



**BANK OF ENGLAND**

# Bank of England Settlement Accounts

July 2017

## Contents

<b>Foreword</b>	<b>3</b>
<b>1. Payment systems and the role of the central bank</b>	<b>4</b>
Payment systems	4
Settlement in central bank money	4
Intraday liquidity	4
Use of the Bank's balance sheet	5
<b>2. Settlement and collateralisation accounts</b>	<b>6</b>
<b>3. Eligibility criteria for the Bank to act as settlement service provider for a payment system</b>	<b>8</b>
Comparison with the recognition process for the Bank's statutory oversight role	10
<b>4. Eligibility criteria for a Bank of England settlement account</b>	<b>11</b>
<b>5. The criteria for institutions being granted intraday liquidity</b>	<b>12</b>
<b>6. Settlement account charges</b>	<b>13</b>

# Foreword

**1. This paper states the Bank’s policy for providing settlement services to payment systems, for providing settlement accounts in sterling in the Bank’s Real Time Gross Settlement (RTGS) system<sup>1</sup> and for granting access to intraday liquidity.**

2. The first section of the document explains the role of payment systems and the role of the central bank in providing settlement services to those systems. The second section explains how settlement accounts are used. The third section provides a set of criteria against which payment systems will be assessed if the Bank is to agree to act as settlement service provider (SSP). The fourth section sets criteria which will be taken into account when determining whether institutions will be granted a settlement account. The fifth section outlines the requirement for a subset of members of certain systems to have access to intraday liquidity and the criteria for institutions to be granted access to that intraday liquidity. The final section sets out the Bank’s policy for charging for the services provided.

---

<sup>1</sup> For additional information see “The Bank of England’s Real-Time Gross Settlement infrastructure”, Bank of England Quarterly Bulletin 2012 Q3 at <http://www.bankofengland.co.uk/publications/Documents/quarterlybulletin/qb120304.pdf>

## 1. Payment systems and the role of the central bank

### Payment systems

3. Electronic payments are essential to the functioning of modern economies. In the United Kingdom, over 98% of sterling payments, by value, are made electronically. Electronic payments are made via payment systems, each one of which consists of the set of rules and procedures governing the organised arrangements for transferring value between economic agents via the accounts that those agents have with the system's members. A payment system requires an SSP to provide final settlement of the claims and liabilities that arise between its members. This final settlement is achieved via the transfer of balances between accounts that the settlement members of the payment system hold with the SSP.

4. Those members of a payment system who participate in settlement of obligations across Bank of England RTGS accounts are referred to throughout this document as "settlement members". Terminology describing this type of membership varies between payment systems.<sup>2</sup>

### Settlement in central bank money

5. Payment systems will normally seek to use an SSP that is highly creditworthy, reliable and independent. Central banks fit these criteria and so often take on the role of the SSP for the main payment systems in a country. In these cases, the settlement asset is 'central bank money' i.e. the liabilities of the central bank. The advantage of settlement in central bank money is that the risk of a financial failure of the SSP is greatly reduced as central banks have the lowest credit risk and are the source of liquidity with regard to their currency of issue. Indeed, one of the fundamental purposes of central banks is to provide a safe and liquid settlement asset. Such a reduction in settlement risk enhances financial stability, as payments can be made by users of a payment system with a greater degree of certainty that they will settle.

6. Monetary stability is also enhanced by the use of the central bank's balance sheet to settle obligations in certain payment systems. This is because the ability to make large value payments swiftly and with certainty underpins the operation of the interbank money market. This is important to the monetary transmission mechanism as interbank rates are a key target of the Bank's monetary policy implementation.

### Intraday liquidity

7. Payment systems can settle using one of two settlement methods: real time gross settlement or deferred net settlement (DNS). From a financial stability standpoint, real time gross settlement is the preferred mode of settlement for high-value payment systems because obligations are settled individually and speedily, and are irrevocable and immediately final, thereby removing interbank settlement risk. However, it requires that settlement members have a greater value of liquidity available than would be

---

<sup>2</sup> Currently, in CHAPS and Cheque & Credit these are referred to as direct participants; in CREST as settlement banks; in Bacs and FPS as direct settling participants; in LINK as members who operate a settlement account; and in Visa as a principal member.

necessary for the settlement of DNS system obligations. This is because for DNS systems only the net obligations incurred between settlement members are settled, and these will always be less than (or equal to) the gross values.

8. Settlement through real time gross settlement can only occur if the settlement member being debited has sufficient funds (termed 'liquidity') available. Any balance held on a settlement account can be used intraday as liquidity for the settlement of payments.

9. However, for firms with business models involving inherent exposure to overnight liquidity risk, for example maturity transformation activities, additional liquidity may be necessary to fund the settlement of individual, gross payments as they are presented for settlement on a continuous basis through the day. If such settlement activity did require more liquidity than was available from the balances already held, settlement timeliness could be adversely affected, with settlement members that were short of liquidity having to wait for settlement of incoming payments from their counterparties before being able to complete settlement of their own payments.

10. So for payment systems that use the real time gross settlement model, the Bank grants certain types of institutions – primarily those eligible for access to reserves accounts in the Sterling Monetary Framework (SMF) – access to on-demand, supplementary central bank money throughout the day – which is termed "intraday liquidity". Currently, the Bank provides intraday liquidity facilities to support settlement in the CHAPS payment system and securities settlement in CREST.

11. For DNS systems, timely settlement of the clearing requires those settlement members which are net payers to have sufficient liquidity in their settlement account at the time of the clearing. The timing of each clearing and the value of net positions are known in advance.

### **Use of the Bank's balance sheet**

12. While settlement of payment system obligations in central bank money and the provision of intraday liquidity to certain settlement members has financial and monetary stability benefits, the Bank must also protect its balance sheet by setting terms for offering facilities to counterparties.

13. The Bank can incur credit risk through the provision of intraday liquidity to settlement members (i.e. the risk that the borrower may not repay). So such liquidity is generally provided by way of an advance against a defined set of high-quality, highly-liquid collateral transferred by way of full title transfer to the Bank.<sup>3</sup> While the Bank seeks to ensure timely settlement, it aims equally to avoid taking undue risk onto its balance sheet.

14. In addition to the risk of non-repayment of intraday liquidity and reputational risk, the Bank also needs to consider the financial stability impact that the failure of an institution holding a settlement account might have on the integrity of the payment system for which the Bank acts as SSP and on the stability of the financial system of the United Kingdom.

---

<sup>3</sup> Eligible securities are defined at: <http://www.bankofengland.co.uk/markets/Pages/money/eligiblecollateral.aspx>

15. The Bank mitigates these risks by choosing its counterparties carefully and by covering any exposures with appropriate collateral.

## 2. Settlement and collateralisation accounts

16. For some UK payment systems, such as CHAPS and the embedded payment system that supports the securities settlement system in CREST, it is a condition of membership that members have a settlement account at the Bank. However, for DNS systems, it may not be necessary for every member of the payment system to have its own settlement account. Under a DNS system, payments are exchanged between members during a 'clearing cycle', at the end of which the net obligations between settlement members are calculated and presented to the SSP for settlement. So settlement may involve only one (or a small number of) payments per day, and an arrangement where one member makes the payment to settle the obligations of another member via a correspondent banking relationship may well be efficient. Furthermore, for systems where the Bank acts as SSP, not all system members may be eligible for a settlement account, as settlement accounts are only provided to certain categories of institution (see Section 4).

17. Settlement accounts therefore exist in the context of payment system membership. The same account may be used to settle the obligations from several payment systems, and may also be used for non-settlement purposes. An institution only holds a settlement account at the Bank where it is a member of one or more payment systems for which the Bank acts as SSP. Eligible institutions wishing to become direct participants in a payment system may apply for membership of that system simultaneously with their application for an account at the Bank.

18. The Bank also allows banks, building societies, CCPs and designated investment firms ('broker-dealers') to hold reserves accounts as part of the SMF.<sup>4</sup> Whilst these two types of accounts serve different purposes, for those reserves account holders who are also settlement members, their reserves accounts are used as their settlement accounts. Access criteria for settlement accounts and reserves accounts are broadly aligned, ensuring consistency of access to the Bank's balance sheet via its intraday and term facilities.

19. Authorised electronic money institutions and authorised payment institutions (as defined below) are ineligible for membership of the SMF, and therefore can only hold a settlement account.

20. Certain payment systems operate a DNS model with pre-funding using central bank money. This eliminates settlement risk in the payment system by capping the maximum net obligations of the settlement

---

<sup>4</sup> See the 'The Framework for the Bank of England's Operations in the Sterling Money Markets' at <http://www.bankofengland.co.uk/markets/Pages/sterlingoperations/redbook.aspx> and 'Documentation for the Bank of England's operations under the Sterling Monetary Framework' at <http://www.bankofengland.co.uk/markets/Pages/money/documentation.aspx>

members in the system and by requiring settlement members to hold funds in a segregated account in RTGS equal to the value of that cap. This ensures fulfilment of the settlement members' net obligations in the event of their default.

21. These segregated accounts are known as Collateralisation Accounts (CAs); specifically these are referred to as Reserves Collateralisation Accounts (RCAs) for members of the SMF already holding a reserves account; and Settlement Collateralisation Accounts (SCAs) for institutions ineligible for SMF membership. Settlement members of pre-funded payment systems which have a settlement account are automatically provided with the appropriate CA alongside the settlement account: there is no separate authorisation process for the CA. A separate CA is provided to the settlement member for each prefunded payment system.

22. The CA is not used for settlement in the ordinary course of events; this occurs from the settlement account. Funds on the CA would only be used to complete settlement in a contingency scenario.

### 3. Eligibility criteria for the Bank to act as settlement service provider for a payment system

23. As set out in paragraphs 5-6 above, enabling a payment system to access settlement in central bank money can have monetary and financial stability benefits. The financial stability benefits can be realised in two different ways: through the mitigation of risk for the users of the system; and also through supporting greater innovation and competition in the provision of payment services, which encourages diversification and the development of new, risk reducing technologies, and thus supports the Bank's objective to promote financial stability in the longer term.

24. If a payment system settles in central bank money, its members and users primarily benefit from the mitigation of two risks: credit risk on the SSP and disruption risk (i.e. the risk of widespread disrupted access for the users of payment services arising from the financial failure of the SSP).

25. In providing settlement services, a central bank necessarily takes on certain risks and responsibilities. Chief among these are counterparty credit risk resulting from the provision in certain circumstances of intraday liquidity (see section 5), and operational responsibilities. The latter is an important consideration: the operational reliability of the SSP is key to the viability of a payment system. The criteria outlined below ensure that the Bank focuses its efforts on providing such a service to those systems where the risk reduction benefits to the payment system, and the wider payments landscape (and therefore the monetary and financial stability benefits), outweigh the costs and risks borne by the Bank and the wider system.

26. The Bank currently supports four settlement models for a payment system: real-time gross settlement, delivery versus payment (DvP), prefunded DNS and unfunded DNS.

Box – The Bank's settlement models

**Real-Time Gross Settlement:** This model is currently only used by CHAPS. Payment obligations between settlement members are settled individually on a gross basis throughout the business day. Settlement risk is eliminated, at the cost of an increased need for liquidity, making this model best suited to a High Value Payment System with the largest potential systemic risk.

**The DvP link:** This model is currently only used by CREST which settles securities transactions on a Delivery versus Payment (DvP) basis in a series of very high frequency cycles through the day. After each cycle, RTGS is advised of the debits and credits to be made to the RTGS accounts of CREST settlement members. Settlement risk is eliminated as transactions are settled with finality in real time against segregated liquidity.

**Prefunded deferred net settlement:** Payment systems that do not settle on a real-time gross basis, but

instead settle obligations between settlement members periodically in batches on a multilateral net basis. In the periods between settlement cycles, potential settlement risk can arise between settlement members. The introduction of prefunding in 2015 eliminated settlement risk in certain systems by capping the maximum net obligations of settlement members in the system and by requiring settlement members to hold funds in a CA equal to that cap, ensuring the fulfilment of the participants' net obligations, even in the event of default of a settlement member.

**Unfunded DNS:** This is periodic batch settlement between settlement members on a multilateral net basis. A feature of this model is that settlement risk exists in these payment systems, mitigated by arrangements in the individual systems.

27. Each of these models presents a different level of complexity and therefore operational risk to the Bank, as the SSP, and the wider payments ecosystem. Consequently, applications from a payment system to use a more complex model (such as real-time gross settlement or DvP) require a stronger case than a DNS model in terms of the financial stability benefits. In a similar manner, an application for a prefunded DNS model would require a stronger case than one for unfunded DNS model.

28. The Bank welcomes dialogue with potential applicants about the possibility of access to settlement in central bank money. The Bank has discretion in determining which systems it provides settlement services for. Whether the Bank would support a particular settlement model will require an analysis of the monetary and financial stability benefits and operational risks of that settlement model.

29. Provision of a settlement service in RTGS will be subject to agreement on an operational model that is acceptable to the Bank.<sup>5</sup> In considering an application for the Bank to provide settlement services to a payment system, when considering the benefits, costs and risks set out in paragraph 25 above, the Bank will be guided by the following criteria:<sup>6</sup>

- (i) the value and volume of transactions of the system: the larger the value/volume of transactions, the greater the risks the system presents. The value of the transactions would inform the assessment of the extent of the credit risk. The value and the volume of transactions would inform the assessment of the extent of the disruption risk;
- (ii) the nature of the transactions processed through the system: this criterion assesses the relative importance of a payment to the economy or society, irrespective of the value of the payment. For example, any disruption to the payment of salaries would rate highly under this criterion, as individuals rely on receiving their salary in order to make other payments. Equally,

<sup>5</sup> The Bank's expectation is that applicants for a DNS service will use the standardised automated settlement service provided. For non-DNS systems, the Bank would consider the operational model on a case-by-case basis.

<sup>6</sup> The Bank's assessment of an application for settlement services will be forward looking and will be a broad judgement of the overall application, taking account of all criteria, but without giving particular weighting to any individual criterion or an expectation of a strong financial stability case across all three.

if settlement in central bank money would help to support competition and innovation in a way which enhances financial stability, this would be taken into account;

- (iii) the number of directly settling system members eligible for a Bank of England settlement account: there are two main reasons why the Bank will consider the number of members in a system when making its judgement. First, if a relatively small proportion of system members were eligible for a settlement account, this limits the risk-reducing benefits of the system settling in central bank money (as those ineligible for a settlement account would not be able to settle in central bank money). Second, the absolute number of directly settling members will also be a factor when considering the financial stability benefits, and gives an indication of market reach for the payment system, which the Bank will take into consideration when deciding whether to provide settlement services given the risk the Bank incurs.

### **Comparison with the recognition process for the Bank's statutory oversight role**

30. There is some overlap between these criteria and those that are used by HM Treasury when assessing whether to recognise a payment system so that it is supervised by the Bank under section 185 of the Banking Act 2009. This is because both decisions, to different degrees, take account of the systemic importance of a payment system and the impact its disruption would have on financial stability.

31. However, this does not imply that the judgement on whether a system is of sufficient systemic importance to be recognised for supervision will exactly match the judgement on whether it should be provided with settlement services by the Bank. Settlement in central bank money can be a worthwhile risk mitigant, or supportive of competition and innovation in the payments landscape, even for a system that is not recognised. So, there is a lower threshold for settlement service provision than recognition for supervision. The Bank's expectation is, however, that if a system is recognised as systemically important enough for Bank of England supervision, it is likely also to meet the criteria for settling at the Bank (although this remains at the Bank's discretion).

## 4. Eligibility criteria for a Bank of England settlement account

32. In deciding whether to provide a settlement account to an institution, the Bank will be guided by the following eligibility criteria. However, access to a settlement account remains at the sole discretion of the Bank.

(a) The applicant:

(i) is a bank or building society<sup>7</sup> and holds a Bank of England reserves account,<sup>8 9</sup> or

(ii) is a broker-dealer<sup>10</sup> and holds a Bank of England reserves account; or

(iii) is a CCP<sup>11</sup> and holds a Bank of England reserves account; or

(iv) is a Financial Market Infrastructure (FMI) entity that is ineligible for a reserves account but that provides a function that is systemically important and the Bank considers that financial stability would be enhanced if it settled in central bank money by becoming a direct member of a system for which the Bank acts as SSP.<sup>12</sup> Any application for a settlement account by an FMI that is ineligible for a reserves account would be considered on its merits and would be at the sole discretion of the Bank. Provision of a settlement account does not automatically infer provision of deposit facilities or intraday liquidity; or

(v) is an authorised electronic money institution or authorised payment institution.<sup>13</sup> The FCA (and where appropriate HMRC)<sup>14</sup> will undertake a supervisory assessment and provide non-objection before an applicant is granted a settlement account by the Bank. These institutions are ineligible for reserves accounts and intraday liquidity.

*and*

(b) The applicant is a member of a payment system (or is in the process of applying to join a payment system) for which the Bank has chosen to act as SSP;

*and*

(c) The applicant has the operational capacity to participate in and efficiently settle transactions in the Bank's RTGS system.

---

<sup>7</sup> Defined as a deposit-taking institution that is required to report its eligible liabilities (see Bank of England Act 1998, Schedule II paragraph 1).

<sup>8</sup> Eligible institutions may apply to the Bank for a reserves account and a settlement account simultaneously.

<sup>9</sup> At the discretion of the Bank, the requirement to hold a reserves account may not apply if another entity in its banking group already holds a reserves account.

<sup>10</sup> Defined as an investment firm which is designated by the Prudential Regulation Authority for prudential supervision in accordance with Article 3 of the PRA Regulated Activities Order.

<sup>11</sup> Defined as a central counterparty operating in UK markets which is either authorised under EMIR by a competent authority or recognised under EMIR by the European Securities and Markets Authority. EMIR means Regulation (EU) No 648/2012 of the European Parliament and of the Council of 4 July 2012 on OTC derivatives, central counterparties and trade repositories.

<sup>12</sup> This policy is in line with internationally agreed Principles for financial market infrastructures as set out in the CPSS-IOSCO principles at: <http://www.bis.org/publ/cpss101a.pdf>

<sup>13</sup> As defined in the Electronic Money Regulations 2011 and the Payment Services Regulations 2009 respectively.

<sup>14</sup> Authorised payment institutions that are also money service businesses are subject to FCA regulation but are separately supervised by HMRC for anti-money laundering and counter-terrorist financing purposes under the Money Laundering Regulations 2007.

33. The Bank limits the number of settlement accounts granted to a group. Generally, the Bank will be willing to grant a settlement account to more than one entity where in the Bank's opinion there is a clear legal or regulatory motivation for doing so (e.g. where the group contains a ring-fenced entity). This is consistent with the Bank's policy on access to reserves accounts.<sup>15</sup>

## 5. The criteria for institutions being granted intraday liquidity

34. Access to intraday liquidity is mandatory for reserves account holders that are members of payment systems which use the real time gross settlement model. Given reserves account holders are inherently exposed to liquidity risk, for example by virtue of the maturity transformation activities they undertake, to ensure timely settlement in real time settlement systems, they must be able to access a plentiful supply of intraday liquidity on demand. So all reserves account holders that are settlement members of CHAPS and CREST must have the necessary infrastructure and legal arrangements in place with the Bank so that intraday liquidity can be obtained on demand.<sup>16</sup> This does not impose a requirement to draw on the intraday liquidity routinely, but to have the facility to access it in the event that it is necessary.

30. The Bank's provision of intraday liquidity and of overnight liquidity via Operational Standing Facilities (OSFs) are both means by which its counterparties can convert eligible collateral into central bank money. Criteria for accessing intraday liquidity are the same as for becoming an OSF participant. The full criteria and details of these facilities are available in the SMF documentation.<sup>17</sup>

31. On a case-by-case basis, the Bank may provide intraday liquidity to an FMI entity that is ineligible for a reserves account but that holds a settlement account. Any application by an FMI that is ineligible for a reserves account would be considered on its merits and would be at the sole discretion of the Bank.

32. As they are not inherently exposed to overnight liquidity risk in their business models, authorised electronic money and authorised payment institutions are ineligible for reserves accounts, and are ineligible for intraday liquidity if they become settlement members of CHAPS and CREST.

---

<sup>15</sup> See the 'The Framework for the Bank of England's Operations in the Sterling Money Markets' at <http://www.bankofengland.co.uk/markets/Pages/sterlingoperations/redbook.aspx>

<sup>16</sup> Note that CREST settlement banks must have access to at least one of intraday repo of collateral or CREST auto-collateralised repo.

<sup>17</sup> See the 'The Framework for the Bank of England's Operations in the Sterling Money Markets' at <http://www.bankofengland.co.uk/markets/Pages/sterlingoperations/redbook.aspx> and 'Documentation for the Bank of England's operations under the Sterling Monetary Framework' at <http://www.bankofengland.co.uk/markets/Pages/money/documentation.aspx>

## 6. Settlement account charges

33. The Bank sets charges for the provision and operation of settlement accounts on a full cost recovery basis. These include operational costs, an appropriate share of overheads and any other direct costs (such as legal agreements or a fair share of the installation of dedicated new equipment) associated with the establishment of new facilities. The tariffs are reviewed annually and set in advance for the coming year. Currently, separate tariffs are set for settlement members' participation in CHAPS and CREST, consisting of an annual account management fee plus a per-item usage fee, whilst for participation in DNS systems, the tariff consists solely of an annual charge. There is no separate fee for holding a CA. Further information on these charges is available on the Bank's website.