

Introduction of Open RBA Repos

Test Guide for Counterparties

**Domestic Markets Department
Payments Settlements Department
RESERVE BANK OF AUSTRALIA**

19 September 2013

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1. Introduction

From 11 November 2013, ADIs that operate ES accounts will be able to contract RBA Repos without a maturity date; that is, the term of the repo may be 'open'. This change is being introduced to facilitate the same day settlement of direct entry (DE) payments in RITS, which is scheduled to commence on 25 November 2013.

The primary purpose of this document is to provide ES holders with a guide for testing the new Open RBA Repo (open repo) arrangements with the Reserve Bank. In particular, this guide provides test scenarios relating to open repo trading and settlement, including end of month termination and re-initiation arrangements. The document also provides an overview of changes that ES account holders will see in RITS in relation to liquidity management.

A three week period is being targeted for this testing to occur. This is between 21 October 2013 and 8 November 2013.

1.1 Background

Currently, all interbank settlement activity within RITS ceases each day at the close of the SWIFT End Session (6.30 pm AEST, 8.30 pm AEDT, unless otherwise advised). From 25 November 2013, DE payments will commence being settled on the same-day that the clearing files are exchanged. Settlement of the 6.30 pm (AEST/AEDT) and 8.45 pm (AEST/AEDT) DE exchanges will be scheduled for 45 minutes and 30 minutes, respectively, after the exchange time.

As the interbank cash market will cease activity at the close of the SWIFT End Session in RITS (ie 6.30 pm AEST, 8.30 pm AEDT), ES account holders that are Tier 1 (ie direct settling) participants in BECS will need to hold sufficient balances in their account to be able to meet 'late' payment obligations. For these ADIs, the Reserve Bank has, in consultation with the ADI, determined a minimum open position in Open RBA Repos that the ADI should maintain. For those ES account holders that are not Tier 1 BECS participants, the minimum required open position in Open RBA Repos is zero.

From 11 November 2013, the Reserve Bank will commence accepting Open RBA Repo transactions. The interest rate will be set at the cash rate target. At the same time, the Reserve Bank will alter the way that end-of-day ES balances are compensated. To the extent that account holders retain matching funds against their Open RBA Repo position, those ES balances will earn the cash rate. In net terms then, there need be no cost to holding an Open RBA Repo position. However, as is the case currently, surplus ES funds will earn a rate 25 basis points below the cash rate target, while any shortfall in funds below the account holder's Open RBA Repo position will incur a 25 basis point penalty. An allowance will be made for variations in ES balances arising from DE payments that settle during the evening.

More information on the new arrangements is available on the Reserve Bank website [here](#).

2. Test Overview

The main objective of Open RBA Repo transaction testing is to provide ES account holders with the opportunity to familiarise themselves with the operational and procedural arrangements that will apply when this new Reserve Bank liquidity facility is introduced in mid-November.

The scope of the proposed testing includes:

- agreeing Open RBA Repo deals
- trade entry and settlement
- beginning of month Open RBA Repo termination and re-initiation
- collateral substitution and margin transactions
- verification of settled transactions, particularly in relation to the liquidity information available in the ESA position function in RITS
- inclusion, if requested, of late DE settlements to provide greater familiarisation to the changes that have been made to the ESA Position screen in RITS

Only test systems will be used to conduct this testing. Open RBA Repo trades will be entered and settled as outright trades in the Austraclear (Exigo) Test Bed A and RITS Pre-Production environments. [The test systems used may also include the participant's own proprietary trade entry system and test SWIFT system (for sending SWIFT messages to the Austraclear Test system).]

The following pre-requisites are required for this testing:

- Each ES account holder must have securities available for trading in the Austraclear Test Bed A (this test environment was last refreshed from the Exigo production environment in July 2013)
- Each ES account holder's own trade entry system must be set up accordingly for the agreed set of transactions (if applicable)
- Each ES account holder's SWIFT connectivity to Austraclear Test Bed A must be confirmed prior to the testing (if applicable)
- Staff must be allocated for testing in the agreed window

To help ensure that the test process runs smoothly most details will be scripted (agreed in advance). Separate scripts will be agreed by the Reserve Bank with each ES account holder. It is proposed that the test window will be between 11am and 3pm each day. As noted earlier, the test period will be between 21 October and 8 November 2013.

3. Test Scenarios

3.1 Types of tests

The following table summarises the types of testing that may be undertaken with each ES account holder.

Test Scenario	No.	Sub category	Test Description	Comments
Repo Initiation				
Open RBA Repo	1	New cash rate target Open RBA Repo	Standard entry of a new open repo at the cash rate target.	
	2	Existing Open RBA Repo with a mid-month cash rate target change	Start a new open repo. Amend cash rate target at a later point during the month and verify interest due for the entire term.	Repo rate should be set to the new cash rate target at the agreed point.
Repo Maintenance				
Margins	3	Margin In (to RBA)	RBA call on the counterparty for additional collateral intra-month.	This activity involves no cash settlement, only a securities exchange free of value.
Substitution	4	Mid-term	Counterparty substitutes collateral part way through the month.	
	5	Mid-term after change in cash rate target	Counterparty substitutes collateral part way through the month after a change in the cash rate target.	Accrued interest on returned stock should be equal to the time-weighted repo rate. Incoming stock is booked as a new repo.
End of Month Processing				
Termination of Open RBA Repo	6	Termination of Open RBA Repo with no change to cash rate target	Closure of an open repo at month end at the cash rate target. Counterparty to return principal + interest to RBA. RBA to return collateral.	This activity will generally occur on the first RITS business day of the month. Dates can be simulated for testing purposes.
	7	Termination of Open RBA Repo with cash rate target change	Closure of an open repo at month end at a time-weighted average cash rate target. Counterparty to return principal + interest to RBA. RBA to return collateral.	This activity will generally occur on the first RITS business day of the month. Dates can be simulated for testing purposes.
Open RBA Repo re-initiation	8	In full – net settlement	Full open repo principal reopened against the same collateral. Open repo is net settled with repo interest paid to the RBA.	

Test Scenario	No.	Sub category	Test Description	Comments
Reduction in principal borrowing	9	Partial re-initiation	Only part of the existing principal borrowing is re-initiated against the same collateral. The remaining portion will be matured.	
Margin	10	Margin in to RBA - rolled	Margin securities received by the RBA from the counterparty are rolled into the principal borrowing when the open repo is re-initiated.	
	11	Margin in to RBA – returned	Margin securities received by the RBA from the counterparty are returned when the open repo is re-initiated.	
Late DE transactions	12	Input of Late DE as agreed with counterparty	The RBA will enter and settle late DE transactions with the counterparty in combination with the above tests, if requested.	This will assist counterparties with their overall familiarisation of the changes to the RITS ESA Position screen. This aspect of the testing will be co-ordinated by the RITS Help Desk.

Participants will not necessarily be required to perform each test outlined above. The extent of testing by each participant will be agreed by the participant and the Reserve Bank.

3.2 Success criteria

The testing of new Open RBA Repo transactions, as agreed with each participant, will be considered a success if:

- New trades are successfully entered and settled
- End of month processes for open repo termination and re-initiation are successfully completed
- ES account holders see and understand the changes that arise in the ESA position screen as a result of the testing of these agreed changes; see section 4.1 below. This includes understanding the meaning of the Overnight Position, Completed Today, Indicative Position and Surplus/Shortfall fields.

4. Overview of RITS Liquidity Related Changes

This section summarises the changes to RITS functionality that are related to the new Open RBA Repo and ES interest arrangements. This functionality is expected to be available in the RITS Pre-Production Environment in early October and in the Production Environment in late October 2013.

An information paper will be issued to members about the changes to be introduced in RITS to support same day settlement of DE obligations, including the liquidity related changes. This will be issued in advance of the implementation of those changes in October. Updated RITS User Guides will also be available. The Reserve Bank plans to conduct training sessions for Members during October.

4.1 ESA Position screen

Currently, Members “square up” at the end of the day to an ES balance of at least zero. From 11 November, banks with an Open RBA Repo position will need to target a closing ES balance that is at least equal to their Open RBA Repo position. For those Members with DE settlement obligations, their target closing ES balance will need to be adjusted for the settlement of “late DE” transactions. To assist Members with these activities, the ESA Position screen will be enhanced. An example of the new screen is shown below.




As now, the **Calculated Net ESA Position** panel shows the Member’s current ES balance, plus any queued inward payments, less any queued outward payments and any outstanding intraday RBA Repos second leg.

A new **Calculated Net ESA Position (Adjusted for Late DE)** panel takes that figure and removes all settled and queued late DE transactions. Members with DE obligations should use this figure as their projected end of day balance, exclusive of late DE. This figure should be at least equal to their Open RBA Repo position when they have finished for the day. Note, while a Member’s actual ES balance will change as subsequent late DE settlements occur, they will have no effect on the adjusted ES balance.

To assist with squaring up, the **Indicative Open Repo Position** is subtracted from the **Calculated Net ESA Position (Adjusted for Late DE)** to give a **Projected ESA Surplus/Shortfall**. If this figure is below zero, the Member’s adjusted ES balance is projected to close below the level of its Open RBA Repo. This indicates a funds shortfall. If this figure is above zero, the Member’s adjusted ES balance is projected to close above the level of its Open RBA Repo. This indicates a funds surplus.

Information about a Member’s Intraday RBA Repos completed today and Member’s Open RBA Repos will be displayed separately (see red and purple boxes in the screen mock-up). RITS will calculate an **indicative** Open RBA Repo position that includes any open repos taken out or terminated on that day (giving the current estimated value of the first leg of outstanding Open RBA Repo transactions contracted at the cash rate target). Liquidity managers should note that this information is considered as ‘indicative’ because second leg Open RBA Repo transactions will include an interest component as part of the settled transaction. This interest component will be included in the ‘Completed Today’ figure. For example, if the first leg of an open repo was settled for \$100 million in cash and the unwind amount is \$101 million, this means that interest of \$1 million has accrued during the life of the open repo. Upon settlement, the change to the open repo position is -\$100 million, but the ‘Completed Today’ amount shown in RITS will include the figure of -\$101 million.

New ESA Position Screen

ESA Position 			
Enquiring on member: WPAC, WESTPAC BANKING CORPORATION			
ESA Balance		LVSS Multilateral Run (MR)	
ESA Balance	\$204,000,000.00	Current LVSS MR Position	\$3,000,000.00
ESA Sub-Limit	\$1,000,000.00	Projected ESA Position after MR Posting	\$201,000,000.00
ESA Active Balance	\$203,000,000.00		
Intraday RBA Repos Completed Today		Indicative Position in RBA Repos Contracted at Cash Rate	
First Leg	\$15,000,000.00	Overnight Position	\$100,000,000.00
Second Leg ¹	\$4,000,000.00	Completed Today ²	\$15,000,000.00
Current Net Position	\$11,000,000.00	Indicative Position	\$115,000,000.00
ESA Position Summary			
Calculated Net ESA Position	\$122,000,000.00	Calculated Net ESA Position (Adjusted For Late DE)	\$119,000,000.00
		Projected ESA Surplus/Shortfall ³	\$4,000,000.00
<p>¹Figures for outstanding Intraday RBA Repos will be misleading if there are overnight repos carried forward from the previous day.</p> <p>²The position in RBA Repos contracted at the Cash Rate is indicative only as the settlement consideration for transactions 'Completed Today' may not be the same as the change to the RBA Repo position.</p> <p>³Calculated Net ESA Position (Adjusted for Late DE) less 'Indicative Position in RBA Repos Contracted at Cash Rate'.</p>			
Calculated Net ESA Position Details 			
Calculated Net ESA Position Details (Adjusted for Late DE) 			

Expanding the tabs at the bottom of the ESA Position screen outlines the details of the calculation for the **Calculated Net ESA Position** and the **Calculated Net ESA Position (Adjusted for Late DE)**, as shown below. One or both of these panels can be expanded. Members that do not have DE obligations will not need to view the **Calculated Net ESA Position (Adjusted for Late DE)** information, as it will be identical to the unadjusted figures available in the **Calculated Net ESA Position** panel.

Calculated Net ESA Position Details								
Calculated Net ESA Position	=	ESA Balance	+	Queued In	-	Queued Out	-	Outstanding 2nd leg Intraday RBA Repos
\$122,000,000.00		\$204,000,000.00		\$4,000,000.00		\$75,000,000.00		\$11,000,000.00
(No. of transactions)				71		11		
Calculated Net ESA Position Details (Adjusted for Late DE)								
Calculated Net ESA Position	=	ESA Balance	+	Queued In	-	Queued Out	-	Outstanding 2nd leg Intraday RBA Repos
\$122,000,000.00		\$204,000,000.00		\$4,000,000.00		\$75,000,000.00		\$11,000,000.00
(No. of transactions)				71		11		
Late DE	=	Settled Late DE	+	Queued In Late DE	-	Queued Out Late DE		
\$3,000,000.00		\$1,100,000.00		\$3,800,000.00		\$1,900,000.00		
(No. of transactions)				3		7		
Calculated Net ESA Position (Adjusted for Late DE)	=	Adjusted ESA Balance	+	Adjusted Queued In	-	Adjusted Queued Out	-	Outstanding 2nd leg Intraday RBA Repos
\$119,000,000.00		\$202,900,000.00		\$200,000.00		\$73,100,000.00		\$11,000,000.00
(No. of transactions)				68		4		

4.2 ESA Interest functions

Under the new liquidity arrangements, an ES holder's ES interest will depend on their Open RBA Repo position and the amount of Late DE, in addition to their closing ES balance. New functionality has been developed in RITS to provide Members with information about their ES interest.

The **ESA Interest Accrued** screen, shown below, shows interest accrued for each calendar day. The screen includes the details of all components used in the calculation of that daily interest figure (excluding the target cash rate that is available on the RBA's web site).

ESA Interest Accrued					
Enquiring on member: TBO5, TBOMbr 5 Auto Test					
Enquiry Filter					
Date From	8	September	2013		
Date To	11	September	2013	Find	Clear
				Export <input type="checkbox"/>	Excel <input type="button" value="v"/>
4 Records found [First Previous] 1 [Next Last]					
Date	End of Day ESA Balance	Open Repo Amount*	Late DE Amount**	ESA Interest Accrued+	Cumulative Interest Accrued
08-Sep-2013	\$3,516,945,959.96	\$88,000,000.00	\$5,000.00	\$240,886.71	\$1,880,487.47
09-Sep-2013	\$3,518,066,029.00	\$88,000,000.00	\$0.00	\$217,469.82	\$2,097,957.29
10-Sep-2013	\$3,518,066,329.12	\$88,000,000.00	\$0.00	\$217,469.84	\$2,315,427.13
11-Sep-2013	\$3,519,185,842.61	\$88,000,000.00	-\$555.55	\$217,538.85	\$2,532,965.98

The **ESA Interest Paid** screen, shown below, shows the amount of interest paid each month.

ESA Interest Paid		
Enquiring on member: CBAA, COMMONWEALTH BANK OF AUSTRALIA		
Enquiry Filter		
Date From	January	2013
Date To	March	2013
		Find Clear Export <input type="checkbox"/> Pdf <input type="button" value="v"/>
ESA Interest For	ESA Interest Amount	Payment Date
Jan-2013	\$2,000,000.00	01-Feb-2013
Feb-2013	\$1,500,000.00	01-Mar-2013
Mar-2013	\$1,900,000.00	02-Apr-2013

5. Contact information

5.1 Reserve Bank testing contacts

Test Component	Name	Contact details	
		Email	Phone
Agreeing Open RBA Repo trade details	Sean Dowling	dowlings@rba.gov.au	02 9551 8328
	Michael Gishkariany	GishkarianyM@rba.gov.au	02 9551 8658
Trade entry/matching in Austraclear and settlement	Jason McCann	mccannj@rba.gov.au	02 9551 8976
	Karine Chaumont	chaumontk@rba.gov.au	02 9551 8980
RITS functional and ES interest changes	Warren Wise	wisew@rba.gov.au	02 9551 9894
	Muhammad Ismail	ismailm@rba.gov.au	02 9951 8921
General RITS enquiries	RITS Help Desk	rits@rba.gov.au	1800 659 360

5.2 ES account holder testing contacts

Each ES account holder must provide details of their testing contacts to the Reserve Bank prior to the testing period. Contact details will be required for the staff involved in the trading and settlement of Open RBA Repo transactions in the Austraclear and RITS test environments.

6. Next Steps

The next steps in preparing for Open RBA Repo testing are as follows:

- ES account holders should assess the information contained in this document and determine their level of proposed participation in the tests outlined in section 3.1.
- ES account holders should then communicate to the Reserve Bank (**Jason McCann - mccannj@rba.gov.au**) the details of their proposed participation (i.e. the specific test scenarios) as well as appropriate test contact information by 27 September 2013.
- The Reserve Bank and each test participant will commence preparation of more detailed test plans/scripts/schedules for each of the agreed test cases. (30 September – 20 October 2013.)
- Testing will be conducted during the 3 week period commencing 21 October 2013.