

Recent Changes to the Reserve Bank's Liquidity Operations

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Abstract

The Reserve Bank's policy measures to support the economy in the wake of the COVID-19 pandemic have significantly increased liquidity in the banking system. Consequently, market participants have had less need to use some of the Reserve Bank's liquidity operations and facilities. In response, the Bank reduced the frequency of its regular open market liquidity operations from daily to weekly. It also removed the requirement for financial institutions that make payments outside of business hours to source additional liquidity from the Bank via open standing facility repos so long as they are holding sufficient Exchange Settlement balances. This article outlines these recent operational changes.

Introduction

Prior to March 2020, the cash rate was the sole operational target for monetary policy in Australia. The cash rate is the interest rate at which commercial banks lend Exchange Settlement (ES) balances to one another on an overnight unsecured basis in the cash market. ES balances are at-call deposits held at the Reserve Bank of Australia (RBA) that commercial banks use to settle their payments obligations. In order to ensure that the cash rate remained close to the target determined by the Board, the RBA tightly managed the supply of ES balances (also known as 'system liquidity') to closely

match the demand from commercial banks. Because the interest rate paid on ES balances is below the cash rate, commercial banks had an incentive to lend their surplus ES balances to other banks in the cash market.^[1] In order to keep the cash rate at the target, the RBA needed to supply between \$2 billion and \$3 billion in system liquidity.^[2]

In response to the COVID-19 pandemic, the RBA used a number of monetary policy tools to support the economy and to address disruptions to the smooth functioning of financial markets (Dowling and Prinant 2021). These policy measures have

contributed to a significant increase in system liquidity, with the supply of surplus ES balances having risen to around \$380 billion (Graph 1). As a result, the supply of ES balances has exceeded demand and, as expected, the cash rate has decreased to below the cash rate target of 0.10 per cent, to be close to the interest rate on ES balances (currently zero per cent).

Reflecting the increase in system liquidity, market demand for liquidity from the RBA's regular open market operations (OMO) has declined significantly. The large supply of ES balances has also reduced the need for the RBA to provide liquidity through open standing facility repos (open repos), which some banks were required to use to ensure they could meet their after-hours payments obligations.^[3] The RBA has responded to these developments by changing some of the parameters of these operations and facilities. This article describes these changes in greater detail.

The Reserve Bank has reduced the frequency of its regular open market liquidity operations

Before March 2020, the RBA ensured that the cash rate remained near the target by carefully setting the supply of ES balances. If the supply of ES balances was too low (relative to banks' demands), banks would have had an incentive to bid for ES balances at a higher interest rate – above the cash rate target. Alternatively, as is currently the case, if the supply of ES balances is greater than demand, banks have an incentive to lend their surplus ES

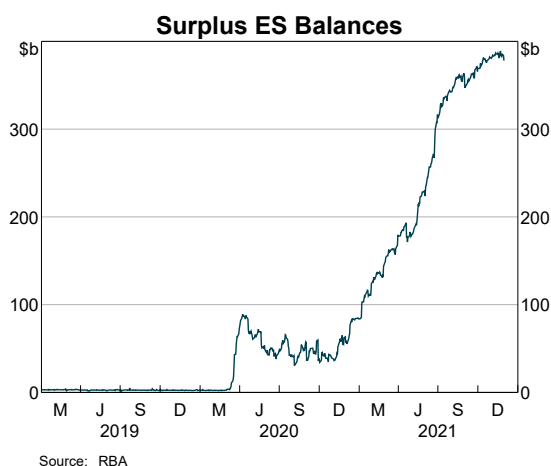
balances at a lower interest rate – below the cash rate target.

The overall demand for ES balances is driven by banks' liquidity needs and tends to be fairly stable from day to day. In order to permit the smooth functioning of the payments system, commercial banks need sufficient ES balances to make payments on behalf of their customers. However, banks generally have little use for these ES balances once their customers have completed their payments activity for the day.^[4] Banks have an incentive to lend any surplus ES balances because the interest rate they can receive by lending ES balances in the cash market is higher than the interest rate paid by the RBA on ES balances held overnight.

The demand for liquidity tends to be steady from one day to the next. In contrast, absent an active response by the RBA, the supply of ES balances would fluctuate on a daily basis due to transactions between the RBA (and its clients) and commercial banks. In particular, the RBA is the banker for the Australian Government. So, for example, large tax payments by households or businesses will reduce the supply of ES balances in the banking system. This is because when a household or business pays tax to the government, their bank uses its ES balances to make this payment to the RBA. Alternatively, when the government makes payments to households or businesses – such as social security payments, tax refunds or infrastructure spending – this will increase the supply of ES balances.

Prior to the pandemic, the RBA would offset these transactions by operating daily in financial markets, in order to keep the supply of ES balances relatively stable. The main tool used to achieve this was OMO, where the RBA buys or sells securities under repurchase agreement (repo) or outright via competitive auctions. On most days, the RBA would inject liquidity by buying securities under repo or buying them outright (in exchange for ES balances).^[5] Because these operations were designed to offset other transactions expected to affect system liquidity, the dealing amounts each day were determined by these external factors. Auction participation was typically strong, with total

Graph 1



bids almost always comfortably exceeding the intended auction size (Graph 2).

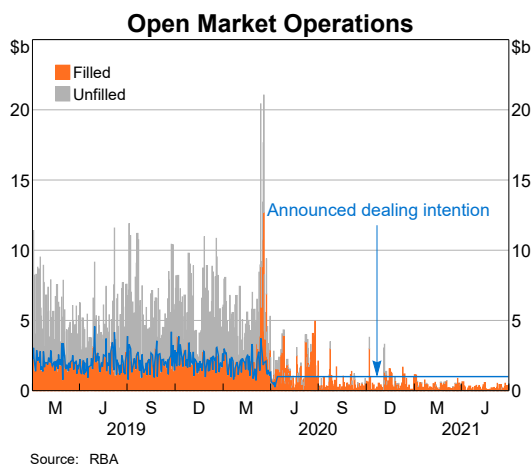
The purpose and operation of OMO has changed since the onset of the pandemic. System liquidity has increased significantly due to the RBA's policy measures to support the economy – most notably, the Term Funding Facility (TFF) and the Bond Purchase Program. The RBA has chosen not to offset this increase in system liquidity, which has provided more monetary stimulus than would otherwise be the case (Kent 2020). Accordingly, OMO are no longer conducted to closely manage the supply of ES balances, but rather to complement the RBA's other policy measures by providing short-term liquidity to participants in the repo market at a fixed interest rate (currently the cash rate target). As a result, OMO dealing amounts are now largely determined by the demand for repo funding.

During the early stages of the pandemic, the demand for OMO repo funding rose significantly. Financial institutions sought precautionary liquidity owing to a high degree of uncertainty over the economic outlook, while bond market dealers needed to fund a growing inventory of bonds that they had purchased from clients facing their own liquidity needs.^[6] The RBA met this demand by providing substantially more liquidity and for longer maturities than usual through its daily operations. However, since then, the demand for liquidity via the RBA's OMO has declined significantly, reflecting the substantial increase in system liquidity and substitution towards longer-term TFF funding. Prior

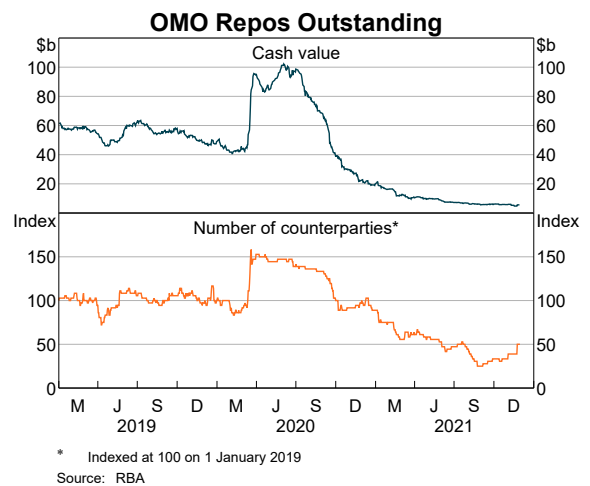
to the pandemic, the total stock of outstanding OMO repos (the OMO repo book) tended to fluctuate between \$40 billion and \$70 billion, and typically made up between 30 per cent and 50 per cent of cash borrowed in the Australian dollar repo market. More recently, the size of the OMO repo book has declined to around \$6 billion, representing less than 5 per cent of cash borrowed in the repo market. This decline reflects both a drop in the number of OMO participants and a decrease in the average stock of outstanding repos with each OMO participant. Indeed, at times the number of counterparties with OMO repos outstanding with the RBA has been as low as one-quarter of pre-pandemic levels; around 10 per cent of daily OMO auctions have received no bids at all (Graph 3). The size of the OMO repo book has also become less volatile over time, suggesting that the remaining demand for OMO repo funding is quite stable.

The decline in OMO participation is expected to persist, given the outlook for liquidity in the banking system to remain very high in coming years. The RBA is continuing to purchase government bonds, which is adding further liquidity to the system. The maturity of both TFF repos and the RBA's existing holdings of government bonds will eventually lead to a decline in ES balances, though this will take place over a number of years. Reflecting this, surplus ES balances are projected to remain greater than \$100 billion until at least the end of 2025 (based on announced policy measures and other technical assumptions).

Graph 2



Graph 3



With the demand for repo liquidity via OMO low, and likely to remain so for some time, the RBA has reduced the scheduled frequency of its regular OMO. Since 6 October 2021, OMO have been scheduled on a weekly basis rather than daily. These operations are run every Wednesday or, in the event that the Wednesday is not a business day, on the following business day. The RBA also selects preferred terms such that new OMO repos will mature only on Wednesdays (or the next business day). Under these arrangements, counterparties will have the opportunity to bid for new funding at OMO when their existing OMO repos mature.^[7] The RBA has continued to offer two preferred terms at most OMO auctions, with a maximum term around three months, consistent with the standard practice for daily OMO over the past year.

Since the shift to weekly OMO, there has been little change in OMO participation. On average, each weekly OMO has been around \$660 million, compared to an average weekly OMO value of \$600 million to \$800 million in the three months prior to the change (Graph 4). The number of counterparties with OMO repos with the RBA has increased, but remains well below pre-COVID-19 levels.

With the reduction in the frequency of OMO, financial institutions might need to source more liquidity from private markets if the timing of any additional funding needs do not coincide with an OMO auction. Some OMO participants may want to diversify their funding sources, which would

improve the robustness of their liquidity management frameworks. However, the effect of the move to weekly OMO on market activity is likely to be modest in the current environment, given the small role that OMO repos currently play in funding markets. Financial institutions should generally be able to access funding from sources other than OMO without difficulty, such as unsecured lending markets or the private repo market, given the high level of system liquidity.

As has always been the case, the RBA will continue to monitor conditions in funding markets closely, and it could conduct additional OMO if required. In particular, the Bank could announce additional OMO on business days outside of the scheduled weekly auctions and/or at other times of day if warranted by market conditions.

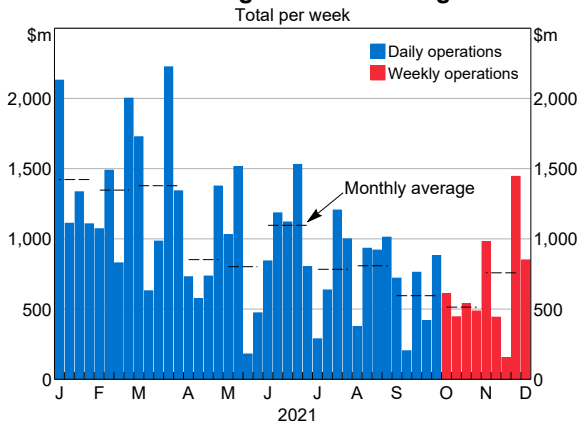
Banks that make payments outside of business hours are no longer required to contract open repos with the Reserve Bank

Financial institutions can settle some payments outside of business hours as long as they hold sufficient ES balances, including those made using the direct entry (DE) system and via the New Payments Platform (NPP). These platforms are used to settle regular payments such as salaries, dividends and recurring bills, along with ‘pay anyone’ transactions initiated by consumers and businesses using internet banking applications.^[8]

During normal business hours, financial institutions can borrow cash in interbank markets to ensure they hold sufficient ES balances to meet their payments obligations. However, some DE payments settle late in the evening, after interbank markets have closed, and the NPP operates 24 hours a day, seven days a week. Financial institutions must hold sufficient liquidity at the close of business each day to make these after-hours payments, when other sources of ES balances are unavailable.

As discussed above, before the pandemic the RBA tightly managed system liquidity in order to keep the cash rate around the target. When after-hours payments were first introduced in 2013, the supply of ES balances was relatively low, and would have

Graph 4
Value of Funding Provided through OMO
Total per week



Source: RBA

been too small to meet financial institutions' liquidity needs for these payments.

To ensure the smooth functioning of the payments system, the RBA made funding available through open repos, which allowed ES account holders to source additional ES balances via repos without a predetermined maturity date. Financial institutions were required to source and retain enough liquidity through this facility to meet their after-hours payments. The RBA would determine a minimum and maximum open repo position annually for each institution; these limits were set in consultation with the institution, and based on their previous payments trends and any expected changes in their activity over the coming year. The minimum open repo position was determined with reference to after-hours payments needs, with the maximum open repo position set at a modest margin above that, or at a larger margin if needed to meet intraday liquidity needs (discussed further below). To ensure that financial institutions did not face a disincentive to hold this additional liquidity, the interest rate on open repos was set to be equal to the interest rate received on the corresponding ES balances held at the RBA, so there was no net cost arising for a bank with open repos.

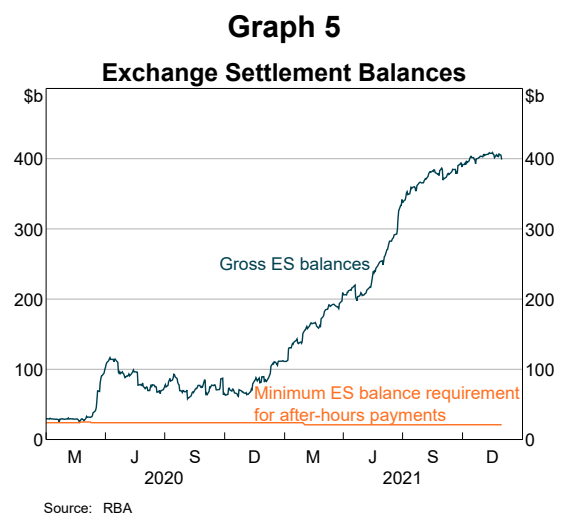
The RBA's corridor around the cash rate target took account of these additional ES balances, such that they had no effect on the implementation of monetary policy. Financial institutions were still free to lend any ES balances in excess of their open repo position (surplus ES balances) in interbank markets, and earn a higher interest rate than if they had left the funds in their ES account. Conversely, institutions with ES balances below their open repo position had an incentive to borrow the necessary funds as they were required to pay an interest rate of 0.25 per cent above the cash rate target on any shortfall in ES balances.

Following the RBA's policy response to the pandemic, gross ES balances have risen substantially, to be currently around \$400 billion.^[9] In contrast, earlier this year the RBA assessed that financial institutions collectively only needed to hold around \$20 billion to support after-hours payments. As a result, there is currently more than enough liquidity in aggregate to facilitate after-

hours payments without institutions needing to source additional ES balances via open repos with the RBA, and this is likely to remain the case for a number of years (Graph 5).

In response to these developments, on 1 September 2021 the RBA removed the requirement for financial institutions with after-hours payments to source additional ES balances via open repo. While institutions with after-hours payments are still required to hold a minimum amount of ES balances, they do not need to hold open repos to meet these liquidity needs. Accordingly, financial institutions with enough additional liquidity were able to partly or fully unwind their open repos. Consistent with the previous arrangements, the RBA will continue to assess the minimum ES balances that financial institutions require for after-hours payments, following consultations with the affected institutions and taking into account historical after-hours payments patterns and likely future developments.

The RBA continues to offer a maximum open repo position modestly above institutions' minimum ES balance requirement. While total ES balances are currently very high, this liquidity is not evenly distributed. As a result, open repos may remain the preferred option for some institutions with low ES balances to meet their after-hours liquidity requirements. Moreover, the additional liquidity provided by open repos may help some institutions with ES accounts to manage their intraday liquidity



needs. Because ES account balances are never permitted to decline below zero, liquidity managers may need access to additional intraday liquidity in order to meet their payments obligations. Open repos can provide this liquidity; while institutions need to ensure that their ES balance is at least as large as their open repo position overnight, these funds can be drawn down during the day to make payments so long as they are replenished before the cash market closes.

Since these changes came into effect in September 2021, the total stock of outstanding open repos has declined from \$24 billion to \$4 billion. This reflects the decision of most financial institutions to meet their intraday and after-hours liquidity needs from ES balances without using open repos. Nevertheless, open repos continue to play a role in the liquidity management of some ES account holders.

Footnotes

- [*] The author is from Domestic Markets Department, and would like to thank all staff in Monetary Policy Implementation section for their contributions to this article.
- [1] An institution's surplus ES balance is equal to its gross ES balance less the institution's minimum ES balance requirement (as determined by the RBA). For more information on the calculation of the minimum ES balance requirement and surplus ES balances, see RBA (2021).
- [2] For a more detailed description of the RBA's monetary policy framework before the pandemic, see Domestic Markets Department (2019).
- [3] For more information on the RBA's open repos, see RBA (2021). For a more in-depth discussion of the role played by open repos in providing liquidity to the payments system, see Fraser and Gatty (2014).
- [4] The demand for ES balances may rise if banks face greater uncertainty regarding their future liquidity needs. In these cases, banks may demand additional ES balances for precautionary reasons. Separately, banks may demand ES balances to hold as high quality liquid assets (HQLA). Under the Liquidity Coverage Ratio (LCR), banks are required to hold a minimum amount of HQLA to meet their expected cash outflows. In Australia, only ES balances or government bonds issued by the Australian Government or the state and territory borrowing authorities qualify as HQLA. Some banks are also permitted to hold other securities to fulfil their LCR if they have agreed to a Committed Liquidity Facility (CLF) with the RBA. However, the size of banks' CLF will be progressively reduced during 2022, reaching zero by the end of 2022 (APRA 2021). As a result, banks may need to source additional HQLA to replace the CLF, which may increase the demand for ES balances. For more information on the LCR, see APRA (2018). For more information on the CLF, see Brischetto and Jurkovic (2021)
- [5] The RBA was a net supplier of liquidity to the banking system via OMO. This is because, in aggregate, all other transactions between the RBA (and its clients) and the private sector drained liquidity. This included issuing banknotes, purchases of foreign currency and gold by the RBA, and net cash received by the Australian Government and held on deposit at the RBA. For a more detailed discussion, see Robertson (2017).
- [6] For a more in-depth discussion on the increase in bond dealers' liquidity needs during the early stages of the pandemic, see Debelle (2020) and Finlay, Seibold and Xiang (2020).
- [7] This may not be the case if participants bid for terms other than the RBA's preferred terms.
- [8] For a more in-depth discussion of the implementation of after-hours payments for the DE system, see Debelle (2013) and Fraser and Gatty (2014). For more details on the introduction of the NPP, see Rush and Louw (2018).
- [9] An institution's surplus ES balance is equal to its gross ES balance less the institution's minimum ES balance requirement (as determined by the RBA). This is why aggregate gross ES balances (around \$400 billion) are larger than surplus ES balances (around \$380 billion). For more information on the calculation of the minimum ES balance requirement and surplus ES balances, see RBA (2021).

Conclusion

The RBA's policy response to the pandemic has led to a substantial increase in system liquidity. As a result, and broadly as expected, there has been a decrease in demand from market participants to source liquidity from the RBA. The RBA has responded to these developments by making some changes to its regular liquidity operations and facilities. The scheduled frequency of OMO auctions has been reduced from daily to weekly, reflecting a decline in the size of the OMO repo book and fewer institutions regularly participating in OMO auctions. Separately, institutions that make payments outside of business hours will no longer be required to source liquidity from the RBA via open repos, reflecting the fact that many of these institutions can readily obtain sufficient liquidity from other sources in the current high-liquidity environment. ✎

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