Bank of England

Dame Meg Hillier MP
Chair, Treasury Committee
House of Commons
London
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Andrew Bailey
Governor

10 April 2025

Dear Chair,

I have provided below an answer to the question posed by Dr Sandher at our last hearing. Apologies for the length of the response, but it was a very good question and deserves a full answer.

In view of the length of the response, I thought it would be useful to draw out at the start some of the key points in order to provide some context and as a guide to the issues.

Reserves held by the banks at the Bank of England are central to our objectives – monetary policy, financial stability and the provision of payments in the economy. The scale of reserves is in practice determined by the financial stability objective, because they are the most liquid form of money and act as the first line of defence for banks in terms of liquidity in normal and stressed times. It was an important lesson from the financial crisis that the high-quality liquidity buffers needed to be much larger. There are alternative high-quality assets in which these buffers can be held and are held. But, if not held as reserves, to convert them into useable money would require, in the absence of markets say in stressed times, that the banks conduct transactions with the Bank.

Our policy is to meet the demand for reserves by the banks. We do that through lending at the prevailing official interest rate because that is an important part of the

transmission mechanism of monetary policy. Moreover, if we changed the terms of reserve provision, the banks would therefore most probably reduce their demand for reserves and substitute other assets. Such an alternative system would be less efficient and robust.

The role of central bank reserves

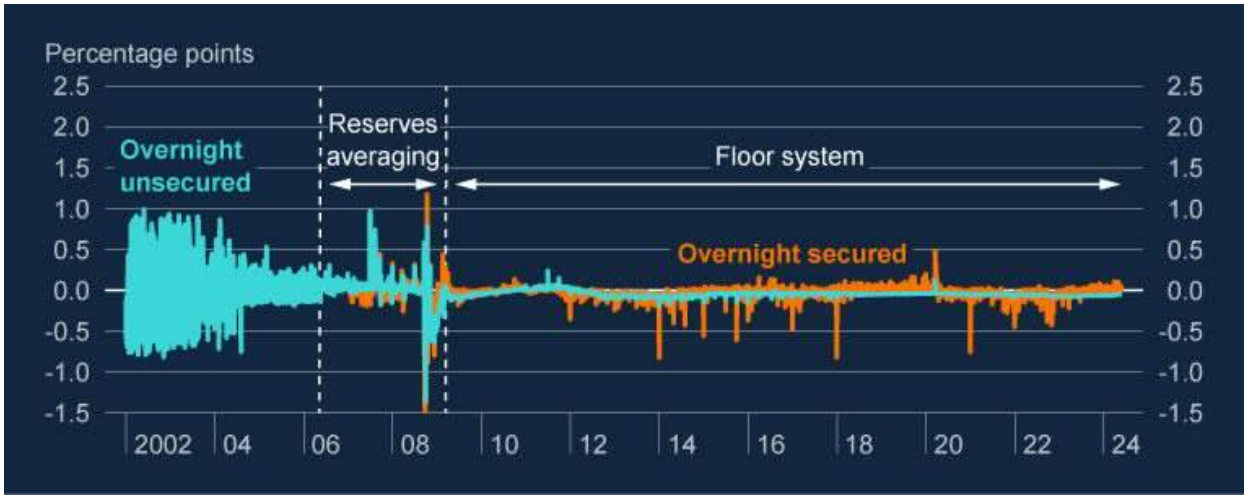
The Bank of England's balance sheet plays a crucial role in the UK economy. The Bank's main liabilities are central bank reserves in the form of deposits from commercial banks and building societies. These reserves are the ultimate form of money and liquid asset. This means that, at the most basic level, they ensure that everyday payments can proceed seamlessly by allowing banks to meet pre-funding requirements for retail payments and to settle wholesale balances. Beyond this, precautionary holdings of reserves insure against costly liquidity crises that could otherwise threaten the stability of the financial system in times of stress. Since reserves are remunerated at the official Bank Rate, they also pin down the short end of the interest rate curve. In this way, in addition to providing an anchor for financial stability, central bank reserves are the means through which the Bank implements the Monetary Policy Committee's monetary policy decisions to meet the 2% inflation target.

Central bank reserves, in other words, form the core of the payment system and are central to achieving the Bank's statutory objectives of both financial and price stability.

Since 2009, the Bank has operated a so-called floor system with reserve remuneration at Bank Rate. The remuneration of reserves ensures that reserve holders do not lend out reserves below the policy rate, while the supply of reserves ensures that banks do not have to bid up rates in money markets to borrow reserves for liquidity needs. This framework has been highly effective in guiding market rates, a critical factor for the effective transmission of monetary policy, as illustrated in **Chart A**.

A large stock of reserves is not required to anchor short-term interest rates. Before the global financial crisis, the Bank – like many other central banks – implemented monetary policy through a so-called corridor system in which reserves were relatively scarce. But the remuneration of reserves at Bank Rate has played a central role in the control of short-term interest rates since 2006. At that point, the Bank updated its corridor framework so that reserves held in line with targets set by banks themselves were supplied and remunerated at Bank Rate. This 'reserves averaging' system significantly enhanced the control of short-term interest rates relative to the pre-2006 framework.

Chart A: Overnight secured and unsecured rates as spreads to Bank Rate



Source: Bank of England, Bloomberg Finance L.P., Bank calculations.

However, an important lesson from the global financial crisis was that the level of liquid assets voluntarily held by banks was much too low to manage potential stress events. This led to the introduction of broader liquidity regulations such as the Liquidity Coverage Ratio (LCR) to ensure that banks hold sufficient high-quality liquid assets (HQLA) to be able to meet their liquidity requirements in a significant stress scenario.

There are several types of assets that banks can hold as part of their HQLA buffers. This includes government bonds, high-quality corporate debt, covered bonds, and even equity. But reserves, as the ultimate liquid asset that can be deployed with immediate effect and without liquidation costs, provide the strongest assurance against liquidity crises in the banking system that can be very costly to the wider financial system and the real economy.

This financial stability role for reserves has become increasingly critical as a consequence of the increase in the size of banks' liabilities and the speed at which deposit outflows can occur since the financial crisis, for instance with digital messaging and payments. Additionally, there are practical limits to the size and speed at which banks can monetise HQLA in the market and in the Bank's facilities. This is why the Bank, like other major central banks such as the Federal Reserve and the European Central Bank, expects the stock of reserves to remain well above the levels we had before the financial crisis.

Over the past two decades, unconventional monetary policy, in the form of asset purchases financed through the issuance of central bank reserves, has been the dominant driver of reserves creation. This was first in response to the effects of the global financial crisis and subsequently the decision to leave the European Union and the global pandemic. Such quantitative easing (QE) has taken the stock of reserves significantly above the level needed for financial stability purposes.

As the level of reserves has fallen again with the unwinding of these asset holdings, so-called quantitative tightening (QT), central banks have generally sought to align reserves supply with their assessment of the needs of their financial systems. A demand-driven system in which banks reveal their demand for reserves through participation in lending facilities is well-suited for this purpose. Commercial banks are able to secure the level of reserves they wish to hold, and the central bank can set incentives to balance the financial stability benefits of ample reserves and robust money market activity.

As set out in a recent Discussion Paper, the Bank calibrates the terms of its lending facilities to incentivise a level of reserve demand that is consistent with both the monetary policy and financial stability needs of the system.[1] As we transition into this new framework, we will learn more about the appropriate level of reserves.

Financial risks arising from the supply of reserves

In this context, it is important to be clear about the financial risks that arise from supplying the stock of reserves. From the perspective of the wider public sector, the increase in reserves through QE worked as a swap of fixed-rate liabilities in the form of government bonds, or gilts, for variable-rate liabilities in the form of central bank reserves held by the public through the banking system. This transferred interest-rate risk from the private sector to the central bank balance sheet. QT is now reversing this process. From the perspective of the wider public sector, QT works to swap variable-rate liabilities in the form of central bank reserves back to fixed-rate liabilities in the form of gilts held directly by the public. By itself, this process reduces the amount of central bank reserves and unwinds the interest-rate risk held on the Bank's balance sheet.

Between 2009 and 2022, when Bank Rate was lower than the average interest rate paid on gilts holdings held in the Bank's Asset Purchase Facility (APF) for monetary policy purposes, QE resulted in cumulative interest cost savings of £124bn that were transferred from the APF to the Treasury. As Bank Rate has risen above the average interest rate paid on gilt holdings in the APF, the remaining stock of gilts held for monetary policy purposes in the APF result in higher interest rate costs, while active sales of gilts lead to realised valuation losses, so that these cashflows have now reversed.

In its March 2025 Economic and fiscal outlook, the Office for Budget Responsibility set out how these cashflows affect the Government's fiscal rules. As the OBR explains, the Government's 'stability rule' for the current budget, which is the rule met by the smallest margin of the Government's two rules, is affected only by the interest rate costs associated with the APF holdings.

[1] **Transitioning to a repo-led operating framework | Bank of England**

Selling APF-held gilts reduces the impact from the APF on the current deficit over time, with a faster pace of sales improving the current budget relative to a slower pace.[2] The August 2024 Monetary Policy Report sets out the principles guiding the MPC in its decisions on the pace of QT.[3]

The Bank's evolving operating framework

In parallel to the reduction of reserves through QT, the Bank will continue to provide a sufficient stock of reserves in the future to meet its broader objectives, including financial stability, while ensuring that the MPC's monetary policy decisions can be efficiently implemented through the setting of Bank Rate. For this purpose, the Bank launched a Short-Term Repo (STR) facility in 2022, which meets banks' demand for reserves once a week, against high quality collateral, at Bank Rate. Alongside drawings in the STR, the Bank expects our Indexed Long-Term Repo (ILTR) operation – which supplies reserves for six months at a time against a wide range of collateral – to supply the majority of reserves to the banking system over time, at or above Bank Rate.

So the Bank is transitioning to a framework where commercial banks source reserves to meet their liquidity needs through lending facilities, generally referred to as 'repos'. This means that a growing share of reserves will be backed by repos rather than by asset purchases. As these facilities are priced at or above Bank Rate, the transition means that the Bank will no longer be exposed to the increased interest rate risk which it took onto its balance sheet for monetary policy reasons through QE when Bank Rate was at its effective lower bound. As I have set out in a lecture at the London School of Economics, this risk is more efficiently managed by the private sector.[4]

As banks will be paying for the reserves they demand in this framework, we expect that our operations will generate positive income in the future. For example, the minimum price at which banks can source reserves for 6 months through the ILTR facility against so-called Level C collateral (such as loans) is Bank Rate plus 15 basis points. Over the duration of that loan, the Bank will remunerate the reserves lent at Bank Rate, while the commercial bank will pay the Bank 15 basis points more than that in return for the loan, thus generating a positive return for the Bank.

As set out in a recent joint statement with HM Treasury, these arrangements mean that the Bank will have the capital resources it needs to support its lending facilities in the future. Beyond that, the income generated through the provision of reserves through repos can lead to dividends paid to the Treasury in addition to the continuing seigniorage payments from bank note issuance.

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[2] **Economic and fiscal outlook – March 2025 - Office for Budget Responsibility**

[3] **Monetary Policy Report - August 2024 | Bank of England**

[4] **The importance of central bank reserves - lecture by Andrew Bailey | Bank of England**

The transition to a repo-led balance sheet is already underway, with currently over £73 billion of the current stock of approximately £695 billion of reserves being provided through repo operations. Over the next few years, the share of reserves in the system created in this way will increase further.

As we transition to a repo-led framework, we also expect banks' funding costs and asset allocation preferences to evolve. Commercial banks will consider the return on – and cost of – obtaining reserves from the Bank in their broader balance sheet management. We expect that as banks adjust to these terms of supply, they will review how many reserves they need to hold, how to fund them, and adjust their balance sheets accordingly. We will actively monitor how banks' balance sheets evolve and how this may interact with the transmission of policy to depositors or borrowers.

The transmission of higher policy interest rates

With this context, let me turn to the two papers referenced by Dr Sandher. Both papers argue that an abundant provision of reserves, combined with full remuneration, has weakened the transmission of higher interest rates via the impact on banks' profits, capital positions and lending capacity in the euro area.

I shall refrain from opining on developments in the euro area. But, in and of itself, such a development would be welcome from the perspective of the role that reserves play for financial stability. In the UK, for example, it would allow the MPC to let changes in Bank Rate in pursuit of the 2% inflation target work through the other channels of monetary policy transmission, including the demand for credit, without concern for excessive volatility in credit supply from the banking system.

More generally, monetary policy does not aim to maximize the strength of any particular transmission channel. Different channels have shown varying strengths at different times. For instance, our assessment in the August 2024 Monetary Policy Report indicates that the household cash-flow channel in the UK has been weaker in the recent hiking cycle than in the past, while the house price channel has been stronger.

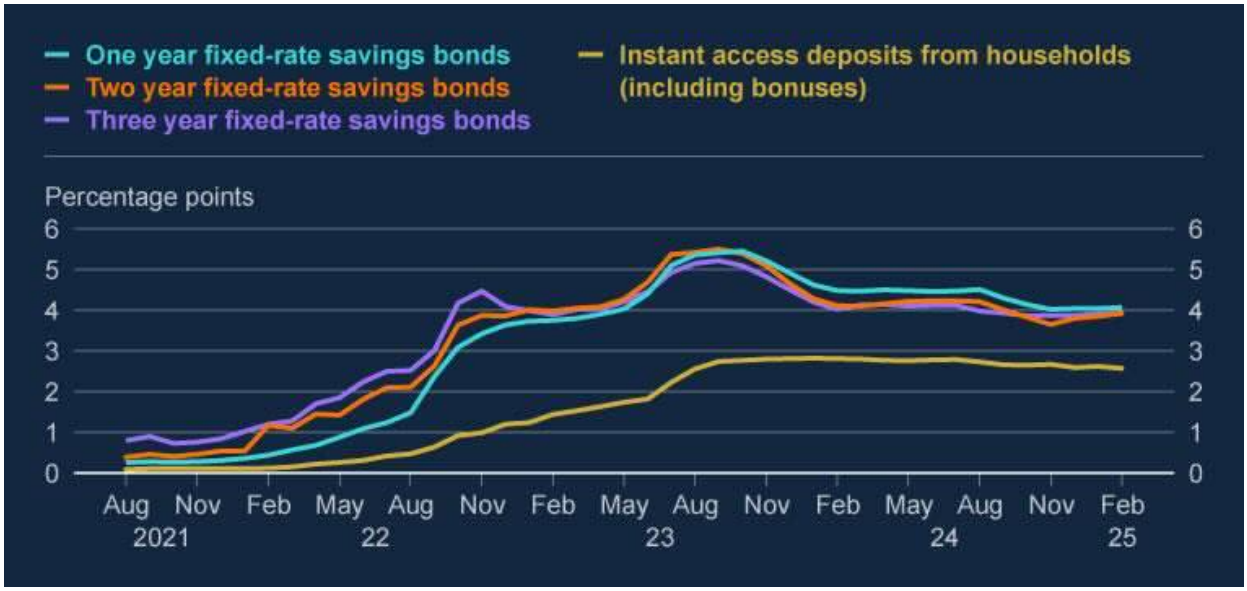
Moreover, while this is a beneficial macroprudential feature of the system, there are several reasons why reserve remuneration is unlikely to boost banks' profits to the extent suggested by the authors. Banks' liquid asset returns would have to increase more than the costs of their liabilities, raising their net interest margins (NIMs). The paper by Paul De Grauwe and Yuemei Ji, for example, relies on the strong assumption that commercial banks fund their reserve holdings with unremunerated demand deposits, implying that interest rate rises translate directly to profits via the remuneration of reserves.

But this is not in line with our observations of UK banks' behaviour. As discussed in my recent speech at Loughborough University, UK banks fund themselves with a mixture of remunerated retail and wholesale funding instruments, and the cost of funding via these instruments have been non-zero and varying over time.[5] As a consequence, the NIMs play an important role in delivering target returns on equity.

UK banks also use interest-rate hedging strategies to insulate their balance sheets from short-term movements in interest rates. These strategies extend to HQLA management. So the papers overstate the degree of income protection afforded by holding reserves relative to other forms of HQLA in the recent rate-hiking cycle.

During the recent policy tightening cycle, UK banks fully passed on increases in Bank Rate to term deposit rates. Pass-through to instant access (demand) deposit rates was partial, but this likely reflected a rebuilding of sight deposit spreads following a period of sustained compression when Bank Rate was close to the effective lower bound, see **Chart B**. Consistent with that, NIMs have varied over time. Recently they returned to historically more normal levels after falling to 2.3% while Bank Rate was close to zero. By the end of the hiking cycle, UK banks' NIMs had returned to 3.2%, in line with their pre-crisis levels of 3.1%, rather than reaching much higher levels, see **Chart C**.

Chart B: UK deposit rates during the tightening cycle

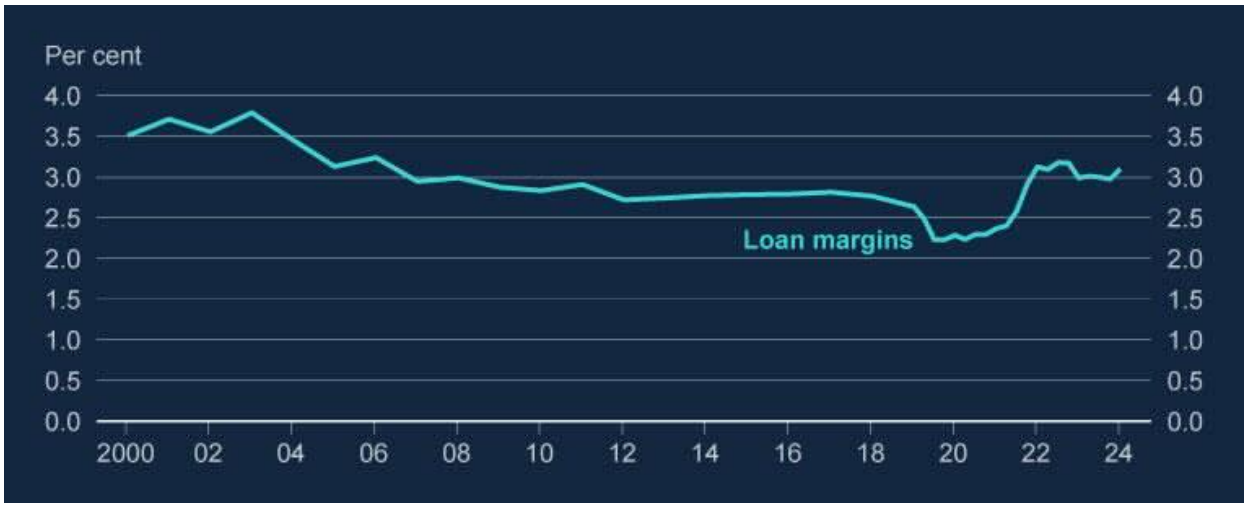


Source: Moneyfacts and Bank calculations.

[5] **Loughborough lecture: Banking today - speech by Andrew Bailey**

So to address your specific questions on the two papers, firstly, the Bank has not deemed it necessary to consider any potential weakening of the effects of tighter monetary policy through a stronger supply of credit in the United Kingdom. And secondly, it would not be appropriate for the Bank to make an assessment of the transmission channel through credit supply in the euro area. But the MPC does of course monitor the transmission of UK monetary policy and the various channels through which changes in Bank Rate are passed through to market interest rates and asset prices, aggregate spending in the economy and ultimately inflation.[6]

Chart C: Major UK banks' net loan margin



Source: Published accounts and Bank calculations. Loan margin is calculated as net interest income divided by total lending.

The proposal of two-tier remuneration of reserves

Finally, the two papers referenced by Dr Sandher also contain a proposal to reduce the remuneration of reserves via tiering the rate paid on reserves to strengthen the bank capital channel of monetary policy transmission.

As I have explained, we do not see the need for this channel to be strengthened. And in any event, we think that tiering would be unlikely to affect the bank capital channel as the authors suggest. To do so, tiering would have to incentivise banks to accept a substantial reduction in their NIMs for a given level of interest rates. It is not clear why this should be the case, and even if banks accepted a substantial reduction in their NIMs, we should nonetheless expect that tiering would reduce banks' demand for reserves in the future in ways that would offset the intended effects.

[6] See for example Box C in **Monetary Policy Report - August 2024 | Bank of England**

All else equal, if tiering was introduced, we would expect banks to reduce remuneration on their deposit liabilities or widen lending spreads to maintain a similar level of reserves without sacrificing NIM. In practice, this means that the cost of tiering would likely be passed on to customers rather than absorbed in bank profits. Not only does this make it unlikely that tiering would strengthen the bank capital channel, it could also increase uncertainty around other transmission channels through these effects on interest rates facing households and businesses. We should also expect firms to substitute away from reserves towards other forms of HQLA that would remain remunerated at, or close to, Bank Rate. Asset substitution of this form would counteract any effects on bank NIMs as banks' overall asset returns would be less affected. This is an important point. It would be wrong to conclude that the introduction of tiering would not lead to a change in behaviour by banks.

In addition, remuneration of reserves is a key component of the Bank's approach to ensuring rate control. Whenever a portion of reserves is unremunerated, a commercial bank would have an incentive to lend out those reserves at any rate above zero. This could lead to short-term rates trading at significant spreads below Bank Rate. The risk could be significant in any tiering design and increasing with the scale of tiering. Any loss of rate control would undermine the MPC's ability to affect the real economy with its interest rate decisions and could cause significant harm to credibility of monetary policy.

At the same time, there would be financial stability concerns if the way reserves were to be remunerated disincentivised banks from holding reserves for precautionary liquidity insurance reasons. For example, a change in remuneration of reserves could incentivise banks to reduce their demand for reserves below prudent levels, compromising liquidity management and potentially causing an undesirable scramble for reserves in times of stress. There would be additional risks if the Bank introduced a system of required reserves for the purpose of tiering, as proposed in the paper by Paul De Grauwe and Yuemei Ji, as introducing minimum reserve requirements could reduce banks' ability to utilise their liquidity buffers during stress, which is counter to our financial stability objective.

Internationally, some central banks do have tiering arrangements. The European Central Bank, for example, has historically operated with a small minimum reserve requirement, and some central banks used tiering to limit the impact of negative interest rates.

Our assessment is that such arrangements do not support the Bank's statutory objectives of monetary and financial stability. Moreover, introducing tiering for the purpose of raising revenue from banks should not be pursued through the central bank's balance sheet.

In response to your final question, proposals to reduce the remuneration of reserves through tiering have been made in the public debate. HM Treasury is well-aware of the Bank's position on this matter.

Yours sincerely,