



BANK OF ENGLAND

Speech

Liquidity support from the Bank of England: the Discount Window Facility

Speech given by

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Introduction

The Bank of England's market operations are designed to allow the use of its balance sheet to deliver on its two core purposes of monetary and financial stability. Specifically, they allow us to perform three important tasks. First, to implement in the market the decisions of the Monetary Policy Committee (MPC) on Bank Rate and, since March 2009, on the quantity of asset purchases financed by the issuance of central bank reserves (better known as Quantitative Easing or QE). Second, they enable us to provide liquidity insurance to the banking system and hence reduce the cost of any unexpected disruptions to the commercial banks' payment services to the UK economy. Third, they provide the bedrock for the Bank's market intelligence work, which feeds in to both core purposes.

Over the past three years or so, I have used opportunities such as this to set out the policy objectives and rationale underpinning the Bank's various market operations.¹ Today, I want to fill in some pieces of the jigsaw puzzle by discussing in detail two of the new operations which provide liquidity insurance: the Discount Window Facility (DWF) and the recently-announced Extended Collateral Term Repo Facility (ECTR). In order to do that, I first want to summarise the principles governing the Bank's provision of liquidity insurance, and how those have contributed to a complete overhaul of the Bank's operations since the start of the financial crisis in 2007.

Principles for providing liquidity insurance

In order to understand our liquidity insurance facilities, it is helpful first to think about why they are necessary at all – and that relates to what it is that commercial banks do.² In their simplest form, banks provide customers with a variety of basic financial services: an on-demand source of bank notes; deposit and savings accounts; payment services; and they supply credit, to both businesses and households.

These are critical services for the efficient functioning of the UK economy – done well they make us all better off. But providing them generates a necessary degree of risk. The most obvious is credit risk – if you lend someone money, you might not get it back. That risk does not justify support from the central bank – the consequences of bad commercial lending decisions should be borne by banks' management and the shareholders, and not by the UK taxpayer.

Banks also bear liquidity risk, which might crystallise for reasons beyond their control. For example, bank liabilities typically comprise a large amount of on-demand customer deposits, and their assets tend to comprise longer-term loans to households and firms. This maturity mismatch between assets and liabilities is an essential part of the banking business model and large unexpected shocks can leave even well-run

¹ See Fisher (2010), "Managing Liquidity in the System: The Bank's Liquidity Insurance Operations", <http://www.bankofengland.co.uk/publications/Documents/speeches/2010/speech450.pdf>.

² In this speech, references to commercial banks should be taken to include building societies.

banks short of liquidity. And the degree of spill-over to the system as a whole is particularly elevated in the banking system. By way of contrast, if a car manufacturer fails, people will buy other cars. If a bank fails, it can cause a loss of confidence and hence a run on other banks.

Commercial banks can self-insure against liquidity risk by holding buffers of liquid assets which they can readily exchange for cash in the money markets. It is obvious in hindsight that the banks' collective holdings of liquid assets prior to 2007 were insufficient to cope with the ensuing crisis and that they should hold more - although precisely how much more is still being debated in international regulatory circles. Nonetheless, liquid asset buffers can only go so far - one can always conceive some event which renders a bank's self insurance buffer insufficient. Such scenarios could range from short-term IT malfunctions which prevent payments being received, through to full-blown global financial crises. That is why the central bank needs to stand ready as lender of last resort.

As the monopoly supplier of central bank money, which is the most liquid asset of all, the central bank is able to provide liquidity, either bilaterally (in the event of an idiosyncratic shock), or to the banking system as a whole (in the event of a market-wide shock). In doing so, there are some important constraints.

Support from the central bank is not available to prop up a failing institution. The Bank of England will only lend to those commercial banks that are, in its judgment, solvent and viable. This is for two related public policy objectives. First, the central bank needs to guard against moral hazard - that is, our policies should not undermine the commercial banks' responsibilities to manage their own liquidity prudently. If commercial banks know that we will always bail them out, then they may take too much risk: the bank's shareholders and management might seek to profit from the extra gains arising from risky lending whilst relying on the authorities when the risks crystallise. Second, and in consequence, the central bank needs to protect its own balance sheet (and hence public money) against the risk of loss. As a result, central bank lending should be collateralised, and subject to haircuts which are prudently calibrated to be sufficient if the counterparty was to default.

In a crisis, it can be difficult to judge whether a bank really does have just a temporary liquidity problem or an underlying solvency problem. There is no shying away from the fact that difficult judgements have to be made about when and whether the central bank should offer actual liquidity support.

Before the recent crisis, there was only limited publication of the terms and conditions of possible liquidity support. An approach of 'constructive ambiguity' was adopted by many central banks, to guard against moral hazard. But in the events that occurred, that approach limited the extent to which central banks - and market participants - could act quickly within an appropriate risk management framework.

Drawing on the lessons of the crisis, the Bank's approach to providing liquidity insurance has evolved radically since 2007. During that period, the Bank has reviewed the use of its balance sheet, and

implemented a series of public and transparent reforms to its facilities. Many of the proposals were set out in a consultation document published in October 2008³ and the resulting work programme has led to an almost complete overhaul of the Bank's Sterling Monetary Framework (SMF).⁴

The new Framework includes arrangements for implementing monetary policy as well as permanent facilities for providing liquidity support to the banking system. The latter arrangements include the Bank's overnight Operational Standing Facilities (OSFs, which offer overnight liquidity against high quality collateral in the event of frictional payment shocks), its regular Indexed Long Term Repo auctions (ILTRs, which offer a pre-determined, fixed quantity of central bank reserves, for a period of 3 or 6 months, against a wide range of eligible collateral),⁵ the Discount Window Facility (DWF) and most recently the Extended Collateral Term Repo (ECTR) facility. The rest of my talk today is focused on the policies underpinning these latter two facilities.

Designing the Discount Window Facility

The Bank's DWF, which was introduced in October 2008, is an on-demand facility, designed to provide bilateral short-term liquidity support in the face of either idiosyncratic or system-wide shocks. Eligible counterparties, who have applied for and been granted access to the DWF, can apply to borrow at any time, obviating the need to wait until the Bank's next scheduled market-wide operation.

The design of the Bank's DWF was shaped, in part, by lessons learnt from the Special Liquidity Scheme (SLS). The SLS was a temporary scheme, introduced in April 2008 to alleviate the extreme pressure on the UK banking system. It was designed to provide a significant, one-off, long-term liquidity upgrade against legacy assets that had become illiquid. Under the scheme, the Bank lent £185bn of Treasury bills, for up to three years, in exchange for high quality but illiquid assets created before the end of 2007 – mostly securitised mortgages and covered bonds.⁶

Like the SLS, DWF drawings are typically structured as a liquidity upgrade – exchanging borrowers' illiquid collateral for UK Government securities (gilts in the case of the DWF). The Bank is willing to accept a very wide range of collateral in the Discount Window - a much wider set than that which is normally eligible in the Bank's regular open market operations. The Bank's published documentation sets out four categories of

³ "The Development of the Bank of England's Market Operations", <http://www.bankofengland.co.uk/markets/Documents/money/publications/condococt08.pdf>.

⁴ That new system is described in a revised 'Red Book' published at the end of 2010, <http://www.bankofengland.co.uk/markets/Pages/sterlingoperations/redbook.aspx>.

⁵ For more information, see Fisher (2011), "Recent developments in the sterling monetary framework", <http://www.bankofengland.co.uk/publications/Documents/speeches/2011/speech487.pdf>.

⁶ For more information see John, Roberts and Weeken (2012), "The Bank of England's Special Liquidity Scheme", in the Bank's Spring 2012 *Quarterly Bulletin*.

eligible collateral (Level A to Level D). The contents of each are determined by the market liquidity of each eligible asset class. The least liquid collateral set includes own-name securities or pools of loans: that is where a borrowing bank itself has originated, or has some other close financial links to, the assets comprising the collateral.

Other features of the DWF are very different from those underpinning the SLS. First, DWF borrowings typically have a term of 30-days.⁷ The DWF is intended to act as a bridge in the event of a liquidity shock. For a relatively mild shock that might support a counterparty to the next regular ILTR,⁸ or to planned debt issuance. For greater shocks, the solution might require more fundamental changes in the firm's balance sheet (e.g. asset disposals).

In any case, before it will agree to lend in the Discount Window, the Bank of England will need to be convinced that there is a credible path to a point where access is no longer required. Crucially, the DWF is only intended to provide short-term liquidity support to banks – and is not intended to be used as a replacement for funding, which can only be sourced in a sustained way from private markets. And it is vital to stress that the DWF is not a 100% committed facility. At the point of application, the Bank will make a fresh, independent assessment of whether it deems the counterparty to be solvent and viable.

To guard against moral hazard, the DWF charges fees which make it unattractive in normal times, but which would be more attractive under stressed market conditions. Because the DWF is structured as a liquidity upgrade, the fees charged are linked to the type and liquidity of collateral delivered. The more illiquid the collateral, the greater the value of the upgrade, and hence the higher the fee. In addition, as part of the Bank's desire to ensure that commercial banks are adequately incentivised to seek their own liquidity insurance, the cost of borrowing increases with the size of the draw. The resulting matrix of fees is summarised in Table 1.

⁷ Currently the Bank also offers at its discretion the option of a drawing of up to 364-days, for an additional fee.

⁸ Although counterparties are not guaranteed an allocation in these auctions, they are able to bid up for liquidity, increasing their chances of being allocated.

Table 1: Fee table for DWF drawings of gilts

Fees (bps)	Collateral Type			
	Level A (e.g. high quality sovereign debt)	Level B (e.g. liquid and high quality mortgage and corporate bonds)	Level C (e.g. illiquid transferable securitised loans and mortgages)	Level D (e.g. own-name securitisations and covered bonds, and loans)
0-10%	50	75	125	200
10-20%	75	125	200	300
20-30%	100	175	275	400
>30%	At the Bank's discretion			

There is one further important point to make regarding the policy decisions underpinning the design of the DWF. It relates to the challenges associated with providing liquidity support while not compromising the Bank of England's ability to conduct monetary policy. To implement interest rate decisions, the Bank must, through its market operations, adjust the supply of central bank money in response to changes in the demand for banknotes and reserves, given the MPC's policy rate (Bank Rate). During periods of stress there may be large shifts in the demand for reserves and so the Bank's market operations need to be designed to meet both our monetary policy and financial stability objectives without conflict.

In normal times, Bank Rate is set within a reserves averaging framework, in which commercial banks choose their own targets for reserves balances held at the Bank but are then required to meet those targets on average over the monthly maintenance period and are remunerated at Bank Rate. The Bank of England supplies just enough cash to the system so that banks can collectively meet their targets, and a combination of the Operational Standing Facilities and the inter-bank market should guide short-term market interest rates towards Bank Rate. This framework relies on the Bank ensuring the amount of sterling cash in the system is in line with that demanded, given Bank Rate.

The liquidity swap structure of the DWF does not involve an extra injection of cash and so helps to avoid any direct impact on the setting of Bank Rate. The Bank may, however, decide in exceptional circumstances, to lend cash instead. That might be required if, for example, the gilt repo market was not functioning properly, or the size of the required draw is sufficiently large that the Bank deemed it unlikely that the counterparty will be able to repo the gilts without causing undue volatility in the markets. In such circumstances either the

Bank would need to relax the tolerances around banks' reserves targets to accommodate the extra cash in the system, or drain the excess cash, which it can do by one of several means. In either case, the Bank would not compromise its capacity to set Bank Rate or purchase assets.

Since the start of the Bank's asset purchase programme in March 2009, this interaction has not been binding. Because quantitative easing directly injected more cash into the economy, forcing the commercial banks to hold more reserves than they would otherwise have chosen to, the reserves averaging system was suspended and all central bank reserves have since been remunerated at Bank Rate. But when reserves averaging is re-introduced in due course, we will need to be conscious of the potential interaction between liquidity support and monetary policy operations. The framework is designed so that both policy objectives can be achieved at the same time.⁹

Recent policy initiatives/issues

a) Pre-positioning

Since the DWF was put on a permanent and transparent footing in late 2008, the Bank has been working on a number of initiatives to develop the facility further. One important expansion has been the Bank of England's capacity to assess and lend against portfolios of loans (e.g. mortgages) as well as securities.¹⁰ There are a number of benefits to having this capacity. Portfolios of loans can be easier for the Bank to assess from a risk perspective, as they do not embed the complex structures sometimes present in securitised assets. And securitising loans into asset backed securities – such as RMBS – is both complex and expensive for the firms, and generally only available to those large enough to have an existing securitisation programme. The ability to accept raw loan collateral means that smaller counterparties, without securitisation platforms, are not disadvantaged when positioning collateral at the DWF. Since financial instability can start with smaller banks just as easily as larger ones, expanding the universe of possible Discount Window counterparties could lead to significant financial stability benefits.

Alongside the expansion of eligible collateral to loan portfolios, we have been encouraging banks to 'pre-position' their collateral. Pre-positioning involves the commercial banks identifying, and the Bank of England assessing, various types of collateral *ex ante*, so that it need not be assessed at short notice in the event of a sudden and unexpected need to borrow at the Discount Window. Assessing varied pools of illiquid collateral can be extremely complex and time consuming. The Bank may not be able to lend much, if at all, against collateral where it has not had time to conduct sufficient due diligence. As a result, it is vital

⁹ Further details on how central banks can use their money market operations to implement monetary policy and provide liquidity support to banks are set out in Clews, Salmon and Weeken (2010), "The Bank's money market framework", available in the Bank's Winter 2010 *Quarterly Bulletin*.

¹⁰ Further details are available at <http://www.bankofengland.co.uk/markets/marketnotice100719.pdf>.

that such collateral is pre-positioned well ahead of any need to draw. One of the benefits from having a more public and transparent facility is that such due diligence is much easier to carry out.

The pre-positioning drive has gathered pace in the last year or so – there is now over £265bn of collateral pre-positioned for use in the DWF. After applying appropriate haircuts to each piece of collateral pre-positioned, this means the Bank could, subject to solvency and viability assessments and repayment plans, lend around £160bn in the DWF without the complications of further detailed collateral checks.¹¹ Although not a substitute for firms building up their own holdings of high quality liquid assets to a more satisfactory level, that represents a very substantial ‘war chest’ of potential liquidity in the event of significant adverse shocks. There is limited cost to the counterparty of pre-positioning, as collateral can be withdrawn on demand for use in other operations or market transactions. The extent of pre-positioning varies across firms, however, and we hope to continue to both sign up new counterparties and encourage firms to increase further the quantity of pre-positioned collateral over time.

b) Addressing perceptions of stigma

The latest data, published in the Bank’s *Quarterly Bulletin* this week, show that there was no borrowing under the DWF between its introduction in late 2008 and 30th September 2011. In part, that is likely to reflect the fact that the UK banking system (in aggregate) has not been short of sterling liquidity over this period – the Bank has injected large amounts of liquidity through a variety of operations including both the SLS and expanded LTR operations. And since early 2009 asset purchases under the MPC’s QE programme have mechanically led to a large increase in the stock of central bank reserves. Of course more reserves in total do not ensure an appropriate distribution of liquidity across individual banks – but it does help.

Some people have suggested that lack of use of the DWF may reflect concerns about stigma attached to such support facilities. Stigma might arise from counterparty concerns that their use of the DWF would be detected, coupled with a perception by others that only weak institutions would ever use a bilateral, on-demand facility. In fact, as we have made clear, the DWF is not there to support a failing firm – when borrowing from the DWF, firms must have convinced the Bank of their ability to repay.

Addressing the stigma issue is extremely complex and has potentially affected a number of central bank operations internationally. One way of addressing perceptions of stigma is through appropriate policies on disclosure. While headline results of the Bank’s auctions, such as total bids and total amount allotted, are published immediately at their conclusion, we publish only the average daily amount outstanding in the DWF over the quarter, aggregated across firms, and even that with a one-quarter lag. The intention is that DWF drawings will not be disclosed until after they have terminated. Moreover, where structured as a liquidity

¹¹ That is around 10% of annual nominal UK GDP in 2011 - slightly higher than that in the United States, where the lendable value of collateral pledged by all depository institutions in the Discount Window (around \$1.3trn in January 2012) is equivalent to around 8.5% of nominal US GDP in 2011.

upgrade, DWF borrowings would not be visible on the Bank's balance sheet, reducing the risk that any drawing is unintentionally revealed.

Another possibility is that counterparties are concerned about being "spotted" using DWF-sourced gilts in the repo markets. For the majority of cases, however, I think there are simple ways to alleviate these concerns – for example by encouraging banks to set up multiple repo counterparty relationships and rotate their regular gilt repo business amongst them. That would deliver wider business and financial stability benefits, even in the absence of the DWF. Indeed, the FSA requires banks to test their repo capacity by lending out gilts from their liquid asset buffers.

Ultimately we expect a counterparty would draw on the DWF if it had to, despite any stigma concerns. The risk is that the perception of stigma might delay an application to borrow, making a firm's liquidity position more perilous. The solution to this problem requires the Bank to work closely with both the supervisors and the commercial banks themselves, to ensure appropriate timing of any use.

c) Extended collateral term repo facility (ECTR)

The most recent policy development in our liquidity insurance tools has been the addition of the ECTR facility in December 2011. Although it is a contingent facility, the ECTR is a permanent part of the Bank's Sterling Monetary Framework.

The design of the ECTR shares elements of both the ILTRs and the DWF. Like the ILTRs, it is a competitive auction, designed to provide reserves to the banking system as a whole. Participants submit quantities they would like to borrow and a price (expressed as a spread to Bank Rate, subject to a minimum of 125bps) that they would be willing to pay. The disclosure policy (total amount bid for/allocated) is also very similar to the ILTR, which together with the market-wide nature of the operation, should help alleviate any perceived stigma associated with the facility.

The ECTR's collateral arrangements, however, are similar to the DWF – borrowings can be backed by the full range of eligible collateral, so long as it has been pre-positioned in the Discount Window beforehand.

The purpose of the ECTR is to make liquidity available against the least liquid collateral, to the market as a whole, and would be offered only if there was likely to be multiple take up. (If only a single firm needed support they could be directed to the DWF.) Consistent with all the Bank's facilities, only firms judged to be solvent and viable would be eligible to participate. Subject to that, all counterparties that have access to DWF would be eligible to participate in any ECTR operations.

Although the facility has been announced, the Bank has not yet offered any operations under the ECTR. That reflects our judgment that market conditions have not yet been consistent with a likely demand for its use. The Bank would revisit this decision in the event of any marked deterioration in market conditions.

Conclusion

In this speech today, I have set out some of the principles behind the Bank of England's revised, permanent and public facilities for providing liquidity insurance to the banking system. We expect banks to self-insure for most of their liquidity needs – and while there has been encouraging progress to date, more is needed on that front. But if necessary, the Bank of England stands ready to provide support to solvent and viable institutions, against sufficiently good collateral, for an appropriate fee. It is important that commercial banks pre-position their collateral so that due diligence can be performed and the maximum benefit achieved. The new Sterling Monetary Framework, which has been reformed almost in its entirety since 2007, reflects our experience during the crisis and lessons from some of the temporary measures that had to be put in place. Doubtless the Framework will continue to evolve in future, but the provision of such published facilities should help to make the system more resilient in the years to come.