Report to the House Standing Committee on Economics

House of Representatives Standing Committee Inquiry – Recommendation regarding Reserve Bank repos

In November 2008, the House Standing Committee on Economics presented its final report, *Competition in the banking and non-banking sectors*.[1] In the report, the Committee commented on the use of Reserve Bank repurchase agreements (repos) as a means of providing longer-term funding for the mortgage market.

> If repurchase agreements were to be used effectively in adding liquidity to the mortgage market over a longer term, the RBA would need to provide certainty of funding for a much longer period than is presently the case.

The Committee further noted:

> The RBA repurchase agreements are an effective tool for adding short term liquidity to the market. However, there is still a concern that expanding the repurchase agreements by extending their term to maturity even further may place additional unnecessary risk on the RBA.
>
> The committee believes that while there is merit in the proposal to make repos a long term funding option, further study on whether this will place additional risk on the RBA needs to be undertaken.

This led to Recommendation 2 in the Committee's Report, which was directed to the Reserve Bank:

> The Committee recommends that the Reserve Bank of Australia examine the appropriateness, feasibility and risks of expanding the repurchase agreements by extending their term to maturity even further and provide a public audit report within six months. The report must be made available to the Committee for review.

The Reserve Bank's Response

The Bank has reviewed its repo arrangements, and is pleased to present this report which addresses the issues raised by the Committee. The report first sets out the operational framework for the Bank's open market operations and outlines how it has adjusted its dealing operations as the financial crisis has evolved. The report then considers the feasibility, appropriateness and risk of expanding the term to maturity of its repos.

The Bank's market operations[2]

The operational target for monetary policy in Australia is the cash rate – the overnight interest rate paid on unsecured loans between banks. The target for the cash rate is established at the monthly meetings of the Reserve Bank Board. To keep the cash rate as close to this target as possible, the Domestic Markets Department (DM) of the Reserve Bank conducts operations in the cash market every day.

On a day to day basis, the cash rate is affected by the demand for and supply of exchange settlement (ES) funds. ES funds are held by the banks on deposit with the Reserve Bank to meet their settlement obligations to each other and to the Bank. The daily flows in and out of these accounts can be very large, though account holders are required to maintain positive ES balances at all times. The settlement of transactions between the banks affects the distribution of ES balances among the banks, but does not

1 *House Standing Committee on Economics,* Competition in the banking and non-banking sectors, *Canberra, November 2008.*

2 *Further details are available in* Open Market Operations and Domestic Securities, *Address to the Australian Securitisation Forum by Guy Debelle (Assistant Governor), 29 November 2007.*

change the aggregate level of ES balances. The sum total of ES balances will vary when a transaction occurs involving the private sector on the one side and the Reserve Bank or its clients on the other. The main client of the Bank is the Australian Government: so, for example, payment of tax to the Government will decrease the sum total of ES balances, while Government outlays will increase it.

Each day, the Bank determines the likely size of these net flows and announces its dealing intentions for the day to the market at 9.30 am. This announcement indicates the estimated extent to which funds would be added to or withdrawn from the system if the Bank were not to deal, whether the Bank is intending to deal on the day, as well as the preferred terms to maturity for the dealing. In most circumstances, the Bank structures its liquidity operations such that it is injecting cash into the market.

After this announcement, the DM dealing room receives bids for funds from the banks. The banks indicate the volume of funds they would like, at what term, what collateral they will provide in exchange for those funds, and what price they are willing to pay for the funds. From this, the Reserve Bank is able to gauge the strength of demand for funds on a daily basis. To further enhance the information available to the Bank, its domestic dealing room is in constant contact with cash market participants.

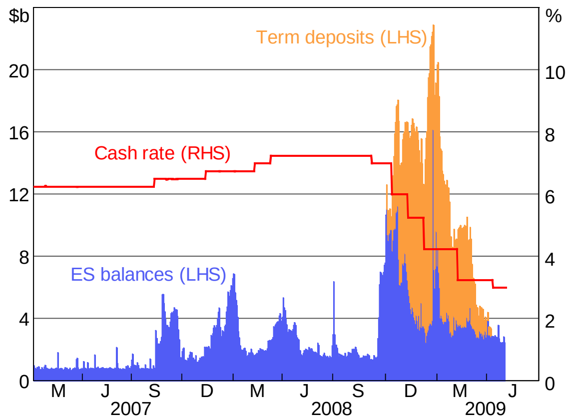
With the bids lodged, the Bank determines which of the bids it is willing to accept, to ensure that the aggregate level of ES balances is at the level it expects will keep the cash rate at the target rate. These operations are generally completed by around 10 am.

Actions taken during the financial crisis

Prior to the financial crisis, the Bank generally ensured that the sum total of ES balances was around $750 million (Graph 1). As the first signs of dislocation emerged in August 2007, it became apparent to the Bank that banks' demand for cash had increased and thus they wanted to hold higher ES balances. In order to ensure the efficient operation of the cash market and that the cash rate remained at the target, the Bank increased the level of ES funds available to the market. As tensions in the market and hence the demand for cash fluctuated through the crisis period, the Reserve Bank adjusted the supply of aggregate ES balances to accommodate these changes in demand. Currently, ES balances stand at around $2.5 billion.

Graph 1

Balances Held at RBA



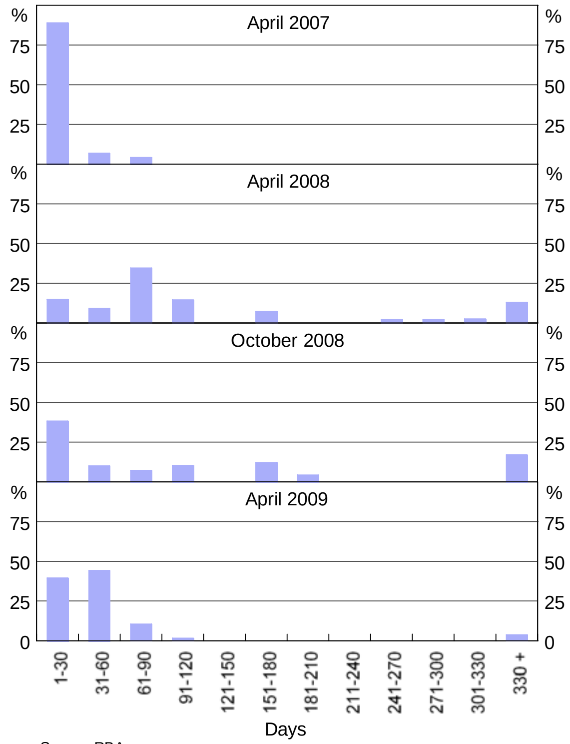
Source: RBA

To allow the Bank to conduct a larger volume of repo transactions at longer maturities to try to alleviate term funding pressures, the Bank announced a new term deposit facility on 24 September 2008. This facility allowed institutions to move some of the funds that would have otherwise remained in the overnight ES accounts to a longer maturity (typically, seven or 14 days). Thus one can think of the term deposits as an ES account with a longer maturity. If the funds had remained in the overnight ES accounts, the Bank would have been limited in the extent to which it could increase ES balances without putting downward pressure on the cash rate. As conditions have improved in recent months, the level of term deposits has fallen to zero.

The Reserve Bank also extended the maturities of its repos. Prior to the crisis, the Bank had not offered repos at long maturities on a daily basis, though terms of up to three months were generally offered around once a week. However, as tensions emerged in financial markets in the second half of 2007, the Bank extended the terms of its dealing, first to regular dealing at three months, then periodically at six months and up to one year. When the dislocation in term funding markets became extreme in mid September 2008, the Bank announced that it would offer six and 12 month maturities every dealing day. This helped enhance liquidity in the underlying market for bank paper, and also provided greater certainty of term funding to financial institutions. As a result the weighted average term to maturity of the Bank's repo book increased – from around 20 days in June 2007 to 152 days at the peak in January 2009 – and substantially changed the structure of the Bank's repo dealing. Graph 2 shows the effects of these changes on the Bank's market operations from the pre-crisis period through to the current situation.

Graph 2

Repos Dealt by Maturity Range



Source: RBA

In the period subsequent to the onset of financial turbulence, almost 20 per cent of the Bank's operations, by value, have been at terms longer than 90 days (Table 1).

Table 1: Market Operations – Extending The Term Of Repos

	Pre-June 2007 (19 April 2006 – 30 June 2007)	Post-June 2007 (1 July 2007 – 30 April 2009)
Value dealt ($b)	552	552
No of days*	303	464
Modal term (days)	7	7
Weighted average term (days)	22	63
Value dealt 1 - 30 days ($b)	429	279
Value dealt 31 - 60 days ($b)	101	81
Value dealt 61 - 90 days ($b)	19	90
Value dealt 91 - 180 days ($b)	2	67
Value dealt 181 - 365 days ($b)	0	34

* Selected to ensure an equivalent value dealt in each period

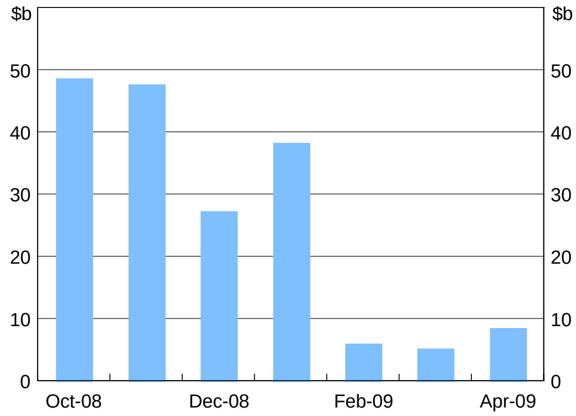
Source: RBA

In recent months, banks' access to funding has improved markedly and banks have lengthened the maturity profile of their liabilities. The Bank has seen demand for longer maturities in its market operations decline significantly (Graph 3). On a number of days when longer terms have been offered as part of the Bank's daily operations, no demand has been observed. Notwithstanding this, the Reserve Bank will continue to offer these longer terms on a regular basis as required.

Graph 3

Longer-term Approaches

Aggregate bid value, monthly



Source: RBA

The moderation in demand for the Bank's longer-dated repos has meant that the weighted average maturity of the repo book has fallen in recent months, from a high of 152 days to current levels of around 120 days. The frequency of dealing at longer terms has also been reduced – in October last year, approaches at around one year were offered and accepted on a daily basis, whereas more recently they have tended to take place once a week.

Risk and the Bank's operations

The Bank's repo operations are subject to a range of risks, including interest rate and credit risk. The latter is the potential for financial loss arising from the default of a counterparty to a repo transaction. In practice, that risk tends to be minimal because it is mitigated by three factors: the quality of the collateral; the fact that in normal circumstances the Bank accepts only 'third-party' collateral, that is, an institution can only present paper of another institution to the Bank; and the margin or 'haircut' taken on that collateral.

Since the onset of the turbulence, the Bank has widened the types of collateral it will accept in its market operations, but still only accepts highly rated paper. In the case of RMBS and ABCP, the Bank has also relaxed the restriction on related-party collateral, such that institutions can use RMBS containing their own mortgages, although the Bank has specified criteria for acceptable mortgages. While this has led to some increase in the Bank's counterparty risk, this is limited by the larger 'haircut' that the Bank has imposed on the potentially riskier collateral.

Overall, the credit risk to the Bank remains very small as the value of the collateral is marked-to-market each day; if the value of the collateral falls, additional collateral must be posted by the counterparty.

It is important to note, however, that throughout the crisis period, short-term liquidity management to ensure that the cash rate is at the target set by the Reserve Bank Board has remained the key focus of market operations. In particular, while the average term of dealing increased to almost two months, the most frequently dealt term remained at one week in line with pre-turbulence dealing patterns. Despite significant use of its operations at six months and one year, the majority of the Bank's repos by value have nevertheless been for less than two months.

Feasibility of further expansion

While the Reserve Bank has the capacity to offer longer maturities through its open market operations, extending maturities further, say up to 10 years, would lead to an increase in both credit and interest rate risk.

Were the Bank to deal at longer maturities than currently, the Bank's risk management processes would apply as they do now. But over the longer period, there would be a greater likelihood of larger movements in the creditworthiness of the counterparty, that is, the probability that a particular counterparty is in existence three months from the date of dealing is higher than, say, 10 years from the date of dealing. Moreover, the longer the maturity of the repo, the greater degree of interest rate risk. Interest rate risk on a 10-year repo could be almost tenfold higher than a repo with a one year maturity.

Aside from these concerns, the largest obstacle to offering even longer-dated repos is that it would tie up an increasing share of the Bank's assets, such that it would ultimately compromise the Bank's ability to manage liquidity in the overnight cash market and thereby compromise the stability of the cash rate. This would be detrimental to the functioning of Australia's money market.

By way of example, the current average maturity of the Bank's repo book is around 120 days compared to 20 days prior to the onset of the turbulence. With funds maturing less often, fewer funds are available for the primary purpose of short-term liquidity management to keep the cash rate on target. If longer terms of up to 10 years were offered, increasingly shorter terms would need to be dealt to 'churn' the limited funds remaining for short term ES liquidity management.

Ultimately, the capacity of the Bank to offer long terms as part of its daily market operations is a function of the size of its balance sheet. The usefulness of offering a finite amount of the repo book to dealing at longer maturities is problematic as these funds would then be tied up for up the longer term. Barring a substantial expansion of the Bank's balance sheet, the funds available for such longer-term dealing would quickly become exhausted.

Conclusion

The primary purpose of the Reserve Bank's open market operations is to ensure that the cash rate remains at, or close to, the target set by the Reserve Bank Board. That purpose is best served by maintaining flexibility in the Bank's portfolio through the use of short-term repos. In response to the financial market turbulence, the Reserve Bank has acted to support the functioning of financial markets including extending the maturities of repos. Over recent months, however, demand for longer-dated repos has moderated, and on a number of days when longer terms have been offered, no demand has been observed.

While it would be feasible for the Bank to offer longer terms in its dealing, and accept the commensurate increase in credit and interest rate risks on its portfolio, any significant extension in the maturities of repos means that it becomes more difficult for the Bank to cope with fluctuations in the demand for ES balances. This, in turn, would entail a higher risk of instability of the cash rate. Any actions the Bank could take in extending its market operations to significantly longer maturities are necessarily constrained by this primary objective and the size of its balance sheet.

7 May 2009