



BANK OF ENGLAND

Speech

Some Monetary Policy Options – If More Support Is Needed

Speech given by

Michael Saunders

External Member of the Monetary Policy Committee

Bank of England

Online webinar

4 December 2020

The views expressed here are not necessarily those of the Bank of England or the Monetary Policy Committee. I would particularly like to thank Michal Stelmach and Matt Swannell for their help in preparing this speech. I have received helpful comments from Lukas von dem Berge, Julia Giese, Jonathan Haskel, Nick McLaren, Silvana Tenreyro and Marilyne Tolle, for which I am most grateful.

In this speech, I want to discuss the state of the economy and some risks to the outlook. I also want to outline some means by which monetary policy can, if needed, help provide further support for the economy. Let me summarise the key points:

- The economy currently has plenty of spare capacity, and unemployment is set to rise further in the next couple of quarters.
- Economic activity is likely to pick up as the recent lockdowns end, helped by encouraging news on vaccines. Nevertheless, there are some headwinds that could leave the economy stuck with relatively high unemployment and below-target inflation.
- If those downside risks develop, risk management considerations argue for a relatively prompt monetary policy response in my view.
- Complementarities between monetary policy tools imply that, if more monetary easing is needed – and that is an important “if” – then it is likely to be most effective if we use a range of policy tools.
- In my view, there may be some modest scope to cut Bank Rate further but, if we do, it may be preferable to move in relatively small steps.

Figure 1. UK – Change in level of real GDP in recessions and recoveries, 1970-2020

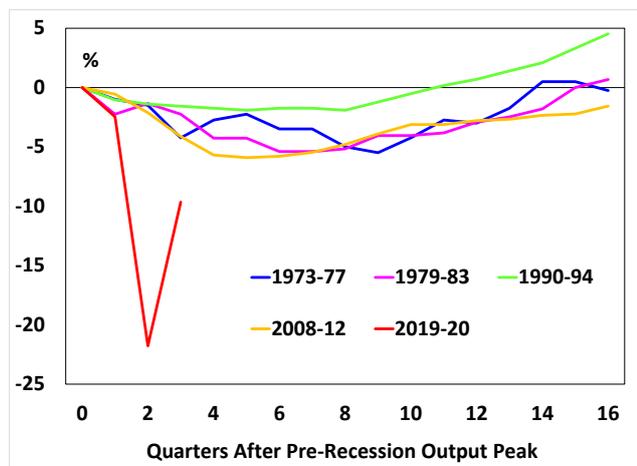
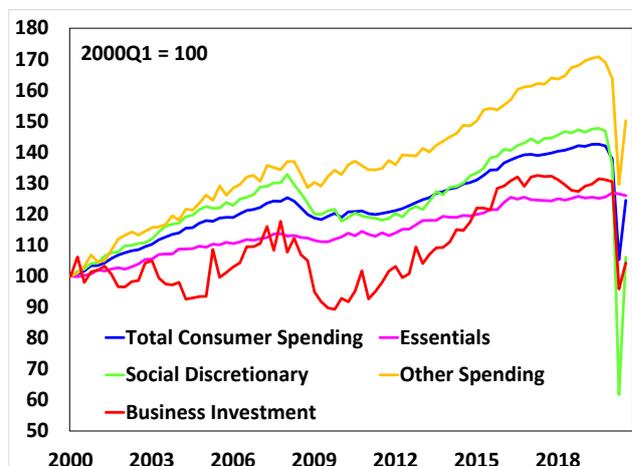


Figure 2. UK – Components of domestic demand, indexed to 2000 Q1 = 100



Note: In the right chart, consumer spending is split into three broad categories. Essentials are food, alcohol, tobacco, housing, communication and health. Social discretionary spending is net spending on tourism, transport, recreation and culture, restaurants and hotels. Sources: ONS and Bank of England.

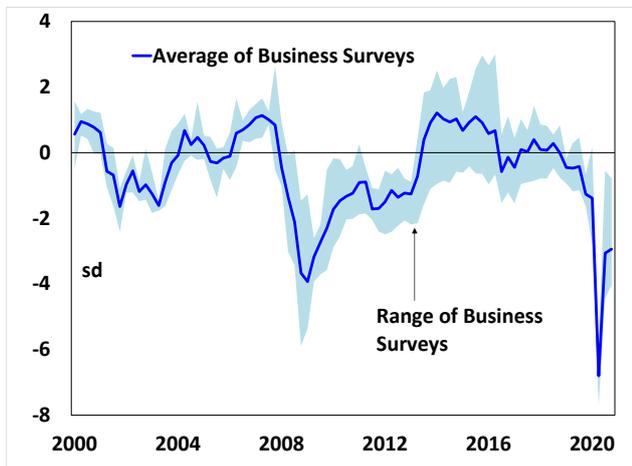
The Covid first wave, and measures taken to tackle it, left the economy with depressed output, sizeable scars on the labour market and investment, as well as a significant amount of spare capacity. Even after the large quarterly rise in GDP in Q3, the level of real GDP was still 10% down from Q4-19 – a greater shortfall than in the worst recessions of the last 70 years.¹ From the Q4-19 levels, consumer spending has fallen about 10%, with especially sharp declines in areas that involve a high degree of social interaction and have

¹ GDP fell 5% peak to trough in the mid-1970s and early 1980s recessions, 2% in the early 1990s and 6% in 2008/09.

faced greater restrictions (eg restaurants and hotels, recreation). Business investment, which is less directly affected by Covid-related restrictions, but is very sensitive to the Covid-related rise in uncertainty,² has fallen about 20% to the lowest level since 2013.

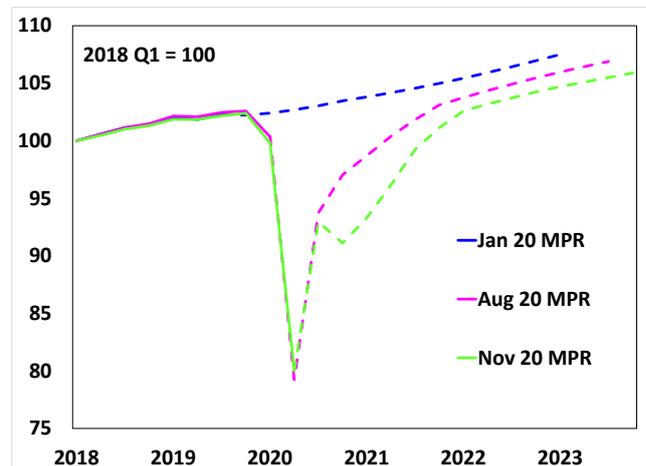
The economy probably had a modest output gap at end-2019 and spare capacity has risen since then. For example, the number of hours worked in Q3 was about 12% below the Q4-19 level, a sharper drop than seen during (or after) other recessions in recent decades. This has been reflected partly in higher unemployment (the jobless rate is up from 3.8% in Q4-19 to 4.8% in Q3, and likely to rise further in Q4) and also widespread under-employment (average hours worked have fallen sharply, including effects of furlough). Similarly, business surveys suggest that capacity use in firms has fallen sharply.

Figure 3. UK – Business surveys of spare capacity in firms (standard deviations from average)



Sources: IHS Markit/CIPS, CBI, BCC, ONS and Bank of England.

Figure 4. UK – Path of real GDP in MPRs of January, August and November 2020



Many firms have faced increased cost pressures, from additional health precautions and supply chain disruption. However, the increase in spare capacity has led to lower pay deals (and more widespread pay freezes) and squeezed margins. Business surveys suggest that firms' pricing intentions remain weak. Consistent with this, core inflation has been subdued this year, even though the full disinflationary impact of the recent rise in spare capacity has probably not yet occurred.

The Covid second wave is likely to exacerbate these trends. In the November MPR (which was finalised after the second England lockdown was announced, but before it took effect), the MPC's central forecast was that Q4 GDP would fall by about 2% QoQ, leaving GDP 12% below the Q4-19 level. The central forecast was

² See Bloom (2009).

that the jobless rate would rise significantly further and exceed 7% in Q2 and Q3 next year.³ All this implies a further rise in spare capacity.

Prospects for the economy will depend in large part on the dynamics of the pandemic, the extent of progress in vaccines and other treatments, and the reaction of households, businesses and authorities to those developments. In the November MPR, the MPC's central forecast was that the economy would recover as restrictions ease, such that the output gap would close in early 2022, returning inflation to the 2% target two years ahead. That central forecast rested on three key assumptions. First, after the recent lockdowns, the average level of restrictions across the UK would return to the mid-October level for the rest of Q4 and in Q1, and ease further thereafter. Second, improvements in treatments, including vaccines, would allow the direct impact of Covid-19 on economic activity to gradually fade by the end of 2021. Third, a CETA-like trade deal between the UK and EU would be in place by yearend, with some temporary additional trade frictions in early 2021 given that firms may not have had time to fully prepare for those new arrangements. The Committee judged that risks to growth were skewed to the downside, and that uncertainties remained unusually high.

Since the MPR, the available evidence from real-time indicators appears consistent with some drop in activity in Q4, although it is hard to map these indicators precisely onto monthly GDP growth.⁴

Figure 5. UK – Daily spending using debit and credit cards (pct changes since Jan-Feb)

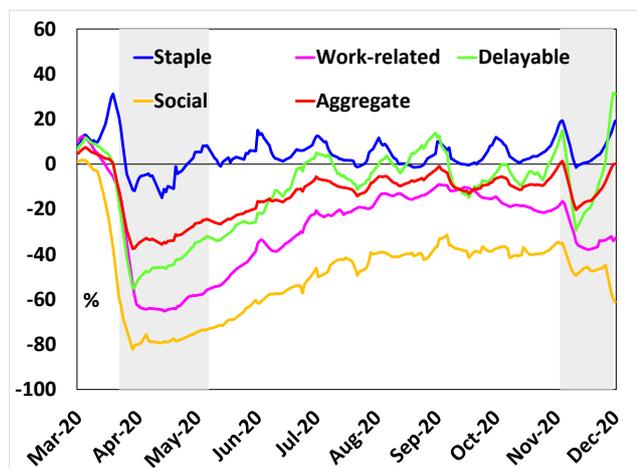
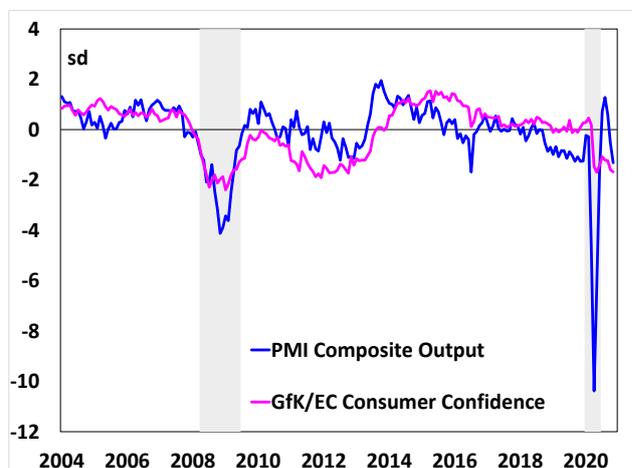


Figure 6. UK – PMI composite output and consumer confidence (std dev from average, shaded periods denote recessions)



Note: In the left chart, the shaded periods denote the lockdowns in England. Restrictions in Scotland, Wales and Northern Ireland have differed slightly. The recent rise in delayable spending may be affected by higher sales caused by the “Black Friday” discounts. Sources: CHAPS, ONS, IHS Markit/CIPS, GfK, European Commission and Bank of England.

³ The November MPR forecast was completed before the extension of the CJRS to end-March was announced. That extension is likely to limit the rise in unemployment in Q4-20 and Q1-2021 relative to the MPR forecasts, but have less effect on the path thereafter.

⁴ For example, even with these real-time indicators, the monthly change in GDP has been below the pre-release consensus in four of the last five months. Before this year, surprises in the monthly GDP data were roughly evenly balanced between undershoots and overshoots. Results are similar taking account of GDP revisions, and compared to Bank staff expectations for GDP.

The news on vaccines is clearly encouraging. In my view, recent announcements are probably not inconsistent with the MPR base case – that medical progress would allow the direct impact of Covid on economic activity to fade by the end of 2021. But these announcements greatly reduce some medium-term downside risks, for example the possibility that effective vaccines might not be developed for a year or two.

Nevertheless, in the nearterm – until effective vaccines are widely available – we may remain stuck with relatively high levels of infections and/or restrictions, with adverse effects on economic activity. Indeed, on average across the UK, the initial level of restrictions after the second lockdowns will be tighter than the level assumed for the rest of Q4 and Q1 in the November MPR.

There are also uncertainties over the effects of Brexit. We may know soon the outlines of the UK's future trade relations with the EU. But there is considerable uncertainty over the response of businesses to these changes – and the impact of any extra initial trade frictions – given the very limited examples of countries that have significantly increased trade barriers with close trading partners.

Other risks to the outlook – and I suspect these are mainly downside risks – stem from the extent to which the hangover and scars from the pandemic will weigh on demand, even if there is a vaccine soon.

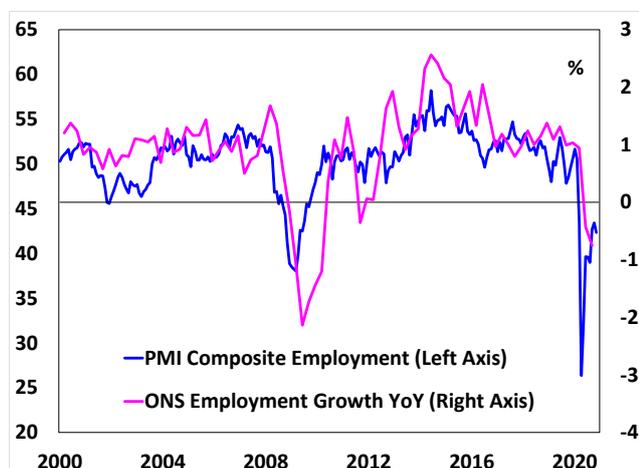
One issue is that in coming quarters unemployment is set to rise markedly, and household wage and salary income is likely to fall in real terms, as fiscal support diminishes (eg the furlough scheme is scheduled to stop at end-Q1). It may be that households and businesses already fully anticipate this, and indeed a large net balance of households expect unemployment to rise in the year ahead. But in the last 20 years or so, the jobless rate has only exceeded 7% in a few years (2009-13), and in that period, it went alongside sluggish consumer spending. It is possible that the reality of a return to such a high jobless rate – if and when it happens – will significantly dent confidence and restrain spending, to a greater extent than in the November MPR forecast.

Another issue is that companies (especially SMEs) may need to repair scars on balance sheets.⁵ Sterling bank lending to UK SMEs is up about 25% YoY, by far the biggest rise in recent years, with increases of more than 35% among SMEs in retail and wholesale, construction, recreation services, transport, hotels and restaurants. Much of the rise in SME debt is through the BBL scheme, which has relatively generous repayment terms. But it is still debt. Moreover, SMEs on average have seen bigger declines in activity than larger firms, in part because a higher share of SMEs is in sectors of the economy that have been worst hit in the pandemic. The second wave will probably further lift corporate debts. Pressure on firms to repair balance sheets may be reinforced by some widening in loan spreads to firms as lenders reassess credit risk, assuming the government credit schemes close as scheduled at the end of January. This could affect the

⁵ See Banerjee *et al.* (2020) and OECD (2020).

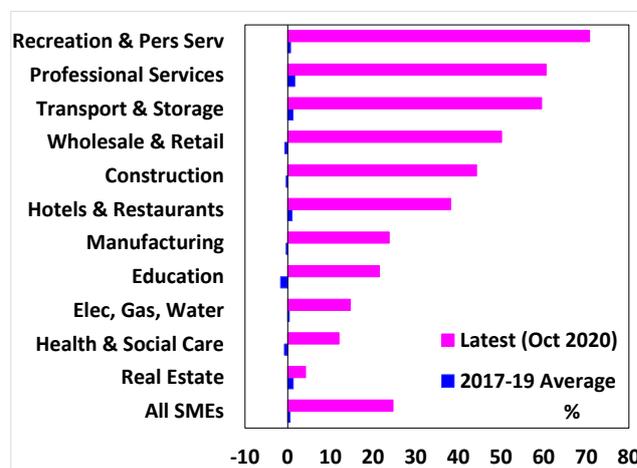
cost of new lending, but also could impact companies' refinancing costs, given that roughly 20% of bank lending to companies has to be rolled over in the next year.⁶

Figure 7. UK – PMI survey of composite employment and YoY employment growth



Sources: IHS Markit/CIPS, ONS, and Bank of England.

Figure 8. UK – YoY Change in Bank Lending to SMEs



Pressure to repair balance sheets may drag less directly on household spending because, with household incomes supported by fiscal measures, the aggregate household savings ratio rose sharply this year and household debt growth slowed. Nevertheless, these aggregates mask significant heterogeneity. Results from the Ipsos/MORI survey suggest that considerably more households have seen their incomes fall rather than rise, especially among lower income groups. The rise in aggregate household savings seems to be concentrated in a relatively small group of high income households: in total, more households report that savings have fallen rather than risen. At the bottom end of the income scale, the net balance reporting lower savings has risen steadily during the year. A further 17% of households report they had no savings before the pandemic and have none now (this rises to 30% among households with income below £20,000 per year). Slightly more than 25% of households report financial strains over the last year (eg falling behind on rent, mortgage payments or utility bills). Moreover, survey evidence suggests that among the households that increased saving, most plan to keep those savings rather than spend them.⁷ In addition, household incomes might suffer indirectly if pressure to repair corporate balance sheets lowers firms' willingness and ability to lift pay and hire more staff.

These headwinds may be reinforced by psychological scarring. Evidence from previous crises suggests that people's willingness to take risks is directly affected by their own experience: major adverse shocks have a lasting shadow on risk attitudes among those who experienced them at first hand.⁸ Until this year, firms and households have probably never needed to consider the risk that the economy might suddenly shrink by

⁶ See pages 19-43 of the BoE Financial Stability Report, August 2020.

⁷ See Nourse, Tasker and Garofalo (2020).

⁸ See Haldane (2011), Malmendier and Nagel (2011), Necker and Ziegelmeyer (2016), Andersen, Hanspal and Nielsen (2019).

20%, or that their business might be suddenly closed for a month or two for public health reasons. The scars from this experience may well lead to greater risk aversion and a preference for greater balance sheet resilience. The flip side of that could be some persistent caution over investment, hiring and risk-taking.

Figure 9. UK – Net balance of households reporting higher savings due to the pandemic

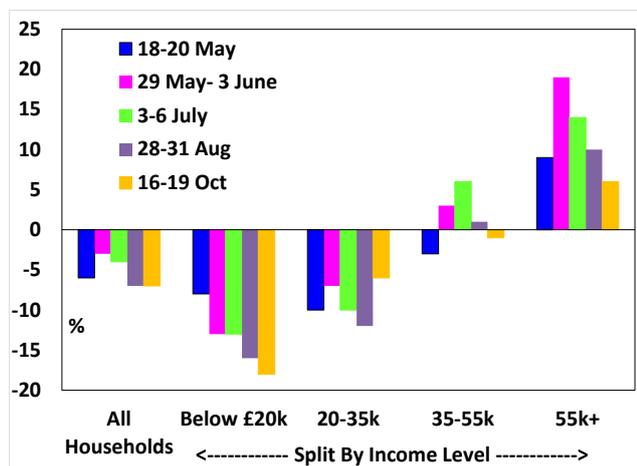
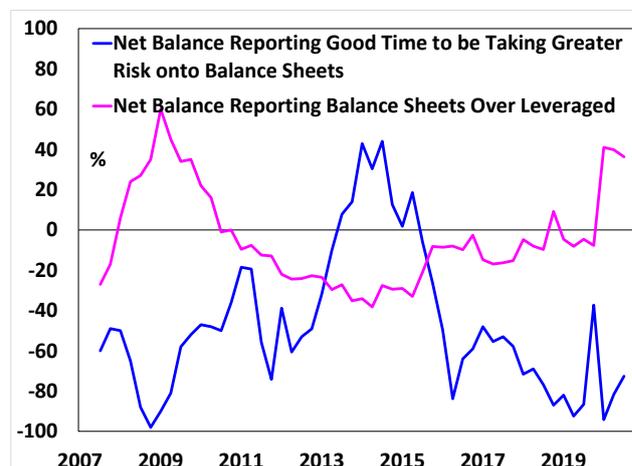


Figure 10. UK – Deloitte CFO Survey readings on corporate risk appetite and balance sheets



Sources: Ipsos/MORI, Deloitte CFO Survey and Bank of England.

At present, I suspect that risks to demand from these hangover effects are tilted on the side of a relatively slow recovery. Of course, one cannot be too precise about the balance of risks, given uncertainties in the outlook. But the costs of upside and downside scenarios are asymmetric, and a downside scenario would be especially costly in economic terms. It would raise the likelihood of a more persistent output gap, and hence of a lasting undershoot of the inflation target. It also would add to hysteresis costs through persistently high unemployment, weak investment and company failures, which would hit potential output. These costs would probably hit younger age groups especially hard, by making it harder to transition into work and gain work experience. It is notable that the employment rate among the 18-24 year age group already has fallen sharply. A slow recovery would leave households and, especially, firms with higher debts and weaker balance sheets, raising risks of more lengthy retrenchment that weighs on demand. Conversely, an upside scenario would be relatively benign: it would imply that the output gap closes faster than expected, hence returning inflation to target earlier than forecast and reducing hysteresis costs.

Extensive policy support already is in place, through fiscal policy, credit easing and monetary policy. So far this year, the MPC has cut Bank Rate to a record low of 0.1% and announced an additional £450bn of asset purchases, including the £150bn that was announced in early November. Nevertheless, monetary policy may need to do more if these downside risks develop, in order to provide a bridge for the economy during the period of restrictions, and to underpin recovery as restrictions ease.

Let me turn to the options for further monetary stimulus, if that is what is needed.

My views here are shaped by issues stemming from the effective lower bound (ELB). The ELB constraint stems from the possibility that, beyond a certain point, a further cut in Bank Rate would not provide extra stimulus and may even be counter-productive.⁹ A rate cut usually lifts growth by reducing interest rates on bank deposits and, especially, on loans to households and businesses, and also through higher asset prices and a weaker exchange rate. But if the policy rate falls below some threshold, it may have adverse effects on the economy or financial stability. For example, if the lower policy rate prompts banks to cut interest rates on household deposit rates sufficiently far below zero, households might withdraw deposits on a large scale and hence leave banks overly reliant on wholesale funding. Or if a lower policy rate is not passed on to deposit rates but is fully passed on to loan rates, then banks' net interest margins (NIMs) suffer – with potential adverse effects on financial stability and/or credit supply.¹⁰ The ELB is the point at which lower interest rates no longer boost growth or at which adverse effects, such as in the financial sector, outweigh any possible macroeconomic benefit.

In 2009, the MPC judged that the ELB was around 0.5%, and launched asset purchases when Bank Rate fell to that level. By 2016, that ELB estimate had fallen,¹¹ and the MPC stated at the time that it “judges this bound to be close to, but a little above, zero”. The MPC cut Bank Rate to 0.1% early this year.

In recent years, various other central banks have judged that a negative policy rate is feasible (ie the ELB is below zero) and – with low inflation and a low neutral rate – also is necessary.¹² The EA, Japan, Switzerland and Denmark (which jointly cover about 40% of advanced economies' GDP) currently have negative policy rates. To limit adverse effects on bank profitability, all of these also have a tiered structure for reserves, so that a substantial part of banks' deposits at the central bank are not charged the full negative policy rate.

As you know, we are currently reviewing whether the ELB has fallen further, such that a zero or negative policy rate could be a useful form of monetary policy stimulus in the UK. The issues were discussed at length in the August Monetary Policy Report.¹³ This review includes external engagement on operational and technical issues for financial sector firms.¹⁴ That review is not finished. So while I will discuss the issues, I want to stress that these are my personal and preliminary views. This issue is likely to be relevant for some time, not just in the near term, if the recent conditions of a low neutral rate persist.

The experience of other countries with negative rates (and tiered reserve systems) is that a rate cut below zero lifts growth in much the same way as a rate cut above zero.¹⁵ There has been more or less full pass through of negative rates to short-term money market rates. There is some evidence that even a modest cut

⁹ See Brunnermeier and Koby (2019), Carney (2016), Vlieghe (2019), Eggertsson *et al.* (2019), Lagarde (2020).

¹⁰ See Bernanke (2016), McAndrews (2015), Rostagno *et al.* (2019). The extent to which people might shift into cash could depend on the length of time that interest rates are below zero.

¹¹ The decline in the ELB partly reflected the reduced share of floating rate mortgages with narrow (or even negative) spreads over Bank Rate, which lowered the threshold at which a lower Bank Rate reduces NIMs. It also reflected the use of the Term Funding Scheme.

¹² At times, the desire to limit currency appreciation pressure also has played a role.

¹³ See box on pages 12-15 of BoE Monetary Policy Report of August 2020.

¹⁴ See Woods (2020) for PRA letter of 12 October 2020.

¹⁵ See IMF (2017), Rostagno *et al.* (2019), BIS (2019).

in rates below prior lows can generate an outsized decline in interest rate expectations for several years ahead, because it reinforces expectations that the ELB in future periods also will be lower than previously expected.¹⁶ Pass through has been partial to deposit rates for non-financial corporates (some of which have turned negative), but most household deposit rates do not fall below zero. Lending rates for households and non-financial companies fall (but generally do not turn negative), without adverse effects on credit supply.

Figure 11. Policy rates in UK, EA, Switzerland, Norway, Denmark and Sweden

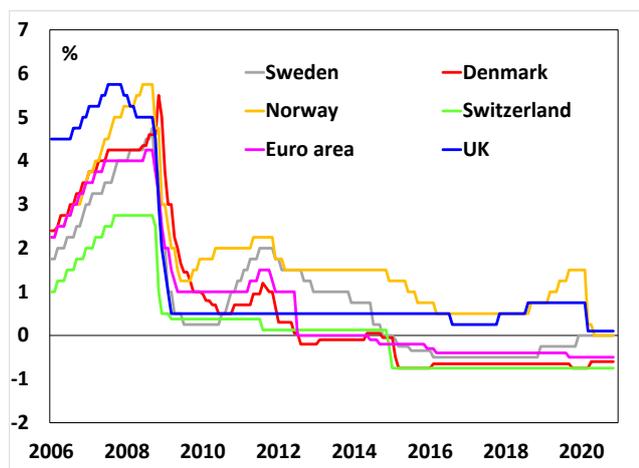
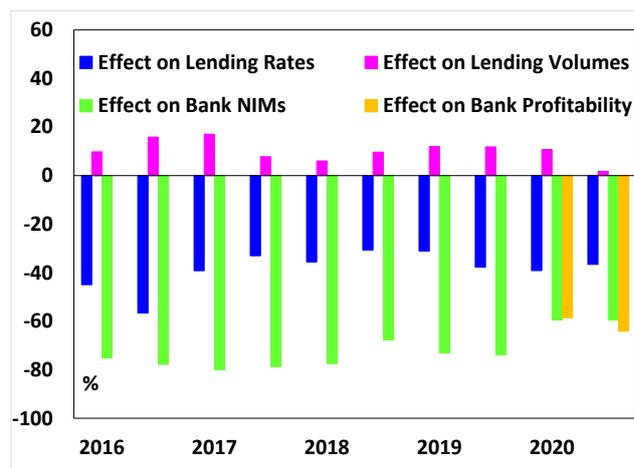


Figure 12. EA – Effects of negative interest rates on bank lending rates, volumes and profits (net balances of banks reporting positive impact)



Note: In the right chart, the question on banks' profits was only asked in the latest two surveys.

Sources: Eikon from Refinitiv, European Central Bank and Bank of England.

The ECB Bank Lending Survey suggests that on balance banks in the Euro Area judge that negative rates have led to lower bank loan rates and higher loan volumes, but (even allowing for effects of the tiered reserve system) also have reduced banks' NIMs and profitability. It is, however, possible that in assessing the effects of negative rates on their profits, banks have not allowed for indirect benefits – as negative rates lift economic growth and hence cut banks' provisions for bad debts and expand demand for new loans. Other studies, which allow for these indirect effects, suggest that the net effect of negative rates on bank profitability is small and may even be slightly positive, although it is possible that adverse effects on bank profits grow over time.¹⁷

These countries' experience does not necessarily prove there is never an ELB. It is notable that, whereas countries with positive rates at end-2019 generally cut rates this year, countries which already had negative rates in 2019 have not cut their main policy rates further this year, but have for example loosened policy through funding schemes and asset purchases. This may imply that, while the ELB in those countries is below zero, it probably is not far below zero.

¹⁶ See Rostagno *et al.* (2019)

¹⁷ See Rostagno *et al.* (2019), Boucinha and Burlon (2020), Lopez *et al.* (2020).

The ELB (and hence the impact of negative rates) may vary between countries, depending in part on the structure of banking and financial systems. For example, the Fed has argued that a negative policy rate would probably not support growth in the US.¹⁸ In the UK, ring-fenced banks have relatively high levels of deposit funding compared to the norm for EA banks, and hence may be more affected if household deposit rates are floored around zero. And even if a negative policy rate is neutral for aggregate bank profits, it may adversely affect particular groups of lenders in a way that could matter for the economy, market competition or financial stability.

My views on the ELB have evolved over recent years, especially in light of the experience of other European countries. My judgement at present is that the ELB for the UK is probably a little below zero, provided appropriate mitigations (eg reserve tiering, bank funding scheme) are in place. It is likely that pass through of a modestly negative policy rate to bank loan rates would be a bit less than normal, with banks seeking to limit erosion of their NIMs. This would still imply some drop in lending rates, given that some household deposit rates would fall and that negative rates would be expected to pass through substantially to wholesale funding costs and partly to corporate deposit rates. This would leave most of the monetary transmission mechanism intact, with little effect either way on aggregate bank profits (which would gain from lower loan loss provisions).

But I stress that there is some uncertainty around the exact level of the ELB, and this is probably inevitable. This is in part because ELB estimates depend on the balance between various factors (adverse effect on NIMs, helpful effect on loan-loss provisions and credit demand), each of which can only be estimated with some uncertainty. ELB estimates also can depend on the extent (if at all) to which banks react to a possible erosion of their NIMs, for example by widening lending spreads or reducing credit availability. The ELB may vary with the extent of mitigating support measures (eg reserve tiering, bank funding scheme). Given that the UK has never implemented negative rates, we cannot examine how the economy and banks fared last time. Moreover, there is only a small number of cases of negative rates elsewhere to draw on, and experience elsewhere may not provide a perfect guide for the UK given differing financial systems. Given this, one cannot rule out the possibility that the ELB in the UK is a little higher or lower than the negative rate levels seen in other European countries. As an upper limit, I am reasonably confident that, at 10bp, Bank Rate is currently not below the ELB. On the low side, there is no firm evidence that the ELB is below minus 1% given that no country has gone that low.¹⁹

So, to sum up this section, the ELB may be a little below zero, but there is considerable uncertainty over its exact level. This has several implications for the appropriate setting of monetary policy at present.

First, monetary policy space is still relatively limited. Whether the ELB is at the current level of Bank Rate or slightly lower, monetary policy space for further stimulus is relatively limited, compared to the

¹⁸ See the minutes of the FOMC meeting of 29-30 October 2019 and also Campbell *et al.* (2020).

¹⁹ For a contrary view that the ELB may be more deeply negative, see Altavilla, Burlon *et al.* (2020).

pre-GFC period when Bank Rate could be cut by several percentage points.²⁰ As a result, it is easier to return inflation to target from above than from below.

This reinforces risk management considerations that monetary policy should lean relatively aggressively against downside risks.²¹ If we provide too little stimulus and the economy turns out weaker than expected, the relatively limited extent of monetary policy space implies it would be even harder to return inflation to target, especially if persistent low inflation depresses inflation expectations. Hysteresis costs would rise. Conversely, if we overdo monetary stimulus and the economy recovers faster than expected, this would be a relatively benign outcome. It would close the output gap and return inflation to target more rapidly, and reduce hysteresis costs. Starting from the current position of excess supply and below-target inflation, we would have ample time and scope to tighten policy again, if needed, before the economy moves into excess demand and inflation becomes established above target. Provided inflation expectations are well contained, it is better to err on the side of providing too much monetary stimulus rather than too little, in order to underpin prospects for a strong recovery in the economy.

Risk management considerations do not imply that we should aim to stabilise inflation above the 2% target. The inflation target of 2% is symmetric and applies at all times. But a strategy to fulfil our remit is more likely to succeed if it responds relatively aggressively and promptly to downside risks.

Second, in my view, further asset purchases by themselves may be less effective in providing additional stimulus. Currently, there is ample scope to expand asset purchases if needed (or to use forward guidance) as a defensive policy, to limit risks of a backup in yields that produces an undesirable tightening in financial conditions.²² That is an important channel by which monetary policy is acting to underpin the economy. However, it is less likely that a further expansion of asset purchases (above that underway) could provide much extra stimulus from current levels, unless accompanied by a cut in Bank Rate (or guidance that such a cut is likely).

Asset purchases usually work to boost the economy by reducing long term borrowing costs for firms and households. There may also be an indirect forward guidance channel on expectations for Bank Rate, if people assume that the MPC would not hike rates while implementing asset purchases.²³

The effectiveness of these channels is state contingent and, at present, may be less than usual. With 5-year yields slightly below Bank Rate and 10-year yields at about 30-40bp, it is unlikely that additional asset purchases can lower yields much, if at all, unless investors also believe the MPC is willing to cut Bank Rate below the current 10bp level. This is because if market participants believe that the policy rate (and money

²⁰ See Carney (2020).

²¹ See Evans *et al.* (2015), Kiley and Roberts (2017), Mendes *et al.* (2017), Evans (2019), Haskel (2019), Vlieghe (2019), Williams (2019) and Orr (2020).

²² As noted in the November MPC minutes, there is scope to re-evaluate the existing technical parameters of the gilt purchase programme.

²³ See Haldane *et al.* (2016), Broadbent (2018), Vlieghe (2018), Bailey *et al.* (2020) for discussion of these channels.

market rates) will never fall below 10bp, then at that level investors would be willing to hold large amounts of money market assets (eg wholesale bank deposits) as a substitute for gilts. Even if asset purchases were done on a very large scale, it is unlikely that 10 year gilt yields would fall much below 10bp. At best, we could achieve a modest decline in long yields. From current levels, five-year yields might actually rise slightly.

Figure 13. UK – Yield curve spot and forward rates

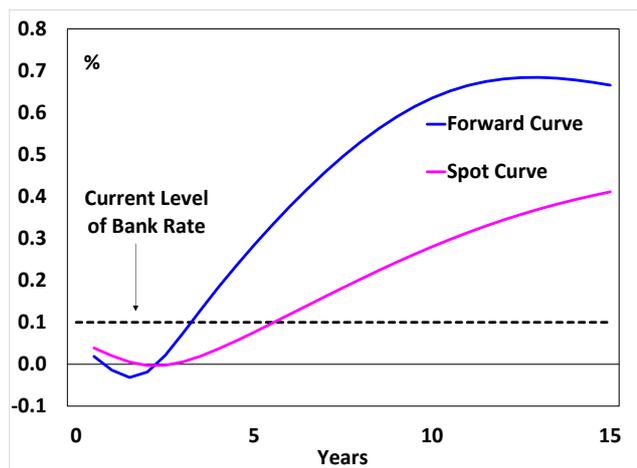
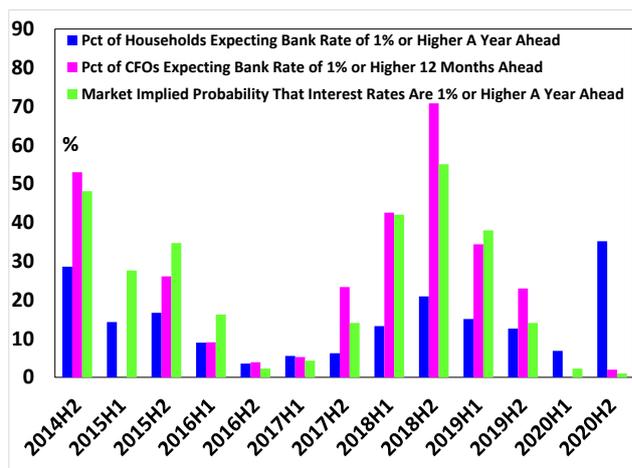


Figure 14. UK – Expectations of interest rates 12 months ahead from households, businesses and financial markets



Note: In the right chart, the market-implied probabilities are for 3-month interbank rates. The probabilities that Bank Rate is 1% or higher would be a bit lower. The CFO responses for 2020H2 include those expecting Bank Rate to be 0.5% or higher. The CFO survey did not include this question in 2015H1 and 2020H1. Sources: Eikon from Refinitiv, NMG, Intercontinental Exchange (ICE), Bloomberg, Deloitte CFO Survey and Bank of England.

Third, in my view forward guidance can probably only achieve modest extra support. It is unlikely that the usual type of forward guidance – that tightening is unlikely until various conditions are satisfied – can reduce market rate expectations significantly unless accompanied by expectations of a lower Bank Rate, given that markets already project Bank Rate will be at or below the current level for several years.

Nevertheless, forward guidance may be able to help reduce uncertainty over the outlook for interest rates, especially among households. Results from the NMG survey²⁴ suggest that a relatively high share of households (35% excluding the “don’t knows”) expect that Bank Rate will be at 1% or higher a year ahead. The households expecting interest rates of 1% or more have relatively low levels of financial assets compared to their debts on average, and hence their spending is likely to be negatively affected by higher interest rates.²⁵ By contrast, only 2% of CFOs expect that Bank Rate will exceed 0.5% a year ahead,²⁶ and financial markets imply a very small probability that short-term rates will be 1% or higher a year ahead. Without giving any promises, in my view it is pretty unlikely that Bank Rate will be 1% or higher a year from

²⁴ Survey period 25 August to 15 September 2020.

²⁵ This was not the case in general in earlier years.

²⁶ Source: Deloitte CFO Survey for Q3 2020, survey period 22 September to 6 October and published 19 October 2020.

now, given the extent of spare capacity in the economy. Since the NMG survey, the MPC has strengthened its guidance of a “low for longer” outlook. But we may be able to do more in this area.

Fourth, there may be some scope to cut Bank Rate further, but our approach should take account of ELB uncertainty. As discussed above, I suspect the ELB is probably somewhat below zero, but there is uncertainty around this. With this uncertainty, it may be preferable to make any further rate cuts in relatively small steps, less than the normal 25bp increments.

A larger rate cut would of course usually be expected to deliver more stimulus than a small rate cut. And there is some evidence that, in the Euro Area, corporate deposit rates reacted more when the policy rate fell decisively below zero (which may allow fuller pass through to loan rates without a squeeze in NIMs).²⁷ However, ELB uncertainty means that the effects on the economy of a normal size rate cut (ie 25bp) are more uncertain than the effects of a small rate cut (eg 10bp). This is because there is a greater probability that a normal size cut would inadvertently take rates below the ELB and hence hit economic growth, leaving the economy with output further away from potential and inflation further away from target.

This is another risk management consideration to be set alongside the previous one. It implies a preference to adjust rates in smaller steps than usual, in line with Brainard conservatism.²⁸ A smaller rate cut would of course give less boost to growth. But if the response from financial markets and lending rates to a small rate cut was consistent with the normal transmission of monetary policy – hence signalling that the ELB has not been crossed – and if the economy subsequently needed more stimulus, there could be one or more further small cuts. A series of small rate cuts along these lines would be less risky than one or two normal size cuts.

Such a process – interactive and iterative – would also allow the MPC (and outside observers) to become less uncertain about the exact level of the ELB.²⁹ This is not a case of experimenting with lower rates for the sake of it. Rather, it is a helpful side effect of a strategy (gradualism) that is justified to reduce the risk of accidentally crossing the ELB. It is notable that, among central banks which have used negative rates, cuts below zero have been more gradual than other loosening cycles (see figure 15 for EA).

Fifth, complementarities and synergies between policy instruments matter more than usual. As discussed, the effectiveness of any single tool (Bank Rate cut, asset purchases and guidance) in isolation in delivering stimulus at present is likely to be smaller or more uncertain than usual. However, using multiple instruments in combination could create helpful synergies that are more powerful than usual.³⁰

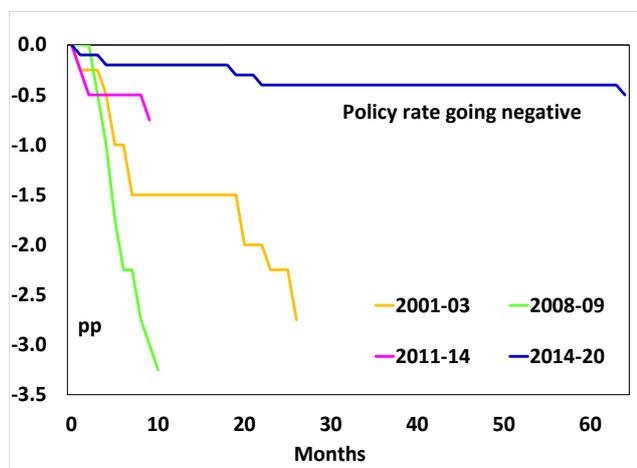
²⁷ See Altavilla, Burlon *et al.* (2020).

²⁸ See Brainard (1967), Batini, Martin and Salmon (1999), Svensson (1999), Sack and Wieland (2000), Walsh (2003) and Bernanke (2004). The preference for gradualism assumes a quadratic loss function. There are scenarios in which gradualism may be undesirable, see eg Soderstrom (2002).

²⁹ See Praet (2018), and Rostagno *et al.* (2019).

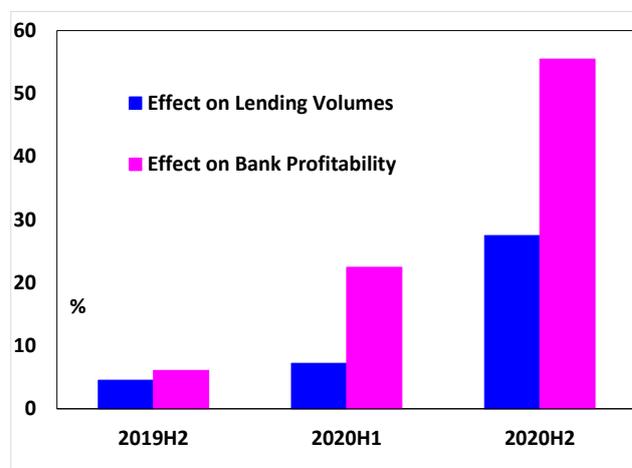
³⁰ See Poole (1970), Curdia and Ferrero (2013), BIS (2019), Lagarde (2020) and Orr (2020).

Figure 15. Euro Area – changes in key policy rate in easing cycles, 2001-20



Sources: Eikon from Refinitiv, ECB and Bank of England.

Figure 16. Euro Area – effects of TLTRO on bank lending volumes and profits (net balances of banks reporting positive impact)



The MPC has at times used a range of policy tools in combination (eg 2016, early this year). But in general, changes in Bank Rate and asset purchases have been viewed as substitutes for each other rather than complements. Bank Rate has been the marginal policy tool where possible, with asset purchases used only when scope for cutting Bank Rate is exhausted. This is because the effects of asset purchases on financial conditions and the economy are usually more uncertain than the effects of changing Bank Rate, and hence run a greater risk of leaving inflation further away from target.³¹ Moreover, above the ELB, a rate cut doesn't make asset purchases more effective (and vice versa) – synergies between them are relatively unimportant. Hence, there is no benefit in doing both together. Consideration of synergies has played more of a role for the TFS and TFSME, which have been used to reinforce the transmission of a Bank Rate cut at low levels.

At present, synergies are likely to be relatively powerful. For example, a lower Bank Rate would probably increase the effectiveness of the existing asset purchase programme (and any further asset purchases), by reducing expectations of the ELB, and hence providing more scope for asset purchases to reduce longer term yields. Likewise, a rate cut could open up scope for forward guidance to lower rate expectations. Moreover, asset purchases (and/or guidance) could expand the scale of stimulus than can be achieved through a modest rate cut, hence reducing the need to cut rates more sharply (which might inadvertently breach the ELB).

This implies that if further easing is needed, a combined strategy – with easing through a range of policy tools (eg cut in Bank Rate alongside guidance and asset purchases) – may well be the most effective approach. It offers a means of reconciling the two risk management considerations discussed above, namely

³¹ See Williams (2013), Shafik (2015), Broadbent (2018).

that we should lean promptly against downside risks but also adopt a relatively gradual approach to cutting Bank Rate.

A final point is that I note with interest the concept of a dual interest rate structure.³² In recent years, as Bank Rate approached the ELB, the BoE introduced the TFS (and, subsequently, TFSME) to support the transmission of the monetary policy stance. These schemes allow banks (and building societies) to borrow from the BoE (with appropriate collateral) over a long period at an interest rate of Bank Rate (plus a small fee for banks that reduce lending). Each bank can draw on an initial allowance determined by its existing stock of loans to households and companies, plus an additional allowance related to its net new lending (with an extra allowance for lending to SMEs). This structure has helped to provide low cost funding to banks and building societies, with incentives to maintain and expand credit supply, especially to SMEs.³³

The ECB's analogous instrument is the TLTRO. This differs from the TFSME in several respects, but the key feature I want to highlight is the decision in April this year to set the TLTRO-III borrowing rate up to 50bp below the ECB's key policy rate for banks that expand lending.³⁴ In effect, this structure seeks to sidestep the ELB constraint on deposit rates. The availability of funding at below the policy rate implies that, for banks that meet the lending targets, lending rates can be reduced without a squeeze on NIMs even if deposit rates do not fall. Results from the ECB Bank Lending Survey suggest that, following this change, a rising net balance of banks report the TLTRO-III has led to higher lending volumes as well as improving banks' profits.

An equivalent structure for the UK might, for example, set the interest rate for the TFSME additional allowance (linked to each bank's net rise in lending) below Bank Rate. Potential synergies from such a scheme could be helpful if Bank Rate falls further, by supporting bank profitability and increasing incentives for lenders to maintain credit supply, especially to SMEs. Such a scheme would, however, have fiscal implications and is not currently in the BoE's toolkit. For example, if the TFS (or TFSME) interest rate is below Bank Rate, then banks could borrow funds at the (lower) TFS rate and earn the (higher) interest rate on reserves. This subsidy for banks would come at the BoE's expense.

Conclusions

Let me draw these points together.

At the November meeting, the MPC noted that if the outlook for inflation weakens, the Committee stands ready to take whatever additional action is necessary to achieve its remit. Since then, positive news on vaccines has reduced some downside risks facing the economy. But we are not out of the woods yet, and there are some headwinds that could leave the economy stuck with persistently high unemployment and

³² See Greene and Lonergan (2020).

³³ See Ginelli Nardi, Nwankwo and Meaning (2018).

³⁴ See ECB decision announced 30 April, <https://www.ecb.europa.eu/press/pr/date/2020/html/ecb.pr200430-fa46f38486.en.html> This lower interest rate will be available for a year. See also Altavilla, Barbiero *et al.* (2020) and Lane (2020) for assessments of its effects.

below-target inflation. If those downside risks develop, risk management considerations argue for a relatively prompt monetary policy response in my view.

Currently, the effectiveness of any single policy tool in providing further stimulus – Bank Rate, asset purchases or guidance – may be less than usual or more uncertain than usual. However, complementarities between policy tools probably are greater than usual. If more stimulus is needed then, rather than lean ever more heavily on a single policy tool, in my view the most effective means may be to use a range of policy tools.

Of course, it also is possible that the economy will recover faster than expected. But, as stated at the November meeting, the MPC does not intend to tighten monetary policy at least until there is clear evidence that significant progress is being made in eliminating spare capacity and achieving the 2% inflation target sustainably.

Either way, the MPC will, as always, remain focussed on our remit, to return inflation to the 2% target in a way that supports output and jobs.

References

Altavilla, C, Barbiero, F, Boucinha, M and Burlon, L (2020), 'The great lockdown: pandemic response policies and bank lending conditions', *ECB Working Paper Series*, No. 2465, European Central Bank.

Altavilla, C, Burlon, L, Giannetti, M and Holton, S (2020), 'Is there a zero lower bound? The effects of negative policy rates on banks and firms', *ECB Working Paper Series*, No. 2289, European Central Bank.

Andersen, S, Hanspal, T and Nielsen, K (2019), 'Once bitten, twice shy: the power of personal experiences in risk taking', *Journal of Financial Economics*, Elsevier, vol. 132(3), pages 97-117.

Bailey, A, Bridges, J, Harrison, R, Jones, J and Mankodi, A (2020), 'The central bank balance sheet as a policy tool: past, present and future', paper prepared for the Jackson Hole Economic Policy Symposium, 27-28 August 2020, available at <https://www.bankofengland.co.uk/speech/2020/andrew-bailey-federal-reserve-bank-of-kansas-citys-economic-policy-symposium-2020>

Banerjee, R, Illes, A, Kharroubi, E and Serena, J (2020), 'Covid-19 and corporate sector liquidity', *BIS Bulletins*, No. 10, Bank for International Settlements.

Bank for International Settlements (2019), 'Unconventional monetary policy tools: a cross-country analysis', Report prepared by a Working Group chaired by Simon M Potter and Frank Smets, *CGFS Papers*, No. 63.

Batini, N, Martin, B and Salmon, C (1999), 'Monetary policy and uncertainty', *Bank of England Quarterly Bulletin*, 1999 Q2, available at <https://www.bankofengland.co.uk/quarterly-bulletin/1999/q2/monetary-policy-and-uncertainty>

Bernanke, B (2004), 'Gradualism', remarks at an economics luncheon co-sponsored by the Federal Reserve Bank of San Francisco (Seattle Branch) and the University of Washington, Seattle, Washington.

Bernanke, B (2016), 'What tools does the Fed have left? Part 1: negative interest rates', Brookings Institution, 18 March.

Bloom, N (2009), 'The impact of uncertainty shocks', *Econometrica*, Econometric Society, vol. 77(3), pages 623-685, May.

Boucinha, M and Burlon, L (2020), 'Negative rates and the transmission of monetary policy', *ECB Economic Bulletin*, Issue 3/2020, European Central Bank.

Brainard, W (1967), 'Uncertainty and the effectiveness of policy', *American Economic Review*, Vol. 57, No. 2, pp. 411-425.

Broadbent, B (2018), 'The history and future of QE', speech given to the Society of Professional Economists, London, available at <https://www.bankofengland.co.uk/speech/2018/ben-broadbent-society-of-professional-economists>

Brunnermeier, M and Koby, Y (2019), 'The reversal interest rate', *Princeton University Working Paper*.

Campbell, J, King, T, Orlik, A and Zarutskie, R (2020), 'Issues regarding the use of the policy rate tool', *Finance and Economics Discussion Series*, No. 2020-070, Board of Governors of the Federal Reserve System.

Carney, M (2016), 'Redeeming an unforgiving world', speech delivered at the 8th Annual Institute of International Finance G20 Conference, Shanghai, available at <https://www.bankofengland.co.uk/speech/2016/redeeming-an-unforgiving-world>

Carney, M (2020), 'A framework for all seasons?', speech given at the Bank of England Research Workshop on The Future of Inflation Targeting, available at <https://www.bankofengland.co.uk/speech/2020/mark-carney-opening-remarks-at-the-future-of-inflation-targeting-conference>

Curdia, V and Ferrero, A (2013), 'How stimulatory are large-scale asset purchases?', *FRBSF Economic Letter*, 2013-22, Federal Reserve Bank of San Francisco.

Eggertsson, G, Juelsrud, R, Summers, L and Wold, E (2019), 'Negative nominal interest rates and the bank lending channel', *NBER Working Paper*, No. 25416.

Evans, C (2019), 'Revisiting risk management in monetary policy', speech given at the 2019 Credit Suisse Asian Investment Conference, Hong Kong.

Evans, C, Fisher, J, Gourio, F and Krane, S (2015), 'Risk management for monetary policy near the zero lower bound', *Brookings Papers on Economic Activity*, Economic Studies Program, The Brookings Institution, vol. 46(1 (Spring)), pages 141-219.

Ginelli Nardi, B, Nwankwo, C and Meaning, J (2018), 'The Term Funding Scheme: design, operation and impact', *Bank of England Quarterly Bulletin*, 2018 Q4, available at <https://www.bankofengland.co.uk/quarterly-bulletin/2018/2018-q4/the-term-funding-scheme-design-operation-and-impact>

Greene, M and Loneragan, E (2020), 'Dual interest rates give central banks limitless fire power', VoxEU.org, 3 September.

Haldane, A (2011), 'Risk off', paper available at <https://www.bankofengland.co.uk/speech/2011/risk-off-speech-by-andrew-haldane>

Haldane, A, Roberts-Sklar, M, Wieladek, T and Young, C (2016), 'QE: the story so far', *Bank of England Staff Working Paper*, No. 624, available at <https://www.bankofengland.co.uk/working-paper/2016/qe-the-story-so-far>

Haskel, J (2019), 'An end-of-year retrospective on the UK outlook and monetary policy', speech given at Resolution Foundation, London, available at <https://www.bankofengland.co.uk/speech/2019/jonathan-haskel-speech-at-the-resolution-foundation>

IMF (2017), 'Negative interest rate policies – initial experiences and assessments', *IMF Policy Paper*, International Monetary Fund.

Kiley, T and Roberts, J (2017), 'Monetary policy in a low interest rate world', *Brookings Papers on Economic Activity*, Spring 2017.

Lagarde, C (2020), 'The monetary policy strategy review: some preliminary considerations', speech given at The ECB and Its Watchers XXI conference, Frankfurt am Main, 30 September.

Lane, P (2020), 'Monetary policy in a pandemic: ensuring favourable financing conditions', speech at the Economics Department and IM-TCD, Trinity College Dublin, 26 November.

Lopez, J, Rose, A and Spiegel, M (2020), 'Why have negative nominal interest rates had such a small effect on bank performance? Cross country evidence', *European Economic Review*, Elsevier, vol. 124(C).

Malmendier, U and Nagel, S (2011), 'Depression babies: do macroeconomic experiences affect risk taking?', *The Quarterly Journal of Economics*, Oxford University Press, vol. 126(1), pages 373-416.

McAndrews, J (2015), 'Negative nominal central bank policy rates: where is the lower bound?', remarks at the University of Wisconsin, Federal Reserve Bank of New York.

Mendes, R, Murchison, S and Wilkins, C (2017), 'Monetary policy under uncertainty: practice versus theory', *Bank of Canada Discussion Paper*, 2017-13.

Necker, S and Ziegelmeyer, M (2016), 'Household risk taking after the financial crisis', *The Quarterly Review of Economics and Finance*, Elsevier, vol. 59(C), pages 141-160.

Nourse, C, Tasker, J and Garofalo, M (2020), 'How has Covid affected household savings?', *Bank Overground*, 25 November, available at <https://www.bankofengland.co.uk/bank-overground/2020/how-has-covid-affected-household-savings>

OECD (2020), 'OECD Economic Outlook', Volume 2020 Issue 2: Preliminary version, OECD Publishing, Paris.

Orr, A (2020), 'Monetary policy: same objectives different challenges', speech delivered to the Victoria University of Wellington School of Government, 2 September.

Paul, P (2020), 'Banks, maturity transformation, and monetary policy', *Working Paper Series*, No. 2020-07, Federal Reserve Bank of San Francisco.

Poole, W (1970), 'Optimal choice of monetary policy instruments in a simple stochastic macro model', *The Quarterly Journal of Economics*, May, 1970, Vol. 84, No. 2 (May, 1970), pp. 197-216.

Praet, P (2018), 'Assessment of quantitative easing and challenges of policy normalisation', speech given at The ECB and Its Watchers XIX Conference, Frankfurt am Main, 14 March.

Rostagno, M, Altavilla, C, Carboni, G, Lemke, W, Motto, R, Saint Guilhem, A and Yiangou, J (2019), 'A tale of two decades: the ECB's monetary policy at 20', *ECB Working Paper Series*, No. 2346, European Central Bank.

Sack, B and Wieland, V (2000), 'Interest-rate smoothing and optimal monetary policy: a review of recent empirical evidence', *Journal of Economics and Business*, Elsevier, vol. 52(1-2), pages 205-228.

Shafik, M (2015), 'Treading carefully', speech given at the The Institute of Directors, available at <https://www.bankofengland.co.uk/speech/2015/treading-carefully>

Soderstrom, U (2002), 'Monetary policy with uncertain parameters', *Scandinavian Journal of Economics*, Wiley Blackwell, vol. 104(1), pages 125-145, March.

Svensson, L (1999), 'Inflation targeting: some extensions', *Scandinavian Journal of Economics*, Wiley Blackwell, vol. 101(3), pages 337-361, September.

Vlieghe, G (2018), 'The yield curve and QE', speech given at the Imperial College Business School, London, available at <https://www.bankofengland.co.uk/speech/2018/gertjan-vlieghe-imperial-college-business-school-london>

Vlieghe, G (2019), 'Monetary policy: adapting to a changed world', speech given at the 2019 MMF Monetary and Financial Policy Conference, Bloomberg, London, available at <https://www.bankofengland.co.uk/speech/2019/gertjan-vlieghe-speech-at-money-macro-and-finance-society-monetary-and-financial-policy-conference>

Walsh, C (2003), 'Implications of a changing economic structure for the strategy of monetary policy', *Economic Policy Symposium Proceedings*, Jackson Hole, Federal Reserve Bank of Kansas City, pages 297-348.

Williams, J (2013), 'A defense of moderation in monetary policy', *Journal of Macroeconomics*, Elsevier, vol. 38(PB), pages 137-150.

Williams, J (2019), 'Living life near the ZLB', remarks given at 2019 Annual Meeting of the Central Bank Research Association (CEBRA), New York.

Woods, S (2020), 'Information request: Operational readiness for a zero or negative Bank Rate', letter to chief executive officers to request information about firms' operational readiness to implement a zero or negative Bank Rate, available at <https://www.bankofengland.co.uk/prudential-regulation/letter/2020/info-request-operational-readiness-policy-rates>