Transitioning to a repo-led operating framework

Discussion paper

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Content

Foreword

In our minds at all times is 'why' the Bank of England (the Bank) does what it does – our core objectives of maintaining monetary and financial stability – and 'how' we use our balance sheet to achieve them. One important way we do this is by supplying central bank reserves, which, as the ultimate means of settlement in sterling, are the safest and most liquid financial assets in the UK economy.

The Bank's framework for supplying reserves is in transition. Over the last decade we have operated a **supply**-driven framework. In pursuit of its monetary policy objective, Monetary Policy Committee (MPC) decisions on quantitative easing (QE) purchases and term funding schemes (such as the Term Funding scheme with additional incentives for Small and Medium-sized Enterprises (TFSME)) supplied abundant reserves, and, in doing so, supported the Bank's financial stability objective. The Bank has set out its plans to move to a **demand**-driven framework as these programmes unwind.

The process of transition has now begun. The quantity of reserves has been steadily falling due to the unwind of QE purchases and TFSME repayments, with a small component being offset by increased use of both our Short-Term Repo (STR) and the Indexed Long-Term Repo (ILTR) operations. We welcome this; it is consistent with a gradual move from a supply-led framework to a demand-led one.

As set out in both Governor Andrew Bailey's speech **The importance of central bank reserves** and my speech **Lets get ready to repo!**, we believe that going forward our objectives are best met by supplying the stock of reserves through repo operations against a broad set of collateral. This requires a substantial change in how banks and building societies manage their sterling liquidity and interact with the Bank.

The primary aim of this discussion paper (DP) is to set out to market participants how we envisage our overall demand-driven, repo-led framework for supplying reserves will operate, and to seek feedback on its calibration as we continue this transition.

The ILTR and STR are not the only pieces of the puzzle. These facilities are part of a wider suite of Sterling Monetary Framework (SMF) facilities, both bilateral and market-wide, which are all 'open for business'. Firms should consider usage of our facilities holistically, as such the DP seeks feedback on our full suite of facilities.

As part of the suite of facilities, the ILTR will play a greater role than it has in the past. The ILTR will, alongside the STR, supply the majority of the stock of reserves to meet the system's liquidity needs. The ILTR's parameters need to adapt to this evolving role, and one key purpose for this discussion paper is to set out those revised parameters.

We are keen to receive feedback on this from our counterparties ('SMF participants'). In particular, we welcome your views on the recalibrated ILTR; how you view usage of the facility relative to private market alternatives; how you might split usage between ILTR and STR; and your collateral preferences more generally.

Central to a successful transition is operational readiness. In addition to views on the framework itself, we are setting out good practice that firms should follow to ensure they are ready for greater use of our facilities, including by considering their approach to pre-positioned collateral and ensuring familiarity with collateral and settlement processes and systems. **We are also seeking firms' views on potential operational barriers that could impact the success of the new framework.**

Our aim is to enable a conversation on the design and calibration of our framework, including the factors that are likely to determine firms' interaction with the Bank's facilities. This will help us ensure our framework continues to meet our core objectives. It is our intention to engage a wide range of market practitioners and interested parties in this dialogue, including, but not limited to, our counterparties. The feedback will be analysed and used to finalise our arrangements for transition, which will be announced in the first half of 2025.

Vicky Saporta
Executive Director, Markets

Summary

The Bank's approach to transition

The purpose of this DP is to obtain feedback – from current and prospective SMF participants, the wider market, and the public – on the Bank's transition to a repo-led operating framework for supplying reserves, and in particular on the ILTR facility. This feedback will be reviewed ahead of finalising our arrangements for transition in the first half of 2025.

Since 2022, the MPC has been unwinding its asset purchases – a process known as quantitative tightening (QT). Alongside that, TFSME drawings have begun to be repaid. As a result, the level of reserves in the system is falling. In steady state, demand for reserves by SMF participants is likely to be below current levels of reserves supply, but higher than it was prior to the 2007–08 global financial crisis (GFC).

The Bank has previously explained its decision to transition towards a demand-driven framework to supply reserves. The STR facility was introduced in 2022 to maintain rate control by allowing firms to source unlimited reserves against the highest quality (Level A) collateral, such as gilts, at Bank Rate. The Bank also committed to review the appropriate long-term mix of assets on its own balance sheet.[1] This DP is an important milestone in this review.

A demand-driven, repo-led framework is best placed to meet the system's evolving reserve demand. It supports monetary control and provides an appropriate level of reserves for financial stability purposes, and retains flexibility for the potential expansion of the Bank's balance sheet in stress as repo operations can be quickly replaced by asset purchases or term funding schemes should the MPC determine these are needed in the future. It also exposes the central bank's balance sheet to less financial risk, in contrast to supplying reserves through the purchase of securities.

To avoid capacity constraints in the STR and to aid in the distribution of reserves to the Bank's diverse counterparties, reserves will also be supplied in the ILTR, which lends reserves for six months at a spread above Bank Rate against a broad range of collateral.

Broad-based participation in Bank operations is expected. But supplying a materially higher stock of reserves through repo operations should not come at the cost of activity in core private markets, whose resilience matters for monetary and financial stability.

The Bank will monitor how the new framework, and the calibration of facilities, performs against its design principles on a continuous basis.

Sterling Monetary Framework facilities in transition

All elements of the Bank's operating framework – the SMF – work together to enable the Bank to deliver monetary and financial stability. The SMF comprises remunerated reserves accounts provided to SMF participants, complemented by regular market-wide operations (ILTR and STR), bilateral facilities available on demand (Operational Standing Facilities (OSFs) and Discount Window Facility (DWF)) and discretionary non-standing facilities (such as the Contingent Term Repo Facility (CTRF)), which may be activated to provide additional liquidity.

Lending in all SMF repo operations generate reserves, but the Bank envisages that the majority of the stock of reserves in normal market conditions will be supplied across ILTR and STR. Reflecting the expanded role of the ILTR relative to the past, the PRA have published a **statement** setting out that they judge usage of the ILTR to be routine sterling liquidity management.

The Bank judges that the current auction design (variable price, variable size) of the ILTR continues to be appropriate for meeting its monetary and financial stability objectives. It balances sufficient predictability for firms while being responsive to changes in demand and ensures private markets are not disintermediated.

However, changes to ILTR parameters are needed to ensure it operates in a more predictable and transparent way for firms seeking to manage their reserves, and that the cost of obtaining sufficient reserves via the ILTR is consistent with relevant market comparators. To do this, the Bank expects to increase the amount of reserves supplied in the facility in total, make more liquidity available at our initial pricing levels, and adjust the price of obtaining higher amounts of reserves.

SMF participants should prepare to borrow in SMF facilities regularly and at scale as part of normal liquidity management. This includes pre-positioning sufficient levels of collateral with the Bank. Firms are strongly encouraged to ensure they are operationally ready for this transition.

1: The Bank's approach to transition

1.1: Introduction

1. The Bank uses its balance sheet to meet its statutory objectives of monetary and financial stability. Our main liabilities – banknotes and central bank reserves (deposits held with us by financial institutions) – are the safest and most liquid of all financial assets. Bank of England reserves ('reserves') are the ultimate means of settlement for sterling transactions. The Bank's sterling market operations control the supply of reserves and play a central role in both implementing monetary policy and contributing to financial stability. The framework of reserves accounts and sterling market operations is referred to as the SMF.

The purpose and evolution of the Bank's operating framework

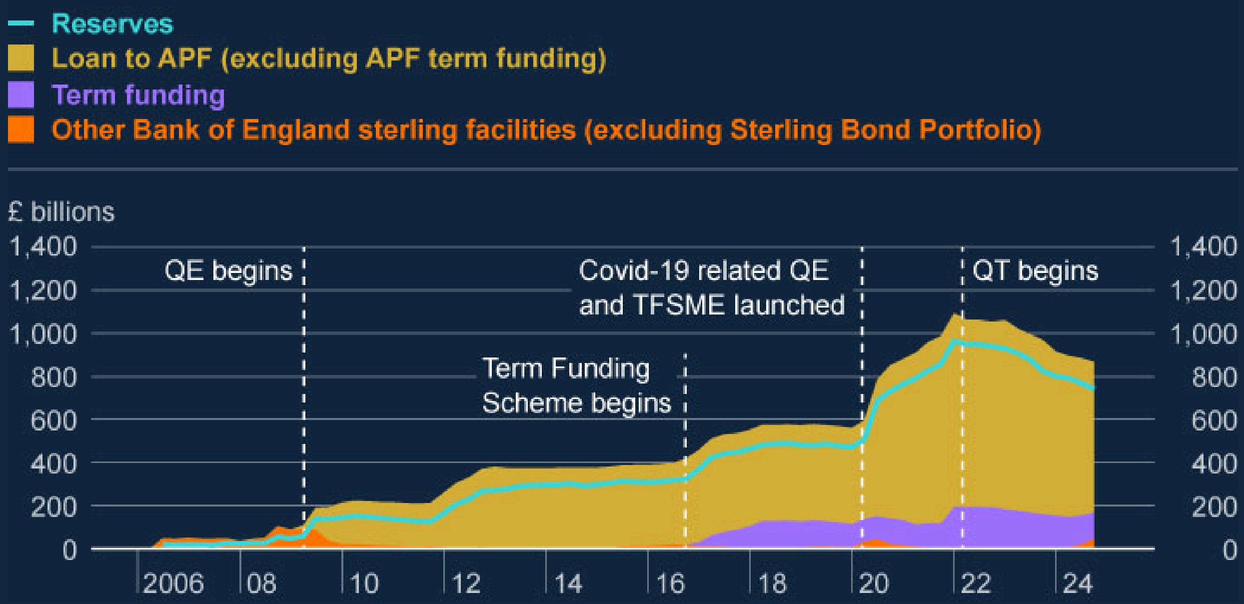
2. The Bank implements monetary policy by supplying reserves to participants in the SMF: commercial banks, building societies and others.[2] The terms on which reserves are supplied to and held by SMF participants – such as the rate paid on reserves – influences short-term market interest rates, which in turn affects the rates at which households and businesses borrow and save in the real economy. Anchoring short-term interest rates is the first step in the transmission of Bank Rate to the wider economy, and hence to meeting the MPC's inflation target.

3. Commercial banks, building societies and other market participants need to hold reserves to make payments to each other and insure against potential outflows. The level of reserves held by the banking system before the GFC was insufficient for financial stability purposes.[3] There has been a structural increase in commercial banks' demand for reserves for precautionary reasons since the GFC, including as a result of changes in banks' risk appetites; the post-crisis strengthening of prudential liquidity regulations; and increases in the number of SMF participants with a wide range of business models.[4]

4. Since 2009, the majority of reserves have been generated as a consequence of the MPC's programmes: asset purchases to deliver QE and a series of term funding schemes, most recently the TFSME launched in response to the Covid pandemic. Reserves supply has been 'abundant' during this period. The excess of reserves has pushed down on short-term market rates, but they have been aligned to Bank Rate by the fact that SMF participants compete to borrow funds in the market which are deposited as reserves at the Bank and are remunerated at Bank Rate. This framework has been effective at maintaining control of market interest rates.

5. Reserves supply is now falling due to the MPC's decision in 2022 to unwind its asset purchases – known as QT – and the repayment of TFSME drawings. If supply were to fall below the sum of firms' demand for reserves for transactional and precautionary purposes – a level the Bank refers to as the Preferred Minimum Range of Reserves (PMRR) – firms would bid up for reserves in money markets, driving short-term market rates upwards. Should reserves fall substantially below the PMRR this could also pose risks to financial stability. An updated framework is required to ensure the Bank continues to supply an appropriate level of reserves for monetary and financial stability.

Chart 1: Bank of England reserves supply and backing assets



Source: Bank of England.

Notes: Coloured areas summarise the Bank's main on balance sheet sterling facilities. The gap between the sum of those facilities and reserves primarily reflects sterling banknotes. 'Term funding' includes the Term Funding Scheme (TFS) and the TFSME but excludes the Special Liquidity Scheme and the Funding for Lending Scheme (which were funded off balance sheet). To avoid double counting, 'Loan to Asset Purchase Facility (APF) backing QE' excludes lending backing the TFS while it was in the APF (pre-2019); prior to 2013 Q3, the series shows the quantity of assets financed by the creation of central bank reserves on a settled basis. 'Other sterling facilities' includes Short-Term Open Market Operations, Long-Term Repos, the CTRF and the Covid Corporate Financing Facility; it excludes the Sterling Bond Portfolio previously used to fund the Bank.

The purpose of this DP

6. The Bank has previously explained its decision to move to a demand-driven framework to supply reserves and maintain market interest rate control as reserves generated through MPC programmes are reduced.[5] The STR facility was added to the SMF in 2022 to respond to

fluctuations in demand for liquidity and so maintain market interest rate control as reserves fall.[6]

7. At the same time as it announced the STR, the Bank committed to reviewing the appropriate long-term mix of assets on its own balance sheet. This DP is an important milestone in this review. The Bank judges that the STR on its own would be insufficient to meet expected levels of system-wide reserves demand, since:

- the narrow collateral eligibility of the STR means that it may be unsuited to the business models and balance sheet profiles of a large proportion of SMF participants. In the absence of alternative sources of reserve supply, the STR's efficacy as a market interest rate control tool might also prove to be too dependent on dealers' balance sheet capacity to on-lend liquidity in money markets; and
- furthermore, over-reliance on the one-week term of the STR poses unnecessary operational risk both to the Bank and SMF participants that would be forced to roll over high volumes of drawings every week.

8. This DP sets out the changes that the Bank is making to its operating framework in transition. It engages current and prospective SMF participants, wider market participants and other interested parties on the transition to a demand-driven, repo-led operating framework for supplying reserves, and in particular on the recalibration of the ILTR facility. Feedback will be reviewed ahead of finalising our arrangements for transition in the first half of 2025.

9. The remainder of this section sets out the principles which have guided the move to a repo-led operating framework and the key policy considerations for the framework.

1.2: Principles for the framework

10. Our design of the SMF is guided by four key principles:

1. **Deliver the Bank's core statutory objectives of monetary policy and financial stability**. First and foremost, the framework must be effective at implementing monetary policy – by controlling market interest rates and providing flexibility to deploy other monetary tools (such as asset purchases) where necessary – and must supply an appropriate level of reserves for financial stability, including the flexibility to expand supply effectively in stress.
2. **Minimise risk to the Bank's balance sheet**. The Bank's choice of operating framework has implications for where financial risks, including interest rate and credit risk, are distributed and managed in the financial system. Financial risks borne by the Bank can affect the wider public sector balance sheet. The Bank cannot avoid exposure to financial risk but should take it on only when there is a clear policy case for doing so, and take measures to mitigate it where possible.

3. **Minimise market distortions**. The Bank must limit the risk that the terms on which it supplies reserves reduces incentives for firms to manage appropriately their own liquidity risk, or that the Bank's operations disintermediate private markets. The choice of framework should deliver the appropriate balance between liquidity provision directly through the Bank's facilities and indirectly through core markets, whose resilience in normal times and in stress is critical for monetary and financial stability. In other words, the Bank seeks a framework that supplies no more reserves than is necessary for meeting its policy objectives.
4. **Transparency and accountability**. The Bank has acquired an increasing number of responsibilities since 2009 and meeting all of its policy objectives can lead to an increasingly complex balance sheet. A transparent operating framework helps to ensure that the Bank continues to be accountable to the public, Parliament and other stakeholders.[7]

11. **A demand-driven, repo-led framework – comprised of short and longer-term lending operations collateralised against a broad range of assets – meets these principles.** Repo operations provide a reliable and flexible means of supplying the standing stock of reserves and can expand and contract rapidly in response to changes in this demand. From a monetary policy perspective, this increases the quality of rate control in an environment in which reserves are ample but no longer abundant. In addition, these operations can be quickly replaced by asset purchases or term funding schemes should MPC determine these are needed in the future.

12. From a financial stability perspective, repo operations against broad-based collateral facilitate a liquidity upgrade and support the redistribution of liquidity across the banking system. Provided repo operations are run on a frequent basis and supported by adequate pre-positioned collateral, they enable the Bank's balance sheet to expand rapidly and at scale in response to stress. By flexing to meet demand, repo operations minimise the risk of 'excessive' supply and the potential for a reduction in core market resilience.

13. Compared to the supply of the stock of reserves through purchases of securities, such as gilts, repo operations expose the central bank balance sheet to less financial risk. Outright gilt holdings expose the Bank to substantial levels of interest rate risk – primarily, net interest income losses that can arise if Bank Rate (the rate the Bank pays on reserves) rises above the yield on gilts. This is not the case for repo operations which are indexed to Bank Rate – and so always generate income for the Bank that matches or exceeds the rate the Bank pays on reserves.[8] Instead of interest rate risk, the Bank is left with counterparty credit risk – the risk that a borrower defaults during the term of the loan. This risk can be mitigated through prudent collateral haircuts and counterparty credit risk monitoring.[9]

14. This DP does not address the mix of assets to back banknotes.[10] These assets should be determined in consultation with HM Treasury, which owns the risk and income generated by Issue Department.

1.3: Policy and operational considerations

Reserves demand

15. Aggregate reserves demand in the future is uncertain and is likely to be affected by the price and non-price terms on which the Bank supplies reserves. For the reasons given in Section 1.1, the Bank expects the level of reserves to be higher than it was pre-GFC. The Bank's published survey-based estimate of the PMRR provides an indication of the level of precautionary and transactional demand we can expect to see in the future.[11] However, the Bank will continue to use a variety of methods to analyse the drivers of reserves demand through transition, as well as conducting further work on the appropriate level of reserves for monetary and financial stability in the long term.

Increased and broad-based participation in repo operations

16. The transition to a demand-driven, repo-led operating framework requires a substantial change in how banks and building societies manage sterling liquidity and interact with the Bank. SMF participants will need to source liquidity directly from the Bank at much greater scale than they have before as part of their normal liquidity management. While SMF participants have multiple ways of sourcing liquidity, the aggregate stock of reserves required to meet system-wide demand can only be generated by firms participating in our facilities.

17. The Bank encourages broad participation in SMF facilities since this supports financial stability. By offering to lend reserves against a broad mix of collateral and at a variety of terms, a wide range of firms are able to source reserves directly from the Bank regardless of their business model and presence in high-quality liquid asset and longer-term bank funding markets (subject to meeting the SMF eligibility criteria).

Commitment to transparency and predictability in the ILTR

18. To support participation in the ILTR, this DP marks a step change in the level of transparency the Bank provides on the facility (Section 2.2 and 2.3). Firms should have confidence in using the facility and in its regulatory treatment – as set out in the **PRA statement** published alongside this DP.

Readiness for facility usage

19. SMF participants should prioritise their readiness to borrow in SMF facilities regularly and at scale now, while reserve supply remains relatively abundant. This includes pre-positioning sufficient levels of collateral with the Bank, bearing in mind the timelines needed for the Bank's due diligence. Participants should test facilities routinely and use them more regularly at early stages of transition to ensure readiness to use them when needed, either in normal market conditions or in periods of stress. The **PRA statement** published alongside this DP encourages firms to test their operational readiness for accessing the ILTR regularly.

Review of the framework

20. The transition from an environment of abundant reserves to a demand-driven, repo-led operating framework is a major change for the SMF. The Bank will monitor how this new framework performs against its design principles on a continuous basis.

21. In particular, widespread participation in SMF facilities should complement rather than limit activity in core private markets, including bank funding markets and sterling money markets (see Box B in Section 2.3). The resilience of private markets is central to delivery of the Bank's monetary and financial stability objectives, including through their role in supporting the management of liquidity by non-banks.

22. The Bank will review the effectiveness of the overall framework, including calibration of SMF facilities, from time to time over the course of the transition.

2: Sterling Monetary Framework facilities in transition

2.1: Sterling Monetary Framework facilities

23. All elements of the SMF work together to enable the Bank to meet its monetary and financial stability objectives. The key elements are:

- reserves accounts;
- regular market-wide repo operations;
- bilateral on-demand facilities; and
- contingent market-wide operations that can be activated at the Bank's discretion.

Reserves accounts

24. Banks and building societies, broker-dealers, central counterparties and international central securities depositories are eligible for reserves accounts at the Bank of England. Reserve balances are remunerated at Bank Rate, helping to anchor short-term interest rates to the policy rate.

Regular market-wide repo operations

25. The Bank conducts weekly lending operations, consisting of a short-term facility against a narrow collateral set – the STR – and a longer-term facility against broader collateral sets – the ILTR. In the future, these two facilities will work together to supply the majority of the stock of reserves necessary for monetary control and financial stability needs. The Bank publishes the total aggregate usage of the STR and ILTR soon after the close of each auction but does not publish data regarding individual transactions or counterparties.

STR facility

26. The STR was introduced to ensure that short-term market interest rates remain close to Bank Rate as reserves fall. The STR provides an unlimited quantity of central bank reserves at Bank Rate for a one-week term against the highest quality 'Level A' collateral (Box A). The facility allows for a flexible expansion of reserve supply to maintain rate control, with the quantity of reserves supplied likely to vary over time due to various factors, including pressures on short-term market interest rates.

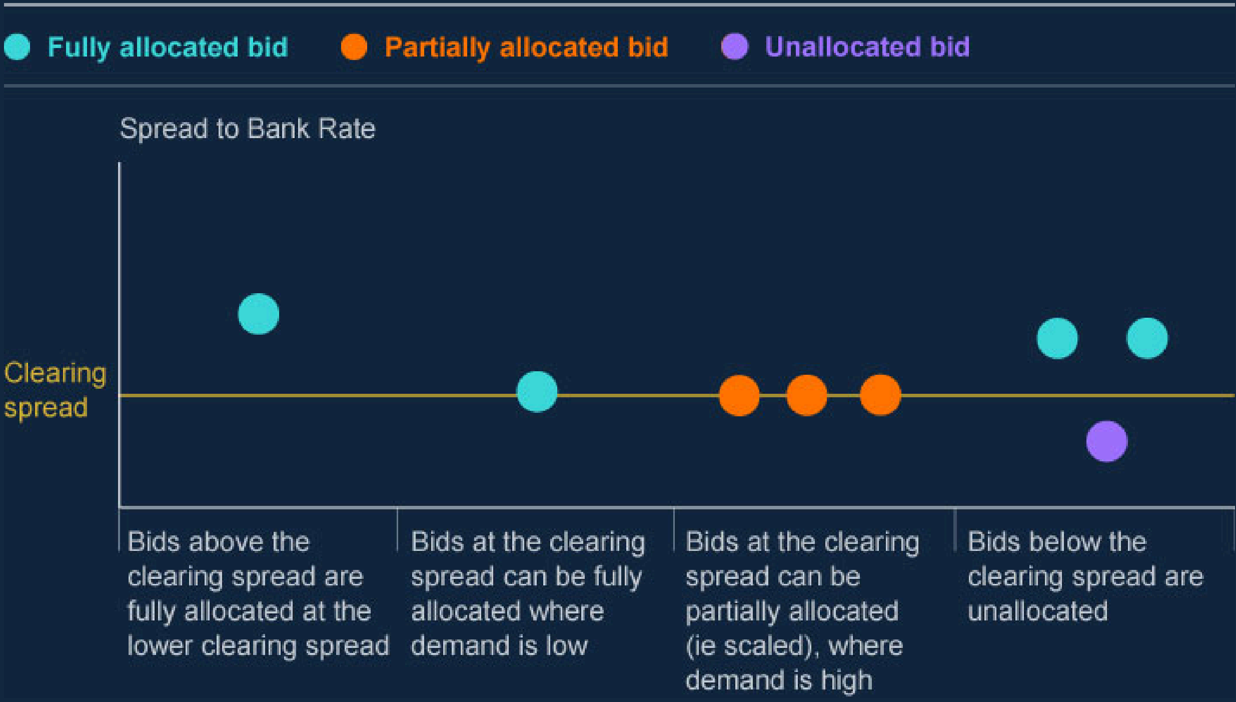
ILTR facility

27. The ILTR is expected to play an increasingly central role in supplying the stock of reserves to firms over the course of the transition. Reflecting this expanded role relative to the past, the PRA have published a **statement** setting out that they judge usage of the ILTR to be routine sterling liquidity management. Details on the changes planned to the ILTR can be found in Section 2.3.

28. The ILTR provides reserves for a six-month term via a competitive auction, where participants can bid for reserves against the full range of SMF eligible collateral. The quantity of reserves provided in each auction, and the price at which they are provided, is responsive to demand. Prices are expressed as a spread to Bank Rate.[12] There is a minimum spread for each collateral set, but the clearing spread for each collateral set in the auction can rise above these minimum levels. As the spreads participants are willing to pay rises and the bid quantities increase, the size of the auction will increase and clearing spreads will rise. If the spreads participants are willing to pay against less liquid collateral rises, the auction will increase the proportion of liquidity allocated to less liquid collateral.

29. SMF participants are encouraged to bid the maximum they are willing to pay as this will maximise their likelihood of being allocated in the auction. As illustrated in Chart 2, the ILTR’s uniform pricing design means that successful bids will pay the same single clearing spread for each collateral set.

Chart 2: Illustration of uniform pricing (a) (b)



(a) All successful bids pay the same clearing spread.
(b) Bids at the clearing spread must all be either fully allocated or partially allocated.

Bilateral facilities

30. Our weekly repo operations are complemented by bilateral facilities that are available daily, on an on-demand basis to meet firm-specific liquidity needs in between our regularly scheduled market-wide operations, the weekly STR and ILTR.

Operational Standing Facility (OSF)

31. The OSF supports SMF participants in managing short-term unexpected shocks or payment frictions by lending reserves or allowing reserves to be deposited at a fixed spread to Bank Rate, on demand. The OSF also limits volatility in market interest rates by providing an alternative source of borrowing to our weekly operations, thereby supporting short-term rate stability. The facility allows participants to borrow overnight reserves against high-quality liquid collateral at 25 basis points (bps) above Bank Rate or deposit reserves at the Bank for 25bps below Bank Rate. Usage of the OSF is published on an anonymised and aggregated basis, subject to a lag, on the third Wednesday after the subsequent MPC meeting date.[13]

Discount Window Facility (DWF)

32. The DWF provides liquidity insurance by lending high-liquidity assets (gilts and reserves) against the full range of SMF-eligible collateral. The DWF is available on demand for SMF participants who anticipate, or experience, a previously unexpected liquidity need in-between our regular market-wide operations.

33. Provided SMF participants seeking a DWF drawing meet and are expected to continue to meet PRA Threshold Conditions[14] and have sufficient eligible collateral, there is a presumption that the Bank will lend via the DWF. A routine DWF test trade programme ensures operational preparedness by all participants.

34. DWF drawings are initially for up to a 30-day term.[15] For longer-lived but nevertheless temporary liquidity needs, participants can apply to roll DWF drawings. Drawings may be repaid at any point. DWF pricing varies according to the collateral used and the size of the DWF drawing as a proportion of the firm's eligible liabilities.[16] [17] The Bank discloses the average daily value of lending in the DWF over a calendar quarter with a five-quarter time lag. This does not include any details at the counterparty or transactional level.

Contingent market-wide operations

Contingent Term Repo Facility (CTRF)

35. The Bank can respond flexibly to actual or prospective market-wide liquidity events by activating the CTRF.[18] The CTRF allows the Bank to provide liquidity against all SMF-eligible collateral at any time, term and price that the Bank chooses.

Question 1: Our framework is designed to be robust to changes in the demand for reserves – which might be slow-moving or rapid; long-lived or short-lived. Are there any adjustments we could make to bolster the robustness of our framework for supplying reserves to changes in firms' demand?

Question 2: What are the key risks to our framework's effectiveness at achieving our stated policy aims? How should the Bank address these risks during transition?

Question 3: How is the overall framework likely to affect private market activity, including the structure, activity, and pricing of money markets, and banks' incentives to provide repo lending to NBFIs in BAU and in stress?

Question 4: What are the key factors that may affect SMF participants' total

ILTR and STR usage over the course of the transition?

Question 5: For borrowing against Level A collateral specifically, what factors determine whether to use central bank facilities or private market alternatives, and if using central bank facilities, what factors determine the choice between the STR, ILTR and OSF? How might these evolve over time?

Box A: Eligible collateral

The collateral we accept is split into levels according to creditworthiness and liquidity.

- **Level A:** assets expected to remain liquid in almost all market conditions, such as high-quality sovereign debt trading in very deep, liquid markets.
- **Level B:** assets that will normally be liquid, such as sovereign debt, supranational and the highest quality private sector debt and asset-backed securities (ABS) or covered bonds.
- **Level C:** typically less liquid assets, such as lower quality ABS, and portfolios of loans, such as residential mortgages, consumer and corporate loans. Any securities delivered by the same entity that originated the underlying assets ('own name') are also Level C.

We do not normally accept equities as collateral for our SMF facilities, but we have put in place the technical measures to do so at our discretion, should the need arise in the future.

2.2: High-level design of the ILTR facility

36. **The ILTR will continue to operate as a variable price, variable size auction with uniform pricing.**[19] The Bank has ruled out other auction designs, judging that they present material risks to our objectives and perform worse against the principles for the framework set out in Section 1.2. The ILTR's current high-level design as a variable price, variable size auction best delivers the balance required between flexibility and responsiveness to changing market conditions on the one hand, and sufficient predictability for SMF participants on the other.

37. The Bank has considered and ruled out the following alternative auction designs:

- **Full allotment at a fixed price** (as represented by panel A in Chart 3). This is the design of the STR operation, which aims to control short-term rates and provides SMF participants with full certainty of allocation. Adopting such a design for the ILTR, which has a broader collateral set and is longer term than the STR, however, could distort market pricing mechanisms in a wider range of funding markets. As the price of the facility is not responsive to demand, it could risk oversupplying reserves. This could reduce private market activity and distort incentives for prudent liquidity management. Furthermore, the lack of price signals in the facility might limit the Bank's ability to recalibrate its price appropriately over time. As a result, changes in market conditions could lead to excessively large variations in the quantity of reserves supplied via the ILTR.
- **Fixed size with a variable price** (as represented by panel B in Chart 3). Under this design, a fixed clearing price applies until the quantity of bids exceed the volume of reserves available in the individual auction. At that point, the clearing price and participants' allocation are determined by the value of the submitted bids. Under this auction design, the Bank cannot flexibly respond to demand. This is particularly problematic given the uncertainty regarding the level of reserves demand during transition, which makes it challenging to calibrate a fixed size auction for each set of eligible collateral. Overall, this design could risk over-supplying or under-supplying reserves to the system, as well as exposing SMF participants to significant price volatility and unpredictability of allocation.

Chart 3: High-level auction designs considered by the Bank (a)

(a) D denotes different demand curves. E denotes the equilibrium auction result, where corresponding clearing prices and quantities are found.

38. The Bank judges that the ILTR's current variable price, variable size design provides a balanced 'middle road' that mitigates the challenges that these other designs pose. This design balances providing sufficient predictability for SMF participants, while reducing risks of oversupply and potential market distortion. There is a fixed quantity of reserves supplied at a fixed minimum price. Beyond that, the Bank's supply curve slopes upwards and the size and clearing price of the auction is determined by demand seen in the auction (as represented by panel C in Chart 3). This means the price and size of the auction is responsive to the price SMF participants are willing to pay for liquidity and the amount of liquidity demanded. The upward sloping part of the curve requires a higher clearing price for larger quantities of reserves to be supplied. This reduces the risk of the Bank disintermediating private markets or having excessive influence on bank funding costs.

39. The Bank recognises that a variable price, variable size auction is more complex than a fixed price or fixed size auction. The Bank judges that this complexity is necessary to achieve greater predictability of allocation for SMF participants relative to fixed size auctions, with reduced risk of oversupplying reserves and having excessive influence on wider market funding costs relative to fixed price, full allotment auctions.

40. While this high-level design will be retained, the Bank is committing to several changes to the ILTR to ensure it can deliver on its objective to supply the appropriate level of reserves. First, it will be recalibrated – increasing the amount available in total and at minimum prices and lowering prices for supplying greater quantities. Second, both the recalibration of the ILTR, and a step-change in the Bank's transparency about how the auction will work, will improve the predictability and usability of the facility for SMF participants. The next section outlines the planned changes in more detail.

2.3: Recalibrating the ILTR for transition to a repo-led framework

41. **The following features of the ILTR will remain the same:**

- **Uniform pricing:** the auction will continue to be conducted as a uniform price auction – each successful bidder pays the same single clearing spread for each collateral set. This means SMF participants should bid the maximum they are willing to pay.
- **Minimum prices:** minimum bid spreads will remain at 0bps, 5bps and 15bps over Bank Rate for Level A, B and C collateral, respectively.[20]
- **Term:** the lending term will remain six months. We intend for the facility to be used for liquidity rather than term funding.
- **Frequency:** the ILTR will continue to be offered as a weekly auction.[21]

42. **However, the following changes will be made to the calibration of the ILTR to ensure it is appropriate for transition to a repo-led framework.** We anticipate that these changes will be implemented in 2025 Q2.

1. **An increase in the total amount of reserves available in the ILTR.** The total quantity of reserves available in each auction will increase by at least 20%. The current maximum auction size is £25 billion. The Bank is proposing to raise this to at least £30 billion, which would mean the maximum stock available in the ILTR would rise to at least £720 billion.[22] The Bank's current judgement is that this amount will be sufficient to supply an appropriate stock of reserves in normal market conditions, as well as provide a significant buffer in case of additional liquidity needs in stress. The CTRF can also be activated at the Bank's discretion in response to a prospective or actual market-wide stress to provide additional reserves at a fixed price if needed.
2. **An increase in the quantity of reserves available at fixed minimum spreads.** The Bank will improve predictability of allocation for SMF participants during the early stages of transition by increasing the quantity supplied at minimum spreads by 40%–100%, to £7 billion–£10 billion per auction. This is up from £5 billion today. This would increase the stock of reserves available at minimum spreads from £120 billion today to £168 billion–£240 billion.[23] This increase in the quantity available at minimum spreads takes into account the need to provide participants with more opportunities to improve their familiarity with the auction dynamics in a low-risk way while the majority of reserves continue to be supplied by asset purchases under QE. The exact amount to be supplied at minimum spreads will be confirmed next year before any changes are implemented.
3. **A gentler upward sloping supply curve to help ensure that clearing spreads rise only gradually for quantities above what is available at minimum spreads.** Clearing spreads will rise above minima when demand for reserves exceeds the fixed amount available at minimum spreads. At this point, we will introduce a shallower upward sloping supply curve than is currently the case. This will mean that clearing spreads will rise more gradually for a given increase in demand. The Bank expects that clearing spreads will rise above minimum spreads as the transition progresses. SMF participants should ensure they are familiar with how to bid in the ILTR early in the transition. The Bank intends that the overall calibration of our facilities for transition – including the STR – will result in a provision of reserves in line with the system's estimated needs at prices consistent with relevant market comparators. When supplying this quantity, we expect the price for drawing against Level C collateral in the ILTR to eventually range from between 20bps and 40bps above Bank Rate, and more cheaply when drawn against more liquid collateral. This range is calibrated against historic pricing for market instruments that are comparable to the ILTR as set out in Table 1 in Box B.
4. **Improved transparency.** The Bank will be more transparent about its supply preferences embedded in the ILTR. This starts with this DP. The Bank will confirm the final ILTR

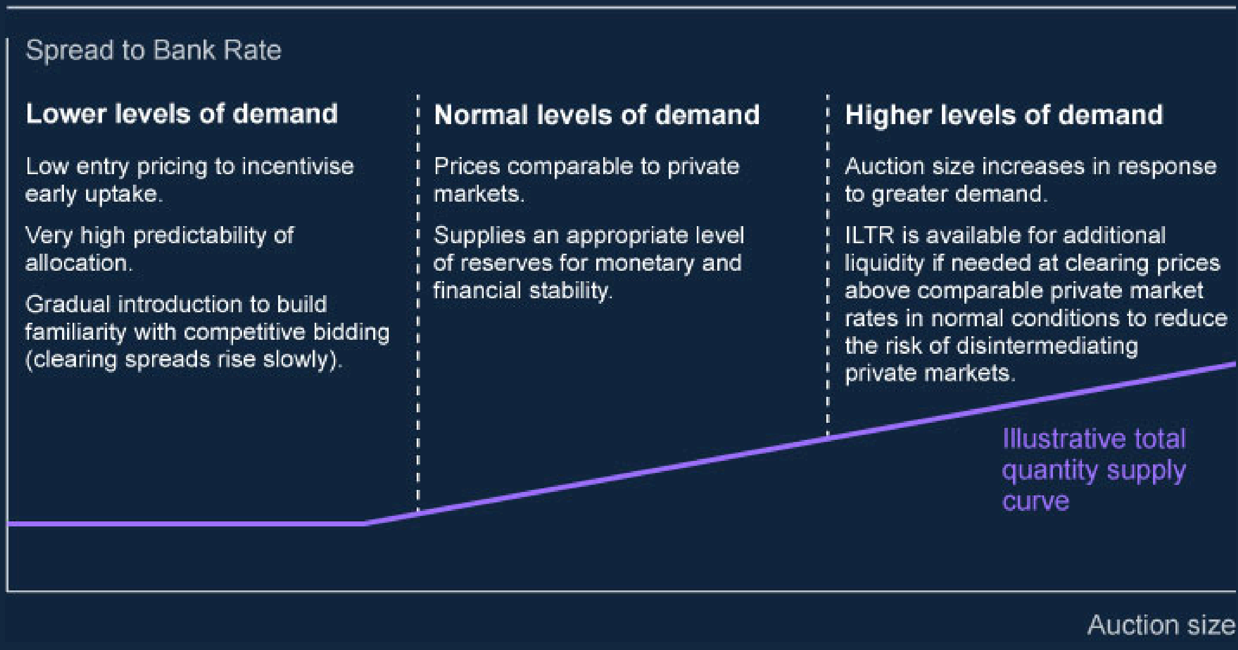
parameters ahead of implementing any changes in 2025. This change in transparency relates to the design and calibration of the ILTR: the Bank does not intend to make any changes to its disclosures on the results of each auction.[24]

43. **SMF participants should come to the ILTR auctions regularly and distribute their demand across auctions.** The aggregate stock of reserves to be supplied by the ILTR is intended to be built over multiple auctions, ensuring that the level of reserves in the system remains relatively stable. As the ILTR is offered weekly and for a six-month term, each auction will supply a proportion of the total amount needed to meet the system's needs. In other words, the ILTR is not calibrated to supply the entire stock of reserves demanded in a single auction.

44. **The Bank is still reviewing how the total quantity of reserves supplied in the ILTR is allocated to different collateral sets.** A key feature of the ILTR is that the provision of liquidity is flexible between collateral sets and responsive to demand. This is particularly desirable during the transition given uncertainty in how demand for liquidity against different collateral types may evolve. The Bank intends to retain this flexible provision in its auctions, but will consider whether changes should be made to the relative amount available for each collateral set.[25] The Bank is keen to hear feedback from SMF participants on what factors will determine demand for liquidity against different collateral sets in the ILTR; how demand might be split for liquidity against Level A collateral between the ILTR and STR; and how these factors might evolve over time. Responses will help inform the calibration of supply to different collateral sets within the ILTR.

45. Chart 4 explains how the Bank envisions the combination of all of these changes will ensure that the ILTR can meet its objectives as we move towards a repo-led framework.[26]

Chart 4: ILTR supply curve at different levels of demand



46. **The Bank will review feedback on these proposals ahead of implementing changes to the ILTR in the first half of 2025.** Changes to the ILTR parameters will be confirmed in a Market Notice to be published next year. The design of the ILTR, combined with the proposed recalibration, is intended to make the facility robust to changes in market conditions and to ensure that minimal changes will be needed over the next few years as the transition progresses. However, as with the rest of the SMF framework, the Bank will keep the calibration under review and may periodically update the parameters of the ILTR to ensure its terms remain robust to structural changes in market conditions.

Box B: Bank of England operations and private markets

- The Bank's operating framework influences a wide range of financial markets. In order to deliver on its design principles (Section 1.2), the Bank needs to ensure ongoing control of short-term market interest rates and an appropriate level of reserves for financial stability without either disintermediating short-term markets or becoming the price setter in other core private markets.
- Part of the way the Bank achieves this balance is through pricing its facilities appropriately relative to the closest private market comparators.[27] This should take into account the 'all-in' costs of using our facilities – factoring in non-price costs such as haircuts, operational costs, and differences in tenor, frequency, or regulatory treatment.

- For example, to ensure the STR anchors short-term interest rates close to Bank Rate without disintermediating private money markets, the STR is offered for a seven-day term and only once a week. This means that it is not a perfect substitute for most money market activity, which occurs largely overnight.[28] In addition, the 'all-in' cost of using the facility is estimated to be around 5bps–10bps above Bank Rate for most firms, allowing for significant money market activity to occur before borrowing from the STR becomes attractive. Consistent with this, private market activity has remained robust over 2024 (Chart A), a period which saw increased STR usage.

Chart A: Sterling money market stocks and STR usage (a)

Sources: Bankstats, Sterling Money Market data and Bank calculations.

(a) Data as of last October observation for each year. Repo comprises banks' repo borrowing transactions that use Gilts as collateral. Overnight includes all one-day maturity transactions.

- Beyond money markets, the ILTR could impact short-to-medium term funding markets. The closest comparators include term retail deposits, covered bonds, and commercial paper markets. However, these are not direct substitutes to the ILTR. Market participants will consider several factors when making longer-term liquidity and funding decisions, taking into account regulatory considerations such as Net Stable Funding Ratio eligibility; diversification of funding sources; and presence in wholesale issuance markets.

- The Bank has provided term funding schemes in the recent past, but these have been introduced by the MPC in order to support the transmission of monetary policy. We judge that it would not be appropriate for the Bank to be a price-setter in short-to-medium term funding markets in normal market conditions and without a specific policy objective. Furthermore, outside of stress periods, it would be inappropriate for the Bank to distort banks' proactive liquidity management through the provision of long-term funding.
- For the calibration of the ILTR to be consistent with these aims, it should provide liquidity in normal market conditions at prices that are broadly consistent with borrowing in alternative markets. ILTR calibration should be robust to changing market prices and consider non-price factors of borrowing in other markets. While there are no perfect comparators, and market prices will vary over time – including in response to changing trends in bank funding and liquidity[29] – Table 1 shows some comparable instruments and their recent levels.

Table 1: Market comparators to the ILTR and recent price levels (a)

Instrument	Median (spread to OIS)	Interquartile range (spread to OIS)
Six-month GC repo (b)	9bps	2–16bps
Six-month certificate of deposit	22bps	14–36bps
EUR covered bond (c)	41bps	31–55bps
One-year retail deposits	45bps	10–85bps

Sources: Bank of England, Bloomberg Finance L.P., Sterling Money Market data, Bank calculations.

(a) Data from January 2011 – November 2024 unless otherwise stated.
(b) Data from August 2016 – November 2024.
(c) Series based on constant-maturity unweighted average of secondary market spreads for the major UK lenders' five-year EUR covered bonds, where available.

Question 6: What factors determine the point at which borrowing in the ILTR on a regular basis becomes attractive relative to private market alternatives?

Question 7: How will the indicative changes to ILTR calibration (in terms of quantity and pricing) affect SMF participants' behaviour at the start of, and later on in, transition?

Question 8: What factors determine whether to borrow against Level A, B, or C collateral in the ILTR? What relative amounts of Level A, B and C collateral do you intend to draw against? How might this evolve over time?

Question 9: What factors affect SMF participants' ability to smooth demand across ILTR auctions?

Question 10: How effectively does the indicative ILTR recalibration balance the need for the auction to be responsive to market conditions with sufficient predictability of allocation for participants?

3: Collateral management and operational readiness

47. This section sets out the good practice required from participants to ensure that they are prepared for the transition to a demand-led framework, including key operational arrangements to minimise their operational risk. Participants are encouraged to review the additional resources linked in this section for further detail on the Bank's operations.

48. The Bank also seeks feedback on potential barriers within our operational arrangements that could impact the framework's functionality. Feedback on near-term improvements will be the most important, but the Bank also welcomes views on longer term system changes.

Bank of England Markets Operational Guide and Operational Guidance

49. The **Bank of England Market Operations Guide** is an essential resource for participants. It provides comprehensive guidance on the Bank's operational procedures, including collateral management and settlement processes. It also contains links to the Bank's **SMF Operating Procedures**, which help participants align their processes with the Bank's requirements.

Box C: How to be ready to participate in Bank operations

- Test all facilities you are signed up to regularly to ensure you are ready to use them, and you are familiar with both systems and settlement processes.
- Ensure multiple users maintain access to and familiarity with our electronic trading system (Btender) and the Collateral Management Portal (CMP) to facilitate straight through settlement and management of securities collateral.
- Familiarise yourself with the Bank's collateral framework, eligibility criteria and haircuts.
- Plan ahead for collateral pre-positioning; in particular for loan pools and securities which require time to complete the due diligence process.
- Be aware that you can choose to net cash payments in the Bank's operations which makes settlement more efficient.
- Refer to the **operational** and **pre-positioning guides**.

Regular testing of facilities

50. Regular testing of the Bank's facilities is crucial for maintaining operational readiness and helps to identify potential issues and maintain participants' readiness for operations. The Bank expects participants' own risk frameworks to mandate frequent testing. At the moment, participants are required to test their access to SMF liquidity facilities (DWF and ILTR/STR) at least every two years. The Bank may update its testing requirements, may request additional tests, and will accommodate testing requests from participants where possible.

The SMF collateral framework

51. When the Bank lends through market operations, it lends against collateral delivered to us by SMF participants. This collateral helps to ensure that the Bank can recover sufficient value if a participant fails to repay so as to minimise the potential impact on its loss absorbing capital.

52. The guiding principles behind our collateral framework are that, in the event of default, the Bank must be able confidently to take legal ownership of the assets and be able to value and risk-manage them effectively and efficiently. Additionally, the Bank focuses on accepting assets which are held in sufficient quantities by a range of SMF participants.

Collateral eligibility

53. A key feature of the SMF is the broad scope of asset types that are eligible as collateral, ensuring that a range of participants and business model types can participate in our operations. This limits reliance on a small number of participants to source reserves, ensures a wide distribution of reserves across the financial system, and thereby contributes to financial stability and monetary control.

54. Within the wide scope of assets eligible as collateral, the Bank sets eligibility criteria to ensure that the collateral delivered poses manageable financial risks. The collateral accepted is split into collateral levels based on creditworthiness and liquidity (Box A). Most asset classes – all Level A collateral and much of Level B collateral – are standardised marketable securities, and as such the eligibility criteria are straightforward and eligibility approval is automated. However, for raw loan portfolios and securitisations, the Bank's eligibility criteria are broader and allow for greater flexibility in eligibility decision making given the greater heterogeneity of assets. This discretion extends the time it takes to determine collateral eligibility.

55. Pre-positioning raw loan portfolios requires due diligence to ensure collateral is acceptable and within the Bank's risk appetite. This includes the Bank's own risk assessment, ensuring legal ownership of the collateral and its associated cash flows can be obtained, a

third party data audit, and assurance on data quality. Similarly, for securitisations we require firms to compile all necessary deal documentation, meet transparency requirements, and in some cases commission a legal risk review.

56. This necessary due diligence takes time to complete but ensures that the Bank can be comfortable with the financial risks of collateral and can be more confident in its risk assessment. As a result, the Bank can be more precise in the haircuts applied to collateral; a corollary of which should be improved drawing capacity for participants.

57. Participants can verify the eligibility and setup of their securities collateral via the CMP or using the published lists on our website – for **Level A**, **Level B** and **Level C**. The scope of eligible assets is kept under review. The Bank is exploring enhancements to both internal and external eligibility checking processes, aiming to improve efficiency for SMF participants while adhering to its financial, legal, and operational risk appetites.

Setting haircuts

58. The Bank sets haircuts on eligible collateral in order to protect against falls in the value of that collateral in the event that a participant defaults. The Bank applies consistent haircuts across all operations in the SMF. The haircuts are designed to protect against the fundamental credit risk of the assets, as well as the market and liquidity risk. The Bank does not plan to change its collateral haircut framework as part of the transition to a repo-led framework. The Bank publishes the base **haircuts for Level A, Level B, and Level C securities**. Haircuts for Level C loan collateral are calculated individually for each pool of loans.[30]

59. Haircuts are set so that they cover the risk of loss at all points of the economic cycle – which also reduces any cyclicality in haircut levels. This is particularly important since for some operations there is a greater likelihood of lending, and in larger amounts, during periods of severe economic or financial stress. For these reasons, haircuts are set at a level that is higher than might apply for similar transactions between commercial banks.

Collateral pre-positioning, settlement and pooling

60. The Bank encourages the pre-positioning of both securities and loan collateral. Pre-positioning ensures that assets are valued and ready for immediate use in market operations. This expedites access to liquidity when needed, which is particularly important during periods of stress. This approach provides participants with a clearer understanding of their collateral valuation and reduces the likelihood of operational issues disrupting access to the Bank's facilities.

61. The Bank offers three mechanisms for instructing collateral movements: SWIFT message, emailed spreadsheet or the Bank's CMP. The CMP provides a streamlined way to move securities in and out of a participant's main collateral pool and is the quickest mechanism for delivery, so the Bank recommends its use to minimise settlement delays. The CMP also allows participants to view their collateral valuations, outstanding exposures and to check if a security is eligible to be used in the SMF. By contrast, the spreadsheet instruction process involves some manual processing and is the slowest method to provide delivery instructions.

62. Each participant's collateral delivered to the Bank is placed into a single pool, from which they can draw liquidity as needed. This model simplifies collateral management for both parties by reducing the need for specific collateral matching to individual transactions. Once pre-positioned and accepted, collateral in the pool can be used across multiple operations without reassignment. Additionally, it also minimises the need for collateral movements when transactions are rolled over. More information on pooling can be found in the **SMF Operating Procedures**.

Collateral forward planning

63. Participants should familiarise themselves with the SMF collateral eligibility criteria as part of their readiness preparations. The Bank encourages forward planning to avoid operational disruptions, especially during times of market stress. By ensuring eligible assets are available, participants can mitigate the risk of delays or ineligibility and inform the Bank's planning and resourcing.

64. During periods of high demand for collateral eligibility requests, the Bank may prioritise which collateral to assess first based on factors such as participants' available drawing capacity, completeness of request forms, promptness of responses, wider interest in the same collateral, and ensuring fair resource allocation among all SMF participants. Participants are given discretion over which assets to pre-position, and the quantity pre-positioned. The Bank will provide feedback on asset suitability, reserving the right to deem some assets ineligible.

Question 11: How do the SMF framework changes discussed in this paper affect your plans for pre-positioning collateral over the coming years, including the relative composition of Level A, B and C collateral? What factors will be most significant in these decisions?

Box D: Use of Term Delivery By Value (TDBV) to collateralise SMF facilities

- TDBV is a basket of gilt securities held at CREST with automatic daily adjustments to ensure that the aggregate collateral value is maintained. Collateral substitutions are processed automatically. For some participants this can facilitate very efficient management of collateral.
- If a participant wants to use TDBV to collateralise SMF facilities the Bank recommends the use of TDBV free of payment delivery. This allows TDBV to be used in the collateral pool alongside other delivered collateral and can be used in the same way as an outright delivery. Participants are able to instruct initiation and amendment of the TDBV size and closure via the CMP, SWIFT or emailed spreadsheet. More details on use of TDBV for SMF facilities can be found Section 9.8 of the **SMF Operating Procedures**.
- To support use of TDBV the Bank is happy to provide more information to interested participants and arrange a test trade of the collateral settlement process. Please note that participants need to advise the Bank in advance if they wish to use TDBV.

Net settlement of cash payments

65. Participants can choose to net cash payments in the Bank's operations. This means that new and maturing business of the same operation type is completed in one net payment. Netting cash payments generally makes for more efficient settlement as it reduces the number of cash movements required.

66. Participants can choose to net their cash payments by checking the relevant box on the **Data Collateral Form** submitted to the Bank. Preferences can be updated by submitted a new form. See the **Settlement and collateral management** page for further information. Participants should ensure that the Bank receives maturity payments by 2pm on maturity date and follow the Standard Settlement Instructions to ensure timely and accurate settlement.

Question 12: What suggestions do you have on the current SMF operational arrangements to enhance efficiency further? Responses could consider operational risk, straight through processing collateral management and cash settlement or communications with the Bank.

Systems

67. As the Bank transitions to a repo-led operating framework, it is crucial that systems and processes are also fit for the future. The Bank is therefore considering improvements in the long term that could be made to Bank systems, in particular the Bank of England electronic tendering system (Btender) and the CMP.

68. Btender is used to carry out SMF operations such as ILTR and STR auctions as well as APF operations such as gilt sales/purchases. It would be valuable to understand any improvements that could be made around using Btender or CMP, as well as any areas where enhancements or new functionality could improve the user experience. We are in an initial stage of thinking about improvements to our systems so would welcome participants' views during this early phase.

Question 13: We are seeking feedback on possible improvements to the Bank's documentation to support firms' operational engagement with the Bank. This includes the Bank's **Market Operations Guide**, **operational process guides**, **loan pre-positioning guide**, and **collateral eligibility framework**. What information do you currently access and what improvements or additions do you suggest?

Question 14: How could current systems, such as Btender or the Collateral Management Portal (CMP), be improved to enhance participation in operations, streamline trade settlement and facilitate position management? Please briefly describe any additional features, adjustments or feedback that could support a more effective user experience and operational efficiency.

We invite expressions of interest from SMF participants who would be interested in engaging in further in-depth discussions specifically focused on potential improvements to the Btender system and/or the CMP. Please specify which system(s) in your response.

4: Commenting and summary of questions

4.1: Commenting on this discussion paper

The Bank welcomes feedback on the questions posed in this DP from all interested parties.

Comments should be sent to RepoLedFrameworkDP@bankofengland.co.uk by 31 January 2025.

Responses to the questions set out in this DP will form the basis of the Bank's engagement with market participants and other interested parties on the design of the SMF and the size of its balance sheet. The Bank intends to provide further information in publications and speeches as its thinking in these areas develops.

Please indicate in your response if you believe any of the proposals in this DP are likely to impact persons who share protected characteristics under the Equality Act 2010, and if so, please explain which groups and what the impact on such groups might be.

Please see the Bank's privacy notice here: **Privacy and the Bank of England**.

4.2: Summary of questions

The Bank is seeking views from interested parties on the following issues:

The overarching framework

Question 1: Our framework is designed to be robust to changes in the demand for reserves – which might be slow-moving or rapid; long-lived or short-lived. Are there any adjustments we could make to bolster the robustness of our framework for supplying reserves to changes in firms' demand?

Question 2: What are the key risks to our framework's effectiveness at achieving our stated policy aims? How should the Bank address these risks during transition?

Question 3: How is the overall framework likely to affect private market activity, including the structure, activity, and pricing of money markets, and banks' incentives to provide repo lending to NBFIs in BAU and in stress?

SMF facilities

Question 4: What are the key factors that may affect SMF participants' total ILTR and STR usage over the course of the transition?

Question 5: For borrowing against Level A collateral specifically, what factors determine whether to use central bank facilities or private market alternatives, and if using central bank facilities, what factors determine the choice between the STR, ILTR and OSF? How might these evolve over time?

The ILTR facility

Question 6: What factors determine the point at which borrowing in the ILTR on a regular basis becomes attractive relative to private market alternatives?

Question 7: How will the indicative changes to ILTR calibration (in terms of quantity and pricing) affect SMF participants' behaviour at the start of, and later on in, transition?

Question 8: What factors determine whether to borrow against Level A, B, or C collateral in the ILTR? What relative amounts of Level A, B and C collateral do you intend to draw against? How might this evolve over time?

Question 9: What factors affect SMF participants' ability to smooth demand across ILTR auctions?

Question 10: How effectively does the indicative ILTR recalibration balance the need for the auction to be responsive to market conditions with sufficient predictability of allocation for participants?

Operational and collateral

Question 11: How do the SMF framework changes discussed in this paper affect your plans for pre-positioning collateral over the coming years, including the relative composition of Level A, B and C collateral? What factors will be most significant in these decisions?

Question 12: What suggestions do you have on the current SMF operational arrangements to enhance efficiency further? Responses could consider operational risk, straight through processing collateral management and cash settlement or communications with the Bank.

Question 13: We are seeking feedback on possible improvements to the Bank's documentation to support firms' operational engagement with the Bank. This includes the Bank's **Market Operations Guide**, **operational process guides**, **loan pre-positioning guide**, and **collateral eligibility framework**. What information do you currently access and what improvements or additions do you suggest?

Question 14: How could current systems, such as Btender or the Collateral Management Portal (CMP), be improved to enhance participation in operations, streamline trade settlement and facilitate position management? Please briefly describe any additional features, adjustments or feedback that could support a more effective user experience and operational efficiency.

5: Annex

5.1: Summary of SMF lending facilities

Table A1.A: SMF lending facilities

	Scheduled open market operations		Bilateral facilities	
Facility	**Short-Term Repo (STR)**	**Indexed Long-Term Repo (ILTR)**	**Operational Standing Facility (OSF)**	**Discount Window Facility (DWF)**
Type	Market-wide lending facility.	Market-wide lending facility.	Bilateral deposit and lending facility.	Bilateral lending facility.
Frequency	Weekly (Thursday).	Weekly (Tuesday).	On-demand daily.	On-demand daily.
Term	Seven days.	Six months.	One day.	Up to 30 days (CCPs up to five days).
Settlement	T+0.	T+2.	T+0.	T+0.
Volume	Unlimited.	Maximum size of operation subject to demand in the auction.	Size at the request of the participant (dependent on collateral value for OSF lending).	Size at the request of the participant (dependent on collateral value).

	Scheduled open market operations		Bilateral facilities	
Current pricing	Bank Rate	The minimum price against each collateral set is: Level A: Bank Rate +0bps Level B: Bank Rate +5bps Level C: Bank Rate +15bps. The clearing price for each collateral set can rise above these minimum levels depending on auction demand.	Deposit: Bank Rate -25bps. Lending: Bank Rate +25bps.	Drawings up to 5% of eligible liabilities (ELs) have a flat fee of Bank Rate + 25bps, 50bps and 75bps for Level A, B and C collateral, respectively. After this, marginal pricing increases linearly relative to drawing size, up to 15% of ELs. Pricing above that is at the Bank's discretion.
Collateral	Level A.	Level A, B and C.	Level A.	Level A, B and C.
Asset lent/deposited	Central bank reserves (cash).	Central bank reserves (cash).	Central bank reserves (cash).	Gilts or central bank reserves (cash) at the Bank's discretion.

Note: **Short-term non-sterling liquidity facilities** are not included in the table above.

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1. **Explanatory Note: Managing the operational implications of APF unwind for asset sales, control of short-term market interest rates and the Bank of England's balance sheet**.
2. **Bank of England Market Operations Guide: Our tools**.
3. **The central bank balance sheet as a policy tool: past, present and future – speech by Andrew Bailey**.
4. **'Less is more' or 'Less is a bore'? Re-calibrating the role of central bank reserves – speech by Andrew Hauser**.
5. See the Bank's August 2018 DP **The Bank of England's future balance sheet and framework for controlling interest rates** and the August 2022 announcement **Explanatory Note: Managing the operational implications of APF unwind for asset sales, control of short-term market interest rates and the Bank of England's balance sheet**.
6. **Explanatory Note: Managing the operational implications of APF unwind for asset sales, control of short-term market interest rates and the Bank of England's balance sheet**.
7. The Bank will continue to be accountable to Parliament in respect of the Bank's finances and budget in a variety of ways, including but not limited to its Annual Report, regular public appearances by Governors and members of Court before the Treasury Select Committee (as well as pre-appointment hearings) and the National Audit Office value for money reviews.

8. **QE at the Bank of England: a perspective on its functioning and effectiveness**.
9. The Bank capitalises its residual exposures accounting for haircuts in line with its capital framework, see **The Financial relationship between HM Treasury and the Bank of England – Memorandum of Understanding**.
10. Under the terms of the 1844 Bank Charter Act, the Bank's balance sheet is divided for accounting purposes into the Issue Department, covering banknote issuance activity, and the Banking Department, which encompasses all other activities.
11. The most recent survey estimate for 2024 Q3 produced a range of £385–£530 billion.
12. There are no restrictions on the number of bids that can be submitted, or the quantity of liquidity that can be bid for by individual firms.
13. In practice, usage of the OSF has been low to date. Demand for borrowing in the OSF has been low, as borrowing rates in private markets have been more attractive than the OSF rate. Demand for depositing in the OSF has also been low, as most SMF participants have reserve accounts where balances are fully remunerated at Bank Rate (above the OSF deposit rate). The limited usage of the deposit facility has primarily driven by central counterparties (CCPs) and international central securities depositories who are required to maintain a pre-determined target balance on their reserves accounts and use the facility to manage excess reserves.
14. As set out in the **Financial Services and Markets Act 2000** (FSMA).
15. CCPs have access to use the DWF for cash drawings for up to a five-day term, to reflect the likely difference in liquidity needs across institution type.
16. See **Firms' eligible liabilities** for definition.
17. There is a flat fee for drawings up to and including 5% of Eligible liabilities (ELs) (Bank Rate plus 25bps, 50bps and 75bps for Level A, B and C collateral, respectively), after which point the marginal pricing increases linearly relative to the drawing size as a percentage of ELs, up until 15% of ELs, to Bank Rate plus 75bps, 125bps, and 300bps to Levels A, B and C respectively. Pricing for drawings that exceed 15% of ELs is at the Bank's discretion.
18. The Bank is also expanding its toolkit to include the **Contingent Non-Bank Financial Institutions (NBFI) Repo Facility (CNRF)**. The facility can be activated at the Bank's discretion to address episodes of severe dysfunction in the UK sovereign debt (gilt) market in particular, arising from system-wide shocks that temporarily increase non-banks' demand for liquidity, when that demand is outside the reach of the Bank's existing SMF facilities.
19. See the **Bank of England Quarterly Bulletin 2015 Q2** and the **Index Long-Term Repo process guide** for more detail on how the ILTR works. The process guide will be updated in due course to reflect the changes to the ILTR's calibration.
20. The previously announced 3bps increase to minimum bid spreads for Level A collateral will no longer be taking place.
21. **Confirmation of weekly frequency for Indexed Long-Term Repo Operations – Market Notice 16 October 2024**.
22. The maximum stock available assumes 24 ILTR auctions in a six-month period, with each one reaching the maximum auction size.
23. Assuming 24 auctions in a six-month period.
24. Aggregate results of each auction will continue to be published. This includes the total bids, amounts allocated and clearing spread split by collateral set. The Bank will not disclose individual bids or counterparty information, in line with the current approach.
25. There is currently £5 billion (bn) of reserves available at fixed minimum spreads. Up to £2.5bn (50%) can be allocated to bids against less liquid collateral sets (Levels B and C). Of that £2.5bn, £2bn can be allocated to bids against Level C. However, in the absence of Level C bids, the full £2.5bn can be allocated to bids against Level B. Similarly, in the absence of bids against Level B and C, the full £5bn can be allocated to bids against Level A. If demand rises and there is an increase in the relative demand for less liquid collateral, a larger proportion of the auction is made available to

these less liquid collateral sets. With the planned increase in quantities of reserves available at fixed minimum spreads and in total, the Bank is reviewing whether changes should be made to the relative amounts available for each collateral set at minimum spreads, or to the responsiveness of auction outcomes to changes in relative demand.

26. This illustrates the ILTR supply curve for the total quantity of reserves. A separate set of supply curves determines how the total quantity of reserves is split between collateral sets.

27. The terms on which reserves are held by SMF participants also impacts private market activity. By remunerating reserves at Bank Rate, the Bank disincentivises SMF participants from lending overnight at rates below Bank Rate. This is a core element of how the Bank delivers short-term market interest rate control.

28. Borrowing transaction volumes in repo and unsecured sterling markets are mostly in overnight tenors. However, the stock of term borrowing for both repo and unsecured is larger than overnight.

29. See **Financial Stability Report – December 2023**.

30. The **2014 Quarterly Bulletin article** provides more information on how haircuts are set.