

From QE to QT: The Policy Framework

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This note is a supplement to our earlier work on the [Fiscal Framework](#) published in Spring 2021, and our [Policy Paper](#) published in July 2021, which was then reviewed and published in the [August 2021 National Institute Economic Review](#). The work was explained in a short piece for [CEPR-Vox in the Autumn](#). One of the seminars that we held was recorded in the [Spring of 2021](#).

Our proposal, in brief, is that the Bank of England should sell to the commercial banks in a single operation, a very large amount of newly issued short and medium-dated government securities in exchange for a large fraction of the reserve balances at the Bank of England which have accrued as a result of quantitative easing (QE) operations conducted since 2009. The Bank of England would obtain the short and medium government securities by exchange with the Debt Management Office of H.M. Treasury for longer-dated securities which it has bought in QE operations. The proposal is described more fully in our [Policy Paper](#).

1. Quantitative Easing which aimed to transfer duration risk from the market to the government/central bank, was larger in amount and lasted longer than anyone had expected.

The resultant increase in interest rate risk faced by the Treasury is large. The OBR's Fiscal Risk Report published in July 2021 put some numbers on this (see, for example Box 4.5). Since then a global rise in benchmark interest rates (long-term yields as well as policy rates) has begun, and uncertainty about future prospects has increased. The implications for the government budget will be material.

When central banks to take long-term government bonds out of the market and replace them with overnight deposits of commercial banks, the monetary/fiscal

interconnections become larger. Central bank decisions on the policy rate have a larger and more immediate impact on the government's interest rate expenses than when the interest rate on government debt held by the market was fixed for longer terms.

2. Quantitative Tightening (QT) requires different government/central bank arrangements.

When the central bank decides that monetary tightening is warranted, it will now have to decide the right policy mix between policy rate increases and Quantitative Tightening (QT) – that is, asset sales or reduced purchases. It will also have to decide which assets to sell. Such choices will have fiscal and debt management implications.

In practice, however, central banks will be able to achieve the desired degree of monetary tightening just by increasing the policy rate. In order to avoid even the appearance of disrupting government bond markets, central bank asset sales are likely to be very gradual. In the UK, this means that the APF would remain large for years.

But it is neither necessary nor desirable for central bank balance sheets to remain so large for so long. Our proposal is to swap part of the commercial bank deposits for newly issued shorter-dated government bonds. The corresponding long-dated bonds held by the Bank of England in the APF would be cancelled. The APF would shrink as would the size of the Treasury's guarantee. The Treasury would be responsible as before for setting a medium-term debt management strategy. The Bank of England would still be able to buy or sell assets, subject to Treasury approval as at present. The APF would be wound down, its purposes largely achieved.

It would be simpler and require less coordination between the Treasury and the Bank of England, if only one official body were to be responsible for selling government bonds. In our view that body should be the DMO, which has many years of recent experience in selling securities. The Bank of England could use the DMO as a selling agent.

The advent of QT, both in the UK and in other countries, will heighten the risks of periods of market illiquidity, such as that of March 2020 which triggered the reintroduction of QE in the United States and the United Kingdom. It will be necessary to formulate and implement plans for managing such episodes without disrupting monetary policy. There will be occasions when central banks need to continue raising interest rates but also need to buy (or lend against) illiquid or long-term assets.

3. The eventual budgetary costs of central bank asset purchase programmes will also be one element in any subsequent assessment of the wisdom of such central bank operations and associated Treasury financing.

The reason why costs matter for any policy assessment is that the terms of asset purchases are driven by central bank judgements of prevailing market conditions. Such judgements may prove wrong or right.

In principle, large central bank purchases (or special lending operations) are justified by market disruptions or severe mispricing. Term, credit risk or liquidity risk premia may be too high. Or other potential buyers (e.g. banks) may face capital or liquidity constraints which prevent them taking advantage of market mispricing. If these policies succeed in getting markets back to normal functioning, central banks will earn profits from their purchases. Hence the large mark-to-market gains in the APF up to February 2021 support the case that earlier QE was indeed the right policy.

But similar policies adopted (or existing policies extended) when risk premia were much lower could well lead to losses. The measures taken in 2020 succeeded in calming a very short period of extreme market turbulence. But the scale of the purchases, and their continuation long after the market crisis had passed, has attracted criticism. In addition, an unexpectedly strong and persistent rise in inflation has transformed the world interest rate environment. Mark-to-market losses on the APF in the year March 2021 – February 2022 were £31 billion, and higher bond yields in global markets will have generated further losses in the year March 2022 – February

2023. Such losses may weaken the credibility of the Bank of England, and other central banks.

4. QE and the transition to QT could have material consequences for the earnings and balance sheets of banks.

This is because of the massive creation of bank reserves and banks' large holdings of government bonds, in part forced on them by the regulators.

Under Basel 3 banks are required to hold minimum amount of high-quality liquid assets (HQLA). HQLA are mainly bank reserves and government securities. Hence if bank reserves are reduced (for whatever reason), there is likely to be a corresponding increase in the demand for gilts from commercial banks. Short and medium-maturity bonds are ideal for their portfolios because they offer some maturity-related pick-up in the yield without the large market risks of long-dated bonds. How far the government yield curve would be affected by such an operation would depend on many factors.

Historically bank reserves have been unremunerated even in the most liberal financial systems. The Fed before the GFC, for instance, was prohibited by statute from paying any interest on bank reserves. There does not appear to be any constraint on the Fed, or the Bank of England, again making reserves non-remunerated. However, central banks whose balance sheets are swollen by QE use the interest rate on bank reserves as their main monetary policy instrument, and they cannot cease paying interest on bank reserves until their balance sheets have been reduced in size and they have altered their techniques for implementing monetary policy.

In addition, central banks in the past have increased required reserves ratios when they wanted to restrict bank credit, and many central banks still have such powers.

5. The best-known precedents for monetary policies pursued over such a prolonged period having such a big impact on the balance sheets of governments and of the banks go back many decades.

The U.K. undertook a successful bond conversion in 1932 when it redeemed a very large 5% bond – its size was roughly 50% of GDP – and replaced it with a 3½% bond. This was a major part of the ‘cheap money’ policy designed to combat the Great Depression. The success of the operation lay not in redeeming the old bond, which was allowed under the terms of the prospectus, but in persuading investors, including the banks, that in the circumstances they should convert into the 3½% issue.

But the closest precedents come from the effective suspension of monetary policy and the adoption of yield curve control in both the U.K. and the U.S. during the second world war. Unravelling this after the war took several years. In both cases, large transactions affecting government, the central bank and the banks were put in place. In the United Kingdom, a very large operation in 1951 converted short-term Treasury bills equivalent to 7% of GDP into short-term gilts in order to mop up surplus bank liquidity from the war and the post-war cheap money policy.

Such big adjustments affecting all the banks cannot be implemented piecemeal. In that sense, therefore, the size of normal market turnover is not relevant for deciding what could be done.

The terms were of course in each episode subject to negotiation. But the banks understood the exceptional predicament. They were aware of the regulators’ powers (many of which were held in reserve). In addition, in the United Kingdom in the 1950s, the Bank of England acted as market maker of last resort, providing a safety net to protect gilt holders against unexpected future market developments. The programmes achieved their objectives.

Annex: Risks, feasibility, the Bank of England and transparency.

1. Risks.

The Bank of England's QE programme has since 2009 withdrawn from the market £875 billion of gilts and replaced them with the equivalent amount of reserve balances in the commercial banks' reserve accounts at the Bank of England, bearing interest at Bank rate. The Treasury is responsible for paying the interest on the deposits and is therefore very heavily exposed to the risk of Bank rate rising.

The purpose of our proposal is to mitigate the Treasury's risk exposure. Even if the operation we propose were to be carried out, the average maturity of government debt in the market would still be much shorter than before QE began, but the Treasury's immediate exposure to increases in Bank rate would be lower.

The transaction does not presuppose a particular view of the outlook for short-term interest rates. But it does provide a form of insurance against the risk of very large rate increases. The proposed negotiation with the banks would be a way of discovering the amount of the insurance premium.

2. Feasibility.

Because of its size, this would be no ordinary transaction. The target market for the new short-medium gilts which we are proposing would be the commercial banks. As already noted, they are subject to the Basel 3 Liquidity Coverage Ratio Requirement to hold certain minimum amounts of HQLA, including reserve balances at central banks and government securities. If reserve balances with the Bank of England were to be drastically reduced, there would be a corresponding increase in demand for gilts from commercial banks, of the same order of magnitude. Short or medium maturities would be suitable for their portfolios.

The banks might welcome a shift in the composition of their liquid assets. They know that interest payments on their reserve balances are becoming a serious problem for the government, and are well aware that there have been suggestions that those interest payments should be stopped or curtailed (see e.g. some of the evidence to the House of Lords Economic Affairs Committee inquiry into QE last year). A switch into gilts would greatly reduce that risk to them.

There remains the issue of the terms. In our paper last year, we said that an element of compulsion might be needed. Nevertheless, there would have to be a negotiation of terms. Probably the most difficult aspect would be the banks' concern that they would not be able to hedge all the interest rate exposure that they took on, that short term interest rates would rise by more than was implicit in the current yield curve, and that they would incur losses. Of course, this concern would affect the yield they wanted to receive, and their readiness to participate in the transaction.

In order to mitigate the concern, the government could reasonably offer them a 'safety net', or market maker of last resort facility, which would reduce their risk exposure. The DMO could say, for example, that if market yields in the short, medium or long-dated sectors of the market rose by more than a predetermined amount on any trading day, then the DMO would hold a reverse auction for at least £ x million in that market sector at the end of the day.

Of course, that would mean that the government would be taking back some interest rate risk. How much would depend on the parameters of the safety net. But some such facility is needed in any case. As QT gets going, not only in the U.K. but elsewhere, there are likely to be more episodes of market illiquidity like that of March 2020 which precipitated, in the end, another £450 billion of QE. The announcement of a safety net would make the proposed operation seem less risky to the commercial banks.

We think that the transaction could be negotiated with the banks. It is of course possible that the banks would demand terms that the government considered

unacceptable; in that case the government would have to withdraw from the negotiation.

3. The Bank of England.

Obviously, the Treasury would need to discuss its plans in advance with the Bank of England. It has been suggested that the proposed operation would compromise the Bank's independence in monetary policy. However, QE operations have always been subject to the prior approval of the Treasury, presumably because they affect the maturity of the Treasury's debt liabilities. The debt profile has now been shortened so much by successive QE operations that it would be entirely reasonable for the Treasury to discuss with the Bank the possibility of adjusting the speed at which the shortening is to be reversed.

The proposed operation would probably cause gilt yields to rise. It is impossible to say by how much, though it might depend on the parameters of the safety net facility. However, the impact on gilt yields would be small compared the impact of the rise in global bond yields this is now underway. It would be expected to have some macro-economic effects, and the MPC would naturally take account of them in its decisions about Bank rate.

There is nothing in any of this that would undermine the statutory independence of the Bank of England in conducting monetary policy.

Because of the new bank liquidity rules, reserves balances in the Fed, the Bank of England and most major central banks will be much higher than they were before the crisis – even after QE policies have been ended. It would be premature at present for central banks to reverse all of the increase in bank reserves that has occurred since the crisis. But reserve balances are now so large that several hundred billion could be removed without running the risk of precipitating the need for a change of techniques for influencing overnight interest rates.

4. Transparency and predictability.

Obviously, this would not be a routine debt management operation. In the interests of transparency, it would need to be announced that the government was considering it and intended to embark on negotiations with the banks. The initiative would need to come from the Treasury since the purpose of the operation is to protect the public finances. The Bank of England would need to be a party to the negotiations, since a reduction in reserve balances would be intrinsic to the operation. It would be better if the Bank were to be represented in the negotiations by someone who was not a member of the MPC, to avoid creating the impression that the transaction was motivated by plans for future rate increases.

Given the current exceptional circumstances, and the global nature of the challenge facing central banks, the market should not be surprised or shocked by exceptional measures. In addition, the uncertainty created by large central bank holdings of government bonds, and some very public disputes about how quickly central banks should sell, would be reduced.

5. Explanation to Parliament.

The transaction could be explained to Parliament as one initiated by the Treasury, out of concern to reduce the exposure of the public finances to the risk of fluctuations in Bank rate. The Bank of England would need to agree to co-operate and make it clear that it would take account of the effects of the transaction in its future decisions about Bank rate. It would represent a shift in the balance between QE and Bank rate as instruments of monetary policy, with no necessary change in the overall impact of monetary policy.