

Sterling Monetary Framework Annual Report 2016–17

July 2017



BANK OF ENGLAND





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The Bank reviews its published framework for implementing monetary policy and providing liquidity insurance on an annual basis. The SMF Annual Report is the output of this review process and draws on the views of internal and external stakeholders to identify areas where the SMF works well, and areas where it might be improved.

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Executive summary

In 2016–17, the Bank conducted the fourth formal annual review of its published operational framework for implementing monetary policy and providing liquidity insurance, known as the Sterling Monetary Framework (SMF). This report covers the period from 1 March 2016 to 28 February 2017.

This has been a year of significant change and activity for the Bank's sterling operations. In March 2016, the Bank announced that it would temporarily increase the frequency of its regular liquidity insurance operations from monthly to weekly as a precautionary measure ahead of the referendum on European Union membership.⁽¹⁾ Following the announcement of the referendum result, it was confirmed on 30 June 2016, that these operations would continue to run weekly until end-September 2016.⁽²⁾

In August 2016, the Monetary Policy Committee announced a broad package of mutually reinforcing policy measures in response to the weakened outlook for output and inflation. This included a reduction to Bank Rate, an increase in the stock of purchases of UK government bonds and the launch of two new schemes designed to help strengthen monetary policy transmission: the Corporate Bond Purchase Scheme (CBPS) and the Term Funding Scheme (TFS).

These new schemes and purchases of UK government bonds lie outside the SMF, forming part of the Asset Purchase Facility (APF) which is structurally separate to the SMF on a balance sheet basis. However, the scope of this year's review has been extended to include them, both because they have been the focus of much of the Bank's activity in sterling markets during the year and because they will inevitably have an impact on the operations carried out through the SMF. While this report provides an assessment of the immediate operational success of the operations, it does not attempt a broader assessment of the effectiveness of monetary policy.

As in previous years, this year's review draws on views from internal and external stakeholders, including a range of SMF participants and members of the Bank's policy committees (the Monetary Policy Committee (MPC), Financial Policy Committee (FPC) and the Prudential Regulation Committee (PRC)), to help identify where the Bank's sterling operations function well and where further work is necessary.

Monetary policy implementation

On the 4 August, the MPC announced a package of policy measures,⁽³⁾ which included:

- a 25 basis points cut to Bank Rate;

- an increase in the stock of purchases of UK government bonds by £60 billion to £435 billion over a six month period, financed by the creation of central bank reserves;
- *Corporate bond purchases* of up to £10 billion over 18 months, financed by central bank reserves; and
- a *Term Funding Scheme* designed to reinforce the transmission of Bank Rate cuts to those interest rates actually faced by households and companies.

Unsecured and secured overnight rates responded immediately to the cut in Bank Rate. At the end of February 2017, the stock of purchases of UK gilts had reached £435 billion, the stock of corporate bond purchases £7.7 billion and £42.9 billion had been drawn in the TFS.

Liquidity insurance

From 14 June 2016 to 27 September 2016, Indexed Long-Term Repo (ILTR) operations were run weekly as a precautionary measure around the date of the referendum on EU membership. Over this period, outstanding ILTR drawings peaked at £24.3 billion in August 2016, before falling back closer to the historic average as firms elected not to roll over existing borrowing.

SMF membership

In line with the trend seen in recent years, membership of the SMF continued to increase in 2016–17, with 189 SMF participants at end-February 2017, up from 175 the same time in 2016. This growth has been driven by a number of factors including broker-dealers and central counterparties (CCPs) continuing to join and the Bank's on-going work to reduce barriers for smaller firms, including newly authorised banks.

Risk Management

2016–17 has seen continued demand to deliver assets to the Bank, to use as collateral in the Bank's market operations, with the introduction of the TFS a significant contributing factor. At end-February 2017, the total market value of collateral delivered to the Bank stood at £550 billion. After applying the Bank's valuation and haircuts methodology, the total value of this collateral available to drawdown was £421 billion.

Residential mortgages continue to make up the majority of collateral delivered to the Bank, reflecting their prominence on the balance sheets of the UK banks and building societies. The value of mortgages currently with the Bank is equivalent to around one third of the UK mortgage market.

The Bank enhanced its framework for financial risk management in 2015 by bringing risk management

(1) See www.bankofengland.co.uk/markets/Documents/marketnotice070316.pdf.

(2) See www.bankofengland.co.uk/markets/Documents/marketnotice160630.pdf.

(3) See www.bankofengland.co.uk/publications/Pages/news/2016/008.aspx for the full announcement.

responsibilities in line with the ‘three lines of defence’ governance model. It has continued to embed this framework over the past year.

Governance

The Bank’s Governors, the MPC, the FPC and the PRC (the Prudential Regulation Authority Board before 1 March 2017) have been actively engaged in this annual review. During 2016–17, the ‘Concordats’ which set out the role of the MPC and FPC in decision-making on the SMF have also been reviewed and updated.

In December 2016, Court commissioned an in-depth evaluation of the Bank’s approach to providing sterling liquidity by the Bank’s Independent Evaluation Office, to be carried out in 2017.

Through the Annual Report process, and in line with its responsibilities, the Bank’s Court has reviewed the performance of the SMF over the past year, received regular reports on the Bank’s financial and non-financial risk profile, and considered objectives for the coming year. Court endorses the publication of this report.

Introduction

The SMF is the published operational framework through which the Bank implements monetary policy and provides liquidity insurance to commercial banks, building societies, designated investment firms (‘broker-dealers’) and CCPs — collectively known as SMF participants.

The Bank’s operations (outlined in the Red Book)⁽¹⁾ serve the Bank’s mission to promote the good of the people of the United Kingdom by maintaining monetary and financial stability.

The Bank’s operations within the SMF are designed to:

- 1 *Implement the MPC’s decisions in order to meet the inflation target.* This is usually achieved by paying interest at Bank Rate on the reserves balances held at the Bank of England by Reserves Account holders.
- 2 *Reduce the cost of disruption to the critical financial services, including liquidity and payment services, supplied by SMF participants to the UK economy.* The Bank does this by standing ready to provide liquidity in the event of unexpected developments by offering to swap high-quality but less liquid collateral for liquid assets (a so-called ‘liquidity upgrade’).

Broader monetary policy operations

Since 2009 the Bank has been undertaking a programme of Quantitative Easing, a policy approach under which the MPC uses the quantity of reserves (as well as the rate paid on them by the Bank) directly as a tool of monetary policy by setting a target for the stock of asset purchases financed by the creation of reserves. This target is achieved by purchasing assets through the Bank’s ‘APF’. Because of the financial risks posed to the Bank’s balance sheet the APF is indemnified by HM Treasury.

During 2016–17, in addition to extending the programme of UK government bond purchases, the Bank announced two new schemes through which it would deliver the MPC’s objectives: a Corporate Bond Purchase Scheme (CBPS) and a Term Funding Scheme (TFS), both of which were to be carried out through the APF.

Annual review

The Bank’s SMF is reviewed annually and the outcomes of the annual reviews are published in the SMF Annual Report. This year’s report summarises the outcomes of the fourth annual review and changes to the SMF introduced over the past year.

Although the gilt purchase programme, CBPS and TFS lie outside the SMF, the scope of this year’s review has been extended to include them, both because of the close connection between the aims of the SMF and these new facilities and because usage of each has the potential to impact the other.

The Bank welcomes thoughts or comments from interested parties on this Report or on the SMF more broadly. Details of how to submit views are provided in Section VI.

I Recent developments in the sterling money markets

The Bank continually monitors developments in sterling markets by scrutinising data and surveys and through its conversations with market contacts.

The Money Markets Liaison Committee (MMLC) Sterling Money Market Survey Report, published for 2016 H1⁽²⁾ (see box 1 on page 5 for details of what will replace the survey), covered sterling money market transactions which took place in May 2016. At that point the total value of sterling money market transactions reported by the survey population had risen 5% since the previous survey in November 2015, with secured activity up 7% while unsecured activity remained relatively stable. Data collected through the Bank’s Sterling

(1) See www.bankofengland.co.uk/markets/Documents/money/publications/redbook.pdf.

(2) See www.bankofengland.co.uk/publications/Documents/other/markets/mmlc/smms2016h1.pdf.

Box 1

The Bank's Sterling Money Markets (SMM) data collection

Previous SMF Annual Reports have drawn on the data published semi-annually in the Bank's Money Market Liaison Committee (MMLC) Sterling Money Market Survey Report. The data underlying this report were collected twice a year from participant banks, each of which provided turnover data on transactions undertaken during May and November every year, alongside answers to a number of more qualitative questions on market functioning and credit limits.

In 2015, the Bank announced the introduction of a new formal data collection, known as the Sterling Money Markets (SMM) collection. The aim was to secure and improve the information available to the Bank on conditions in money markets, which would benefit the Bank's analysis on both monetary and financial conditions. The Bank consulted on the detail of its approach over the Summer 2015⁽¹⁾ and began collecting data from February 2016.

As a result, to avoid duplication, the MMLC survey is no longer collected separately and the May 2016 MMLC Sterling Money Market Survey Report was the last to be published in the established format.

All banks, building societies and major investment firms now report annual summary statistics on all activity in the sterling markets. From that, the most active participants are identified to report daily transaction level data. By design, the daily reports represent 95% of activity in secured and unsecured sterling money markets; 52 institutions currently report daily data across all money market segments.

Comparison of specific segments of the SMM data collection suggests that the MMLC Survey has been a good reflection of activity in the sterling markets since its inception. However, taken together, the SMM data collection should give the Bank access to a broader, richer and more timely set of information related to activity in the sterling money markets.

A subset of the SMM data will be used to reform the SONIA interest rate benchmark, on which the Bank has recently confirmed its plans⁽²⁾ (see box 2 on page 8). The Bank also anticipates publishing regular summary statistics compiled from the broader SMM data. Further details will be outlined in a Bankstats article in due course.

(1) See www.bankofengland.co.uk/markets/Documents/cpsonia0715.pdf for the Consultation Document.

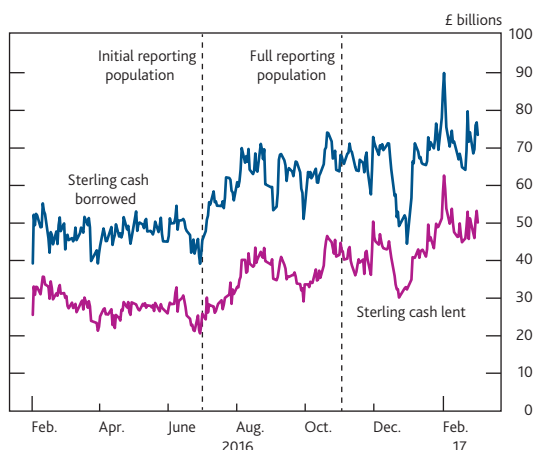
(2) See www.bankofengland.co.uk/markets/Documents/soniareformresponse0317.pdf.

Money Market Data collection suggested that this trend of an overall increase, with the bulk of the growth in the secured market, alongside a slower increase in the unsecured markets continued through the rest of 2016–17 (Charts 1 and 2).

Survey results at May and November 2016 (Chart 3) suggested perceptions of secured and unsecured market functioning had improved from the 2015 survey results, with

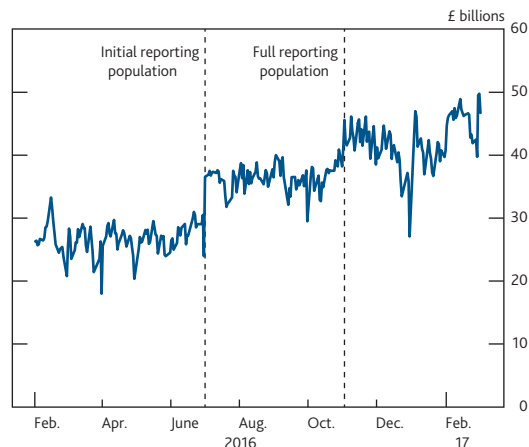
the perception of unsecured market function rising to a level higher than had previously been observed in the survey, which began in 2011. However, in the May survey some contacts cautioned that the tick up may not reflect a genuine improvement in market functioning but rather an acceptance that the level of market functioning seen in recent years may be the 'new normal'.

Chart 1 Daily volumes of overnight sterling cash borrowing and lending, secured against UK government securities



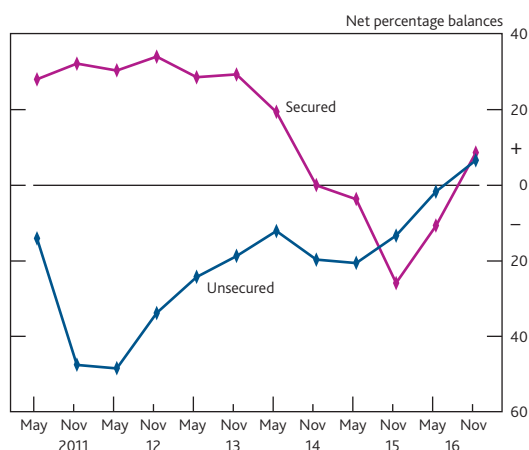
Source: Bank of England.

Chart 2 Daily volumes of overnight unsecured sterling cash borrowing



Source: Bank of England.

Chart 3 Respondent's views of overall market functioning^(a)



Sources: MMLC Sterling Money Market Survey and SMM data and Bank calculations.

(a) 'Net percentage balance' is calculated as the difference between the balance of lenders reporting that, on a scale of 1–5, the market was functioning very poorly (1) to very well (5). The net percentage balances are scaled to lie between ± 100 : more extreme responses (1 and 5) attract a weight of 100%, less extreme responses (2 and 4) attract a weight of 50% and central responses (3) attract a weight of zero.

Through the first half of the review period, term repo rates remained broadly flat. Following the United Kingdom's vote to leave the European Union, they began to fall, reflecting market participants' expectations of an imminent cut to Bank Rate to support the UK economy. Following the 4 August announcement, they fell slightly further and have remained broadly unchanged from that level for the remainder of the review period.

Following the trend for recent years, market contacts suggest they continued to experience illiquidity in the repo market. Given the importance of these markets for overall liquidity and functioning, the Bank has recently contributed to a cross-jurisdictional study on repo market functioning carried out by a study group established by the Committee on the Global Financial System. The final report was published in April 2017.⁽¹⁾

As at 28 February 2017, pricing in financial markets indicated that Bank Rate was expected to remain unchanged at 25 basis points through to the end of 2017.

Structural developments in money markets

A key structural development in sterling secured money markets this year was the migration of remaining Delivery-by-Value (DBV) gilt repo business to CREST's 'Term DBV' product. DBV is a settlement mechanism in CREST where a member can specify the delivery of a basket of securities (such as gilts or equities) to a counterparty solely by value, rather than needing to detail the quantities of each individual security.

Whereas the legacy DBV product only supported settlement on an overnight basis, resulting in unnecessary intraday cash flows and operational risk for term trades, the Term DBV

product allows settlement to reflect the term of the underlying trade, reducing the unnecessary flows and the associated operational risk.

In conjunction with key stakeholders such as Euroclear UK and Ireland (EUI), LCH and the London Money Market Association, the Bank supported the migration of new and existing business to the Term DBV product. In 2015, DBV gilt repo trades cleared centrally via LCH's RepoClear service were successfully migrated to the Term DBV product. By the end of September 2016, the remaining bilateral DBV gilt repo business was successfully migrated to Term DBV. This initiative was co-ordinated through a sub-committee of the MMLC.

II Monetary policy implementation

The first objective of the SMF is to implement decisions made by the MPC. Since March 2009 this has involved both maintaining overnight market rates in line with Bank Rate and undertaking large-scale asset purchases financed by the creation of central bank reserves.

On 4 August 2016, the MPC announced a broad package of mutually reinforcing policy measures in response to the weakened outlook for output and inflation following the United Kingdom's vote to leave the European Union.

As set out in the August 2016 *Inflation Report*,⁽²⁾ in addition to a 25 basis points cut to Bank Rate, this consisted of:

- an increase in the stock of purchases of UK government bonds by £60 billion to £435 billion over a six month period, financed by the creation of central bank reserves;
- corporate bond purchases of up to £10 billion over 18 months, financed by central bank reserves; and
- a Term Funding Scheme designed to reinforce the transmission of Bank Rate cuts to those interest rates actually faced by households and companies.

Alongside the MPC's policy package announcement in August, the FPC announced the exclusion of central bank reserves from the exposure measure in the current UK leverage ratio framework, with immediate effect. In doing so, the FPC's aim was to ensure that the leverage ratio did not act as a barrier to the effective implementation of policy measures that might lead to an increase in central bank reserves. The FPC's decision was welcomed by market participants and seen as supportive of market function.

(1) For further details and the full report see www.bis.org/publ/cgfs59.htm.

(2) See www.bankofengland.co.uk/publications/Documents/inflationreport/2016/aug.pdf.

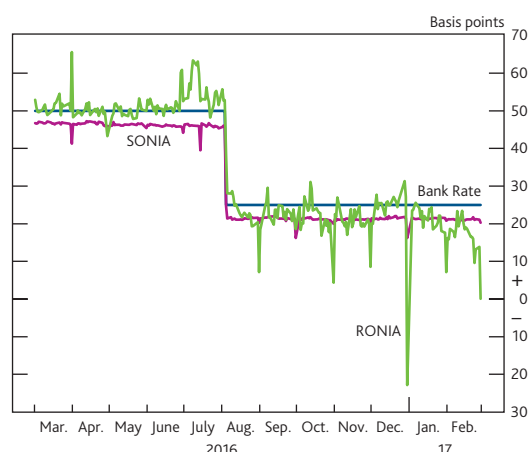
The implementation of each of the monetary policy elements of the package is considered in turn below. While this report provides an assessment of the immediate operational success of the operations in delivering the MPC's decisions, it does not attempt a broader assessment of the effectiveness of monetary policy. The MPC's assessment of the effectiveness of the measures can be found in the Bank's *Inflation Reports*.⁽¹⁾

Implementation of Bank Rate

The Bank's framework for implementing the MPC's decisions on Bank Rate aims to keep overnight market interest rates in line with Bank Rate. To assess how well the SMF achieves this, the Bank monitors both secured and unsecured rates.

Secured overnight rates, as indicated by RONIA, remained in line with Bank Rate over the year, albeit with some volatility following the outcome of the EU referendum and around key reporting dates, most notably at year-end (**Chart 4**).

Chart 4 Sterling overnight interest rates



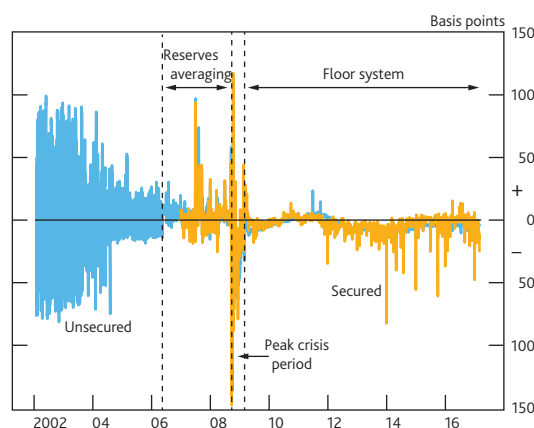
Sources: Bank of England and WMBA.

Unsecured overnight rates, as indicated by SONIA, remained consistently 3–5 basis points below Bank Rate, with limited volatility (**Chart 3**). As discussed in previous SMF Annual Reports, some lenders do not have reserves accounts and so may be willing to lend cash overnight at below Bank Rate. In addition, reserves account holders may be disinclined to arbitrage small differences between overnight unsecured rates and Bank Rate given the costs of doing so.

Secured rates and unsecured rates both responded immediately to the 25 basis points cut in Bank Rate on 4 August 2016.

Deviations of secured and unsecured rates from Bank Rate over the past year remained broadly in line with deviations observed in recent years, and smaller than those observed under previous frameworks for implementing monetary policy (**Chart 5**).

Chart 5 Spreads of sterling overnight interest rates to Bank Rate^(a)



Source: Bank of England.

(a) The unsecured rate is represented by SONIA, a rate administered by the Bank; for further details see www.bankofengland.co.uk/markets/Pages/benchmarks/sonia.aspx. The secured rate is represented by RONIA. For further details on RONIA, see www.wmba.org.uk.

APF gilt purchases⁽²⁾

The purpose of purchases of UK government bonds, financed by central bank reserves, is to impart monetary stimulus by lowering the cost of borrowing for households and companies; and by triggering portfolio rebalancing into other assets by sellers of gilts.

Following the MPC decision on 4 August, gilt purchase operations resumed on 8 August 2016. In the first half of the programme, the Bank purchased £30 billion of gilts and reinvested £12.1 billion of cash flows associated with the maturity of the September 2016 gilt held by the APF. Operations were £1.17 billion each in the first half of the programme.⁽³⁾

In the second half of the programme, the size of each operation was £1 billion, with £30 billion of additional purchases split evenly across 30 operations. Incorporating the reinvestment of cash flows associated with the maturity of the January 2017 gilt into the second half of the programme would have temporarily increased the stock of gilts above the target stock, hence the MPC decided that the reinvestment would occur after the programme of new purchases was completed.⁽⁴⁾

The programme of purchases was completed on 1 February 2017. The reinvestment of cash flows associated with the maturing on 22 January 2017 of a gilt owned by the APF was completed on 13 March 2017.

(1) Previous *Inflation Reports* can be downloaded from the Bank's website at www.bankofengland.co.uk/publications/Pages/inflationreport/default.aspx.

(2) Detailed information on APF gilt purchases can be found in the APF Quarterly Reports, at www.bankofengland.co.uk/publications/Pages/other/markets/apf/quarterlyreport.aspx.

(3) See www.bankofengland.co.uk/markets/Documents/marketnotice160804apfgilt.pdf.

(4) See www.bankofengland.co.uk/markets/Documents/marketnotice161103apfgilt.pdf.

Box 2

Reform of SONIA

In 2015 the Bank set out its intention to reform the SONIA benchmark given its critical role in sterling markets, and in view of the limited size of the market for brokered deposits on which SONIA was based.

The Bank's new sterling money market data collection has provided the Bank with an opportunity to broaden the range of transactions underpinning the benchmark, to include bilaterally negotiated as well as brokered overnight unsecured deposit transactions, as shown in **Chart A**.

The Bank continues to progress this programme of reform consulting in October 2016 and February 2017⁽¹⁾ and publishing a response to feedback in March 2017, in which it set out the form in which the reformed benchmark would be implemented.⁽²⁾

The reformed rate will be calculated using a volume weighted trimmed mean methodology, and will be published on a T+1 basis. The Bank anticipates the new methodology will be implemented in March/April 2018.

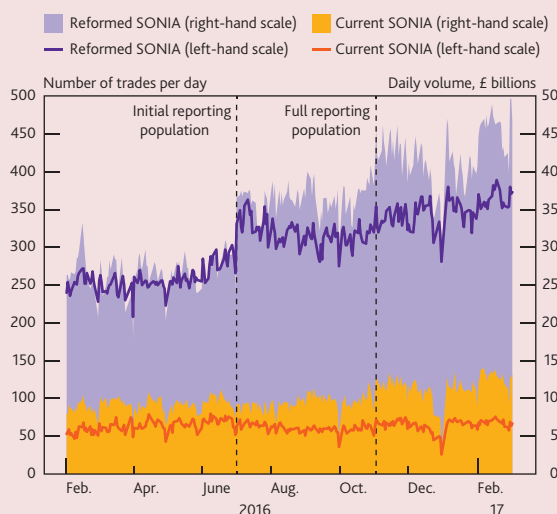
Throughout this programme of purchases, there were typically three operations a week: shorts (3–7 years) on Mondays; longs (+15 years) on Tuesdays; and mediums (7–15 years) on Wednesdays.

All gilts in the relevant maturity sectors are eligible for purchase, subject to three exclusion criteria, which remain unchanged from previous purchase programmes:

- the Bank does not offer to buy gilts with less than £4 billion nominal in issue;
- the Bank does not offer to buy gilts where it already owns more than 70% of the free float (amount in issue minus government holdings); and
- the Bank does not offer to buy gilts within one week of their (re)issue by the Debt Management Office (DMO).

Throughout the programme of new purchases which started in August 2016, cover ratios (the ratio of bids to the size of the operation) were generally strong. However, the long maturity operation on 9 August 2016 was not fully covered. This was the first uncovered APF gilt purchase operation but was seen by market participants as a minor undershoot due to the thin market liquidity in August. The shortfall of £52 million was made up on 8 November, in the first long maturity operation in the second half of the programme.

Chart A Values and volumes of transactions underlying current and reformed SONIA



Source: Bank of England.

- (1) For the Consultation Documents see www.bankofengland.co.uk/markets/Documents/soniareformcp1016.pdf and www.bankofengland.co.uk/markets/Documents/soniareformcp0217.pdf.
- (2) For the Consultation Feedback see www.bankofengland.co.uk/markets/Documents/soniareformresponse0317.pdf.

Corporate Bond Purchase Scheme

Included in the monetary policy package announced on 4 August 2016, was the launch of the Corporate Bond Purchase Scheme (CBPS): a scheme to purchase a portfolio of up to £10 billion sterling corporate bonds financed by the issuance of central bank reserves.

The purpose of the CBPS was to impart monetary stimulus by lowering the yields on corporate bonds, thereby reducing the cost of borrowing for companies directly; by triggering portfolio rebalancing; and by stimulating new issuance of corporate bonds.

The Bank purchased sterling non-financial investment-grade bonds issued by companies that make a material contribution to economic activity in the United Kingdom, subject to a set of stated criteria.⁽¹⁾ The Bank considered a number of factors in making its eligibility decisions about issuers, including employment in the United Kingdom and the location of headquarters, as well as generation of revenues and customer base in the United Kingdom. The eligibility criteria remained under review, with a revised list of eligible securities published monthly since 3 November 2016.

To ensure purchases were representative of outstanding issuance, the Bank allocated each eligible bond to one of

(1) For the Press Release, see www.bankofengland.co.uk/publications/Pages/news/2016/068.aspx.

nine sectors, using a common sector classification.⁽¹⁾ The Bank made purchases such that holdings were representative of each sector's share and to avoid concentration in particular sectors or issuers.

The Bank made purchases by holding three reverse auction operations a week, on Tuesdays, Wednesdays and Thursdays. Each auction was structured around bonds issued by firms from certain sectors and included each eligible security in an auction once a week. In each auction, the Bank sought offers on each eligible security as a spread to a specified reference gilt. Offers were allocated on a uniform spread basis: all successful transactions for any individual bond were allotted at the same single spread.

CBPS purchases commenced on 27 September 2016. As at 28 February 2017 the Bank had purchased £7,705 million of corporate bonds on a cash proceeds basis.

On 27 April 2017, the Bank announced that it had completed the operations necessary to achieve the current target for corporate bond purchases totalling £10 billion.

The Bank also published the representative share for each of the nine sectors of the Corporate Bond Purchase Scheme and the Bank's holdings in each of these sectors on a monthly basis. **Table A** reflects sector holdings and target share as at end-February 2017.⁽²⁾

Table A Representative share for each of the CBPS' nine sectors and holdings in each of these sectors as at close of business 28 February 2017

Sector	CBPS Holdings as at close of business 28 February 2017	CBPS Target Sector Share as at 28 February 2017
	(Percentage of portfolio)	(Percentage of eligible list)
Electricity	20	19
Consumer, non-cyclical	15	15
Communications	13	12
Industrial and transport	13	13
Water	12	12
Consumer, cyclical	12	11
Gas	8	8
Property and finance	4	6
Energy	2	3
Total	100	100

Source: Bank of England.

A table showing the representative share that the Bank had purchased for each of the CBPS' nine sectors as at 3 May 2017, when operations concluded, is available on the Bank's website⁽³⁾ and in **Table A.2** in the annex to this report.

Term Funding Scheme

The final part of the MPC's package of stimulus measures announced in August was the introduction of a Term Funding Scheme (TFS). The TFS provides term funding to banks at rates close to Bank Rate, with the aim of reinforcing the transmission of Bank Rate cuts to those interest rates actually faced by householders and businesses in the United Kingdom.

In addition to its primary monetary policy objective, the TFS provides participants with a cost effective source of funding in the form of central bank reserves to support additional lending to the real economy.

Banks and building societies that are participants in the Bank's SMF and signed up to the Discount Window Facility (DWF) are eligible to participate in the TFS. During the drawdown period, which runs until 28 February 2018, participants will be able to borrow reserves for four years in exchange for all collateral eligible in the SMF. The MPC will confirm by its August 2017 meeting whether the Drawdown Period will close at end-February 2018 or be extended.

The quantity and price of funding available from the TFS will be based on the amount of eligible lending undertaken by a participant's 'TFS group'.⁽⁴⁾ Participants in a group may draw in aggregate up to 5% of its base stock plus an amount equal to its net lending over a reference period. The Bank charges interest on TFS drawings equal to Bank Rate plus a fee. For groups whose net lending over the reference period as a whole was positive, the fee will be zero basis points per annum. For groups whose net lending over the reference period as a whole was negative, the fee will increase linearly from zero basis points per annum if lending is unchanged up to 25 basis points per annum if lending falls by 5%. If lending falls by more than 5%, the fee will be 25 basis points per annum.

The Bank began accepting applications to join the TFS on 22 August 2016. Since then 45 participants have joined the Scheme, 40 of which had previously participated in the FLS. The total amount of loans made through the TFS between the opening of drawdown window on 19 September 2016 and 1 March 2017, less redemptions, was £42,931 million.

(1) See www.bankofengland.co.uk/markets/Documents/consolidatedmarketnotice170217.pdf.

(2) This data was published monthly, see www.bankofengland.co.uk/markets/Pages/apf/corporatebondpurchases/results.aspx.

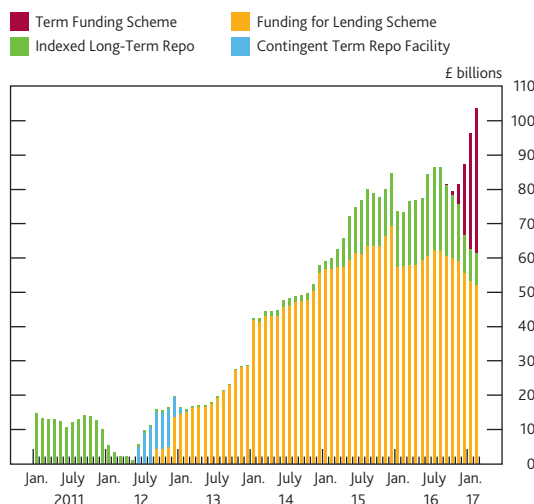
(3) See www.bankofengland.co.uk/markets/Pages/apf/corporatebondpurchases/results.aspx.

(4) A participant's TFS Group is defined as all Monetary Financial Institutions and Specialist Mortgage Lenders within a Group (as defined in the SMF terms and conditions) as well as non-bank credit providers (NBCPs) which are part of the participant's broader group.

III Liquidity insurance

During 2016–17, the outstanding amount lent through the Bank's liquidity insurance facilities, plus the FLS and TFS, increased from £73.5 billion to £104.5 billion (Chart 6). This was driven primarily by the drawdowns in the new TFS more than offsetting reduced drawings in the FLS and ILTR.

Chart 6 Outstanding amounts lent in SMF liquidity facilities, the FLS and TFS, 2011–17



Source: Bank of England.

Details of the results of operations carried out in 2016–17 are provided in **Table A.1** in the annex.

Indexed Long-Term Repos

The market-wide Indexed Long-Term Repo (ILTR) operations offered routinely each month are aimed at institutions with a predictable need for liquid assets. They allow participants to bid for reserves against the full range of eligible collateral.

During 2016–17, as a precautionary measure around the date of the referendum on EU membership, weekly ILTR operations were run from 14 June to 27 September 2016. Their maturity dates were aligned with the settlement dates of existing monthly operations, giving participants the option to refinance these contracts in the ILTR on maturity.

On 4 August 2016, the net stock of outstanding ILTR drawings peaked at £24.3 billion. Later in the year, however, they fell back closer to the historic average as many firms elected not to roll over funding taken out prior to the referendum. As of 28 February 2017, the total stock of outstanding ILTR drawings stood at £9.4 billion.

Feedback suggests that the majority of usage in ILTR operations in 2016–17 has reflected firms actively managing their liquidity, including in response to changing market conditions, but firms have also been participating to improve

and maintain their familiarity with the facility. Some participants continued to use the ILTR as a means of converting UK Treasury bills borrowed under the FLS into central bank reserves. Fifteen new participants signed-up for access to the ILTR during 2016–17.

As a part of the annual review process the Bank discussed this temporary move to weekly ILTRs with a range of SMF counterparties. Feedback suggested that they welcomed the proactive action taken to put in place additional ILTRs, suggesting that this helped to provide certainty to the market that they would be able to access Central Bank liquidity through this period if required.

During June and July 2016 the Bank made available some additional explanatory materials for SMF members on the ILTR⁽¹⁾ and carried out conference calls for interested counterparties to walk through the information. This was well received by our counterparties, some of who felt that only a small number of individuals within their firm were fully apprised of the details of the facility. The Bank intends to build on this work in 2017–18.

The Bank undertakes a review of the ILTR each year to consider, among other things, the level of usage and whether the minimum spreads for each collateral set remain at an appropriate level. The Bank does not currently plan to make any changes to the structure of the ILTR on the basis of this year's review.

Usage of the ILTR directly affects the level of aggregate central bank reserves. As a result, the net decrease in the stock of outstanding ILTR drawings reduced central bank reserves by £6.2 billion during the course of 2016–17. However, reserves created through new ILTR drawings remain small relative to the stock created through the Bank's quantitative easing programme, and is also less than the stock created as a result of TFS drawings.

The TFS potentially reduces the demand for the ILTR as it is a lower cost source of cash funding for banks and building societies. The Bank intends to monitor this effect through 2017–18.

Funding for Lending Scheme

The Funding for Lending Scheme (FLS) was launched in July 2012 with the aim of incentivising banks and building societies to boost their net lending to the UK real economy by providing funding, in the form of UK Treasury bills, for a four-year term. In November 2015, the Bank and the Treasury announced an FLS extension which would see the drawdown period remain open until January 2018.⁽²⁾

(1) See www.bankofengland.co.uk/markets/Documents/money/iltrshortguide.pdf.

(2) See www.bankofengland.co.uk/publications/Documents/news/2015/096.pdf.

While the FLS sits outside the SMF, there are important interlinkages: all banks and building societies with DWF access are eligible to participate in the FLS; FLS collateral consists of all collateral eligible in the SMF; and, like SMF operations, the FLS provides a liquidity upgrade for participants.

Net FLS drawdowns have totalled £5,718 million over the year. In 2016 Q4, net drawdowns were negative £666 million, reflecting a significant number of terminations as participants elected to use the TFS instead.

Participants in the FLS are permitted to repay FLS drawings in order to redraw in the TFS, subject to having sufficient Borrowing Allowance in the TFS. Participants who wished to refinance FLS drawings before 30 September 2017 were required to agree with the Bank, by end-September 2016, a balanced refinancing profile such that they ensure smooth aggregate refinancing over this twelve month period.

Discount Window Facility

The Discount Window Facility (DWF) is a bilateral on-demand facility aimed at institutions experiencing a firm-specific or market-wide shock. It allows participants to borrow highly liquid assets in return for less liquid collateral in potentially large size and for a variable term. A total of thirteen new DWF participants signed-up in during 2016/17. Feedback from counterparties suggests that while the DWF appears in their contingency planning, they generally view the facility as a last resort.

There was no DWF usage recorded up to the most recent DWF disclosure period (30 September 2015). However, the Bank undertakes a programme of small-sized regular test trades with DWF participants in order to ensure operational readiness and resilience.

Contingent Term Repo facility

The Contingent Term Repo Facility (CTRF) is a liquidity facility that the Bank can activate in response to actual or prospective market wide stress of an exceptional nature. The Bank reserves the right to activate the facility as it deems appropriate. In light of market conditions throughout the year, the Bank judged that CTRF operations were not required.

Progress in establishing a Shari'ah compliant central bank liquidity facility

Work on the Bank's feasibility study into providing a Shari'ah compliant central bank liquidity facility continued throughout 2016–17. The objective of introducing such facilities would be to enable UK Islamic banks to hold funds with the central bank, increasing flexibility in managing liquidity and meeting the liquidity coverage requirement (LCR).

Following feedback provided during the initial consultation, a fund-based deposit model was selected and its design adapted to meet both market and regulatory requirements. A further

consultation closed on 23 May 2017 and the Bank is considering the responses received. However, initial indications suggest that the revised model would be acceptable to the market.

The model requires the Bank to build up a portfolio of sukuk,⁽¹⁾ which it will hold in a Special Purpose Vehicle (SPV). Islamic banks will be invited to place fixed-term deposits with the SPV, and will receive a return (up to a pre-set rate), funded by, and dependent on the performance of, the underlying sukuk portfolio. The deposits will contribute towards the LCR because the Bank will guarantee the principal value of the deposit (but not the return) to the Islamic bank.

The model is now under development but is not expected to be launched before Spring 2018.

IV SMF membership and participation in the Asset Purchase Facility Schemes

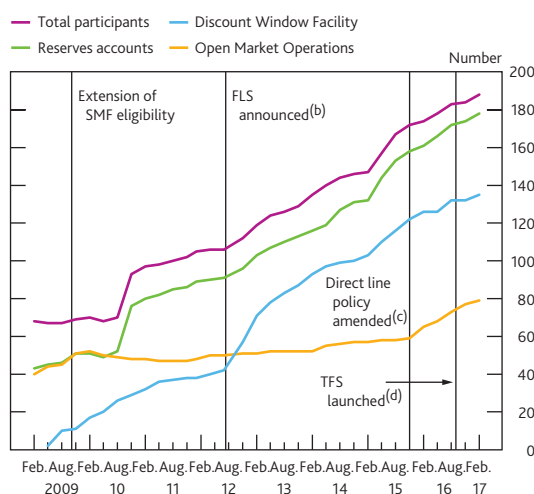
SMF membership continued to increase steadily in 2016–17, driven by various factors. First, broker-dealers and CCPs continued to join the SMF following the widening of access criteria in November 2014. Second, the Bank has continued to reduce barriers for newly authorised banks and smaller firms more generally to access the full range of SMF facilities. Third, the launch of the TFS has generated additional interest in the DWF, access to which is a pre-requisite for participating in the TFS.

At the end of February 2017, there were 189 SMF participants, up from 175 at the end of February 2016. In addition, 18 existing participants have signed up for new facilities.

Further work has been undertaken to reduce barriers to SMF entry for new banks and building societies amid greater interest in the SMF from such firms. The Bank engages with banks and building societies early in the authorisation process, enabling firms to join the SMF soon after obtaining their banking licences. In addition, banks in 'mobilisation', which involves a new bank being authorised at an earlier stage, to help it secure further investment, recruit staff and invest in IT systems, may be able to join the SMF if they wish to directly participate in payment schemes. This enables them to complete their payment system on-boarding before they open for customer business.

From November 2015, the Bank has allowed smaller firms to access Open Market Operations (OMOs) without the need for a dedicated direct telephone line. This enabled a further nine firms to sign-up in 2016–17. Access to OMOs allows firms to participate in the ILTR auctions, and provides more

(1) Sukuk are instruments representing a legal or beneficial interest in a Shari'ah compliant asset or activity, but excluding equities.

Chart 7 SMF membership^(a)

Source: Bank of England.

(a) Quarterly averages.

(b) FLS is the Funding for Lending Scheme, launched on 13 July 2012.

(c) From November 2015, smaller firms have been able to access OMOs without installing a direct telephone line.

(d) TFS is the Term Funding Scheme, launched in August 2016.

options for managing liquidity and meeting regulatory requirements (**Chart 7**).

In addition, the Bank is co-ordinating with the larger UK banks on the impact of ring-fencing on their SMF operations. See Box 3 below for additional details.

Box 3

Impact of ring-fencing on the SMF

The largest UK banks are required by UK law to separate core retail banking services from their investment and international banking activities by 1 January 2019. This requirement is known as ring-fencing.⁽¹⁾ The legislation was formed after the Government accepted a proposal made by the Independent Commission on Banking, which concluded that ring-fencing would result in a significant net benefit to the UK economy.

The legislation allows a degree of flexibility for banking groups to decide how to restructure. In support of this, the Bank is making changes to its processes and systems in order to be able to continue to transact with banks after they have restructured. This will ensure that the Bank can continue to implement monetary policy and provide liquidity effectively, via the SMF. The Bank is working with firms to ensure that, where needed, they have appropriate membership of SMF facilities either side of the ring-fence, in line with SMF access policy as set out in the Red Book.

(1) See Ring-fencing: what is it and how it will affect banks and their customers?, www.bankofengland.co.uk/publications/Pages/quarterlybulletin/2016/q4/a1.aspx.

Following the launch of the CBPS and TFS in August 2016, there has been significant interest in participating in both schemes. Fourteen SMF participants which are market-makers in corporate bonds signed up as counterparties in the CBPS shortly after it was launched, and as at end-February 2017, 45 groups have joined the TFS, five of which did not participate in the Funding for Lending Scheme.

Engagement with our SMF counterparties is important and the Bank continues to do this through a number of routes:

- **The SMF relationship management framework.** The Bank is currently updating its relationship management framework, which assigns a set of lead contacts to each firm. Firms are able to contact the Bank to discuss any aspect of their participation in the SMF and the APF Schemes. A representative selection of SMF participants also provided valuable feedback which has informed this report.
- **The risk management framework.** The Financial Risk Management Division maintains contact with firms through risk assessments, reviews of loan collateral and site visits.
- **Formal committees.** The Money Market Liaison Committee and the Securities Lending and Repo Committee have this year been restructured to form the Money Markets Committee (MMC) and two Sub-Committees: the UK Money Market Code Sub-Committee and the Securities Lending Sub-Committee. The MMC allows participants in the sterling money markets to discuss structural and functioning issues across the unsecured, repo and securities lending markets. The MMC published a new UK Money Market Code on 26 April 2017 (see box 4 on page 13 for details) and the Sub-Committee will monitor its development. The Securities Lending Sub-Committee will provide a forum for securities lending practitioners and the authorities to discuss technical and legal developments.

The Bank's Markets area is, of course, only one of several areas of the Bank with which SMF counterparties have regular contact. The Bank aims to ensure that the messages firms receive from different parts of the Bank, particularly for example their supervisors within the PRA and their contacts within Markets, are clear and consistent. Feedback suggests that in the main this co-ordination is successful and has improved over time. Nevertheless it remains an area of focus for the Bank.

The Bank has also engaged with a wide range of external stakeholders on the programme it launched in Autumn 2016 on renewal of the Real-Time Gross Settlement (RTGS) service, the platform through which it provides sterling reserves

Box 4

UK Money Markets Code

In May 2016, the Foreign Exchange Working Group of the BIS released the first phase of a global code of conduct for wholesale foreign exchange markets with the aim of promoting the integrity and effective functioning of foreign exchange markets.

With the development of this Global FX Code, the existing Non-Investment Products (NIPs) Code which applies to sterling, foreign exchange and bullion wholesale deposit markets, and the spot and forward foreign exchange and bullion markets — was superseded.

The Bank therefore convened a group of market participants as a Sub-Committee of the Money Market Committee (MMC), to write an update to the NIPs Code. The opportunity has also been taken to update the Gilt Repo Code and the Securities Borrowing and Lending Code.

The new Code, entitled the UK Money Markets Code, covers the unsecured deposit market, the repo market and the securities lending market as transacted in the United Kingdom in all currencies. It was published on 26 April 2017.⁽¹⁾

It is a voluntary code of best practice, owned by a permanent Sub-Committee of the MMC, which is chaired by, and comprises, market participants from all sectors of the UK money markets.

The Code covers topics such as ethics, governance, risk management, information sharing, execution, confirmation and settlement practices for all three markets.

The Bank intends to adhere to the Code in its operations unless it needs to operate outside to undertake its responsibilities, particularly in its monetary policy implementation activities or in providing liquidity insurance. There is a general expectation that members of the SMF will adhere to the Code.

(1) See www.bankofengland.co.uk/markets/Documents/money/code/ukmoneymarketscode.pdf.

accounts and settlement in central bank money.⁽¹⁾ On 9 May 2017, the Bank set out its blueprint for a renewed RTGS service, designed to deliver a resilient, flexible and innovative sterling payment system for the United Kingdom.⁽²⁾

V Risk management

Participation in the SMF is subject to the Bank being satisfied that its legal and operational requirements are met.

Participants must also be able to provide sufficient information for the Bank to risk manage its operations effectively. Due diligence is carried out on all SMF applicants and existing participants on an ongoing basis through a cycle of credit and collateral reviews.

When the Bank lends in its operations, it does so against collateral of sufficient quality and quantity to protect itself from counterparty credit risk. The Bank encourages SMF participants to maintain a sufficient amount of collateral at all times. Securities collateral, or other types of collateral that have already been delivered to the Bank, can be used for borrowing on the same day, allowing funding requests to be executed quickly and smoothly should the need arise. This reduces operational and financial risk and improves the efficiency with which the Bank is able to provide liquidity insurance.

The Bank defines the criteria for eligible collateral within its operations and has established three distinct categories:

- **Level A:** Highly liquid high-quality sovereign securities which are liquid in all but the most extreme circumstances.
- **Level B:** High-quality liquid collateral, including private sector securities that normally trade in liquid markets.
- **Level C:** Less liquid securities and portfolios of loans.

In its intraday and short-term monetary policy operations, the Bank only lends against Level A collateral. It lends against all three levels of collateral in its liquidity insurance operations, which provide an effective liquidity insurance mechanism to the financial system.

The Bank in principle accepts as eligible collateral any asset it judges it can effectively and efficiently risk manage. It does this to enable a broad range of counterparties to have access to SMF facilities. Currently around 1,500 securities are eligible, in addition to the securities classed as Level A. Other examples of collateral accepted include portfolios of residential mortgage assets, asset finance, consumer loans, auto loans, corporate loans, SME loans, PFI loans and Social Housing loans.

The Bank will continue to review the breadth of collateral eligible for use in its facilities. For example during 2016–17, the Bank continued its work to ensure that there are no technical obstacles to its ability to accept equities as collateral, should the need arise. Work on this is expected to complete during 2017.

(1) See A new RTGS service for the United Kingdom: safeguarding stability, enabling innovation, September 2016, see www.bankofengland.co.uk/markets/Documents/paymentsystem/cp160916.pdf.

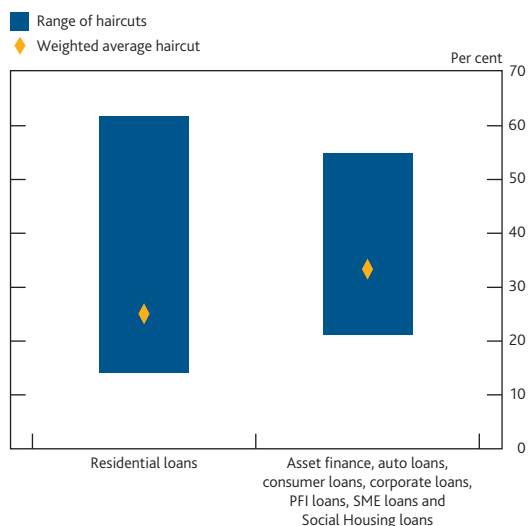
(2) For further details, see www.bankofengland.co.uk/markets/Documents/payment-system/rtgsblueprint.pdf.

When valuing collateral, the Bank applies a ‘haircut’ so that it lends an amount less than the market value of the collateral it receives. Should the Bank need to realise collateral because a counterparty is unable to repay its debt, the haircut protects the Bank against a fall in the value of the collateral in the period between the valuation of collateral upon counterparty default and the sale of the collateral. All haircuts account for extremely stressful conditions, thereby reducing the risk of procyclicality throughout the economic cycle.

Haircuts on securities assets typically depend on their liquidity, historical price volatility and underlying credit risk. Haircuts start at 0.5% for sovereign securities, 12% for residential mortgage-backed securities (RMBS) or covered bonds and 30% for portfolios of senior corporate bonds.⁽¹⁾

The Bank introduced an improved methodology for determining haircuts on pools of residential loans in 2015. This takes into account a wide range of risk factors relating to the underlying loans. The Bank has continued to embed this methodology over the past year and has used the additional data and analytical tools we have available to further the Bank’s understanding of this important market. The weighted average haircut for residential loan pools has fallen relative to last year, standing at 25% at the end of February 2017 (Chart 8).

Chart 8 Haircuts applied to loan portfolios delivered to the Bank^(a)



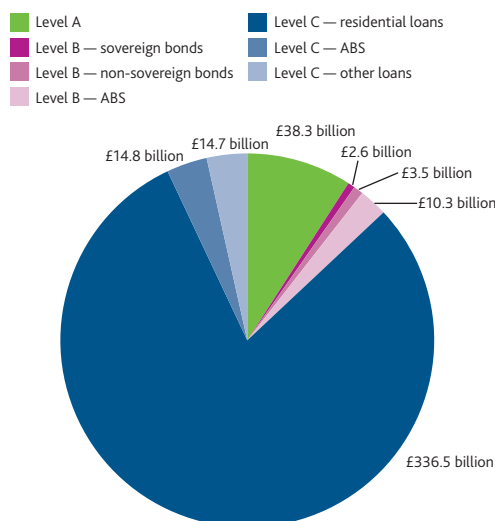
Source: Bank of England.

(a) As at 28 February 2017.

The introduction of the TFS has resulted in a continued demand to deliver assets to the Bank. As at end-February 2017, the market value of collateral delivered to the Bank stood at £550 billion. After applying the Bank’s valuation and haircut methodology, the total value of this collateral available to drawdown at end-February 2017 was £421 billion.

Residential mortgages continue to make up the majority of collateral delivered to the Bank, reflecting their prominence on UK banks’ and building societies’ balance sheets (Chart 9). The amount currently with the Bank is equivalent to around one third of the UK mortgage market.⁽²⁾

Chart 9 Total collateral by asset class^(a)



Source: Bank of England.

(a) Total drawable value as at 28 February 2017.

As outlined in last year’s report,⁽³⁾ the Bank enhanced its framework for financial risk management in 2015 by bringing risk management responsibilities in line with the ‘three lines of defence’ governance model. It has continued to embed this framework over the last year.⁽⁴⁾ The Bank applies the same risk management standards to the portfolio of assets held by the APF as it does to those delivered to the Bank as collateral against actual or prospective use of the SMF.

The Bank of England and Financial Services Act 2016, gave the National Audit Office (NAO) new responsibilities in relation to the Bank including that the NAO has become the financial auditor of the accounts of Bank companies carrying on activities indemnified by HM Treasury. This includes the Bank of England Asset Purchase Facility Fund (BEAPFF), through which the business of the APF is carried out.

(1) A summary table of haircuts for Bank lending operations is available at www.bankofengland.co.uk/markets/documents/money/publications/summary_haircuts.pdf.

(2) The size of the UK mortgage market is taken from the ‘Mortgage Lenders and Administrators Statistics: 2016 Q4’ statistical release from 14 March 2017; www.bankofengland.co.uk/prd/Documents/regulatorydata/mlar/2016/q4.pdf.

(3) See page 11, www.bankofengland.co.uk/markets/Documents/smf/annualreport16.pdf.

(4) For additional information, see Hauser, A (2017), ‘Watching the watchers: forward-looking assessment and challenge of a central bank’s own financial risks’, www.bankofengland.co.uk/publications/Documents/speeches/2017/speech966.pdf.

VI Governance

The SMF is governed through: Court oversight of the SMF Annual Report; regular consultation with key stakeholders; and engagement with the MPC, FPC and PRC (previously the PRA Board).

Since 2013, 'Concordats' have been in place between the MPC, the FPC and the Bank's Executive, setting out their respective roles in the SMF by, for example, specifying certain consultation requirements and ensuring adequate information flow. These concordats have been reviewed and revised following discussions with the respective committees during 2016–17. The revised concordats⁽¹⁾ include new clauses which clarify the role of the committees in relation to decision-making, namely, the FPC's role in approving the scope and principles which determine the design of the bank's liquidity insurance facilities; and the MPC's in approving the selection of schemes and structures primarily designed to deliver monetary policy aims. Court has also been consulted on the changes to the concordats on account of its responsibilities for risk management of the balance sheet and approval of the objectives of the SMF.

As set out in the Court minutes for December 2016,⁽²⁾ Court has commissioned an in-depth evaluation of the Bank's approach to providing sterling liquidity by the Bank's Independent Evaluation Office (IEO), to be carried out in 2017. Among other things the IEO Review is expected to review the

Bank's response to the Winters Review⁽³⁾ and the consistency with which different parts of the Bank approach the liquidity operations. The IEO is an independent unit within the Bank which aims to strengthen the Bank's accountability and learning through its remit to evaluate the Bank's performance. IEO evaluations are generally published unless there are public interest grounds for withholding.

As in previous years, as part of the 2016–17 annual review process, the Bank sought views on the functioning of the SMF from large and small SMF counterparties. Their observations have been reflected throughout this Annual Report.

Through the SMF annual review process and in line with its responsibilities,⁽⁴⁾ the Bank's Court has reviewed the performance of the SMF over the past year, and considered objectives for the coming year. Court endorses the publication of this report.

The Bank welcomes ongoing feedback from interested parties on any aspect of this report. Comments can be sent to:

Head of Sterling Markets Division
Bank of England
Threadneedle Street
London, EC2R 8AH

or by email to: SMFfeedback@bankofengland.co.uk.

(1) See www.bankofengland.co.uk/about/Documents/legislation/mpcconcordat.pdf and www.bankofengland.co.uk/about/Documents/legislation/fpcconcordat.pdf.

(2) See www.bankofengland.co.uk/publications/minutes/Documents/court/court1612.pdf.

(3) See www.bankofengland.co.uk/publications/Documents/news/2012/cr2winters.pdf.

(4) See www.bankofengland.co.uk/about/Documents/pdfs/courtatters.pdf.

Annex

Table A.1 Results of operations, FLS and TFS drawings and reserve balances

£ millions	2016 Q1	2016 Q2			2016 Q3			2016 Q4			2017 Q1		Total stock outstanding Feb.2017
	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	
SMF													
OSF	0	0	0	0	0	0	0	0	0	0	0	0	0
ILTR	4,330	2,502	3,066	9,152	3,680	1,499	635	265	1,335	3,465	2,020	1,635	9,355
Level A	2,330	2,292	2,831	5,705	2,730	994	275	75	1,325	2,865	1,675	740	6,955
Level B	0	5	0	605	5	10	0	5	0	350	220	205	780
Level C	2,000	205	235	2,842	945	495	360	185	10	250	125	690	1,620
CTRF ^(a)	0	0	0	0	0	0	0	0	0	0	0	0	0
FLS ^(b)	1,094			2,874			2,416			-666			52,170
TFS ^(c)	–			–			70			20,620			42,931 ^(d)
Reserves balances^(e)	295,902	298,437	297,466	298,100	300,391	304,863	312,306		336,586	356,959		372,552	406,088

(a) The CTRF was not activated during this period.

(b) FLS Extension, net drawdowns for each quarter (drawdowns less repayments).

(c) The TFS drawdown window opened on 19 September 2016, net drawdowns for each quarter (drawdowns less repayments).

(d) Aggregate drawings outstanding as at 1 March 2017.

(e) Reserves balances are shown as averages for maintenance periods (the period between MPC meetings).

Table A.2 Representative share for each of the CBPS' nine sectors and holdings in each of these sectors as at close of business 3 May 2017

Sector	CBPS Holdings as at close of business 3 May 2017	CBPS Target Sector Share
	(Percentage of portfolio)	(Percentage of eligible list)
Electricity	19	19
Consumer, non-cyclical	15	15
Communications	12	12
Industrial and transport	13	13
Water	11	12
Consumer, cyclical	11	11
Gas	8	8
Property and finance	6	6
Energy	3	3
Total	100	100

Source: Bank of England.