

# Taking all the credit: Future-proofing money and credit policy for the 21st century

---

2026

A photograph of a crowd of people in winter clothing, including coats and hats, standing in front of the Bank of England and Big Ben in London. The image is overlaid with a semi-transparent orange filter. The Bank of England is on the left, and Big Ben is on the right. The crowd is in the foreground, and the buildings are in the background.

positivemoney

## **AUTHORS**

Simon Youel (Positive Money UK)

## **ACKNOWLEDGEMENTS**

The author would like to thank Sir Paul Tucker, Leah Downey, Eduard Karel de Jong and Andrew Jackson for useful comments and discussion on an earlier draft, as well as Danisha Kazi, Alec Haglund, Ellie McLaughlin, Joe Herbert, Paul Delaney, Sara Hall and Chloe Musto for helpful feedback and proofreading.

The responsibility for the content and any remaining errors remains exclusively with the author.

# Executive Summary

---

The UK monetary system is a public-private partnership in which private banks create credit that functions as money because the public central bank, the Bank of England, stands behind it. The Bank of England's power over private banks is based on its monopoly issuance of central bank reserves, the risk-free public money that is the ultimate source of liquidity in the economy.

As the Bank of England drains 'abundant' reserves with its reversal of quantitative easing, and the structure of the financial system continues to evolve with the growth of non-bank financial intermediation and new forms of money, the central bank is increasingly 'open for business' in lending reserves to a wider range of financial institutions. This necessitates greater public scrutiny of the terms on which the Bank of England uses its balance sheet, to answer the questions of who should benefit from central bank liquidity, as well as what assets should liquidity be provided against, and for what purpose? Or, put differently, **on what terms should the public underwrite private credit creation?**

Answering these questions requires a more conscious discussion of credit policy – the way in which public authorities guide the allocation of credit. Contrary to the illusion of market neutrality, credit policy already exists, but it currently functions through an intricate regulatory regime that prevents new models of banking and encourages regulatory arbitrage, while incentivising speculative lending for the purchase of existing assets, rather than productive investment in the real economy.

This paper outlines an approach to credit policy that would ensure the Bank of England is able to safeguard monetary and financial stability while supporting the UK economy's ability to transition beyond a stagnant low-investment model reliant on unsustainable asset price inflation, without sidestepping democratic accountability.

Core to such a regime would be allowing any issuer of money to access central bank funding if they are able to pre-position appropriate assets to cover all of their money-like liabilities. This would ensure uniformity in money and address regulatory arbitrage while facilitating much-needed investment in the real economy. Effectively, any regulated institution could 'create money' as long as, in doing so, they are financing new capital investment.

Regardless, as the financial system becomes increasingly reliant on borrowing from the central bank, the Bank of England's direct influence on the allocation of credit in the economy may unavoidably grow. The Bank should calibrate its provision of liquidity through its collateral framework and lending schemes to support capital-intensive investment that generates new income, such as renewable energy, which is otherwise more vulnerable to changes in monetary policy.

## Recommendations

- **Recommendation 1:** HM Treasury should commission a review of the UK's monetary and financial structures for the 21st century.
- **Recommendation 2:** The Bank of England should require banks and other issuers of money-like liabilities to pre-position sufficient collateral to fully cover demand deposits and other runnable liabilities, rather than imposing holding limits on new forms of money.
- **Recommendation 3:** The Bank of England should calibrate its provision of liquidity, such as through its lending schemes and collateral framework, to support sustainable 'cash flow'-based investment in new capital formation, while leaning against more speculative financing for the purchase of existing assets based on expected capital gains from asset price inflation.
- **Recommendation 4:** Parliament should be given the opportunity to express a view on which assets the Bank of England should provide liquidity towards by voting on a Preferred Asset Taxonomy.

# Contents

The first part of this paper briefly outlines the importance of the central bank's public provision of liquidity in supporting private credit creation, followed by a discussion of policy implications structured around answers to the following questions:

1. On what terms should the Bank of England provide liquidity?
2. Who should the Bank of England provide liquidity to?
3. Against what assets should the Bank of England provide liquidity?
4. To what purpose should the Bank of England provide liquidity?

Following this main part, a technical annex provides further background and expands on the paper's recommendations in more detail.

# Background

---

The UK monetary system is a public–private partnership in which privately created credit functions as money due to public support from the central bank. Public underwriting of credit creation is the source of banks’ profitability (Smythe, 2017).

The Bank of England accommodates and governs private credit creation through its monopoly supply of the risk-free central bank reserves that are required to settle payments. The provision of these reserves is the ultimate source of liquidity that the financial system and wider economy relies on.

The central bank uses its balance sheet to provide liquidity both directly through purchasing assets and lending reserves, as well as more indirectly, by standing ready to act as lender of last resort against collateral. The Bank of England’s acceptance of assets as collateral gifts them liquidity, as holders know they can rely on them to obtain funding. This public liquidity backstop reduces the cost of private liquidity, and the mere availability of central bank funding has a significant impact on conditions for private funding (Chavaz et al., 2026). This paper argues that the benefit of central bank liquidity in broadly reducing bank funding costs can and should be targeted towards particular types of lending.

As the UK’s monetary and financial system faces structural changes (Bank of England, 2026), with the growth of ‘shadow banking’<sup>1</sup> and new forms of money (see technical annex), the way in which the Bank of England provides liquidity must also evolve to reflect this.

As the Bank of England drains reserves by unwinding quantitative easing (QE), it is transitioning to a new framework in which it increasingly provides reserves through lending to a wider range of financial institutions (Bank of England, 2025a). As the Bank of England has sought to emphasise, it is increasingly ‘open for business’ as a lender (Saporta, 2024) – the question is the terms of this business. Who should the central bank be providing liquidity to, against what assets, and, ultimately, to what purpose?

This paper sets out an approach to answering these questions that would ensure the Bank of England is able to safeguard monetary and financial stability while supporting much-needed investment in the real economy and a more diverse banking system, without sidestepping democratic accountability. More widely, it stresses the need for **HM Treasury to commission a comprehensive review of the UK’s monetary and financial structures and their relationship with the wider economy**, in line with those produced by the MacMillan, Radcliffe and Wilson Committees in the 20th century.

---

<sup>1</sup> ‘Shadow banking’ refers to bank-style financial intermediation by non-bank financial institutions (NBFIs). NBFIs have grown to account for around half of total UK financial assets, and now account for more than half of corporate credit. See Bank of England (2025): [Financial Stability Report - December 2025](#).

# 1. On what terms should the Bank of England provide liquidity?

As recommended by the G30's report on the lessons from the 2023 bank failures, central banks' provision of liquidity should be based on banks pre-positioning sufficient collateral to cover their 'runnable' liabilities (G30, 2024). Rather than current proposals to impose holding limits on new forms of money, **the Bank of England should ensure the uniformity of the UK monetary system and mitigate regulatory arbitrage risks by requiring any issuer of money-like liabilities (whether a bank or 'shadow bank') to pre-position sufficient collateral to cover their demand deposits and other runnable liabilities.**

If Bank of England liquidity is provided against collateral pre-positioned at the central bank, the terms of central bank liquidity would depend on the eligibility of assets as collateral, and any 'haircuts' applied. Haircuts represent a percentage reduction applied to the value of an asset when determining how much can be borrowed against it as collateral. For example, if an asset with a value of £1m is eligible as collateral with no haircut, a bank could use it to cover the £1m of deposits it creates to finance the purchase of the bond, but with a 10% haircut the asset would only cover £900,000 of deposits, and the bank would have to use other sources of funding, which could include longer-term wholesale funding, time deposits, equity or funding from the central bank. Assets that are ineligible as collateral would effectively be subject to a 100% haircut. This would have the effect of ensuring that the 'money-financed maturity transformation' of bank credit creation only benefits assets that policymakers deem to be sufficiently comprehensible and/or 'socially useful' (Tucker, 2019).

Such a pre-positioning regime would rebalance the public-private partnership of our monetary system. It would ensure that any private institution that benefits from the publicly-subsidised privilege of money-financed maturity transformation, issuing short-term liabilities to finance higher-yielding assets, can do so as long as those assets are acceptable to the public, which stands behind those liabilities via the central bank. In theory, this could mean any regulated institution would be able to 'create money' as long as, in doing so, they are financing new investment in the capital development of the economy.

A full pre-positioning approach also has the advantage of simplifying the intricate regulatory regime that has built up around the banking system, which not only favours large incumbent banks, but also encourages the shifting of risk to less-regulated 'shadow banks' (Haldane, 2012; Behn et al., 2016; Plantin, 2015). This regulatory regime also discourages banks from supporting longer-term investment in the real economy, where goods and services are produced. Alongside the pre-positioning regime, complex risk-weighted capital requirements and the Liquidity Coverage Ratio (which requires banks to hold 'high-quality liquid assets' depending on the make-up of their liabilities) could be replaced with a simple leverage ratio. A more uniform pre-positioning regime also addresses regulatory arbitrage, where lending is securitised and rehypothecated onto the balance sheets of 'shadow banks', as pledged collateral would stay on the balance sheet of the counterparty benefiting from central bank liquidity.

## 2. Who should the Bank of England provide liquidity to?

---

Access to the Sterling Monetary Framework, and therefore the Bank of England's 'liquidity umbrella', should be open to any regulated issuer of short-term 'money-like' liabilities, provided that they fully cover these liabilities with central bank reserves or eligible collateral pre-positioned at the central bank, as above.

Such a shift to full pre-positioning would allow the Bank of England to safely reduce the complexity of the UK regulatory regime, which favours large incumbent institutions. This would enable smaller institutions with different business models to enter the market, providing much-needed diversity to Britain's highly concentrated financial system, which is currently dominated by a small number of large shareholder banks.

## 3. Against what assets should the Bank of England provide liquidity?

---

Central banks set the lowest haircuts for government bonds, making such assets highly sought after collateral. However the outstanding stock of gilts is around £2.8tn<sup>2</sup>, and much of those gilts are already held by non-banks, such as pension funds, for which they are relied on as safe assets. Meanwhile, there are currently around £2.2tn of demand deposits in the UK,<sup>3</sup> while the amount of runnable liabilities is likely much higher, with Total Eligible Liabilities used to calculate the Bank of England Levy standing at nearly £3.3tn in 2025/26 (Bank of England 2025b). Therefore, absent a significant increase in government borrowing, the supply of gilts may be insufficient. Banks would likely have to pre-position a wider range of assets, and the central bank may have to adjust its collateral framework to reflect this. Rather than the current 'micro'-prudential approach, what assets the Bank of England provides liquidity against should be informed by the principles of macro-prudential policy,<sup>4</sup> which considers wider impacts on the financial system and real economy.

A key lesson from the global financial crisis is that central banks should take a macro-prudential approach, which recognises that different categories of credit perform different functions and that the impact of policy on the wider economy and society will vary according to which category of credit it affects (Turner, 2010). Though macro-prudential policy has tended to be associated with tools such as capital requirements, it is pertinent to the wider credit policy regime, including monetary policy, as the elasticity of response to interest rates can vary significantly for different types of credit and across sectors.

Investment in new capital stock is more sensitive to changes in interest rates, and this is especially the case for projects with long gestation periods which intend to repay debts with future project cash flows, such as new infrastructure. A rise in short-term rates can therefore lead to a marked increase in the supply price of such investment goods (Minsky, 2008 [1986]). Meanwhile, if expectations of asset price inflation have become embedded, higher interest rates are ineffective in dissuading borrowing to realise medium-term capital gains (Turner, 2010). This differing sensitivity to monetary policy helps explain why the increase in interest rates from 2021 harmed productive investment in sectors such as renewable energy (Martin et al., 2024), while appearing

---

<sup>2</sup> Debt Management Office Gilts in Issue. This does not include shorter-term UK Treasury bills (T-bills), of which there is a much smaller issuance (currently around £100bn), though HMT and the DMO have proposed to expand the T-bill market.

<sup>3</sup> Bank of England series [LPQVWYE](#)

<sup>4</sup> Whereas 'micro'-prudential policy focuses on risks to individual firms, macro-prudential policy considers risks to the entire system as a whole.

to do little to arrest the growth of prices for assets such as commodities and stocks.<sup>5</sup> As such, when the central bank raises interest rates it is providing more harm to capital investment than it is to more speculative financing. The central bank's provision of liquidity should therefore be adjusted to reflect this, if the UK is to break out of its stagnant low-investment economic model which is reliant on unsustainable asset price inflation (Kortis et al, 2026).

One way of distinguishing between 'productive' and 'speculative' credit is via the expected source of funds for repayment. Productive credit is mostly secured against the borrower's ability to repay out of future cash flows from new investment, while speculative borrowing is mostly secured against the value of existing assets and relies more on expected capital gains for repayment. Contrary to the current regulatory regime, which treats lending secured against existing assets as lower risk, a truly macro-prudential approach should recognise that only when credit is used to finance useful new capital investment does it generate the additional income flow required to make the debt certainly sustainable (Turner, 2016).

**The Bank of England's provision of liquidity, through its lending schemes and collateral framework, should therefore support more sustainable 'cash flow'-based investment, such as in renewable energy, new housing and other additions to capital stock, while leaning against more speculative financing for purchases of existing assets based on expectations of capital gains from asset price inflation.**

There are successful historical precedents for this approach. An emphasis on cash flow lending was utilised by the Industrial and Commercial Finance Corporation (ICFC), supported by the Bank of England, and its success in unlocking investment for SMEs in post-war Britain offers a useful case study for addressing the same issues plaguing the UK economy today (McEvoy et al., 2025). Public financial institutions, such as the National Wealth Fund (NWF) and the British Business Bank (BBB), may be well-placed to play a similar role in facilitating cash flow-based investment, perhaps in conjunction with relationship-based lenders (da Silva Gomes et al., 2026), supported by access to refinancing from the Bank of England. For instance, the NWF, BBB and/or more specialised lenders, who are able to assess the future earning potential of applicants, could be supported to extend such financing by being able to draw on term funding from the central bank, using the newly created loan asset as collateral.

## 4. To what purpose should the Bank of England provide liquidity?

Changing the terms on which the Bank of England provides liquidity inevitably affects the allocation of credit in the economy, raising the question of whether policy should aim for 'neutrality' or whether there should be a more allocative credit policy guided by public purpose (Kedward et al., 2022). Yet contrary to the illusion of 'market neutrality', central banks are always involved in allocative credit policy through their provision of liquidity and regulation of the financial system. The current interaction of credit policy with the composition of the UK financial system means that the allocation of credit in the UK is strongly biased towards lending for the purchase of existing assets, particularly property (Bezemer et al., 2021), with only 6.6% of net new credit going towards productive industries in the real economy in 2025 (Haglund, 2026). This has left countries like the UK reliant on less sustainable asset price inflation, with worrying implications for macro-prudential stability (Jordà, et al., 2014).

<sup>5</sup> It also helps explain why the manipulation of short-term interest rates is typically a suboptimal tool for managing inflation in an endogenous monetary system, as has long been argued by economists from the post-Keynesian tradition.

The allocation of credit, which represents the creation of new purchasing power, should not be insulated from democratic policymaking. Beyond the Bank of England following the macro-prudential principles outlined above, central bank policies affecting the allocation of credit should be guided by elected representatives. **Parliament should therefore be given the opportunity to express a view on which assets the Bank of England should provide liquidity towards by voting on a Preferred Asset Taxonomy** (Downey, 2025), which the Bank could use as a basis for setting haircuts in a pre-positioning regime. This would ensure that the Bank of England's decisions are not insulated from democratic accountability even while the central bank retains operational independence.

## Conclusion

The proposals outlined above would have the combined effect of rebalancing the public-private partnership of the UK's monetary system so that public underwriting of private credit creation is made explicit and can be harnessed to support public purpose through a more conscious credit policy.

A credit policy regime based on pre-positioning would have the advantages of safeguarding the uniformity of money and addressing regulatory arbitrage risks, while also enabling safe financial innovation and supporting much-needed investment to transition the UK's economic model from dependency on unsustainable asset price inflation.

Even in the absence of a shift to full pre-positioning, incorporating the macro-prudential lessons from past crises means that the Bank of England's public backstopping of liquidity can and should be targeted towards particular types of credit. As a starting point, the Bank of England's provision of liquidity, both directly through funding schemes, and indirectly through its collateral framework, should be adjusted to support investment that generates new income to repay debt, while leaning against financing for the purchase of existing assets based on expectations of asset price inflation. Beyond this, democratically elected politicians, who are less insulated from public accountability, should guide central bank credit policy through a Preferred Asset Taxonomy.

# Technical annex

## Background: The evolution of the UK's monetary and financial structures

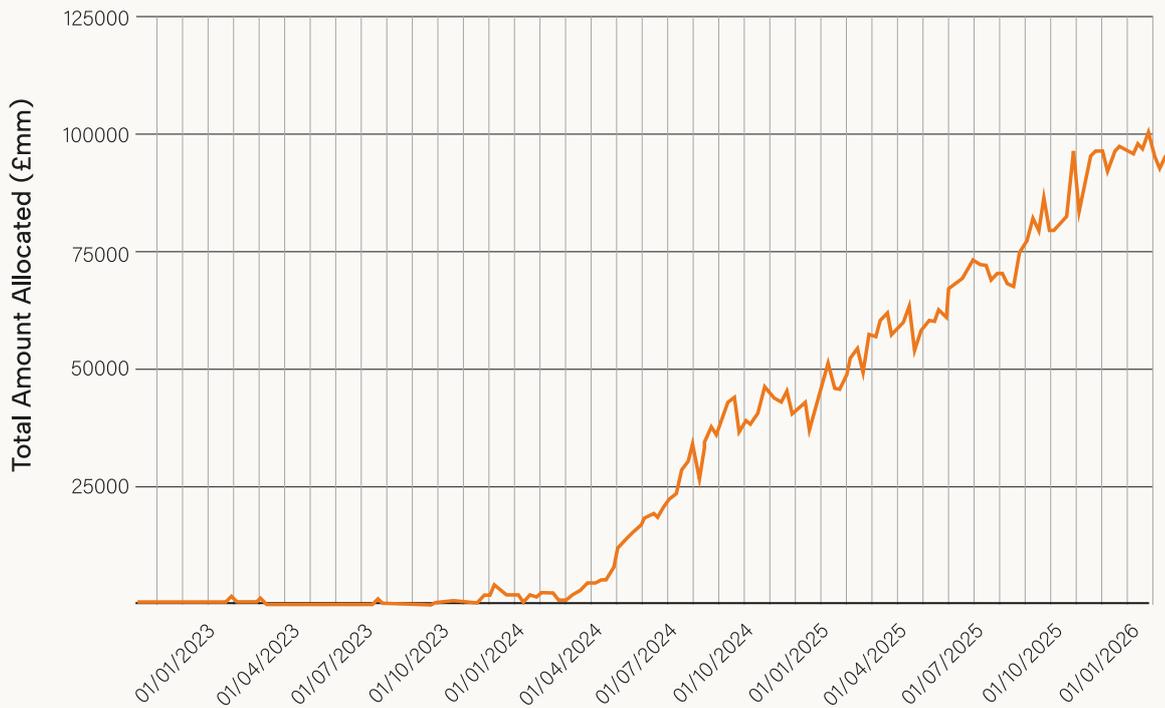
The task of increasing much-needed investment in the UK economy has been hampered by misconceptions around money and banking. Despite what is implied in popular discourse, there is never 'not enough money', and investment does not depend on the existence of pre-accumulated savings. In today's economy, money, but not necessarily liquidity, is created on demand to finance spending in excess of income, and liquidity can be provided by central bank accommodation (Wray, 1990). There can often be 'too much' money inflating asset prices, given that the vast majority (85% in 2025) of bank credit is created to finance the purchase of existing assets, namely property (Haglund, 2026). The real constraint is usually whether there is suitable collateral for credit to be created against, and the degree to which assets are accepted as collateral therefore governs credit creation in the UK economy.

In the public-private partnership of the UK monetary system, private banks create new credit when they lend (McLeay et al., 2014), which functions as money due to accommodation from the public central bank, the Bank of England (BoE). The BoE manages such a 'fiat' monetary system, in which banks can create credit money 'out of nothing', through its role as the monopoly supplier of the risk-free central bank reserves that banks need to settle payments, which provides the ultimate liquidity to the system. It is the ability of other assets to be used to obtain these reserves that provides the liquidity enabling the financial system and the wider economy to function.

Access to central bank funding lowers banks' funding liquidity risk, allowing them to borrow more cheaply from wholesale lenders. As a recent Bank of England working paper noted, the mere availability of central bank funding reduces the cost of private wholesale funding and suggests that "central bank funding schemes can be significantly more powerful than previously established" (Chavaz et al, 2025). This paper argues that this ambient 'equilibrium' benefit of central bank liquidity in broadly reducing bank funding costs can and should be targeted towards particular types of lending.

The way in which the central bank provides liquidity has evolved over time. More recently, the Bank of England has provided a 'wall of liquidity' since the introduction of quantitative easing (QE) in 2009, through which central bank asset purchases flooded the banking system with hundreds of billions of pounds of reserves. Now, as the BoE unwinds QE, it is transitioning to a repo-based framework (Bank of England, 2025a), in which reserves are less abundant and increasingly supplied through lending facilities, rather than asset purchases like QE. As figure 1 shows, the Bank of England's lending of reserves through its Short Term Repo facility has grown significantly since its introduction in 2022, with lending reaching over £100bn in February 2026, reflecting a greater scarcity of reserves.

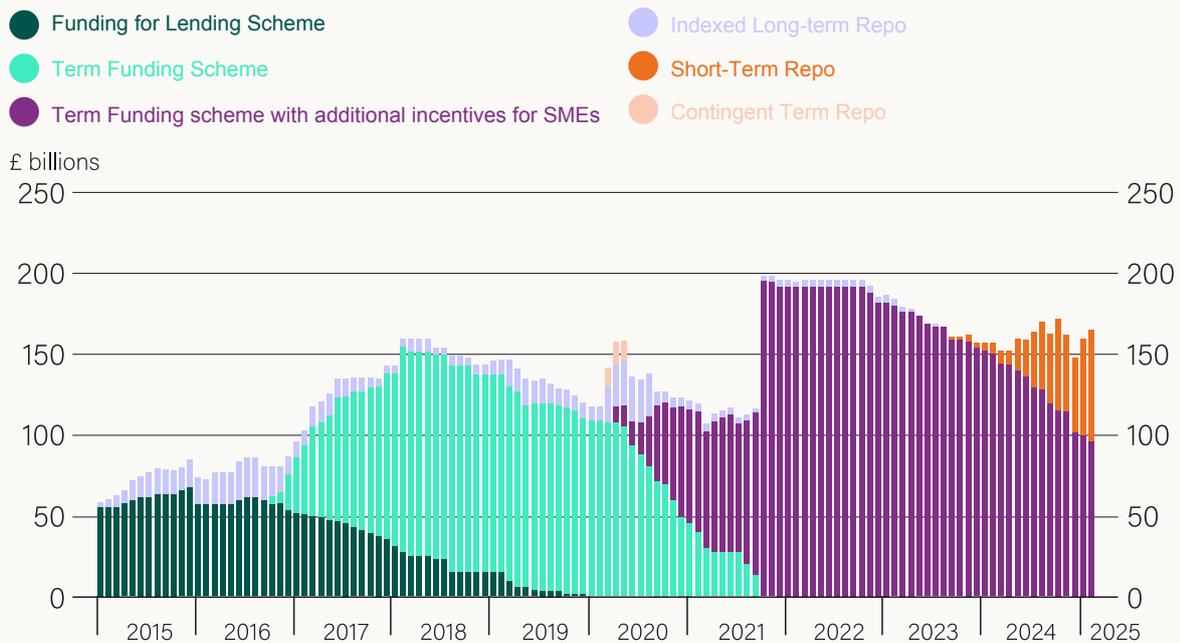
**Figure 1:** Bank of England Short-Term Repo usage October 2022 – February 2026



Source: Bank of England

Therefore, as the central bank winds down its asset purchases, the Bank of England ‘is open for business’ as a supplier of reserves, as officials have sought to emphasise (Saporta, 2025). As figure 2 below shows, Short-Term Repo borrowing accompanies increased usage of a wider range of central bank liquidity facilities and funding schemes in recent years.

**Figure 2:** Outstanding amounts lent in Sterling Monetary Framework liquidity facilities and funding schemes 2015–2025

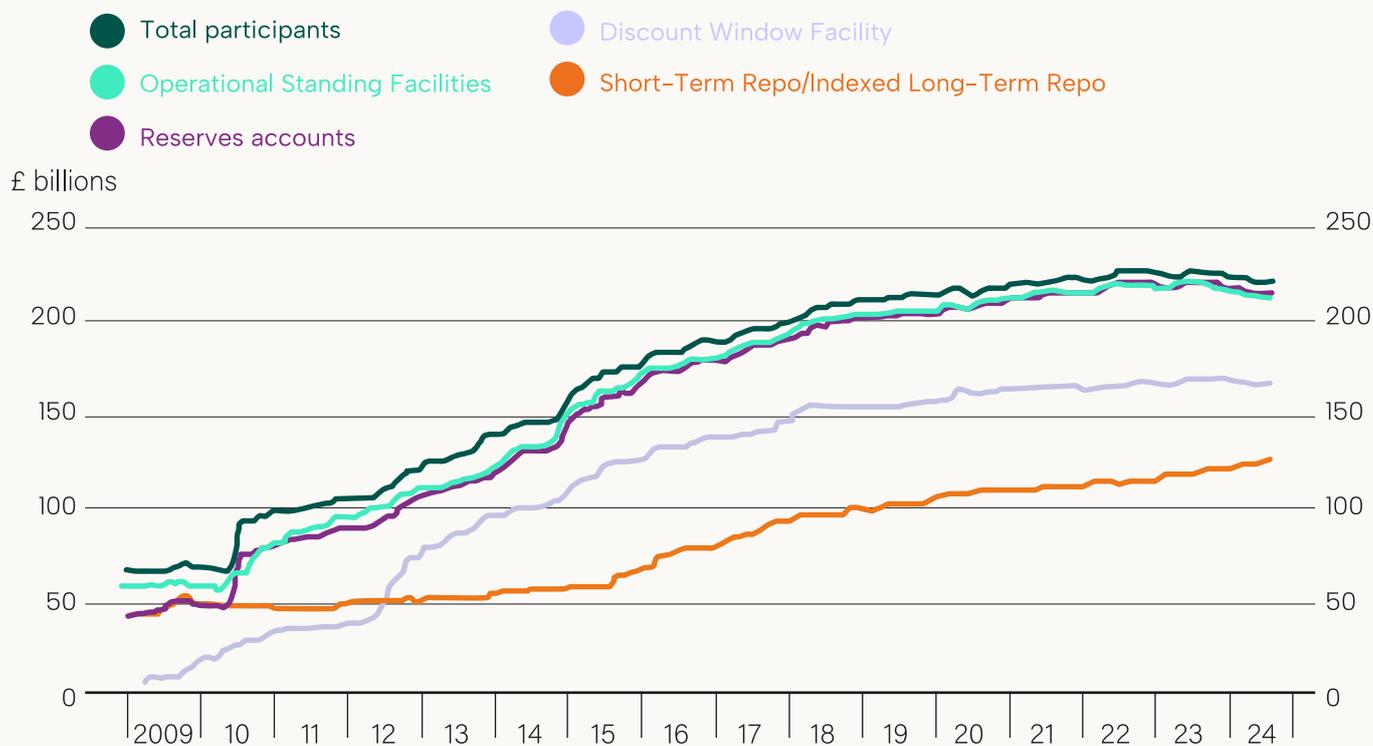


Source: Bank of England

As shown in figure 2, much of UK banks' borrowing from the central bank in recent years has taken the form of refinancing schemes, such as the Bank of England's Funding for Lending Scheme (FLS) and Term Funding Schemes (TFS), in which the central bank provides term funding below market rates to lenders if they extend credit to households and businesses in the real economy (Churm, et al., 2012; Nardi et al., 2018). The Bank of England's 'neutral' approach means these schemes have had the principal effect of supporting mortgage lending, which has inflated house prices (Kazi and Macfarlane, 2022), though the Bank of England introduced a Term Funding Scheme with additional incentives for SMEs (TFSME) during the COVID-19 pandemic (Bank of England, 2020). This has opened up a robust case for the Bank of England to introduce 'green' term funding schemes targeting renewable energy, to safeguard price stability with lower energy costs while also meeting the Bank's secondary objective to support government policy, including the transition to Net Zero (Krebel and van Lerven, 2022).

Yet with the growth of non-bank financial intermediation (often characterised as 'shadow banking'), and with new forms of money poised to 'disintermediate' the banking sector, the central bank may have to open out its 'liquidity umbrella' to cover an increasingly wide range of institutions. The Bank of England has thus introduced a Contingent Non-Bank Financial Institution Repo Facility, which provides liquidity for a wider range of financial institutions, including insurers, pension schemes and other investment funds (Bank of England, 2025c). As figure 3 illustrates, the number of institutions with Sterling Monetary Framework membership, and thus benefitting from access to Bank of England liquidity facilities, has increased from less than 100 in 2010, to 220 in 2025 (Bank of England, 2025d). Looking ahead, there is also the prospect of a wider range of fintech operators, including stablecoin issuers, being given access to the central bank's balance sheet (Bank of England, 2025e).

**Figure 3: Sterling Monetary Framework Membership**



Source: Bank of England

New forms of money, including a publicly-issued digital pound and privately issued stablecoins, are also positioned to outcompete bank deposits as means of payments, offering greater efficiency, resilience, functionality and ultimately lower costs than bank payment rails. Though the term ‘disintermediation’ is often misleading, as banks don’t simply intermediate between savers and borrowers but instead create credit (Jakab and Kumhof, 2015), such a shift would displace the role of bank credit creation in the economy (Arnold, 2025). The adoption of new forms of money would represent a shift from bank liabilities (deposits) to liabilities of the central bank (just like physical cash), and any loss of deposit funding could be offset by ‘passthrough’ funding provided by the central bank (Niepelt, 2025). The question is against what assets, and on what terms, funding is provided.

Meanwhile, as central bankers navigate shifts in money and banking, politicians are currently pursuing deregulation of the financial sector, motivated by a belief that regulation since the global financial crisis has hindered growth (Kotucha, 2025). The incoming chair of the Federal Reserve has criticised globally-agreed regulatory and supervisory standards and called for a new regulatory regime, which he suggests could support small and medium-sized banks and increase credit allocation to the real economy (Warsh, 2025). Any such reforms to regulatory frameworks would likely be mirrored in other jurisdictions.

There is an opportunity for the developments outlined above to open a path towards a financial system that can provide safe means of payment while also facilitating longer-term investment in the capital development of the economy. This would require a holistic approach to monetary, financial and credit policy, as argued for below.

### **Recommendation 1:** HM Treasury should commission a review of the UK’s monetary and financial structures for the 21st century

In its 2013 review of the monetary policy framework, HM Treasury committed to publishing a subsequent review by the end of 2019 (HM Treasury, 2013). As of 2026 no such review has materialised. Yet the current framework has come under increased pressure, with the Bank of England’s chronic failure to meet its inflation target through the use of its monetary policy toolkit since 2021.

The Bank of England’s transition to a repo-based framework makes such a review all the more urgent. Moreover, wider developments, as discussed above, such as the growth of non-bank financial intermediation, as well as the introduction of new forms of money, necessitate a more expansive review. HM Treasury should therefore commission a review which brings together expertise from academia, civil society and trade unions, as well as industry, to evaluate the UK’s monetary and financial structures, and their relationship with the wider economy.

In the UK there had been such reviews at regular intervals in the 20th century, such as the Macmillan Committee on Finance and Industry following the depression of the 1920s, the Radcliffe Report of the Committee on the Working of the Monetary System of the 1950s, and the Wilson Committee’s Review of the Functioning of Financial Institutions published in 1980. A review of this kind for the 21st century would help clarify the relationship between the Bank of England and other institutions as the UK’s monetary and financial structures continue to evolve and previous arrangements come under increasing strain. It could provide answers to questions such as who should get access to the Bank of England’s balance sheet and on what terms, and the extent to which the central bank can and should use its tools to shape the allocation of credit in the economy, and how this interacts with its objectives for monetary and financial stability.

**Recommendation 2:** The Bank of England should require banks and ‘shadow banks’ to pre-position sufficient collateral to fully cover demand deposits and other runnable liabilities, rather than imposing holding limits on new forms of money.

Even in the absence of a review of the kind recommended above, the Bank of England will still need to manage the aforementioned developments in the UK’s monetary and financial structures. A shift towards ‘asset-based’ regulation, which focuses on the asset side of financial institutions’ balance sheets, rather than the liability side, provides an optimal regime for central banking in the 21st century.

As recent banking crises have illustrated, attempts to regulate banks via the liability side of their balance sheet (where deposits used as money sit) are deeply flawed, as public authorities are forced to subsidise and/or bail out private banks, to preserve the uniformity of money that the financial system and the wider economy depends on. To prevent a fracturing of the monetary system, and mitigate regulatory arbitrage risks, it is more appropriate for regulation to be focused on the other side of bank balance sheets – the assets they hold against the credit they create.

### The case for pre-positioning requirements

As the role of collateralised lending increases, the Bank of England has encouraged greater ‘pre-positioning’ or ‘pre-pledging’ of assets at the central bank, which would serve as collateral for banks to access reserves against (Saporta, 2024). This would allow reserves to be drawn upon on demand, against assets posted as collateral on pre-agreed terms, enabling banks to hold longer-term assets without the risk of such assets having to be sold at fire-sale terms during stress. Though pre-positioning is currently optional, introducing requirements could provide a more optimal regime for ensuring that the financial system is able to provide safe means of payments while supporting the longer-term capital development of the economy.

The G30’s report on the lessons of the 2023 bank failures recommended requiring banks to pre-position sufficient collateral at the central bank to cover all of their ‘runnable liabilities’, which is defined as all liabilities, except capital, senior and subordinated debt with more than one year remaining until maturity, swap liabilities and fully insured deposits (G30, 2024). For illustrative purposes, this is similar to the measure of banks ‘Total Eligible Liabilities’ (TEL) used to calculate the Bank of England levy, and effectively represents the balance-sheet risk banks contribute to the financial system, and the liabilities the central bank stands behind. The value of TEL stood at nearly £3.3tn in 2025/26 (Bank of England, 2025b). As of February 2025, the aggregate value of collateral held at the Bank of England was £557bn, of which £390bn was unencumbered pre-positioned collateral (Bank of England, 2025d). This would mean banks have currently pre-positioned collateral covering little more than a tenth of eligible liabilities, even before accounting for haircuts, and would therefore need to increase their pre-positioning of collateral to meet the G30’s recommendation.

There have also been calls, including by ex-Bank of England officials such as former governor Lord Mervyn King and former deputy governor Sir Paul Tucker, for banks and shadow banks to pre-position sufficient collateral to fully cover 100 per cent of demand deposits, as well as other runnable liabilities (King, 2023; Noonan, 2023).<sup>6</sup> Such a ‘full prepositioning’ regime would have the advantage of ensuring uniformity in money, as all forms of money issued in sterling would be made equally secure, addressing the fragmented nature of the monetary system, which fuels regulatory arbitrage risks.

<sup>6</sup> For an illustration of how this would work, see: Dyson, B. (2016): <https://positivemoney.org/uk/archive/mervyn-kings-pawnbroker-for-all-seasons-explained/>.

Most pertinently to the bank failures of 2023, it would reduce moral hazard, avoiding situations where policymakers are suddenly forced to scrap deposit insurance limits and haircuts on central bank lending to prevent a wider crisis. Instead, full deposit insurance is made explicit and liquidity is provided on pre-agreed terms against appropriate assets. Effectively, private financial institutions would be able to benefit from central bank liquidity and public underwriting of their liabilities in return for greater public discretion over the asset-side of their balance sheet, addressing the tendency for rewards to be privatised and risks socialised in the public-private partnership of the monetary system.

Full pre-positioning could also drastically simplify the overly complex regulatory regime that has been built around banking, which has encouraged banks to prioritise speculative lending against pre-existing assets, and stoked 'regulatory arbitrage' where activity has shifted to less regulated shadow banks – non-banks, such as hedge funds, pension funds and other asset managers, which also engage in bank-like maturity transformation, financing portfolios of longer-term assets by issuing short-term liabilities. For instance, pension funds in the UK are able to 'roll their own bank', using short-term repo to generate liquidity against their portfolio of government bonds, and using the proceeds to fund positions in riskier assets, which infamously culminated in a liability-driven investment (LDI) crisis in Autumn 2022 (Tucker, 2024). Currently, attempts to regulate the banking sector can be circumvented by banks shifting loans off their balance sheets and onto the balance sheets of non-banks who are subject to less supervision, meaning that risks are pushed to other parts of the financial system rather than eliminated. In providing a unified regulatory regime if applied to all issuers of money-like liabilities, whether banks or shadow banks, pre-positioning would also address the securitisation and rehypothecation that feeds shadow banking, as pledged collateral would stay on the balance sheet of the counterparty benefiting from central bank liquidity.

Such asset-side liquidity regulation would be well-suited to managing the continually evolving nature of the financial system, particularly the transition to digital fiat currency. Especially with a suitable pre-positioning regime in place, there should be no issue with the financial system managing any quantity of deposits being converted into new forms of money, with 'passthrough' funding (Niepelt, 2025) provided by the central bank. This would eliminate the need for the holding limits proposed by central banks, which could undermine the utility of digital currency (Kumhof and Noone, 2018). Neither should the transition to digital currency harm the future provision of credit to the economy. Banks could be authorised to extend digital currency overdrafts to successful loan applicants, with the funds obtained from the central bank via secured lending collateralised by the newly created loan asset (Grey, 2019). Doing so would have a number of advantages, including increasing the effectiveness of regulatory supervision if banks are required to pledge their entire loan book as collateral in exchange for digital currency overdrafts.

Pre-positioning would also make it safer for a wider range of financial institutions to benefit from central bank liquidity. It would allow the Bank of England to safely reduce the complexity of the UK regulatory regime, which favours large incumbent institutions. This would enable smaller institutions with different business models to enter the market, providing much-needed diversity to Britain's highly concentrated financial system, which is currently dominated by a small number of large shareholder-owned banks.

Far from being an alien idea, supervising the financial system through the management of collateral would resemble the Bank of England rediscovering the role it played in the 19th century, where it operated primarily by buying and lending against bankers' acceptances (Tucker, 2019). A system of rediscounting eligible commercial paper at the central bank historically allowed the banking system to be responsive to the needs of the economy, and could today help build a financial system that is not only safe and secure but able to facilitate the capital development of the economy (Minsky, 1994).

## Collateral and credit policy

With pre-positioning in place, the public will be able to benefit from new safe forms of money, and the provision of liquidity through the central bank's discount window would return as a mechanism for governing the financial system. The collateral framework, which sets the terms of lending via the central bank discount window, would become a key terrain of credit policy.

In a full pre-positioning regime recommended above, 100% of the face value of short-term liabilities, such as demand deposits, would need to be covered by central bank reserves or assets eligible at the central bank window, discounted to the value attributed to them by the central bank (the haircut). Below is a simplified illustrative example of how a bank could increase lending under such a regime.

### T1: The bank is funding a portfolio of gilts and reserves which have a 0% haircut with time deposits and equity

| Assets                            | Liabilities            |
|-----------------------------------|------------------------|
| 90 gilts (0% haircut)             | 90 time deposits       |
| 10 reserves (0% haircut)          | 10 equity              |
| Value of eligible collateral: 100 | Required collateral: 0 |

### T2: The bank uses its eligible collateral to issue demand deposits to fund loan assets with a 50% haircut

| Assets                            | Liabilities              |
|-----------------------------------|--------------------------|
| 90 gilts (0% haircut)             | 90 time deposits         |
| 100 loans (50% haircut)           | 100 demand deposits      |
| 10 reserves (0% haircut)          | 10 equity                |
| Value of eligible collateral: 150 | Required collateral: 100 |

### T3: The bank continues to use its surplus of eligible collateral to issue more demand deposits

| Assets                            | Liabilities              |
|-----------------------------------|--------------------------|
| 90 gilts (0% haircut)             | 90 time deposits         |
| 150 loans (50% haircut)           | 150 demand deposits      |
| 10 reserves (0% haircut)          | 10 equity                |
| Value of eligible collateral: 175 | Required collateral: 150 |

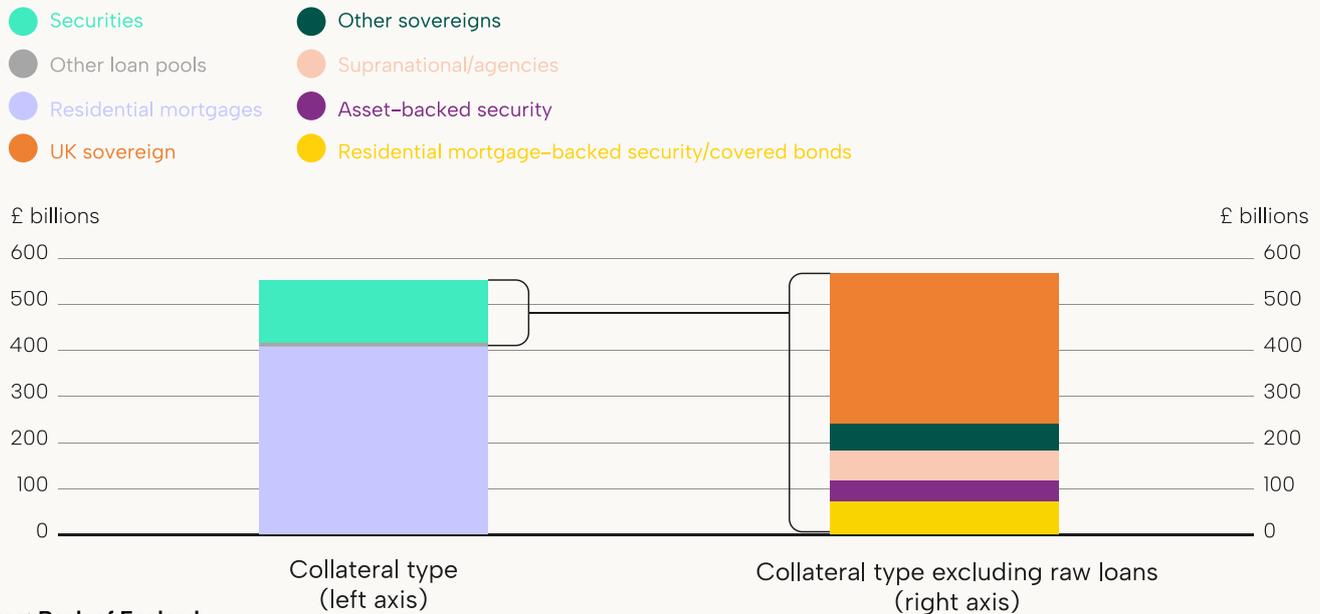
Central banks set haircuts lowest for government bonds, making such assets sought after collateral. However the outstanding stock of gilts is around £2.8tn,<sup>7</sup> and much of those gilts are already held by non-banks, such as pension funds, for which they are relied on as safe assets. Meanwhile, there are currently around £2.2tn of demand deposits in the UK,<sup>8</sup> while the amount of 'runnable liabilities' is likely much higher, with Total Eligible Liabilities used to calculate the Bank of England Levy standing at nearly £3.3tn in 2025/26 (Bank of England, 2025b). Therefore, absent a significant increase in government borrowing, the supply of gilts may be insufficient. Banks would likely have to pre-position a wider range of assets, and the central bank may have to adjust its collateral framework to reflect this.

<sup>7</sup> Debt Management Office [Gilts in Issue](#). This does not include shorter-term UK Treasury bills (T-bills), of which there is a much smaller issuance (currently around £100bn), though HMT and the DMO have proposed to expand the T-bill market.

<sup>8</sup> Bank of England series [LPGVWYE](#)

As figure 4 shows, residential mortgage collateral makes up over three-quarters of collateral delivered to the Bank of England. The vast majority of the remainder consists of securities, including most prominently UK government securities,<sup>9</sup> as well as residential mortgage-backed securities/covered bonds, supranational/agency securities, asset-backed securities, and other sovereign securities. A very small proportion of collateral holdings takes the form of raw loans.

**Figure 4:** Collateral holdings broken down by collateral type (average market value)



Source: Bank of England

With asset-side regulation like full pre-positioning in place, central banks would have more room to lower interest rates without risking macrofinancial instability. Lower interest rates may be necessary to manage the difficulties of high debt and low growth, which are set to only become more pronounced in the future as the economy faces growing challenges such as an ageing population and higher costs from environmental crises (Jackson and Jackson, 2025). While, as Keynes emphasised, money should be ‘cheap’ (Tily, 2010), this does not mean it should be ‘easy’. Policy should ensure that the money-financed maturity transformation of banking supports the capital development of the economy, a job which Keynes warned would be ‘ill-done’ if “enterprise becomes the bubble on a whirlpool of speculation” (Keynes, 1936). This requires credit policy that leans against more ‘speculative’ finance while supporting productive investment, as argued for below.

**Recommendation 3:** The Bank of England should calibrate its provision of liquidity, such as through its lending schemes and collateral framework, to encourage sustainable cash-flow-based investment in new capital formation, while discouraging more speculative finance based on expected capital gains from asset price inflation.

### The importance of macro-prudential policy

As outlined above, the increased role of the central bank in providing liquidity via collateral makes the question of what assets are accepted as collateral, and with what haircuts, profoundly important.

<sup>9</sup> Gilts are not typically pre-positioned in large quantities since they are used by firms in their trading in private markets and can be delivered to the Bank of England at very short notice if needed, as the Bank notes. However banks would likely rely more on government securities, including gilts, to meet pre-positioning requirements if introduced, due to the low haircuts.

The central bank could apply a narrow micro-prudential risk-based approach to collateral, as is the current norm, but to do so would risk ignoring the ‘macro-prudential’ lessons re-learned after the global financial crisis. While banks’ balance sheets may have been considered individually sound on a ‘micro’ level, with lending collateralised against property that was rising in value, on a ‘macro’ level, systemic risks had built up, culminating in a catastrophic ‘Minsky moment’ when asset prices collapsed. What may seem prudent for individual banks can be risky for the system as a whole.

The global financial crisis revealed the pro-cyclicality of the central banking regime, with a destabilising price-credit feedback mechanism (Mehrling, 2011) between the expansion of credit and rising market prices of collateral, which allowed more credit to be created against these assets, and so on. The term ‘macro-prudential’ came into fashion following the crisis, as a means to counter the pro-cyclicality of a narrow ‘micro’-prudential policy.

As Lord Adair Turner outlined while chair of the UK Financial Services Authority “a crucial starting point in designing them [macro-prudential tools] is to recognise that different categories of credit perform different economic functions and that the impact of credit restrictions on economic value added and social welfare will vary according to which category of credit” (Turner, 2010).

However, this has not been fully reflected in the Bank of England’s approach to macro-prudential policy since the global financial crisis. Alongside tools such as a new counter-cyclical capital buffer, a flagship policy of the macro-prudential turn were instruments targeting mortgage lending, namely limits based on loan-to-value (LTV) and loan-to-income (LTI) ratios. Yet, following the introduction of these tools, a sizeable proportion of mortgages exceeded the limit of LTI ratios of 4.5 (Chakraborty et al., 2017), and the share of mortgages with high LTI ratios between 4 and 4.5 has risen to more than double the pre-crisis peak, at 21% (Bank of England, 2021a). Perhaps unsurprisingly, these particular tools appear to have been impotent in correcting the banking system’s allocative bias towards property, with mortgages making up 57.1% of all lending as of 2025 (Haglund, 2026).

### Monetary policy’s current bias

Yet crucially, macro-prudential policy not only has implications for financial regulation, but also the role of monetary policy in the macroeconomic regime, of which the provision of central bank liquidity is a key part. This is because the elasticity of demand for different categories of credit can vary significantly, especially by sector. The different elasticity of response to interest rates helps explain why the increase in interest rates from 2021 harmed productive investment in sectors such as renewable energy (Martin et al., 2024), while appearing to do little to arrest the growth of more speculative assets such as commodities and stocks.<sup>10</sup> Investment in new capital stock that would be repaid out of future cash flows are more sensitive to small changes in interest rates than positions taken in anticipation of medium-term capital gains. This is especially the case with projects that have long gestation periods, such as new infrastructure – a rise in short-term rates therefore leads to a marked increase in the supply price of such investment goods (Minsky, 2008 [1986]).

Due to the nature of compound interest, changes in monetary policy can affect the cost of projects with longer gestation periods by more than the nominal change suggests – interest rate changes thus have a greater impact upon investment in projects with a longer time to completion and a longer expected use life than shorter-term investments (Minsky, 2008 [1986]). This is because projects with long construction phases and long operating lives are effectively hit

<sup>10</sup> It also helps explain why the manipulation of short-term interest rates is typically a suboptimal tool for managing inflation in an endogenous monetary system, as has long been argued by economists from the post-Keynesian tradition.

twice by higher interest rates, as they incur financing costs for longer before earning revenue and generate returns far in the future, which are more heavily discounted according to net present value logic. Therefore small changes in monetary policy can materially alter the viability of long-term investments like infrastructure, R&D-heavy projects and energy generation.

As such, when the central bank raises interest rates, it is typically providing greater discipline to capital investment than to more speculative financing. Central bank policy must be adjusted to differentiate between more productive and more speculative credit if the UK is to break out of its stagnant low-investment economic model, which is reliant on unsustainable asset price inflation (Kortis et al, 2026).

### Cash flow-based investment

One way of distinguishing between ‘productive’ and ‘speculative’ credit is the expected source of funds for repayment. Productive credit is mostly secured against the borrower’s ability to repay out of future cash flows from new investment, while speculative borrowing is mostly secured against the value of existing collateral and relies more on expected capital gains for repayment. Contrary to the current regulatory regime, which treats lending secured against existing assets as lower risk, a truly macro-prudential approach should recognise that only when credit is used to finance useful new capital investment does it generate the additional income flow required to make the debt certainly sustainable (Turner, 2016).

The failure of previous Bank of England lending schemes to distinguish between different categories of credit have perversely helped ensure the purchase of existing property can be money-financed at lower interest rates than investment in new affordable housing stock, with house price inflation and a higher cost of living an unsurprising consequence (Kazi and Macfarlane, 2022). The Bank of England should therefore introduce more targeted refinancing schemes to ensure capital investment which is more sensitive to changes in interest rates can effectively be money-financed with term funding from the central bank at lower interest rates than lending for the purchase of existing assets. This would mean supporting finance based on the generation of new cash flows such as renewable energy, new housing stock and other capital investment, rather than the value of existing collateral. Doing so would help correct the current allocative bias towards credit for asset-wealthy borrowers, which particularly discourages financing for SMEs providing new goods and services.

Such an emphasis on cash flow lending was utilised by the Industrial and Commercial Finance Corporation (ICFC) supported by the Bank of England (Hu, 1984), and its success in unlocking investment for SMEs in post-war Britain offers a useful case study for addressing the same issues plaguing the UK economy today. The BoE provided equity capital and implicit guarantees to the ICFC, as well as more informal support to the institution, whose technical expertise meant it was better placed than the big clearing banks to assess the cash flow-based lending that benefits SMEs. However, the ICFC was limited by its ability to borrow only from the clearing banks, who were not enthusiastic about the initiative (McEvoy et al., 2025). Learning from these lessons, public financial institutions, such as the National Wealth Fund (NWF) and the British Business Bank (BBB), may be well-placed to play a similar role in facilitating cash flow-based lending, perhaps in conjunction with ‘stakeholder’ or relationship-based lenders (Youel, 2024; da Silva Gomes et al, 2025), supported by refinancing from the Bank of England. For instance, the NWF, BBB and/or more specialised lenders, who are able to assess the future earning potential of applicants, could be supported to extend such lending by being able to draw on term funding from the central bank, using the newly created loan asset as collateral.

## **Recommendation 4:** Parliament should be given the opportunity to express a view on how the Bank of England shapes credit allocation through a Preferred Asset Taxonomy.

In *Our Money: Monetary Policy as If Democracy Matters*, Leah Downey sets out a framework for democratic credit policy involving a 'Preferred Asset Taxonomy' (PAT), which would be a mechanism for the legislature to iteratively guide central banks' prioritisation of assets. In voting annually on this taxonomy, elected representatives would indicate that they want the central bank "to encourage money creation by certain agents and/or in service of particular activities, discourage it in other cases, and so on" (Downey, 2025). As Downey explains:

To get the general idea, imagine a four-tier system. Assets would be classified into tiers based on a score. The legislature would assign points based on a variety of considerations: the quality of the borrower, the importance of the sector, the geography, or the desirability of the activity. Assets that promote environmental goals or produce state military products might be assigned more points, those tied to good labor practices may be assigned more points, those issued by agents convicted of illegal activity might receive fewer points, and so on. (Downey, 2025).

Therefore "Instead of the quality of the asset depending on a determination about liquidity made by central banks, their quality would be based on political goals expressly determined by the legislature." (Downey, 2025).

While Downey focuses on the example of implementing a PAT through differential reserve requirements, echoing Thomas Palley's proposal for 'asset-based reserve requirements' (Palley, 2004), the principle could also apply to other forms of asset-side banking regulations, such as pre-positioning of collateral. Such an approach may be a more optimal focus for policymakers given current regulatory momentum and other advantages, such as its ability to address shadow banking risks, as explored above. This would translate to preferred assets being treated more favourably by the central bank's collateral framework in terms of eligibility and haircuts.

In the UK there are already existing mechanisms for the government to inform the Bank of England's operation of credit policy, namely the annual remit letters, which set out the government's economic objectives that the central bank should have regard for as part of its secondary objective to support the government's economic policy. Notably, a change to remit letters in 2021 led to the Bank of England greening its monetary policy operations, tilting the allocation of its corporate bond purchase scheme away from issuers not aligned with the government's net zero goal (Bank of England, 2021b). However, reliance on the current remit letter system concentrates power in the executive, particularly the Chancellor of the Exchequer and HM Treasury. In a parliamentary democracy such as the UK's, it would be more appropriate for a mechanism that assigns a greater role for the legislature, as Downey proposes. Such an arrangement could also benefit from greater codification, given how the Bank of England's secondary objective is currently open to ambiguous interpretation.

In line with the principles it applied to its corporate bond portfolio following the greening of its mandate, the Bank of England's provision of liquidity – both directly through term-funding schemes and indirectly through its collateral framework – should be tilted towards priorities expressed by democratically elected representatives. If the taxonomy voted on by Parliament informs the Bank of England's setting of haircuts in a pre-positioning regime, this would ensure such decisions, which shape the allocation of new purchasing power, are not insulated from democratic accountability even while the central bank retains operational independence.

# Bibliography

Arnold, M. (2025). *Stablecoins could cut reliance on bank lending, BoE governor says*. Financial Times. <https://www.ft.com/content/2c422616-bbae-4200-a8c5-98b028e71509?syn-25a6b1a6=1>

Bank of England (2020). *Term Funding Scheme with additional incentives for SMEs (TFSME) – Market Notice*. Bank of England. <https://www.bankofengland.co.uk/markets/market-notices/2020/term-funding-scheme-market-notice-mar-2020>.

Bank of England (2021a). *Technical annex: evidence on the FPC’s mortgage market Recommendations*. Bank of England. <https://www.bankofengland.co.uk/-/media/boe/files/financial-stability-report/2021/technical-annex-evidence-on-the-fpcs-mortgage-market-recommendations.pdf>

Bank of England (2021b). *Greening our Corporate Bond Purchase Scheme (CBPS)*. Bank of England. <https://www.bankofengland.co.uk/markets/greening-the-corporate-bond-purchase-scheme>

Bank of England (2025a). *Transitioning to a repo-led operating framework – discussion paper feedback statement*. Bank of England. <https://www.bankofengland.co.uk/paper/2025/discussion-paper/transitioning-to-a-repo-led-operating-framework-discussion-paper-feedback-statement>

Bank of England (2025b). *Bank of England Levy*. Bank of England. <https://www.bankofengland.co.uk/about/governance-and-funding/levy>

Bank of England (2025c). *Contingent Non-Bank Financial Institution Repo Facility (CNRF)*. Bank of England. <https://www.bankofengland.co.uk/markets/bank-of-england-market-operations-guide/cnrf>

Bank of England (2025d). *Report on the Bank’s official market operations March 2024–February 2025*. Bank of England. <https://www.bankofengland.co.uk/sterling-monetary-framework/report-2024-25>

Bank of England (2025e). *Proposed regulatory regime for sterling-denominated systemic stablecoins*. Bank of England. <https://www.bankofengland.co.uk/paper/2025/cp/proposed-regulatory-regime-for-sterling-denominated-systemic-stablecoins>

Bank of England (2025f). *Financial Stability Report – December 2025*. Bank of England. <https://www.bankofengland.co.uk/financial-stability-report/2025/december-2025>

Bank of England (2026), *The Future of Money*. Bank of England. <https://www.bankofengland.co.uk/-/media/boe/files/events/2026/call-for-papers-the-future-of-money-2026.pdf>

Behn, A., Haselmann, R. and Vig, V. (2016). *The limits of model-based regulation*. European Central Bank. <https://www.ecb.europa.eu/pub/pdf/scpwps/ecbwp1928.en.pdf>

- Bezemer, D., Ryan-Collins, J., van Lerven, F. and Zhang, L. (2021). *Credit policy and the 'debt shift' in advanced economies*. Socio-Economic Review. <https://discovery.ucl.ac.uk/id/eprint/10138570>
- Chakraborty, C., Gimpelewicz, M. and Uluc, A. (2017). *A tiger by the tail: estimating the UK mortgage market vulnerabilities from loan-level data*. Bank of England. <https://www.bankofengland.co.uk/working-paper/2017/a-tiger-by-the-tail>
- Chavaz, M., Elliot, D. and Monroe, W. (2025). *A public-private partnership? Central bank funding and credit supply*. Bank of England. <https://www.bankofengland.co.uk/working-paper/2025/a-public-private-partnership-central-bank-funding-and-credit-supply>
- Chavaz, M., Elliot, D. and Monroe, W. (2026). *A public-private partnership: central banks as a funding backstop*. Bank Underground. <https://bankunderground.co.uk/2026/02/19/a-public-private-partnership-central-banks-as-a-funding-backstop/>
- Churm, R., Radia, A., Leake, J., Srinivasan, S. and Whisker, R. (2012). *The Funding for Lending Scheme*. Bank of England. <https://www.bankofengland.co.uk/-/media/boe/files/quarterly-bulletin/2012/the-funding-for-lending-scheme.pdf>
- da Silva Gomes, E., Caswell, B., Zhao, T., Harvey, M., Turcatti, D., Kitson, S., Davis, E. P., Vincent, C., Pabst, A., Milne, A. (2025). *Impacts on the UK economy of alternative models of commercial finance*. National Institute of Economic and Social Research. <https://www.gov.uk/government/publications/impacts-on-the-uk-economy-of-alternative-models-of-commercial-finance>
- Downey, L. (2025). *Our Money: Monetary Policy as if Democracy Matters* (Princeton University Press, 2025).
- Dyson, B. (2016), *Mervyn King's "Pawnbroker for All Seasons" Explained*. Positive Money. <https://positivemoney.org/uk/archive/mervyn-kings-pawnbroker-for-all-seasons-explained/>
- G30 (2024). *Bank Failures and Contagion: Lender of Last Resort, Liquidity and Risk Management*. Group of Thirty. [https://group30.org/images/uploads/publications/G30\\_Lessons-23-Crisis\\_RPT\\_Final.pdf](https://group30.org/images/uploads/publications/G30_Lessons-23-Crisis_RPT_Final.pdf)
- Grey, R. (2019). 'Banking in a Digital Fiat Currency Regime', in *Regulating Blockchain: Techno-Social and Legal Challenges*. Oxford University Press. <https://rohangrey.net/files/banking.pdf>
- Haglund, A. (2026). *Where did banks lend in 2025?*. Positive Money. <https://www.datocms-assets.com/132494/1772727471-march-2026-bank-lending-research-briefing-docx.pdf>
- Haldane, A. G. (2012). *The dog and the frisbee*. Bank for International Settlements. <https://www.bis.org/review/r120905a.pdf>
- HM Treasury (2013). *Review of the monetary policy framework*. HM Treasury. <https://www.gov.uk/government/publications/review-of-the-monetary-policy-framework>
- Hu, Y-S. (1984). *Industrial Banking and Special Credit Institutions: A Comparative Study*. Policy Studies Institute.

- Jackson, A. and Jackson, T. (2025). *Public debt and the post-growth challenge: the case for a flexible monetary and fiscal policy framework*. Centre for the Understanding of Sustainable Prosperity. <https://cusp.ac.uk/themes/aetw/wp43>
- Jakab, Z. and Kumhof, M. (2015). *Banks are not intermediaries of loanable funds – and why this matters*. Bank of England. <https://www.bankofengland.co.uk/working-paper/2015/banks-are-not-intermediaries-of-loanable-funds-and-why-this-matters>
- Jordà, Ò., Schularick, M. and Taylor, A. M. (2014). *The Great Mortgaging: Housing Finance, Crises, and Business Cycles*. National Bureau of Economic Research. <https://doi.org/10.3386/w20501>
- Kazi, D. and Macfarlane, L. (2022). *Banking on Property: What is driving the housing affordability crisis and how to solve it*. Positive Money. <https://positivemoney.org/uk/publications/banking-on-property>
- Kedward, K., Gabor, D. and Ryan-Collins, J. (2022). *Aligning finance with the green transition: From a risk-based to an allocative green credit policy regime*. UCL Institute for Innovation and Public Purpose. [https://www.ucl.ac.uk/bartlett/sites/bartlett/files/kedward\\_gabor\\_ryan-collins\\_aligning\\_finance\\_with\\_the\\_green\\_transition\\_from\\_a\\_risk-based\\_to\\_allocative\\_green\\_credit\\_policy\\_regime.pdf](https://www.ucl.ac.uk/bartlett/sites/bartlett/files/kedward_gabor_ryan-collins_aligning_finance_with_the_green_transition_from_a_risk-based_to_allocative_green_credit_policy_regime.pdf)
- Keynes, J. M. (1936). *The General Theory of Employment, Interest and Money*. MacMillan and Co.
- King, M. (2023). *We need a new approach to bank regulation*. Financial Times. <https://www.ft.com/content/43b926a6-b1ba-47a6-91f7-9ad5f776f8f8>
- Kortis, A., Birshan, M., Mischke, J., Tanghetti, C., Allas, T. and Anderson, R. J. *Revamping Britain’s balance sheet for growth and prosperity*. McKinsey Global Institute. <https://www.mckinsey.com/uk/our-insights/revamping-britains-balance-sheet-for-growth-and-prosperity>
- Kotucha, N. (2025). *The UK government’s risky rollback of financial regulation threatens long-term growth*. The Conversation. <https://theconversation.com/the-uk-governments-risky-rollback-of-financial-regulation-threatens-long-term-growth-266418>
- Krebel, L., and van Lerven, F. (2022). *Green credit guidance: A green term funding scheme for a cooler future*. New Economics Foundation. <https://neweconomics.org/2022/09/green-credit-guidance>
- Kumhof, M. and Noone, C. (2018). *Central bank digital currencies — design principles and balance sheet implications*. Bank of England. <https://www.bankofengland.co.uk/-/media/boe/files/working-paper/2018/central-bank-digital-currencies-design-principles-and-balance-sheet-implications>
- Martin, P., Whiteside, J., McKay, F. and Santhakumar, S. (2024). *Conflicts of interest: the cost of investing in the energy transition in a high interest-rate era*. Wood Mackenzie. <https://www.woodmac.com/horizons/energy-transition-investing-in-a-high-interest-rate-era/>

- McEvoy, O., Kapff, M., Guter-Sandu, A. and Murau, S. (2025). *Mind the MacMillan Gap: Off-Balance-Sheet Fiscal Agencies in Britain's Post-War Industrial Financing, 1945-1973*. Global Climate Forum. <https://dx.doi.org/10.2139/ssrn.5548960>
- McLeay, M., Radia, A., Thomas, R. (2014). *Money creation in the modern economy*. Bank of England. <https://www.bankofengland.co.uk/-/media/boe/files/quarterly-bulletin/2014/money-creation-in-the-modern-economy>
- Mehrling, P. (2011). *The New Lombard Street: How the Fed Became the Dealer of Last Resort*. Princeton University Press.
- Minsky, H. P. (1994). *Financial Instability and the Decline (?) of Banking: Public Policy Implications*. Hyman P. Minsky Archive. [https://digitalcommons.bard.edu/hm\\_archive/88](https://digitalcommons.bard.edu/hm_archive/88)
- Minsky, H. P. (2008 [1986]). *Stabilizing An Unstable Economy*. McGraw Hill.
- Nardi, B. G., Nwankwo, C. and Meaning, J. (2018). *The Term Funding Scheme: design, operation and impact*. Bank of England. <https://www.bankofengland.co.uk/-/media/boe/files/quarterly-bulletin/2018/term-funding-scheme-web-version.pdf>
- Niepelt, D. (2025). *Central bank digital currency and monetary architecture*. University of Bern. <https://www.econstor.eu/handle/10419/333545>
- Noonan, L. (2023). *Former BoE deputy calls for radical overhaul of bank funding*. Financial Times. <https://www.ft.com/content/f0fe6555-7929-4b4d-8739-028b3b0aad4e?syn-25a6b1a6=1>
- Palley, T. I. (2004). *Asset-based Reserve Requirements: Reasserting Domestic Monetary Control in an Era of Financial Innovation and Instability*. Review of Political Economy. [https://thomaspalley.com/docs/articles/macro\\_policy/asset\\_based\\_reserve\\_requirements.pdf](https://thomaspalley.com/docs/articles/macro_policy/asset_based_reserve_requirements.pdf).
- Plantin, G. (2015). *Shadow Banking and Bank Capital Regulation*. The Review of Financial Studies. <https://doi.org/10.1093/rfs/hhu055>.
- Saporta, V. (2024). *Let's get ready to repo! – speech by Victoria Saporta*. Bank of England. <https://www.bankofengland.co.uk/speech/2024/july/victoria-saporta-speech-at-afme-seminar>
- Smythe, E. (2017). *To better understand UK banks we have to follow the money*. Positive Money. <https://positivemoney.org/uk/archive/uk-banks/>
- Tily, G. (2010). *Keynes Betrayed: The General Theory, the Rate of Interest and 'Keynesian' Economics*. Palgrave Macmillan.
- Tucker, P. (2019). *Is the financial system sufficiently resilient: a research programme and policy agenda*. Bank for International Settlements. <https://www.bis.org/publ/work792.pdf>

Tucker, P. (2024). *Britain's Liability-Driven Investment Episode Was a Canary No One Elsewhere Bothered to Think About*. Annual Review of Financial Economics. <https://www.annualreviews.org/content/journals/10.1146/annurev-financial-082123-110030?crawler=true&mimetype=application/pdf>

Turner, A. (2010). *What do banks do, what should they do and what public policies are needed to ensure best results for the real economy?*. Bayes Business School. [https://www.bayes.citystgeorges.ac.uk/\\_data/assets/pdf\\_file/0006/77136/Adair-Turner-March-2011.pdf](https://www.bayes.citystgeorges.ac.uk/_data/assets/pdf_file/0006/77136/Adair-Turner-March-2011.pdf)

Turner, A. (2016). *Between Debt and the Devil: Money, Credit, and Fixing Global Finance*. Princeton University Press.

Warsh, K. (2025). *The Federal Reserve's Broken Leadership*. Wall Street Journal. <https://www.wsj.com/opinion/the-federal-reserves-broken-leadership-43629c87>

Wray, L. R. (1990). *Money and Credit in Capitalist Economies: The Endogenous Money Approach*. Edward Elgar.

Youel, S. (2024). *A National Wealth Fund For A Just Green Transition*. Positive Money. <https://positivemoney.org/uk/publications/a-national-wealth-fund-for-a-just-green-transition/>



positivemoney

**Positive Money UK**  
10 Salamanca Place  
London  
SE1 7HB  
0207 253 3235

Positive Money is a not-for-profit company limited  
by guarantee, registered in England and Wales.

Company Number 07253015

[www.positivemoney.org](http://www.positivemoney.org)

Copyright © 2026 Positive Money