

BANK OF ENGLAND – WRITTEN EVIDENCE (QEI0015)

QUANTITATIVE EASING INQUIRY

1. Public accountability underpins the United Kingdom’s monetary policy regime, without which there can be no central bank independence. Without an independent central bank – whose policies are widely viewed as independent and credible – the monetary regime will not be as effective as it should be in supporting the welfare of the people of the United Kingdom. For that reason, the Bank greatly welcomes the Committee’s enquiry, taking evidence from a wide range of stakeholders, into what has become an important part of the monetary policy landscape, both in the UK and internationally: the Bank’s asset purchase programme or ‘quantitative easing (QE)’. We would like to take this opportunity to express our gratitude in advance for the Committee’s work.
2. For some areas of this enquiry, the Bank itself is probably not best placed to comment. For instance, it is for others to judge how effectively the Bank has communicated its policies, and for others to describe their own perceptions of the Bank’s operational independence. Similarly, it is for HM Government to determine the Bank’s monetary policy mandate, and for the Bank’s Monetary Policy Committee (MPC) to carry out the remit that has been given to it. That separation of responsibility, set out in legislation, is a key feature of the monetary policy framework and one that ought to be preserved. This paper sets out our thinking on a number of the issues raised in the call for evidence. We hope that you will find it useful in your enquiry and, of course, stand ready to discuss it, or any other matters arising from the enquiry, as you see fit.
3. Given the importance of the issue, the Bank’s Court of Directors recently commissioned a (now published) report from the Bank’s own Independent Evaluation Office (IEO) that considers many of the issues that you raise. In this submission, we draw from that report where appropriate, as well as the Bank’s response to it¹.
4. This paper briefly sets out some background to the Bank’s asset purchase programme before turning to the themes in the Committee’s call for evidence in turn: governance & accountability; the effects of the Bank’s asset purchases; and the future of the programme.

¹ The [IEO’s report](#) is available on the Bank’s website, as is the [Bank’s response](#).

Some brief background to the Bank's asset purchase programme

5. In response to the financial crisis in 2008, the MPC cut Bank Rate sharply, close to its effective lower bound. By early 2009, with little scope to reduce short-term interest rates further to stimulate demand in the economy, the Bank introduced asset purchases, financed by the creation of central bank reserves, as an additional tool to support the economy. Since then, they have become an important part of the Bank's monetary policy toolkit. As the UK economy faced subsequent shocks – the euro-area crisis in 2011, the vote to leave the European Union in 2016 and Covid-19 (Covid) in 2020 – the asset purchase programme was expanded over multiple phases (Figure 1). The Monetary Policy Committee (MPC) announced its decision to expand its programme of asset purchases by a further £150 billion in November 2020, which when completed will take the total stock of such assets purchased since 2009 to £895 billion – comprised of £875 billion of government bonds and £20 billion of corporate bonds – a sum equivalent to approximately 40% of annual UK GDP.
6. Although QE was introduced in 2009 to provide temporary support to the UK economy, it has become larger in size and a more persistent part of the monetary toolkit than initially expected (IEO (2021)). This has been true elsewhere in the world, too. Asset-purchase programmes have been used extensively in the US, euro area and Japan in the past decade – currently totalling around 30%, 32% and 106% of GDP respectively. And a number of other advanced and developing economies have also used QE in response to Covid ([IMF \(2021\)](#)).
7. In hindsight, it is understandable that asset purchases have become a more established part of the monetary toolkit. First, additional monetary stimulus has been *necessary* in the face of the extraordinary events of the past decade or so. The aftermath of the global financial crisis, subsequent euro-area crisis and most recently the Covid pandemic have required a policy response to prevent these otherwise deflationary events from causing a greater degree of economic instability and resulting in inflation that is too low to be consistent with price stability targets. Second, the backdrop to these events has been falling rates of potential growth and equilibrium interest rates². That has limited the ability of central banks to provide the necessary additional monetary stimulus via their more conventional control of short-term official interest rates, such as Bank Rate. Other tools have been necessary, including those that influence longer-term interest rates, such as asset purchases.
8. There are perhaps two important points to draw out from this background. The first is that central banks, including the Bank of England, have needed to

² Neutral rate of interest that stabilises demand around supply.

undertake extraordinary, and novel, measures in response to extraordinary and often fast moving events. That necessarily means that the evidence base on which these policies have been formulated has been less well developed than that which has historically underpinned assessments of the impact of movements in short-term policy rates. No situation is ever exactly the same as what has gone before it. Economies change over time. But we nevertheless have substantial historical experience to help us assess the impact of changes in Bank Rate. That simply is not that case with asset purchases – either in the UK or anywhere else. There has been collective learning over time about their effects (see, for example, CGFS (2019)). Thanks to research both within central banks and the academic community, the impact of asset purchases is unquestionably now much better understood than in 2009. That research, described below, suggests that asset purchases have been effective in providing additional monetary policy support by helping to lower longer-term interest rates, supporting activity, protecting jobs, and enabling central banks to meet their price stability targets. While they have clearly become a useful part of the policy toolkit, the evidence is still evolving and, with it, our understanding of their impact and associated uncertainties. As the recent IEO report rightly notes, it is crucial that the Bank continues to learn, develop its understanding, and adapt its policies in light of that.

9. The second point to draw out is that, given the significant size and relatively novel nature of this monetary policy tool (at least compared to changes in Bank Rate) QE has attracted a great deal of public attention, scrutiny, and sometimes scepticism since its inception. Such scrutiny is a critical part of the Bank's public accountability, and public accountability a critical part of the independent monetary policy regime. Much scrutiny, and indeed concern, has centred more recently on the governance of monetary policy (and in particular whether purchases of government bond diminish the independence of the Bank) and the economic impact of such policies (and in particular the existence or otherwise of any undesirable 'side effects'). The first two sections of your enquiry cover these issues, and we are grateful for the opportunity to set out our thinking.

Theme 1: Governance, accountability and communications

The Bank and HM Treasury have a well-established governance framework for QE which is underpinned by appropriate oversight and public accountability. This has enabled the necessary operational independence required by the Bank to deliver QE effectively, in order to meet its given mandate over the past decade. Any commentary that the objective of the Bank's asset purchases is to facilitate monetary financing is not correct. The Bank has firmly remained within its statutory mandate for monetary policy and its actions have been undertaken to fulfil the MPC's remit for price stability. The Bank fully recognises that given QE's

role as a core part of the monetary policy toolkit, building public understanding of the tool through effective communications is important for its mission. While feedback on the Bank's overall communications has been positive, the Bank acknowledges that this is an area where it can develop further and welcomes the IEO's recommendations to consider further avenues to build public understanding and trust in QE.

Governance

10. The MPC's monetary policy decisions and the Bank's operations to implement them are, as prescribed in law, aimed at achieving the remit that has been given to the MPC by HM Government.
11. The case for delegating monetary policy to an operationally independent central bank has been increasingly accepted since the early 1990s. Crucially, monetary policy is at its most effective when its objectives are clear and widely understood, and when monetary policy decisions are – and are perceived to be – independent of political influence. Even in the pre-QE era, the credibility of a central bank's operational independence was its most prized possession and its most effective tool in pursuit of monetary stability. Concerns over preserving the independence of monetary policy are by no means new. Reflecting this, considerable safeguards were built into the UK's monetary policy framework when the Bank was granted operational independence in 1997. These include the following:
 - a. Legislation that enshrines the Bank's operational independence and stipulates in law that the primary objective of monetary policy is to achieve price stability.
 - b. A remit given to the Bank in public each year by the Chancellor describing what is meant by price stability and setting out the inflation target in more detail.
 - c. That monetary policy is to be formulated by a nine-member committee, including four 'external' MPC members appointed for their technical expertise, with each member having a single vote.
 - d. Individual accountability to Parliament and the public of each member for their decisions, involving frequent public communication and public appearances of MPC members before both the House of Commons Treasury Committee and the House of Lords Economic Affairs Committee.
 - e. A legal requirement to publish an explanation of the rationale behind monetary policy decisions and the voting preferences of each member at each MPC meeting. (This is satisfied by the publication of the MPC meeting minutes.)
 - f. A legal requirement for the Bank to publish a quarterly assessment of developments in the economy as they relate to the inflation target

which is signed off by the MPC. (This is satisfied by the *Monetary Policy Report* and before it the *Inflation Report*.)

- g. An open letter procedure, in the event of inflation moving more than one percentage point away from its target, requiring the Governor to explain in public why inflation has moved away from the target, the action that the MPC is taking in response, and how that proposed action is consistent with the monetary policy objective set out in the MPC's remit and legislation.

12. These arrangements provide the same safeguards today as they did in 1997. They protect the independence of all monetary policy decisions – whether regarding Bank Rate or the asset purchase programme. And they legally mandate that monetary policy actions must be carried out only in pursuit of the objectives set out in the [Bank of England Act \(1998\)](#) and the annual public remit. That is every bit as binding on asset purchase decisions as it is on Bank Rate decisions.

13. While monetary policy operations have always involved transactions in government bonds, QE is different because it involves the outright purchase of government bonds. This necessitated additional governance arrangements – again intended to safeguard the independence of monetary policy decisions – established in 2009 through an exchange of letters between the Chancellor and Governor³.

- a. The Bank conducts QE purchases through the Bank of England Asset Purchase Facility Fund (APF), a subsidiary of the Bank, which is fully indemnified by HM Treasury (HMT). The indemnity is there to guarantee the integrity of the Bank of England's balance sheet and avoid any suspicion that monetary policy decisions might be taken with a mind to their financial implications for the Bank, rather than purely in pursuit of the monetary policy objectives set out in statute and the annual remit.
- b. The exchange of letters expressly acknowledges that the Bank's QE purchases in secondary government bond (gilt) markets should not directly affect the gilt issuance strategy pursued by the Debt Management Office (DMO) in primary bond markets.

14. The IEO's report on QE notes that the Bank's external governance arrangements with HMT are well designed and have functioned effectively, allowing appropriate oversight and accountability, and providing the Bank the necessary operational independence to deliver QE effectively.

³ See exchange of letters in [February](#) and [March](#) 2009.

15. Notwithstanding this, the Bank's asset purchases in response to the economic implications of the Covid pandemic have come at a time of increased government bond issuance. And this has led to some commentary that the objective of the Bank's asset purchases is to ensure that financing conditions remain favourable for the government as an end in itself, rather than their being a means of achieving price stability. This is not correct⁴. The confluence is entirely consistent with both fiscal and monetary policymakers pursuing their objectives, and precisely what one would have expected to observe given the prevailing economic conditions.

16. In response to the Covid crisis, both the Bank and HMT have rapidly deployed a large and wide-ranging set of policy tools to support the UK economy. The MPC has aggressively eased monetary policy to ensure that financial conditions are accommodative enough to support demand and activity in the economy and so avoid the otherwise disinflationary consequences of the pandemic. With Bank Rate cut to historically low levels, this has involved an expansion of the MPC's asset purchases. HMT has introduced a range of economic policies to support households and businesses that involve a substantial fiscal stimulus and widening of the public deficit. This has involved an increase in gilt issuance by the DMO. The government, like any other borrower, will have benefitted from lower borrowing costs that resulted from the MPC's actions. But these facts have no bearing on the question of what the MPC's actions were designed to achieve. As always, those actions have been undertaken to fulfil the MPC's remit and statutory objective for price stability and its 2% inflation target. And, as always, a full description of the factors underlying the MPC's decisions and its related view of the outlook for inflation has been published in the Minutes of MPC meetings and the *Monetary Policy Report*.

17. Nevertheless, the Bank acknowledges that perceptions about the credibility and independence of monetary policy are critical. Were there a perception that the MPC's commitment to achieving the inflation target had weakened, then expectations of future inflation would begin to drift upwards, inflation risk premia in sterling assets would increase, and these would make the job of maintaining price stability both more difficult and economically costly. For this reason, the MPC continually reviews indicators of expectations of future inflation. These remain well-anchored (Chart 1).

18. The credibility of these interventions is also reinforced by the expectation that the Bank will reverse these actions when conditions warrant. The great value of central bank independence is that it provides the most powerful set of incentives possible, to do the right thing when that time does come (Bailey (2021)). Thus, ensuring that QE is not understood to be a permanent

⁴ See further discussions of the interactions between monetary and fiscal policy in [FT \(2020\)](#), Broadbent (2020), Vlieghe (2020), Tenreyro (2020), Bailey (2021) and Ramsden (2021).

expansion of its balance sheet. This allows the Bank to maintain the credibility of its operational independence and provides assurance that its actions remain consistent with its statutory price stability mandate over the medium-term. Not doing so, as well as being a breach of the Bank's statutory duties, would also be found out by financial markets. So there are both institutional and market discipline effects at work here.

Communications

19. As noted earlier, the Bank's policy transparency and communications to explain its policy decisions are critical to ensure public accountability. Since the MPC's decision to use QE as a monetary policy tool in March 2009, the Committee has been publicly accountable in the same way that it is for its decisions on the level of Bank Rate or any other monetary policy decision. This includes regularly explaining its decisions through Minutes, *Monetary Policy* (previously *Inflation*) Reports and Treasury Committee hearings. In addition, the design and operation of the APF is a matter of public record, and periodic (Quarterly and Annual) reports have been made available through the Bank's website⁵. The Bank also communicates its key messages through a range of different channels including speeches, through the Bank's Agencies around the UK, media interviews, social media and, more recently, by engaging directly with the public across the UK through its local Citizen Panels.
20. The Bank's QE-related communications were a key focus of the recent IEO report on QE. The Bank fully recognises that given QE's role as a core part of the monetary policy toolkit, building the public's trust in and understanding of the tool is important for its mission. The report notes that feedback on the Bank's overall QE-related communications had been positive, and the Bank's approach compared well to that of other central banks. External stakeholders recognised that communicating about QE was challenging, given its complexities and indirect transmission channels via financial markets, compared to Bank Rate. These have been some of the barriers in explaining QE to the public in similar terms to those used to understand Bank Rate. Debates about QE's perceived side-effects such as distributional effects still remain a contentious issue, as per the IEO's feedback. The Bank certainly recognises this and continues to take the analysis and communication of potential side-effects from its policy interventions extremely seriously. It welcomed the IEO's recommendations, which it intends to implement in earnest, to help improve public understanding and trust in QE. For example, the Bank is looking to develop more accessible layered communications on QE and embedding a more structured approach to engage with debates about potential spillovers of tools such as QE.

⁵ See, for example, [Bank of England APF Annual Report 2020](#)

Theme 2: Effects of QE

QE has been an effective part of the monetary toolkit and has enabled the MPC to lower long-term interest rates, ease financial conditions, stabilise financial markets and support the economy in response to multiple shocks over the past decade. However, the Bank recognises the intrinsic difficulties in assessing the impact of QE on inflation and real economic activity with certainty, given the challenges in identification and its potential state-contingent impact. Reflecting that, it has committed to continue to further its technical understanding of QE in its recently published [Bank of England Agenda for Research](#).

The distributional effects of QE, and the evidence base around them, have been an area of contention in the public debate. A number of commentators have pointed to QE pushing up on absolute measures of inequality as evidence for negative distributional effects. In the Bank's view, it is important to consider a broader range of indicators when making an assessment of the impact of QE on inequality. A number of studies, including Bank staff analysis, suggest that the marginal impact of monetary policy, including QE, on standard measures of relative income and wealth inequality has been small. In addition, non-financial measures, such as household well-being, suggest a net welfare gain from monetary policy actions. The Bank recognises that it is inherently difficult to measure these impacts with certainty, and to disentangle the impact of monetary policy from longer-run structural trends affecting the real economy.

Impact of QE

21. The fundamental objective of QE is to provide monetary stimulus to help the MPC meet its inflation target. In practice, QE involves lowering long-term borrowing costs for households and companies through the purchases of assets from the private sector, financed by the creation of central bank reserves. This happens through several channels, which may vary in importance over time. Lower interest rates are intended to encourage spending on goods and services, boosting economic activity and employment and putting upward pressure on prices.
22. The impact of QE has been the subject of an extensive and growing academic and central bank literature. The Bank has contributed significantly to both the public and academic debate on the impact of QE. The IEO highlighted that contribution and noted that the Bank should continue to advance and apply its understanding of what remains a relatively new tool. The Bank's most recent review of the evidence base was published in an accompanying paper alongside Governor Andrew Bailey's speech at the Jackson Hole Economic Policy Symposium in August 2020⁶.

⁶ See Bailey *et al* (2020)

23. Before turning to the evidence base, it should be noted that the Bank recognises that there are intrinsic difficulties in measuring the effects of QE and its transmission channels. There are long lags involved and the counterfactual is hard to establish, therefore leading to challenges in estimation. Despite these difficulties, the Bank is committed to continuing to invest in its understanding of QE. The recently published [Bank of England Agenda for Research](#) includes specific priority topics relevant to QE which will guide future research.
24. The empirical literature covers two main aspects: the impact of QE on financial conditions, and its impact on macro-economic variables like GDP and inflation. Beginning with the evidence base on financial conditions. There is a broad consensus in the literature that QE programmes have successfully lowered longer-term bond yields and eased financial conditions, consistent with the intended transmission mechanism of the policy. This result has been established in the UK and elsewhere, albeit to varying degrees, and using a wide range of methodologies. For the UK, the impact of QE1 (Figure 1) on gilt yields was estimated to be around 100 basis points (see for example Joyce *et al* (2012)), while estimates of QE2 and QE3 were thought to be somewhat lower. A later study (Haldane *et al* (2016)) found that for the August 2016 package ('QE4'), the response of gilt yields looked to be more consistent with the size of the effects seen during QE1 and slightly stronger than QE2 and QE3. Meta-studies of the impact of QE across jurisdictions generally tend to find similar effects to those seen in the UK (IEO (2021)).
25. The experience of QE1-4, and the latest round of QE since 2020, has reiterated the 'state-contingent' impact of QE. In other words, the nature of QE transmission can depend on the prevailing economic and financial market conditions. For example, QE may be particularly effective as a monetary policy tool when deployed at a time of market dysfunction, such as that seen 2020⁷. In restoring market functioning, these asset purchases also had a welcome side effect of supporting financial stability. This state-contingency may have implications for future policy design. For instance, a steady programme of gilt purchases may be more appropriate for delivering a defined dose of economic stimulus in the absence of market dysfunction, while a faster, more targeted programme might be more suitable in a period of market dysfunction (Ramsden (2020)). Further empirical analysis could help shed light on the state contingent nature of QE and its implications. And an important programme of work, summarised in Hauser (2021), is now under way to explore potential future balance sheet tools for tackling the consequences of market dysfunction.

⁷ See Vlieghe (2016) which also considered the impact of QE in periods of market illiquidity

26. The macro-economic effects of QE are naturally a key interest to policymakers. While this literature is subject to greater identification challenges, studies of the effects of QE tend to find meaningful impacts on both GDP and inflation. The Bank's work suggested that the initial £200 billion of QE in the UK may have pushed up on the level of GDP by a peak of 1.5%-2% and on inflation by 0.75%-1.5% (Joyce, Tong and Woods (2011)). Later work by Weale and Wieladek (2016) found that both the US and UK's QE programmes raised GDP materially. Haldane *et al* (2016) found that QE programmes in the US and UK appear to have had both a positive and significant impact on activity and inflation. While it is too soon to estimate the macro-economic impact of the Bank's most recent QE programme, Ramsden (2021) notes the crucial role of the MPC's initial £200 billion of QE in March 2020 to restore market functioning, without which an unwarranted tightening of monetary and financial conditions could have led to an even sharper contraction in UK GDP.

Distributional issues

27. The potential distributional impact of QE, and looser monetary policy more generally, has been a topic of particular interest in the public debate. Given the multiple channels of transmission for QE, its effects will generally differ between individuals depending on their asset holdings, debt position and employment. The distributional effects of QE are inherently difficult to measure, and any asset price effects need to be weighed up against the effects of monetary policy on employment outcomes and wages in the economy. QE has also been implemented against the backdrop of certain longer-term structural changes in the economy (discussed in para 7), which have meant that interest rates have needed to be lower for longer. These trends also have implications for asset prices and for distributional outcomes.

28. An oft-quoted channel through which QE has been perceived to have exacerbated inequality is via equity prices. However, real equity prices (i.e. relative to consumer prices) remain no higher than a decade ago despite further loosening in monetary policy (Chart 2). Measures of the distributions of wealth and income are also little changed in the recent past. For example, the Gini coefficient of income inequality has been little changed over the past two decades in the UK, having fallen since the 2009 financial crisis. The Gini coefficient of total wealth inequality has also been broadly unchanged over the past decade (Chart 3).

29. A number of studies have sought to quantify the distributional effects of QE more precisely. While the results are uncertain, they point to the effects on inequality having been limited. Bank staff analysis (Bunn *et al* (2018)) suggests that the overall effect of monetary policy, including QE, on standard measures of income and wealth inequality has been small. This is largely because while QE supports asset prices, it has also supported jobs and wages

in the economy. For example, over the financial crisis in 2009, monetary policy easing helped reduce the extent of the decline in real equity prices, real house prices, employment and wages. And while the international evidence on the impact of unconventional monetary policies on inequality is mixed, it generally suggests that looser monetary policy, on balance, tends to reduce inequality by supporting employment (see IMF IEO (2019)). This, however, has done little to abate negative perceptions of the impact of monetary policy on distributional outcomes. This may be because public commentary generally doesn't attribute to monetary policy some of the indirect and lagged effects of policy actions – for example, the increased probability of finding or remaining in employment or the reduced probability of financial distress (see para 31 below).

30. The studies referenced above typically highlight changes in relative income prior to monetary policy interventions. The Bank recognises that absolute measures of wealth across households have been of interest in the public debate, where a number of commentators have pointed to QE pushing up on absolute measures of inequality as evidence for negative distributional effects. The marginal impact of QE and monetary policy is likely to have been different depending on the absolute value of wealth and income across households. The difference between the relative and absolute findings typically reflect pre-existing disparities in income and wealth: the same proportionate rise in asset prices leads to a greater rise in absolute terms for those who already hold more assets. The Bank's analysis (Bunn *et al* (2018)) has previously acknowledged this.

31. It is also important to consider a broader range of indicators when making an assessment of the impact of QE on inequality, where recent Bank work has also highlighted *non-financial* effects of monetary policy (Bunn *et al* (2020)). The analysis suggests that there have been substantial welfare benefits of monetary policy loosening in the years following the financial crisis, with monetary policy helping to mitigate the fall in overall well-being after the financial crisis. From an inter-generational perspective, younger households have benefited by more than older cohorts through this lens. Holdings of financial assets tend to increase with age, and so older households have benefited more than their younger peers from the effect of QE and monetary policy on asset prices (relative to what would have been the case without monetary easing). But younger households have benefited the most from the support that QE, and monetary policy, has given to incomes and employment, since they are more likely to be in work. Younger households have also benefited on average from an erosion in the real value of debt, since they are more likely to be borrowers than savers. The lower incidence of household unemployment and financial distress that would otherwise have been the case, relative to no change in policy, accounts for the majority of these welfare gains.

International comparison

32. The design of the Bank's QE programme generally shares similar features to other international programmes, with differences largely accounted for by country-specific policy objectives. In terms of the quantity (relative to GDP), type and maturity of assets, the Bank compares similarly to others such as the Federal Reserve and European Central Bank (ECB). The Bank has bought both public (government bonds) and private (corporate bonds) sector assets as part of its QE programme, similar to others. The Bank's announced purchases currently amounts to around 34% of nominal GDP, and that share will continue to rise as the latest round of purchases is completed over the course of this year. This is comparable to QE purchases of around 30% of GDP for the US and euro area.
33. Like other central banks, the Bank has also faced similar public debates with regards to the wider effects of its asset purchases. In addition to distributional effects, which were discussed earlier, the climate considerations of QE have also seen significant scrutiny in the public debate, and these issues have seen recent engagement by central banks⁸. Responding to climate change is a strategic priority for the Bank, and in support of the Financial Stability Board's work through the Task Force on Climate-related Financial Disclosures, the Bank [published a report](#) in June 2020 disclosing for the first time its own approach to climate risk management across all its operations. The IEO report on QE noted that there has been praise for the Bank's disclosure, which also stated that its corporate bond portfolio was not aligned with the Paris climate targets. The Bank has also [stated](#) that it is considering how to incorporate climate factors into decisions on the mix of financial assets on its balance sheet (subject to its remit). Further work on these climate considerations is on-going.
34. Given QE's more persistent role on the Bank's balance sheet, and its significant size, the Bank continues to assess implications for future policy design and its interactions with other Bank policies. The final section of this paper expands on these issues in more detail.

Theme 3: Future of QE

The Bank continues to assess the limits to QE and implications of QE unwind for its future balance sheet in steady state. With regards to wider implications of QE, the Bank engages its expertise across the organisation to assess the implications of its policy tools on monetary and financial stability, and in turn economic stability. This includes the consideration of interactions between monetary and financial policy in a low interest rate environment.

⁸ Recent comments by the [US Federal Reserve](#) and [European Central Bank](#) have featured discussions about increased engagement with distributional and (for the ECB) climate issues.

QE and the future balance sheet

35. The MPC continue to expect the latest £150 billion round of purchases to be completed by around the end of 2021, taking the total QE stock to £895 billion. The asset purchases undertaken since March 2020 have naturally reduced the 'headroom' of assets to purchase (i.e. the stock of eligible assets based on the Bank's self-imposed constraints). As noted by Ramsden (2021) however, there is headroom remaining and, if needed, the Bank could re-evaluate some of its self-imposed constraints, to create more headroom should the MPC decide further QE is necessary.
36. In the longer term, it is prudent for the MPC and the Bank to plan for contingencies, including for the eventual tightening of policy, when warranted. That includes consideration of how and when the stock of QE purchases might be reduced. Against the backdrop of the recent significant expansion in the scale of asset purchases, the MPC has asked Bank staff to commence work to reconsider the Bank's previous guidance on the appropriate strategy for tightening monetary policy ([MPC Minutes \(2021\)](#)). This previous guidance stated that the stock of purchased assets would be expected to be maintained until Bank Rate reached a level from which it could be cut materially, determined to be around 1.5% ([MPC Minutes \(2018\)](#)).
37. Recent Bank publications, including Bailey *et al* (2020) and Hauser (2019), have set out a potential framework for what the Bank's balance sheet might look like in steady state and its likely drivers. One desirable feature is likely to be the ability to supply the level of reserves required independently of any decisions to adjust the stock of assets held for monetary policy purposes. These reserves could be supplied on-demand to the banking system via short-dated Open Market Operations. While the Bank's future steady state balance sheet would very likely be smaller in future under this framework due to the eventual unwind of QE, changes in commercial banks' demand for liquidity mean the demand for reserves, and the Bank's balance sheet size, is likely to be larger than that observed pre-2009. Hauser (2019) summarised the Bank's thinking prior to the Covid crisis, which noted that the size of the balance sheet under the proposed new framework was likely to be more than twice that observed prior to 2009.

QE and financial stability

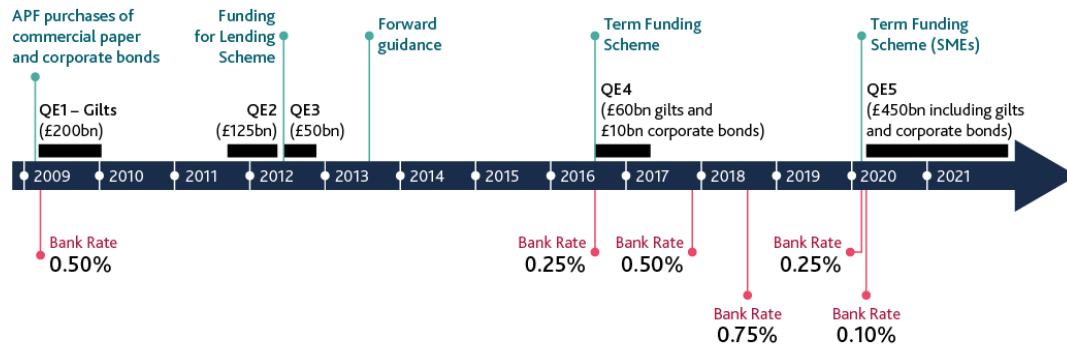
38. In general, by pursuing the inflation target – including through QE – monetary policy contributes to financial stability. That is primarily because volatile growth can challenge the resilience of borrowers and financial institutions.

39. There are, of course, circumstances in which trade-offs emerge. In recent years, the economy has needed a prolonged period of very low short and long term interest rates to maintain demand in line with the supply capacity of the economy. QE has contributed to delivering such monetary conditions (as discussed in para 24). The Bank recognises that a low interest rate environment, to which asset purchases contribute, could encourage the build-up of financial stability risks (Carney (2016)), and that this can have implications for the real economy (Cunliffe (2019)). For example, the portfolio rebalancing channel of QE is more dependent on encouraging risk-taking and in certain circumstances low interest rates may lead to so-called 'search-for yield' behaviour by financial and non-financial institutions, encouraging build-up of leverage and liquidity risk in the pursuit of returns. In addition, by lowering long-term bond yields, QE flattens the yield curve, which alongside the low rate environment, has an impact on the balance sheets of financial institutions such as banks, building societies, insurers and pension funds.
40. However, failure to set interest rates or engage in asset purchases to the extent required to meet the inflation target would have resulted in weaker growth, higher unemployment and would not therefore contribute to financial stability. It is therefore important that risks to financial stability stemming from monetary conditions are managed as far as possible by other policies in order to avoid a difficult trade-off between maintaining growth and employment in the short term and a build-up of financial stability risks. The Bank has the benefit to be able to draw on a broad range of expertise across the organisation to assess the implications of its policy tools on monetary and financial stability, and in turn economic stability. The integration of micro-prudential regulation and supervision through the Prudential Regulatory Authority (and subsequent formation of the Prudential Regulation Committee), the introduction of the Financial Policy Committee (FPC), and the development of macro-prudential regulation and tools, have collectively strengthened the Bank's overall institutional framework over the past decade. In turn, this has no doubt enhanced the Bank's ability to assess and manage certain wider impacts of monetary policy.
41. The FPC's remit includes the consideration of systemic risks to financial stability including any arising from leverage, unsustainable debt or credit growth. While an environment of lower interest rates is likely to bring these financial stability considerations into sharper relief, the Bank also has active and powerful macro-prudential tools to mitigate the risks. Effectively used, in relation to both lender and borrower balance sheets, these can limit excess risk taking (for example, through the FPC's mortgage market tools) or enable the Bank to monitor the extent of risk taking (through our annual stress test of UK banks). Both of these tools can be used to strengthen the resilience of the financial system. Macro-prudential tools can also address pockets of

higher risk as they emerge, as the FPC has done in the past – for example, in relation to consumer lending ([FPC Statement \(2017\)](#)). The targeted nature of the tools available to the FPC under the Bank’s institutional framework can enable the use of these tools as a first line of defence (Shafik (2015)), allowing monetary policy to be targeted at providing the necessary support to demand in an environment with low long-term neutral rates, and ensure that the economy remains on a steady path.

42. The appropriate consideration of financial stability risks in context of monetary policy tools like QE, in part, depend on the effectiveness with which monetary and financial policies can work together. Indeed, there have been multiple occasions in the past when the Bank has explicitly recognised monetary and financial stability considerations in order to strengthen the effectiveness of its policies. This includes the ‘knockout’ condition for financial stability risks when Forward Guidance was introduced in 2013 (*Inflation Report (2013)*), and the exclusion of central bank reserves from the leverage ratio calculation to improve the transmission of the August 2016 monetary policy package (*Inflation Report (2016)*).
43. QE has also contributed to promoting financial stability directly. Asset purchases can impact market functioning and this has been brought into sharper focus since the Covid crisis. As shown in March 2020, QE can alleviate dysfunction through the liquidity channel and thus have positive financial stability spillovers. However, these interventions also come with potential costs in terms of large public sector balance sheets and mispriced private sector risks. It is quite possible that there may be circumstances where the MPC would not act to quell market disorder if doing so ran counter to monetary stability (Ramsden (2021)). This demonstrates the importance of developing new tools to deal with market dysfunction, which will be an important area of future research and policy consideration (as also discussed in para 25).

Figure 1: Bank of England QE programmes and selected policy interventions since 2009



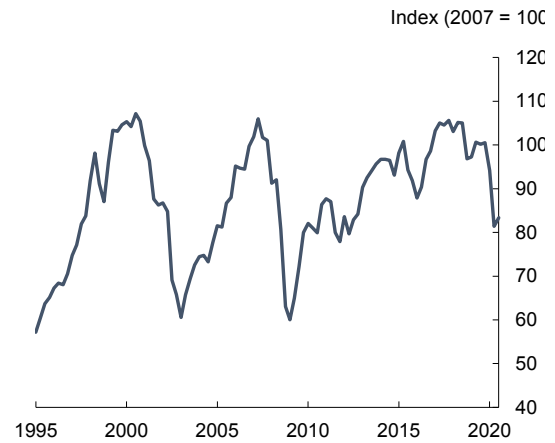
Source: IEO (2021).

Chart 1: Financial market measure of long-term inflation expectations



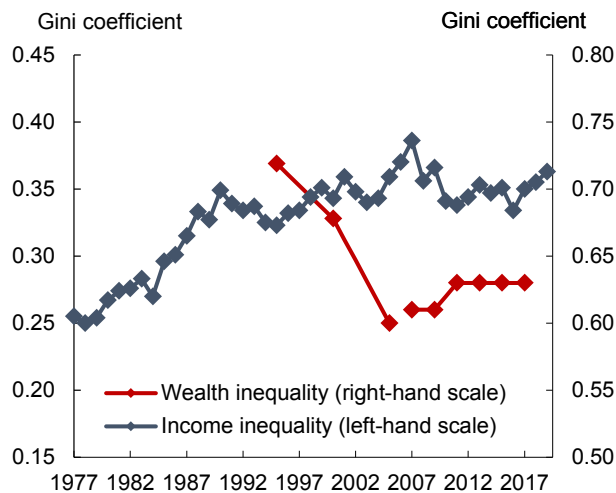
Sources: Bloomberg Finance L.P, Tradeweb and Bank calculations.

Chart 2: Real equity prices



Sources: ONS and Thomson Reuters Datastream.
(a) FTSE All-share index divided by the consumption deflator.

Chart 3: Measures of inequality^(a)



Sources: ONS and British Household Panel Survey (BHPS).

(a) Income inequality data are ONS data from the Living Costs and Food Survey. Wealth inequality data from 1995 to 2005 are from the BHPS and cover financial and property wealth only. Wealth inequality from 2007 onwards are from the ONS Wealth and Assets survey and cover total wealth (including physical and pension wealth).

References

Bailey, A (2021), '[Modern challenges for the modern central bank: perspectives from the Bank of England](#)', Speech given at LSE German Symposium, London, 5 February.

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 Jackson Hole Economic Policy Symposium, 27–28 August 2020. Also now available as Bank of England [Staff Working Paper No. 899](#)

Bank for International Settlements (BIS) (2019), '[Unconventional monetary policy tools: a cross-country analysis](#)', Committee on the Global Financial System (CGFS) Papers No. 63.

Bank of England (2013), '[Inflation Report](#)', August.

Bank of England (2016), '[Inflation Report](#)', August.

Bank of England's Independent Evaluation Office (IEO) (2021), '[Evaluation of the Bank's approach to Quantitative Easing](#)'

Broadbent, B (2020), '[Government debt and inflation](#)', speech given at 2020 Annual Meeting of the Central Bank Research Association via videolink hosted by the London School of Economics, 2 September.

Bunn, P, Haldane, A and Pugh, A (2020), '[Has monetary policy made you happier?](#)', Bank of England Staff Working Paper No. 880.

Bunn, P, Pugh, A and Yeates, C (2018), '[The distributional impact of monetary policy easing in the UK between 2008 and 2014](#)', Bank of England Staff Working Paper No. 720.

Carney, M (2016), '[The turn of the year](#)', speech given at Peston Lecture, Queen Mary University of London, 18 January.

Cunliffe, J (2019), '[Financial Stability and Low for Long](#)', Speech given at the Society of Professional Economists Annual Conference, London, 14 October.

Haldane, A, Roberts-Sklar, M, Wieladek, T and Young, C (2016), '[QE: the story so far](#)', Bank of England Staff Working Paper No. 624.

Hauser, A (2019), '[Waiting for the exit: QT and the Bank of England's long-term balance sheet](#)', speech given at the European Bank for Reconstruction and Development, London, 17 July.

Hauser, A (2021), '[From Lender of Last Resort to Market Maker of Last Resort via the dash for cash: why central banks need new tools for dealing with market dysfunction](#)', speech given at Reuters, London, 7 January.

International Monetary Fund (IMF) (2019), '[The risks and side effects of UMP: an assessment of IMF views and analysis](#)', Independent Evaluation Office.

Joyce, M, Tong, M and Woods, R (2011), '[The United Kingdom's quantitative easing policy: design, operation and impact](#)', Bank of England Quarterly Bulletin, Bank of England, Vol. 51, No. 3, pages 200–12.

Joyce, M., McLaren, N. and Young, C. (2012). '[Quantitative easing in the United Kingdom: evidence from financial markets on QE1 and QE2](#)'. Oxf Rev Econ Policy (2012) 28 (4): 671-701.

Ramsden, D (2020), '[The Monetary Policy Toolbox in the UK](#)', Speech given at the Society of Professional Economists, 21 October.

Ramsden, D (2021), '[QE as an economic policy tool – what does it do and how should we use it?](#)', Speech given at Peter Sinclair Town Hall Lecture, University of Birmingham, 17 February.

Shafik, M (2015), '[The Interaction of Monetary and Macroprudential Policy](#)', Remarks given at IMF panel on "Revisiting Monetary Policy Frameworks", Peru, 10 October.

Tenreyro, S (2020), '[Re-appointment questionnaire](#)', published for the Treasury Committee re-appointment hearing, 20 July

Vlieghe, G (2016), '[The yield curve and QE](#)', speech given at Imperial College Business School, 25 September.

Vlieghe, G (2020), '[Monetary Policy and the Bank of England's balance sheet](#)', speech given during online webinar, 23 April.

Weale, M and Wieladek, T (2016), '[What are the macroeconomic effects of asset purchases?](#)', Journal of Monetary Economics, Vol. 79, pages 81–93.

26 February 2021