicago professor Raghuram Rajan. By contrast, ECB President Mario Draghi did not attend this year's conference.

ECB publishes methodology for calculating overnight ESTER reference rate

The ECB's Governing Council published the final methodology for calculating a new unsecured overnight interest rate called the Euro Short-Term Rate (ESTER), which will start to be published by October 2019 and will serve as a backstop reference rate. It also decided that until the ESTER series is available, the ECB will publish pre-ESTER data series calculated using the ESTER methodology and covering the period from March 2017. See the ECB website and the June 2018 and December 2017 issues of CBM for more on the ESTER rate.

Bulgaria declares interest in euro area entry

In June, the Bulgarian authorities declared the country's interest in applying to enter ERM II and simultaneously join the banking union by July 2019. Bulgaria also undertook to take further reform steps. The subsequent statement issued by the euro area member countries, Denmark and the ECB welcomed the application and declared that in the future the approach used for Bulgaria will also be applied to other countries wishing to join the euro area, in line with the principle of equal treatment. Their entry into ERM II will thus be conditional on simultaneously joining the banking union and meeting other requirements and conditions.

Turkish central bank keeps on fighting

The Turkish central bank (CBRT) is trying to fight the depreciation of the lira and growing inflation, although so far not by raising rates, despite market expectations (at its meeting on 24 July it left rates at their current levels). On 5 August, the CBRT lowered the bank reserve requirements with the declared goal of supporting the smooth operation of the financial market. With this revision, it increased bank liquidity by more than USD 2 billion. A week later (on 13 August), it announced that it would provide "all the liquidity the banks need", introduced further measures to support financial stability and lowered the reserve requirements further. On 20 August it also signed a swap agreement with Qatar with a limit of USD 3 billion, and on 29 August it doubled the limits for overnight interbank transactions.

Despite all these efforts by the CBRT, the situation of the Turkish currency is very unfavourable due the highly indebted domestic economy and the strong pressure emerging economies' currencies are currently under. This pressure is partly related to the threat of trade wars with the USA. Turkey has become a target of sanctions and increased tariffs from US President Donald Trump. In addition, the CBRT's independence is being put at risk by President Erdogan, who opposes raising interest rates. Shortly after his re-election on 25 June, the president issued several decrees giving him the right to select and appoint the governor and other members of the CBRT's Monetary Policy Committee regardless of their experience; moreover, he has installed a member of his family as minister of finance and is making no secret of his efforts to influence the entire Turkish economy.

On 3 September, following the publication of the latest annual inflation figure (17.9% at the end of August), the bank issued a statement that it would adjust its monetary stance at the September policy meeting due to significant risks to financial stability. At that meeting (held on 13 September), it sharply raised its one-week repo rate by 6.25 pp to 24%.

BoE governor to stay in office longer than expected due to Brexit

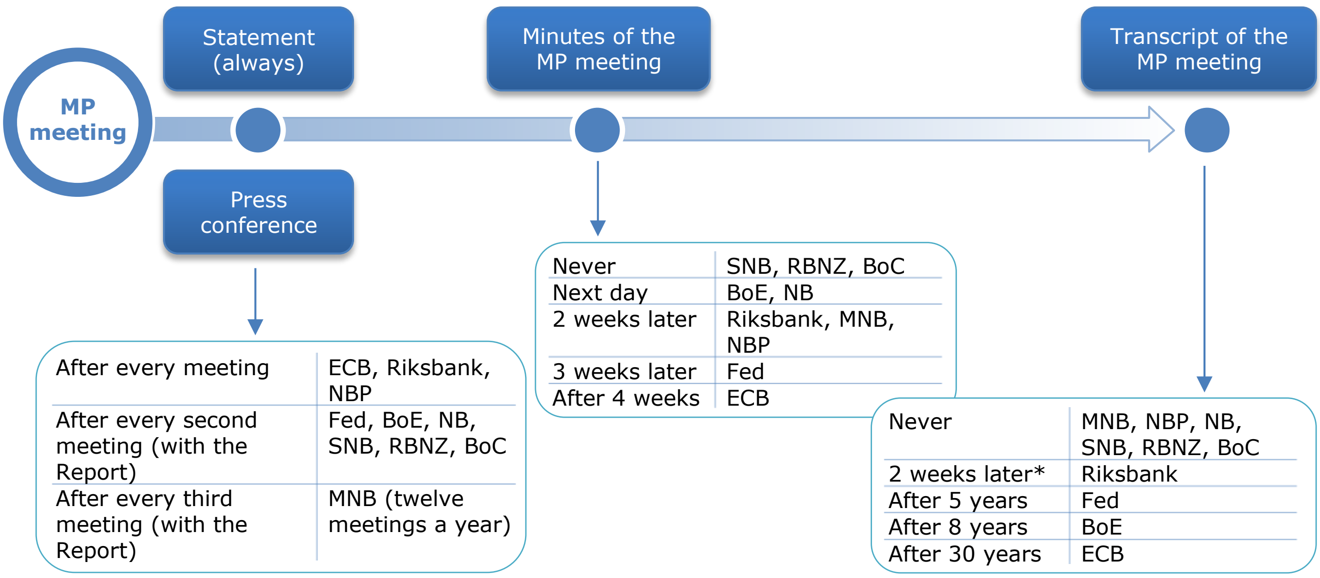
Bank of England Governor Mark Carney agreed to stay in post until the end of January 2020, six months longer than originally planned (i.e. until the end of June 2019; see the December 2016 CBM). This decision was made to help the UK government through a turbulent period for the economy as it leaves the EU and to facilitate the process of choosing a new governor. The extension of his term was announced by the UK government. Sir Jon Cunliffe, BoE Deputy Governor for Financial Stability, was re-appointed at the same time. His term will last until October 2023.

3. SPOTLIGHT: COMMUNICATION OF MONETARY POLICY DECISIONS AND DISSENTING OPINIONS AT CENTRAL BANKS

Open communication by central banks helps economic agents to understand monetary policy and is an essential condition for central bank transparency and credibility. One of the most important components of the communication mix in this area is the announcement of the monetary policy decision made at the meeting that has just ended. However, central banks do not merely announce the decision, they clarify the reasons underlying it and provide details of the decision-making process, often including information on dissenting opinions held by monetary policy committee members. In this issue, Spotlight *focuses on these components of the communication mix of the central banks we monitor. It follows up on earlier* Spotlight *articles discussing monetary policy reports (September 2015) and the internet presence of central banks (March 2017).*

The central banks[1] we monitor all inform the public about their monetary policy decisions in roughly the same way. A statement containing the decision on monetary policy interest rates is published shortly after the monetary policy meeting has ended. The statement is then introduced and its content elaborated at a press conference. Details regarding the forecast and a summary of domestic and foreign economic and financial developments are given in a monetary policy report[2] usually published every quarter, mostly together with every second monetary policy meeting. Several days or weeks after the meeting, minutes of the meeting are published, providing information on the course of the meeting and the discussion among those present. Some banks also publish a detailed transcript several years after the meeting has taken place. However, the banks differ in when they publish those communications and how much information they provide.

Figure 1: Communication of monetary policy decisions at the central banks we monitor



* The Riksbank publishes attributed minutes of the meeting, which are close to a transcript.

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[1] Central Bank Monitoring monitors the key central banks of the Euro-Atlantic area (the ECB, the Federal Reserve and the Bank of England) and selected central banks of inflation-targeting countries: Sweden (Riksbank), Hungary (MNB), Poland (NBP), Norway (Norges Bank), Switzerland (SNB), New Zealand (RBNZ) and Canada (BoC).

[2] The title of the report differs from bank to bank. Most of them call it the Monetary Policy Report/Statement, some use the name Inflation Report and others use different titles for historical reasons (such as Quarterly Report). For details see the September 2015 CBM.

Statement

The primary output from a monetary policy meeting is a statement, published by most banks of the form of a press release.[3] It provides a summary of the conclusions of the meeting and usually contains, in addition to the monetary policy decision, the most important arguments underlying the bank's decision. The statement is usually published shortly after the end of the monetary policy meeting; only in a few cases is it published the next day.[4]

For all the central banks we monitor, the publication of the statement is accompanied by a press conference at which the bank's top representatives introduce the statement and answer journalists' questions. The press conference is held either after each monetary policy meeting or only after those meetings at which a new forecast is published together with an accompanying report, i.e. four times a year in most cases (see Figure 1 and Table 1).

The statement represents the central bank's official position and contains the monetary policy decision approved by a majority vote. However, there is of course a discussion among the members present at the meeting, and their individual expert opinions may differ from the final majority decision. Some central banks provide information in the statement about the existence of such different views, but the amount of information about dissenting opinions varies: some banks publish an anonymous voting ratio,[5] while others give the names of the members who voted differently and their preferred variants of the decision.[6] Sweden's Riksbank goes furthest in showing its cards, disclosing information on reservations expressed about the final majority view presented by name and including the reasons and preferred variants of the decision (the Riksbank's practice is discussed in more detail in Box 1).

The publication of dissenting opinions is not a matter of course and its appropriateness has been debated in the literature for some time now. The main issue is whether and how information about differing views within the monetary policy committee influences the effectiveness of central bank communication. Research shows that information about dissenting opinions does not reduce the transparency and clarity of a central bank's communication in the eyes of the public.[7] On the contrary, it indicates that such information makes it easier for external observers to predict the future monetary policy stance.[8]

Minutes of the meeting

The minutes of the monetary policy meeting offer a deeper insight into decisions on the monetary policy stance. For external observers, they are a valuable source of information about the standpoints and opinions of the individual members of the monetary policy committee and the arguments relevant to the central bank in fulfilling its monetary policy strategy. Most of the banks we monitor currently publish minutes of their meetings, usually a few weeks after the monetary policy meeting has taken place (see Figure 1 and Table 1).

[3] The Norges Bank issues a separate press release in which it provides the media with a short summary of the official statement (the Executive Board's Assessment).
[4] The Riksbank, the Bank of England and the Norges Bank publish the statement the next day. However, they simultaneously publish a larger number of underlying and accompanying documents, including the Monetary Policy Report and (with the exception of the Riksbank) the minutes of the monetary policy meeting.
[5] In most of the banks we monitor, decisions are taken by a vote. Only the RBNZ, which has no official monetary policy committee, does not use voting; however, a review of RBNZ monetary policy currently under way (see the March CBM) is likely to lead to the setting up of a monetary policy committee that will disclose its votes and the minutes of its meetings. The ECB does not disclose the votes cast by the governors.
[6] Some banks (BoE, Riksbank, MNB and NBP) publish the results of the vote in a separate file on their website. The file usually covers several years of voting and discloses the interest rate each member voted for by name.
[7] Jansen D. J., Moessner R. (2016): Communicating dissent on monetary policy: Evidence from central bank minutes. *De Nederlandsche Bank Working Paper*, No. 512/2016.
[8] Apel M., Grimaldi M. B. (2012): The information content of central bank minutes. *Sveriges Riksbank Working Paper*, No. 261. Riboni A., Ruge-Murcia F. (2014): Dissent in monetary policy decisions. *Journal of Monetary Economics*, 66: 137–154.

The minutes of the meeting are not a verbatim transcript, but an edited, relatively brief text, usually just a few pages long. In the case of some banks, they provide information about dissenting opinions voiced in the discussion, but they almost always remain anonymous (for example "some members expressed the belief that..."). Only the Riksbank puts a name to each opinion and publishes very transparent ("attributed") minutes specifying all the active participants of the meeting and their contributions to the discussion (see Box 1).

The issue of disclosing the names of monetary policy committee members who hold opinions differing from the majority decision is another area discussed in the literature. This debate does not concern publication of the discussion per se – research shows that although such publication (logically) makes the minutes longer, it does not make them less understandable or clear.[9] The main question is whether to disclose specific names. Here, the literature arrives at no clear-cut conclusion and offers arguments both for and against.

One argument for publishing attributed opinions is that it puts an emphasis on accountability of the individual monetary policy committee members and thus encourages them to prepare more thoroughly for the meeting.[10] The arguments against publishing attributed opinions include that it emphasises the individual view at the expense of other relevant economic arguments and could therefore confuse the public.[11] It could also constrain the discussion, as greater accountability for opinions could lead members to formalise their contributions to the meeting and lock themselves into pre-defined positions and merely repeat them at the meeting, making it harder to reach a consensus. In addition, the authentic debate could be brought forward to consultative pre-meetings before the actual meeting.[12]

Box 1: Increasing transparency at the Swedish Riksbank

A process of enhancing transparency has been going on at the Riksbank since 1999, when the bank's independence was incorporated into law and an internal committee of six members (the Executive Board) was established to set monetary policy interest rates. At the first Executive Board meeting in January 1999, it was decided to publish the minutes of monetary policy meetings with a delay of several weeks. The minutes contained an anonymous summary of the members' discussion, and from the outset also recorded attributed reservations.[13] The statement following the meeting remained consensual and made no mention of dissenting views.

In May 2007, the Executive Board decided that attributed minutes would be published with effect from June 2007, stating that this would make it easier to forecast how monetary policy would be conducted and to examine the motives behind the monetary policy decisions. In April 2009, the Riksbank decided that attributed reservations would be published in the statement itself. In February 2018, it decided that the minutes would be published 10 days after the meeting, compared with 14 days previously, and that the contributions of Executive Board members would be reproduced in direct speech. (The Riksbank's declared reasons for bringing forward the publication date included changes in the bank's internal processes since 1999 and the fact that Executive Board members submit their deliberations in writing to the authors of the minutes, so publishing the minutes earlier would not cause major complications.)

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[9] See Jansen and Moessner (2016).

[10] Weber A. (2010): Communication, decision making, and the optimal degree of transparency of monetary policy committees. *International Journal of Central Banking*, 6(3): 1–49. Gersbach H., Hahn V. (2008): Information acquisition and transparency in committees. *Centre for Economic Policy Research Discussion Papers*, No. 6677.

[11] Issing O (2005): Communication, transparency, accountability: Monetary policy in the twenty-first century. *Federal Reserve Bank of St. Louis Review*, 87(2, Part 1): 65–83.

[12] Swank O. H., Visser B. (2008): Is transparency to no avail? Committee decision-making, pre-meetings, and credible deals. *European University Institute Economics Working Papers, ECO2008/18*. Meade E. E., Stasavage D. (2008): Publicity of debate and the incentive to dissent: Evidence from the US Federal Reserve. *The Economic Journal*, 118: 695–717.

[13] Members can express reservations about the majority decision on rates and/or the forecast for the future path of rates, which the Riksbank has been publishing since 2007. Expressing a reservation therefore does not mean that the member always votes differently on interest rates than the rest. For example, ten of the 23 reservations made between January 2007 and October 2009 pertained solely to the future interest rate path (see Ekici B. (2009): Executive Board voting – a summary of the first eleven years. *Sveriges Riksbank Economic Commentaries*, No. 15/2009).

Riksbank Vice-Governor Lars Svensson (2009)[14] described his experience with working on the Executive Board after attributed minutes started to be published. He has a favourable view of the effect of attributed minutes on monetary policy decision-making. In his opinion, they induced more preparation and consistency by each board member and discouraged "social loafing", improved the individual accountability of members and provided a better insight into their views, thereby increasing the predictability of their future opinions. According to Svensson, attributed minutes additionally reduced the risk of group think and revealed to external observers which members had developed group-think. Svensson noticed an increase in spontaneous discussion and a more relaxed atmosphere. According to what the bank's experts told him, the discussion actually became better and more thorough. It should be added, however, that at the Riksbank the monetary policy meeting at which attributed minutes are made is the culmination and summary of a long series of meetings at which monetary policy is discussed and the Board members' minds are gradually made up or changed. Moreover, Svensson stresses the importance of the fact that the attributed minutes are edited, so the members have the opportunity, in several steps, to clarify their statements and eliminate redundancy and repetition.

The views and experiences of former and current members of the Riksbank's Executive Board regarding attributed minutes were also the subject of a survey over the period of 2009–2013.[15] The respondents were asked to what extent they agreed with the following statements on the impact of attributed minutes on the nature of the discussion at monetary policy meetings:

(i) The discussion at meetings is poorer and less spontaneous.
(ii) The discussion at meetings is better.
(iii) The members invest more effort in their preparation for the meetings.
(iv) There is more public focus on individual opinions.

As regards the responses of the Riksbank board members, the statement that attributed minutes lead to a poorer discussion was the least supported, while the statement that they improve the discussion gained the most support. Also, the Riksbank board members who had attended meetings at which attributed minutes were made had a more favourable view of them: none of them agreed with the claim that they made the discussion poorer, while many of them felt they led to members preparing more thoroughly for monetary policy meetings. The responses of Norges Bank representatives were more sceptical. For example, less than half of them thought that attributed minutes fostered better discussions at monetary policy meetings (compared to a clear majority in the Riksbank case). The representatives of Norges Bank also stressed, more often than those of the Riksbank, that attributed minutes lead to much more focus on members' individual opinions and more frequently felt that they could make central bank communication less clear. The question is to what extent the results were affected by the Riksbank's previous decision to publish attributed minutes and possible efforts to defend that decision (a phenomenon known as status quo bias) or by a natural lack of trust in newly introduced measures.

Transcripts

A few central banks have decided to increase their transparency even further by publishing detailed transcripts of the monetary policy meeting containing the contributions of the individual members by name. These transcripts, too, differ in their degree of editing and therefore length, ranging from verbatim transcripts to edited summaries of the meetings. Although they are not published until years later, the central banks that have ventured to publish them are thereby increasing their transparency and showing they have nothing to hide. They are simultaneously contributing to preserving the economic memory of their country with these historical documents.

[14] Svensson L. E. O. (2009): Transparency under flexible inflation targeting: Experiences and challenges. *Sveriges Riksbank Economic Review*, 2009:1. Until he left the Riksbank in 2013, Lars Svensson was one of the most frequently dissenting members of the Board, supporting easier monetary policy including negative interest rates.
[15] Questions regarding attributed minutes were asked in a survey of former and current members of the Executive Board of the Riksbank and the Executive Board of Norges Bank as a comparable inflation-targeting Scandinavian central bank. The survey was conducted in 2009 (Riksbank), 2011 (Norges Bank) and 2013 (follow-up questions at both banks). The results of the summary survey are available in Apel M., Claussen C. A., Lennartsdotter P., Røisland Ø. (2015): Monetary policy committees: Comparing theory and "inside" information from MPC members. *International Journal of Central Banking*, 11(4): 47–89.

Conclusion

The openness and transparency of central banks today has come a long way since the time of Montagu Norman, the pre-war Governor of the Bank of England, whose quote on central bank monetary policy ("Never explain, never excuse") has become legendary. However, it seems that the trend is towards ever more intensive and open communication with the public, with central banks constantly exploring new paths, using modern communication tools and drawing inspiration from successful examples of other central banks and institutions.

Table 1: Communication by selected central banks

	ECB	Fed	BoE	Riksbank	MNB	NBP	Norges Bank	SNB	RBNZ	BoC
MP committee	yes	yes	yes	yes	yes	yes	yes	yes	-[a]	yes
Members' mandate	8 years	14/5 years	8/5 years	5/6 years	6 years	6 years	6 years	6 years	5 years	7 years
Meetings	8 times a year	8 times a year	8 times a year	6 times a year	12 times a year	11 times a year	8 times a year	4 times a year	7 times a year	8 times a year
Reports (MPR, IR...)	4 times a year	4 times a year	4 times a year	6 times a year	4 times a year	3 times a year	4 times a year	4 times a year	4 times a year	4 times a year
Statement	instantly	instantly	next day	next day	instantly	instantly	next day	instantly	instantly	instantly
Press conference	always	only with Report	only with Report	always	only with Report	always	only with Report	every second meeting	only with Report	only with Report
Minutes of meeting	4 weeks	3 weeks	next day	10 days	2 weeks	2 weeks	next day[b]	-	-	-
Transcripts	30 years	5 years	8 years	10 days[c]	-	-	-	-	-	-
Information on dissenting opinions										
In statement:										
Numbers of votes cast	-	yes	yes	yes	-	-	yes	-	-	-
Votes cast by name[d]	-	yes	-	yes	-	-	(yes)[e]	-	-	-
Reservations	-	-	-	yes	-	-	-	-	-	-
In minutes:										
Numbers of votes cast	-	yes	yes	yes	yes	-	yes	-	-	-
Votes cast by name[d]	-	yes	yes	yes	yes	only a file[f]	(yes)[e]	-	-	-
Reservations	-	yes	-	yes	-	-	-	-	-	-
Attributed minutes	-	-	-	yes	-	-	-	-	-	-

Source: central bank websites.
Notes:
[a] The RBNZ is currently undergoing a review under which a monetary policy committee is likely to be established – see footnote 5.
[b] In Norges Bank, the minutes of the monetary policy meeting are a part of the statement of the Executive Board published the day after the meeting. The entire minutes of the Executive Board meeting (also containing issues unrelated to the monetary policy decision) are published two to five months after the meeting.
[c] After ten days, the Riksbank publishes attributed minutes of the meeting, which are close to a transcript.
[d] In the case of publication of the votes cast by name, the preferred alternative proposal is always disclosed.
[e] Norges Bank has only published brief minutes since June 2017. Only a few MP meetings have taken place since then, so far with unanimous outcomes, so we cannot determine how the votes will be presented.
[f] The most recent file containing information on the votes cast at the NBP is dated March 2015.

4. SELECTED SPEECH: THE HISTORY AND FUTURE OF QUANTITATIVE EASING

In a speech given at the July meeting of the Society of Professional Economists in London, Bank of England Deputy Governor for Monetary Policy Ben Broadbent described the principles of quantitative easing (QE), which many central banks have used in recent years to ease monetary policy. He also outlined the BoE's plans for exiting QE.

Deputy Governor Broadbent opened his speech by recalling that Milton Friedman and Anna Schwartz in their book *A Monetary History of the United States* had suggested that the Fed could have averted the Great Depression by loosening monetary policy more precipitously, for example by purchasing assets. We now have a name for this type of monetary policy measure: quantitative easing (QE). QE was used most recently in response to the strong recession pressures arising from the global financial crisis. One cannot conclude from the fact of the weak economic growth that followed that it was of no help to the economy. A comparison of recent years with the 1930s suggests that the recent situation might have been much worse without QE. Equally, we cannot give QE all the credit. For example, there was no deposit insurance preventing bank runs during the early 1930s. The better results in recent years were also fostered by a number of other measures besides QE: central banks cut rates to zero, while governments supported the banking system and eased fiscal policy.

An analysis of the available data offers two conclusions on QE's effect on the economy. First, asset purchases had a significant favourable impact on economic activity via lower bond yields. The early phases of QE had the most powerful effects. Second, the effect of QE on share prices is harder to detect, as share prices reacted to QE in both directions. Given their volatility, though, that does not prove there was no impact. However, the data allow us to refute the frequently made claim that QE has done little except boosted prices of assets. Ben Broadbent illustrates that on UK house and share prices, which QE prevented from falling further.

In simple terms, the principle of QE can be described as follows: the central bank buys government bonds and sellers' deposits at banks and banks' deposits at the central bank increase. So, the balance sheets of commercial banks and the central bank increase, but there is no effect on anyone's net financial position. QE therefore replaces one liability with another. When financial markets are functioning smoothly, such transactions should have no effect on asset yields. So why does QE work? According to Mr Broadbent, economists focus on three of the mechanisms involved. First, the bank lending channel emphasises the importance of banks' liquid assets and the effect of a lack of reserves on their behaviour (their appetite to lend). Second, the portfolio balance channel stresses the direct price effects on the assets purchased by the central bank, assuming that holders of assets have different "preferred habitats" and can be persuaded to move out of them only by a rise in prices. Third, the potential signalling effect says what matters is what QE says about the central bank's intentions regarding future policy. The first two channels rely on market imperfection, which, however, changes over time, and grow in importance as a financial crisis arrives and markets become impaired. The strength of the third effect depends on what the central bank communicates. In the early phases of QE, the policy was seen as an aggressive attempt to ease monetary conditions and had the biggest impact on asset prices. However, the Fed's suggestion that it might reduce the pace of its asset purchases (the "taper tantrum") was seen as a hawkish signal and caused bond yields to rise even though the Fed did not tighten monetary policy. Rate rises and the effect of the central bank shrinking its balance sheet may therefore be substitutes.

To conclude, Ben Broadbent outlined the BoE's plans for reducing its stock of assets. This will happen only once rates have risen sufficiently. The BoE considers rates to be its primary instrument of policy and will try to return them to a level allowing it to work with them, i.e. to increase or decrease them as necessary. This is because conventional policy is more flexible and better suited to responding to shorter-term economic fluctuations.

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