

BANK OF ENGLAND POSITION-PAPER: PROPOSED FRAMEWORK FOR PERMANENT LONG-TERM REPO OPERATIONS

1 As part of its existing *Red Book* framework, the Bank has provided liquidity to the banking system via regular long-term repo operations since January 2006. In December 2007, and again in September 2008, the Bank increased the size and frequency of its three-month operations and expanded the range of eligible collateral¹.

2 A consultation document published in October 2008 outlined the Bank's intention to incorporate long-term repo operations, against a broader range of collateral, as a permanent part of the Sterling Monetary Framework. This short paper provides an update on the Bank's thinking, addressing some of the questions raised in the consultation document. The proposed framework will be discussed further with counterparties after which final details will be decided. The new operational design will then be launched later in 2010.

Objectives of permanent long-term repo operations

3 In addition to their role in providing reserves as part of the Bank's implementation of monetary policy, long-term repos can provide liquidity support to the banking system in times of stress. They can do this by offering refinancing against an extended range of collateral and by helping to lengthen the maturity of banks' liabilities.

4 The primary objective of the new operations is to provide liquidity insurance without distorting banks' incentives for prudent liquidity management, and whilst minimising the risk being taken onto the Bank's own balance sheet.

5 In the new operations, participants will be able to borrow against two different 'sets' of collateral – one set that corresponds with securities eligible in the Bank's short-term repo operations ('narrow collateral') and a second set containing a broader class of high-quality third-party debt securities that, in the Bank's judgement, trade in liquid markets ('wider collateral'). The wider collateral set will exclude own-name securitisations and covered bonds.

6 The new auction design will permit the allocation of a greater proportion of funds against a broader range of collateral as evidence of stress increases, although the Bank would expect to lend some funds routinely against both collateral sets. The proportion of

¹ The size and frequency of these operations have subsequently been scaled back in light of revealed demand but funds continue to be provided against a broad range of collateral.

bids allocated to each collateral set will be based on the pattern of bids received and the Bank's preferences for allocating funds between collateral sets. More specifically, if bids against wider collateral are high relative to bids against narrow collateral, the Bank will allot a greater proportion of bids against wider collateral.

Operational framework

7 The Bank expects to offer funds via a long-term repo operation once each calendar month. Each operation will initially offer a pre-announced fixed quantity and at a single maturity. The Bank plans initially to conduct two operations with a three-month maturity and one smaller operation with a six-month maturity in each calendar quarter. The Bank expects the total stock of funds offered via these operations to be £15 billion. The Bank will stand ready to adjust the size of long-term repo operations in light of evidence of financial conditions, including revealed demand at previous long-term repo operations. Auctions will be held using the Bank's electronic tendering system, Btender.

8 The Bank plans to index the rate charged on repos to Bank Rate. Indexing allows the Bank to reduce its exposure to market risk while enabling counterparties to participate without having to take a view on the path of future interest rates. Participants will therefore bid by submitting a nominal amount and a spread to Bank Rate expressed in basis points. Bids will be subject to a minimum bid spread of zero (i.e. negative spreads will not be permitted). The Bank will place no restriction on the number of bids submitted but will continue to place restrictions on the total value of bids received from a single participant.

9 The auction's pricing mechanism will adopt a so-called uniform-price format, in which every successful bidder pays the lowest accepted spread (the "stop-out spread") for borrowing against a specific collateral set. This contrasts with the current mechanism for long-term repo operations in which successful bidders pay the rate they bid. As all successful bidders pay the stop-out spread, participants should face little incentive to alter their bids on the basis of assumptions about other participants' likely behaviour.

Bidding process

10 Participants may choose to submit multiple bids against either collateral set. Alternatively, or in addition to single bids, participants looking to raise a given quantity of funds and with both types of collateral available may submit 'paired bids'. A paired bid consists of a single nominal amount and two spreads at which the counterparty is willing

to borrow against the delivery of narrow and wider collateral respectively. This provides participants with two opportunities to raise a specific quantity of funds whilst avoiding any risk of over-allotment that might otherwise occur if two single bids for the same nominal amount were submitted. If both parts of a paired bid are above their respective stop-out spreads, and therefore eligible to be accepted, the participant will be allotted against the bid which offers them better value (i.e. the bid with the highest spread relative to the stop-out spread for that collateral type).

Allocation process

11 The proportion of the total amount on offer to be allocated to each collateral set will be based on the pattern of bids received and the Bank's preferences for supplying funds against each collateral set. For each collateral set, bids will be ranked in descending order of the spread bid. Bids at the highest spread are accepted first, followed by bids at successively lower spreads until the chosen proportion of the auction is allocated or bids received against that collateral set are exhausted.

12 A worked example to illustrate how the Bank might choose to allocate between bids can be found in the Annex to this document.

Timetable for implementation

13 From mid-March to mid-April, the Bank will discuss aspects of the proposed format for long-term repo operations with its counterparties. Following this, and once any remaining issues have been addressed, the Bank plans to schedule training and familiarisation with counterparties in May. Subject to any unforeseen delays, final terms will be published ahead of the first live operation, which is expected to take place later in 2010.

Bank of England

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Annex: Worked example

The following example illustrates how the Bank might divide an auction of £1 billion between bids received against the narrow and wide collateral sets. Table 1 shows 20 bids ranked from the highest spread received downwards. For simplicity, each bid is assumed to be for £100 million nominal. The group contains two paired bids (P1& P2) from two institutions looking to obtain £100 million in funds and willing to bid against both types of collateral to increase their chance of achieving this.

Table 1: Bids received

Narrow Collateral				Wider Collateral			
<i>Bid #</i>	<i>Nominal (£mns)</i>	<i>Spread (bps)</i>	<i>Paired bid</i>	<i>Bid #</i>	<i>Nominal (£mns)</i>	<i>Spread (bps)</i>	<i>Paired bid</i>
1	100	50		1	100	105	
2	100	45		2	100	100	
3	100	40	(P2)	3	100	95	(P1)
4	100	35		4	100	90	
5	100	30		5	100	85	(P2)
6	100	25		6	100	80	
7	100	20		7	100	75	
8	100	15	(P1)	8	100	70	
9	100	10		9	100	65	
10	100	5		10	100	60	

The first two columns in Table 2 show possible outcomes. In this example, we assume bids are not pro-rated and hence there are 10 possible divisions. They range from allocating the entire auction to narrow collateral to allocating it all to wider collateral. The next two columns in Table 2 show the stop-out spreads that would result from these 10 possible outcomes. For example, if £800 mn (80% of the operation) was allocated against narrow collateral, bids on narrow collateral would be accepted down to 15bps over Bank Rate. To allocate the remaining £200mn to wider collateral, it would be necessary to accept bids on wider collateral down to 100bps. These would be the stop-out spreads for the two different classes of collateral. The difference between these two spreads would be 85bps in this example. If more of the auction was to be allocated against wider collateral, the difference between stop-out spreads on the two types of collateral would decrease.

Table 2: Possible outcomes

Possible Allocations (£mns)		Pattern of bids received				Bank terms	
		Stop-out spreads (bps)		Proportion allotted to wider collateral (%)	Difference between stop-out spreads (bps)	Proportion allotted to wider collateral (%)	Difference between stop-out spreads (bps)
<i>Narrow</i>	<i>Wide</i>	<i>Narrow</i>	<i>Wide</i>				
1000	0	5	-	0	-	0	0
900	100	10	105	10	95	10	10
800	200	15	100	20	85	20	20
700	300	20	95	30	75	30	30
600	400	25	90	40	65	40	40
500	500	30	80	50	50	50	50
300	700	35	75	70	40	70	60
200	800	45	70	80	25	80	70
100	900	50	65	90	15	90	80
0	1000	-	60	100	-	100	90

The final two columns of Table 2 show an example (for illustration only) of how the Bank might allocate between the two collateral sets dependent on the difference between stop-out spreads. The Bank will operate on the basis of a relationship such that it requires a larger difference between stop-out spreads to allocate a larger proportion of the auction to wider collateral. The Bank does not intend to reveal its preferred relationship between these two variables, which need not be linear². In this example, the point at which the Bank's required spread is consistent with the spread implied from bids received in the auction is 50bps. At this clearing level, 50% of the auction would be allocated to each collateral set, leading to stop-out spreads of 30bps and 80bps for narrow and wider collateral respectively. Consequently all valid bids at 30bps and above received against narrow collateral would be allocated, along with all bids at 80bps or more against wider collateral.

Paired bid 1 (P1) would be unsuccessful against narrow collateral as this part of the bid (15bps) falls below the stop-out spread for narrow collateral (30bps), but the other half of the pair (95bps) would be above the stop-out spread for wider collateral (80bps) and therefore the bid would receive a full allotment against wider collateral. In contrast, both the spreads bid in Pair 2 (P2) are above their respective stop-out spreads. In this case, the pair would be allotted in full against the collateral set where the bid exceeds its corresponding stop-out spread by the greatest margin (in this case, on narrow collateral).

² The numbers in the row highlighted in Table 2 provide stop-out spreads and allocations for a purely hypothetical example.