ASX

ASX Collateral Management Services

Product Guide

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Foreward

With increasingly stringent regulatory requirements and generally higher capital costs, financial market participants are focusing on optimising the use of collateral to manage their risk exposures (against other market participants and CCPs) as well as for obtaining liquidity for short term funding purposes.

ASX Collateral is a centralised collateral management service that leverages technology provided by Clearstream Banking SA to facilitate the allocation and optimisation of securities across a range of bilateral agreements and counterparties.

This sophisticated centralised collateral management engine, the availability of automatic allocations, substitution of collateral and the near real-time revaluation of collateral holdings (where up-to-date price information is available) provides Customers with operational cost savings and improved risk management.

ASX Collateral acts as an independent operational agent for both counterparties for the purposes of their collateral management obligations. With information about the holdings and collateral acceptability criteria for each counterparty, ASX Collateral can ensure the optimal allocation of type and value of collateral between the counterparties.

The ASX entity providing this collateral management service is ASX Collateral Management Services Pty Limited.

Customer Service

ASX Collateral Operations

For the daily administration and operational aspects of ASX Collateral and Austraclear please contact ASX Operations based in Sydney, Australia.

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Overview of ASX Collateral

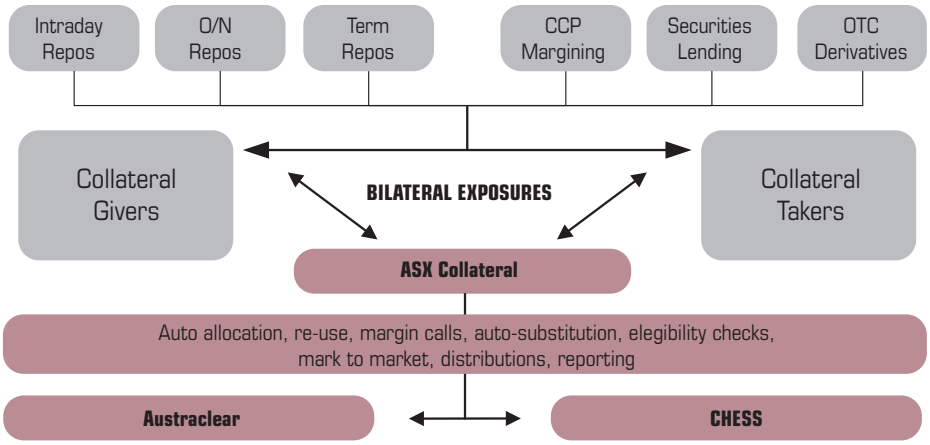
3.1. Service Overview

ASX Collateral is a centralised collateral management service with direct links to the Austraclear settlement system for the Australian wholesale debt market. In a further phase of the service, direct links will be provided to the CHESS settlement system for the Australian equities market. Both Austraclear and CHESS are operated by the ASX Group (and together with RITS, are referred to herein as "Settlement Systems).

ASX Collateral offers a platform that centralises all collateral management services, in a wide variety of trading activity from straightforward repos to bespoke bilateral agreements for collateral lodgement.

The ASX Collateral service utilises a sophisticated allocation algorithm that efficiently allocates Customers' collateral as well as supports the use of tailored re-use structures, to optimise the use of all available collateral.

Figure 1 - ASX Collateral



Note: CHESS environment to be made available in a future phase

3.1.1. Triparty Repo Service (TRS)

ASX Collateral can be used for the settlement, collateralisation and maintenance of repo transactions in Australian currency (AUD). The transfer of cash (the principal in a repo transaction) will occur at the same time as the transfer of securities (the collateral) under the Delivery versus Payment ("DvP") settlement mechanism used in Austraclear (BIS Model 1 method). (See section 4.2 for further details)

3.1.2. Triparty Collateral Management Service (TCMS)

ASX Collateral can be used for the collateralisation of various exposures, including exposures related to securities lending and borrowing, CSA margining and CCP margining. (See section 4.3 for further details)

3.1.3. Service Solution

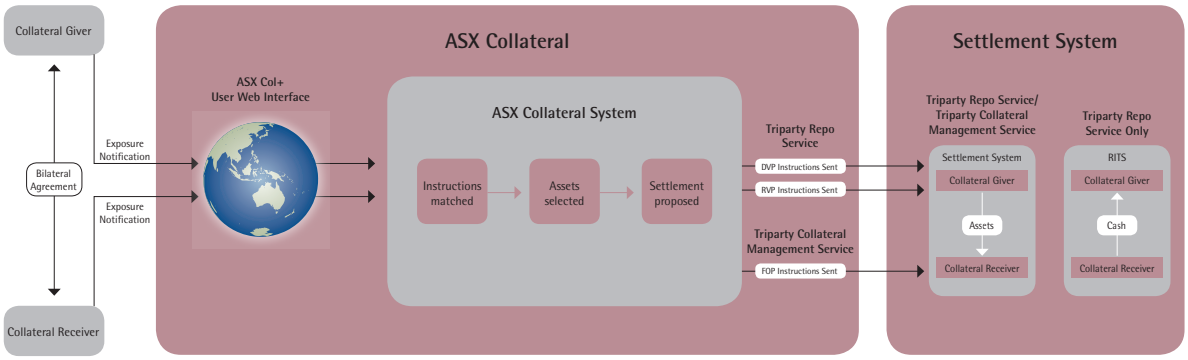
ASX Collateral offers an end-to-end solution to the market for TRS and TCMS exposures via:

- A web interface where Customers can enter and manage their exposures against multiple counterparties.
- A state of the art collateral management engine that will deliver the optimisation of collateral through auto allocation, auto-select (from a Customer's existing Austraclear account) re-use, collateral substitution and Customer defined eligibility criteria.
- Integration with existing ASX clearing and settlement infrastructure (Austraclear) to automatically manage settlements. Collateral is segregated at an account level in Austraclear, enabling Customers to reflect their underlying transfer of collateral or security interest, segregating the collateral from each counterparty and ensuring legal certainty as to holding.
- Detailed reporting of exposures from an individual contract level through to group level reporting to allow more effective management of collateral across business units.
- Australian-based operational support from the ASX Collateral Service and Operations Team.

The service is highly automated but has been designed to minimise infrastructure development impacts for Customers.

By utilising a secure web interface, bespoke proprietary technology and existing market infrastructure, ASX Collateral delivers a collateral management solution that is both secure and that ensures collateral is fully optimised; ensuring that collateral is "in the right place at the right time".

Figure 2 – ASX Centralised Collateral Management Service Solution (ASX Collateral)



Products and Services

ASX Collateral offers a Triparty Repo Service ("TRS") and a Triparty Collateral Management service ("TCMS").

The key features for each service are briefly explained in this section.

4.1. ASX Collateral Triparty Repo Service ("TRS")

ASX Collateral TRS has been designed to simplify the process of administering repurchase agreements for both Repo buyers and sellers (together referred to here as "Counterparties"). It will also deliver reductions in operational risk through an efficient DvP settlement process through Austraclear, removing the need to re-key data.

The ASX Collateral TRS will support all commonly used repurchase agreements in the Australian market including:

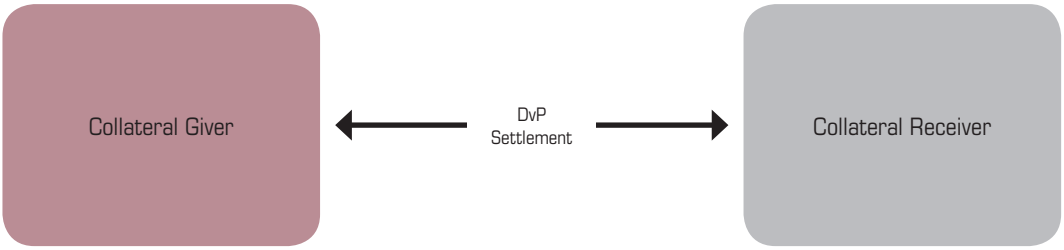
- Intra-day and overnight repos;
- Market (at call) and term repos.

ASX Collateral Customers who are counterparties to a repurchase agreement can enter the repo exposure details through a secure web interface, ASXCOL+ (see section 4.3.2). When the exposure notifications have been validated and matched in the ASX Collateral system, automatic eligibility checks will be performed based on the Collateral Receiver's eligibility criteria. Securities will be prioritised by ascending order of quality, or 'cheapest to deliver'

DvP instructions will be generated within the ASX Collateral system and sent to the Collateral Manager. The Collateral Manager will give these instructions to the Settlement System to instruct the transfer of the securities being given as collateral from the nominated Collateral Source Account of the Collateral Giver to the Collateral Account of the Collateral Receiver (lodge account structure) against the transfer of cash from the Collateral Receiver to the Collateral Giver as part of the BAO process (see section 4.3.1 on "Batch Asset Optimisation").

See section also 5.2 of this Guide for an explanation of account structures.

Figure 3 – TRS – DVP Settlement on exposure opening and closing



Collateral allocated as part of a repo exposure is monitored by ASX Collateral and marked to market at regular intervals throughout the day to ensure that margin requirements (haircuts and tolerances) are maintained. Should the value of the collateral rise or fall outside the repo exposure agreed tolerances, the ASX Collateral system will automatically create instructions to withdraw or top-up the assets. These instructions will be sent to the Collateral Manager, who will automatically pass them to the settlement system. (See also section 4.3.1 "Batch Asset Optimisation").

ASX Collateral Customers can also close out any intra-day or market repos by selecting the exposure from within their dashboard in ASXCOL+ (see section 4.3.2) and entering the closing instruction.

Only "Lodge Account" structures can be used for TRS exposures. See section 5.2 of this Guide for an explanation of Lodge Accounts.

Interest on repo trades is calculated on the principal amount on a daily basis. Where, an exposure becomes under collateralised, top up settlement instructions will be automatically generated by ASX Collateral as part of the Batch Asset Optimisation ("BAO process) . (See section 4.3.1 on "Batch Asset Optimisation and section 6 on the Collateral Allocation Process).

4.2. ASX Triparty Collateral Management Service ("TCMS")

ASX Collateral TCMS has been designed to simplify the collateral administration process for both Collateral Givers and Receivers (together "Counterparties") whilst offering benefits to both parties through the utilisation of non-cash assets in their asset portfolios as collateral rather than using cash as collateral.

ASX Collateral TCMS will allow Customers to cover numerous types of principal agreements including:

- ISDA/CSA margining
- CCP margining
- Collateralisation of securities lending transactions
- Securities financing transactions other than repo (such as reverse stock loans)

Under the ASX Collateral TCMS model, Customers who are counterparties to a principal transaction with a collateral requirement can manage the principal transaction bilaterally and use the ASXCOL+ secure web interface (see section 4.3.2) to enter their exposures.

The TCMS exposures to be managed between counterparties can be set up on an aggregated basis as a single exposure starting with 0, with subsequent changes to the aggregated exposure value notified as and when new exposures are created (for instance, for CCP margining); or on a non-aggregated basis with specific exposures managed individually.

When the exposure notifications have been validated and matched in the ASX Collateral system, automatic eligibility checks will be performed based on the Collateral Receiver's eligibility criteria. Securities will be prioritised by ascending order of quality, or 'cheapest to deliver'.. Instructions will be generated within the ASX Collateral system and sent to the Collateral Manager. The Collateral Manager will give these instructions to the Settlement System to instruct the transfer of the securities being given as collateral from the nominated Collateral Source Account of the Collateral Giver to the Collateral Account of the Collateral Receiver as part of the BAO process (see section 4.3.1 on "Batch Asset Optimisation").

Both Lodge and Pledge account structures (referred to as "Transferred Collateral Accounts" and "Secured Collateral Accounts" respectively in Austraclear) are supported under TCMS. Further details of these account structures can be found in section 5 of this Guide, "Getting Started".

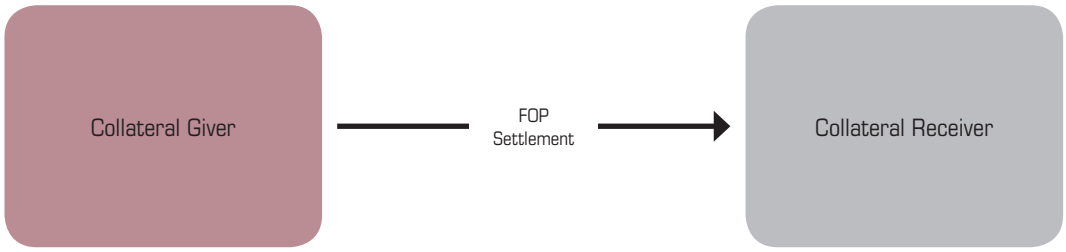
Free of payment settlement instructions ("FoP") will be automatically generated in the ASX Collateral System. These instructions will be sent to the Collateral Manager, who will deliver them to the appropriate Settlement System. For securities given as collateral by way of outright transfer, the instructions will be for the transfer of collateral from a nominated Collateral Source Account of the Collateral Giver to a Collateral Account of the Collateral Receiver* (using a Lodge Account structure) with the transfer of principal from the Collateral Receiver to the Collateral Giver taking place bilaterally outside of the ASX Collateral Service.

For securities given as collateral by way of security interest, the instructions will be for the transfer of collateral from a nominated Collateral Source Account of the Collateral Giver to a secured Collateral Account of the Collateral Giver (using a Pledge Account structure) with the transfer of principal from the Collateral Receiver* to the Collateral Giver taking place bilaterally outside of the ASX Collateral Service.

*Note that in both Lodge Account and Pledge Account structures, the account of the Collateral Receiver to which these securities are delivered (the Collateral Account) will be a special type of Austraclear account that only ASX Collateral has access to (and over which ASX Collateral can only act in accordance with the Collateral Management Services Agreement (or "CMSA". See section 5.1 for further details on the CMSA).

See section 5.2 of this Guide for an explanation of Lodge Accounts and Pledge Accounts.

Figure 4 – TCMS – Free of Payment Settlement (collateral only) on exposure opening and closing



Collateral allocated as part of a TCMS exposure is monitored by ASX Collateral and marked to market at regular intervals throughout the day (as part of the BAO process) to ensure that margin requirements (haircuts and tolerances) are maintained. Should the value of the collateral rise or fall outside the TCMS exposure agreed tolerances, the ASX Collateral system will automatically create instructions to withdraw or top-up the assets. These instructions will be sent to the Collateral Manager, who will validate and automatically deliver them to the Settlement System.

4.3. Common Services

4.3.1. Batch Asset Optimisation ("BAO")

For both the TRS and TCMS, an ASX Collateral BAO process will run multiple times (on average every fifteen minutes) throughout the business day to ensure that all collateral requirements are met whilst optimising the collateral process for the Collateral Giver by allocating following the allocation order. The BAO process will also automatically trigger the substitution of collateral should the Collateral Giver need to recall the security originally selected. The substitution will be contingent on the Collateral Giver having available eligible assets in their account to allocate. If a Collateral Giver does not have eligible assets available in their account to allocate, as a last resort, a cash transfer instruction can be created.

BAO Sequence

The order in which tasks will be processed in the BAO will be as follows:

1. Withdrawal – for closing and substitution instructions
2. Substitution – will link the withdrawal leg with an allocation leg for DvD settlement
3. Swap Substitution (optimisation)
4. Swap Substitution (concentration breach)
5. Swap failed substitution (optimisation) with the cash as last resort
6. Swap failed substitution (concentration breach) with cash as last resort
7. Substitute cash applied as last resort
8. Top up
9. Allocation
10. Swap opening / top up
11. Swap opening / top up with cash as last resort

4.3.2. ASXCOL+ Secure Web Interface

ASX Collateral Management Services provides a secure web interface, ASXCOL+, a web-browser based, integrated workstation connectivity solution that runs in a secure Virtual Private Network (VPN) environment or over the internet. Customers can use ASXCOL+ to instruct new exposures and changes to existing exposures and to monitor their repo and other collateral exposures.

Customers will also be able to monitor the actual settlement of repos through their existing interfaces to Austraclear and RITS.

4.3.3. Reporting

ASX Collateral Management Services will provide Customers Reporting through ASX Online and through Austraclear.

Through ASXOnline Customers will have access to the following reports:

1. Collateral and Exposure Report. For both Collateral Givers and for Collateral Receivers. Based on the SWIFT standard MT569 statement format and available in XML format only. Available on an intraday basis between 8:00am and 9:00pm.
2. Summary Daily Exposure Report. For both Collateral Givers and Collateral Receivers. Based on the SWIFT standard MT569 statement format and available in PDF format only. Available at the end of day.
3. Detailed Daily Exposure Report. For Collateral Givers and Collateral Receivers. Based on the SWIFT standard MT569 statement format and available in PDF format only. Available at the end of day.

Existing Austraclear (and, in a later phase, CHESS) reports showing trade level (settlements) and holdings including the SWIFT MT535 Holdings statement have been augmented to include new collateral accounts.

Further details can be found in the Section 10 of this Guide, "Reporting" as well as in the "ASX Collateral Management Services User Guide, Part 2: Exposure Management and Reporting".

Getting Started

ASX Collateral service Customers must be Full Participants of Austraclear ("Participant"). This allows settlement of transactions in ASX Collateral through the Austraclear System and RITS.

ASX Collateral currently facilitates the use of Austraclear securities as collateral. In a further phase of the service, direct links will be provided to the CHESS settlement system for the Australian equities market to facilitate the use of CHESS securities as collateral. At that time the service will be available to General Settlement Participants in CHESS (who will also be required to be Full Participants of Austraclear unless CHESS is further developed to facilitate a Model 1 settlement process).

All Collateral Accounts and Collateral Source Accounts of a Customer must be in the Customer's name.

5.1. Collateral Management Service Agreement (CMSA)

The Collateral Manager will enter into a Collateral Management Service Agreement ("CMSA") on a bi-lateral basis with each Collateral Giver and Collateral Receiver who wishes to use ASX Collateral.

A Customer who wishes to use ASX Collateral as a Collateral Giver must enter into the CMSA for Collateral Givers. A Customer who wishes to use ASX Collateral as a Collateral Receiver must enter into the CMSA for Collateral Receivers. Most Customers will wish to have the flexibility to use the service as either a Collateral Giver or a Collateral Receiver, and will enter into both agreements.

The CMSAs set out the terms on which the Collateral Manager will provide its services to Collateral Givers and Collateral Receivers. Each CMSA includes the following Appendices and Supplements:

- Appendix A – Counterparty Acceptance List & Eligibility Criteria – see section 5.1.1.
- Appendix B – Operational Profile – see section 5.1.2
- Appendix C – Notification of Authorised Signatories
- Auto-Assign Supplement
- ASXCOL+ software license

A Collateral Giver who wishes to use the ASX Collateral Auto-Assign functionality must enter into the Auto-Assign Supplement to the CMSA. See section 6 of this Guide on the Auto-Assign functionality and section 5.1.1 on the Auto-Assign Supplement.

5.1.1. Counterparty Acceptance List, Allocation Preferences & Eligibility Criteria

Each CMSA includes a Counterparty Acceptance List & Eligibility Criteria appendix for Collateral Receivers and a Counterparty Acceptance List and Allocation Preferences for Collateral Givers

The Counterparty Acceptance List & Allocation Preferences for a CMSA (Collateral Giver) identifies the Collateral Receivers that the Collateral Giver has entered into tri-party arrangements with and the applicable services (TRS and/or TCMS). Collateral Givers can also use this appendix to identify particular ISINs that they do not want to be included in any automatic allocation of collateral.

It also allows a Collateral Giver to set up their own customised Asset Allocation preferences to determine which assets or types of assets should be auto-allocated first by ASX Collateral.

Alternatively, Collateral Givers may choose to use ASX Collateral's default allocation order to meet the Collateral Receiver's eligibility.

The Counterparty Acceptance List and Eligibility Criteria for a CMSA (Collateral Receiver) identify the Collateral Givers that the Collateral Receiver has entered into tri-party arrangements with and the applicable services (TRS and/or TCMS).

It also allows the Collateral Receiver to select either standard ASX Collateral Baskets of securities as their acceptable collateral or create their own bespoke baskets for each contract they enter into. A Collateral Receiver can apply the criteria across all Counterparties or can tailor the eligibility by counterparty or by contract, thus allowing the Collateral Receiver to individually tailor their risk profiles against specific counterparties or apply the eligibility to a specific service, such as TRS or TCMS.

Collateral eligibility matrices will also include the ability to nominate options to reflect agreements reached between Counterparties as to:

- whether a Lodge Account or Pledge Account will be used to hold the collateral;
- the Eligible basket of securities;a
- whether to allow or prohibit the re-use of collateral.

The Collateral Manager will match these instructions (when reviewing the related appendices from Giver and Receiver's CMSA and set up the accounts accordingly).

5.1.2. Operational Profile

Appendix B (Operational Profile) of the CMSA must be completed by each Customer and includes the following information about the Customer:

- Customer Name and Contact Details
- Austraclear Participant identification
- Cash Account and Cash Record.

5.1.3. Details of Standard Messages

Details of the Standard Messages from ASX Collateral can be found in ASX Collateral User Guide, Part 2: Exposure Management and Reporting.

5.1.4. Auto-Assign Supplement (Collateral Giver Only)

The CMSA (Collateral Giver) includes an Auto-Assign Supplement. Pursuant to this, ASX Collateral will automatically select securities from an account that the Collateral Giver's has nominated (the "Collateral Source Account") to meet their collateral obligations.

5.1.5. Principal Agreements

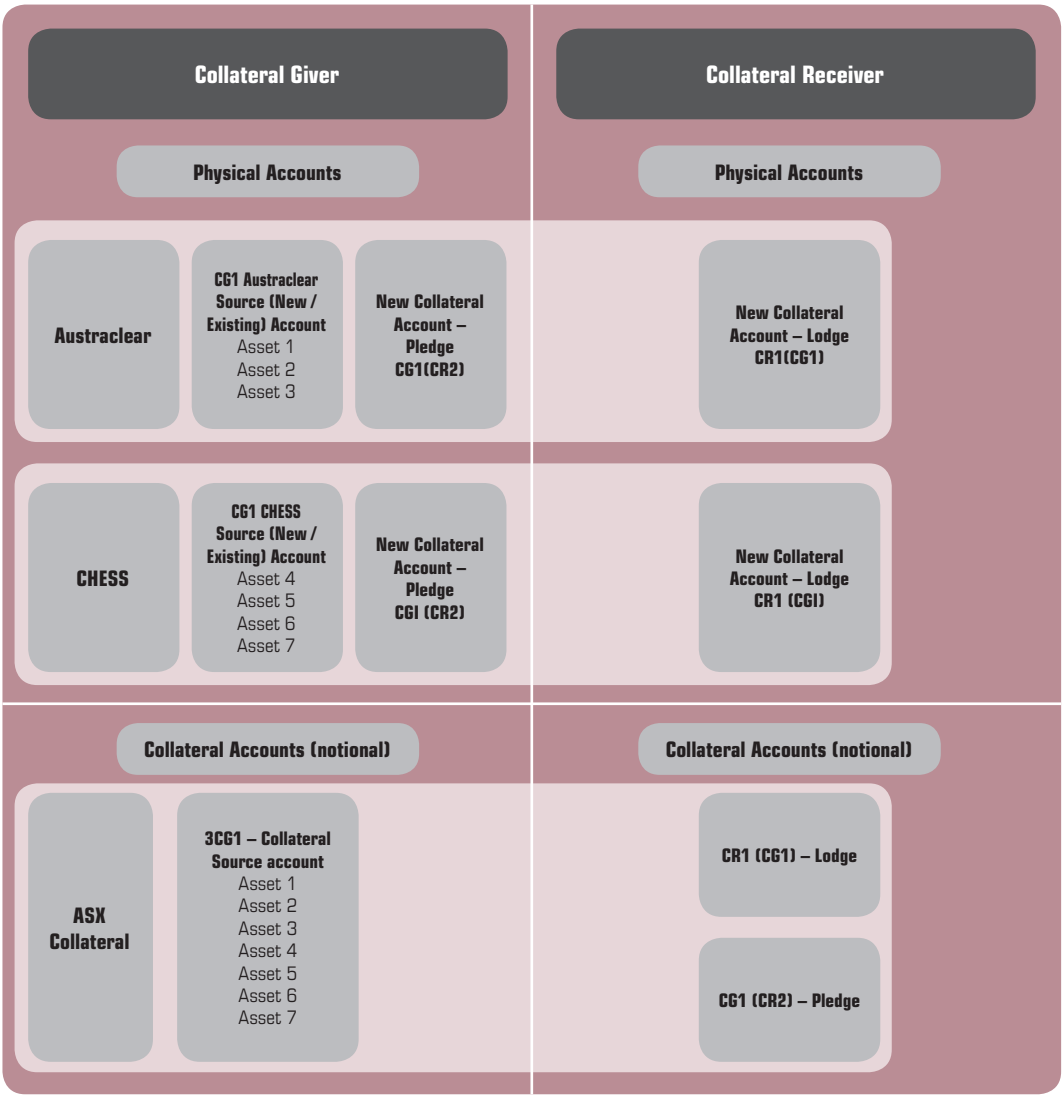
The establishment and maintenance of principal agreements is the responsibility of the Counterparties (Collateral Giver and Collateral Receiver).

Principal agreements can include (but are not necessarily limited to):

- Global Master Repurchase Agreement.
- Global Master Securities Lending Agreement.
- ISDA Credit Support Annex (English Transfer of title).
- Securities Lending Agreements as covered by existing RITS Regulations.

5.2. Accounts in ASX Collateral

Figure 5 – ASX Collateral Example Account Structures



The ASX Collateral account structure includes Collateral Source Accounts and Collateral Accounts.

5.2.1. Collateral Source Accounts

Collateral Source Accounts are accounts of a Collateral Giver that hold securities that may be used as collateral. These may be existing trading accounts of the Collateral Giver, or they may be new accounts set up for this purpose only.

Collateral Source Accounts are controlled by both the Collateral Giver and the Collateral Manager. Both the Collateral Giver and the Collateral Manager can transfer securities into or out of a Collateral Source Account.

Re-use of securities given as collateral can only be achieved by way of an outright transfer (that is, using the Lodge Account structure). ASX Collateral will in effect treat the account of the Collateral Receiver which holds those securities (which will be the Collateral Receiver's Collateral Account) as a Collateral Source Account for the purpose of re-use.

5.2.2. COLLATERAL ACCOUNTS

There are two types of Collateral Account:

- A "**Lodge Account**" is a Collateral Account used to hold securities given as collateral by way of transfer of title (for example in the case of a repo or collateral in a securities loan). . In Austraclear, these accounts are known as "Transferred Collateral Accounts".

- A "**Pledge Account**" is a Collateral Account used to hold securities given as collateral by way of security interest. In Austraclear, these are known as "Secured Collateral Accounts".

All Collateral Accounts are controlled by the Collateral Manager only. Neither a Collateral Giver nor a Collateral Receiver, can directly transfer securities into or out of a Collateral Account.

Collateral Source Accounts and Collateral Accounts are maintained within the settlement system (initially Austraclear, and in a later phase of the service, CHESS) as with any normal trading account. However, Collateral Source Accounts and Collateral Accounts (and their holdings) are mirrored in the ASX Collateral system and used as the basis of the collateralisation algorithms.

Settlement instructions sourcing securities from Collateral Accounts are trusted transactions and should not fail under normal circumstances.

Each Customerwho enters into a CMSA as a Collateral Giver must nominate the trading account or accounts that it wishes to use as Collateral Source Accounts, or open a new account or accounts as Collateral Source Accounts. See section 5.1.2 of this Guide on the Customer Operational Profile which contains this information.

Collateral Accounts will be opened for a Collateral Giver or Collateral Receiver once the CMSA (and all relevant appendices) has been executed and any other documents (such as the Auto-Assign Supplement) have been provided to the Collateral Manager. See section 5.1 of this Guide on the CMSA, its appendices and the Auto-Assign Supplement.

5.3. Account Structures and Features

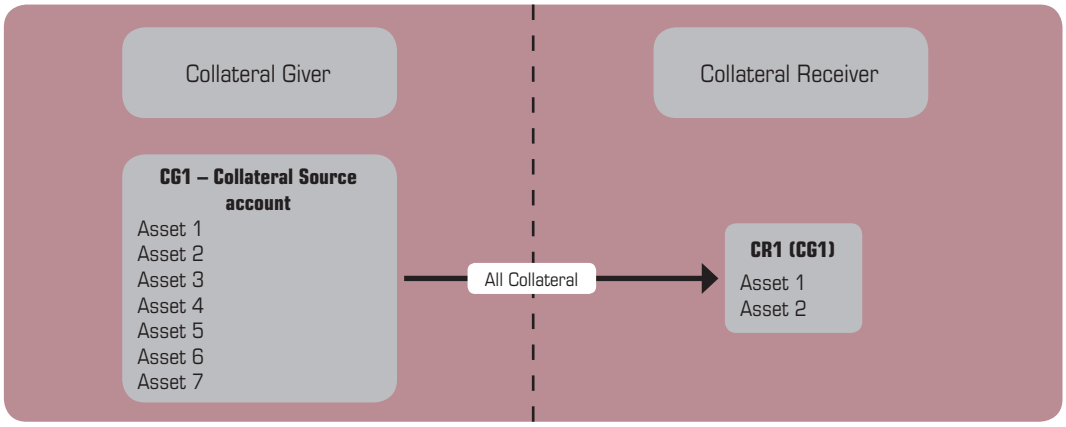
5.3.1. Flexible Collateral Account Structures for Collateral Receivers

ASX Collateral provides Collateral Receivers with flexibility in structuring their Collateral Accounts. For each identified Collateral Giver, a Collateral Receiver can establish:

- A single Collateral Account per Collateral Giver (see Figure 6).
- For each Collateral Giver, a Collateral Account for TRS exposures and a separate Collateral Account for TCMS exposures (see Figure 7).
- A Collateral Account for each General Collateral Basket that a Collateral Receiver will accept – for example all General Collateral could be held in one collateral account, and all Private Securities could be held in another (see Figure 8).

The options for Collateral Receivers are illustrated below. Similar options are available to Collateral Givers in structuring their Secured/ Pledge Collateral Accounts[1].

Figure 6 – One Collateral Account per Counterparty



1 Please note that the account names used in the examples are for illustrative purposes only and do not necessarily represent the account naming conventions that will be implemented by ASX Collateral.

Figure 7 – One Collateral Account per Service

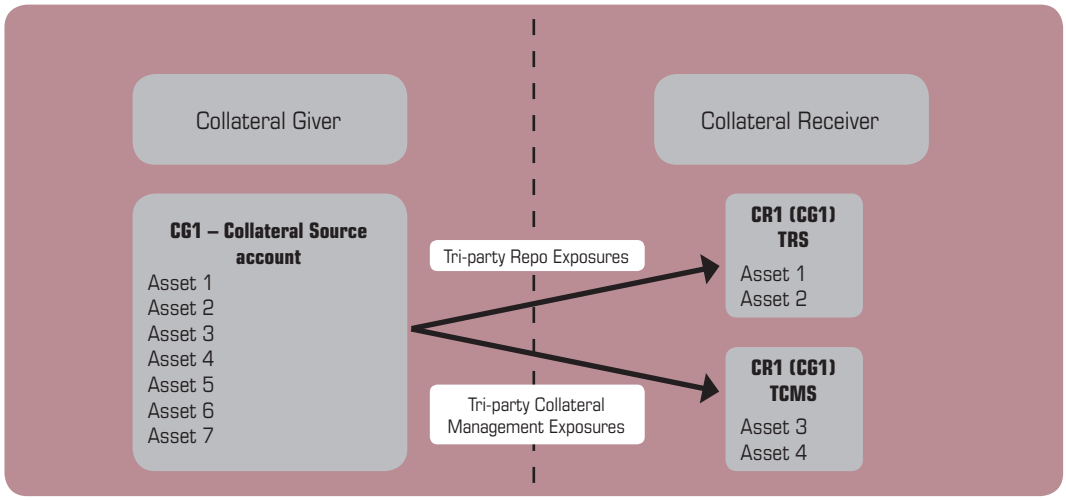
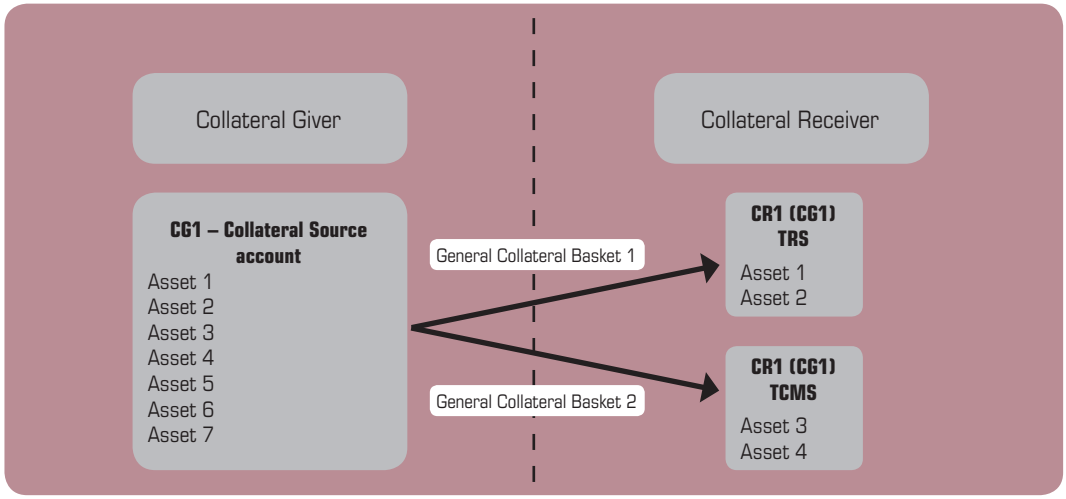


Figure 8 – One Collateral Account per Eligibility Basket



5.3.2. Flexible Collateral Source Account Structures for Collateral Givers

ASX Collateral provides Collateral Givers with flexibility in structuring their Collateral Source Accounts.

A Collateral Giver can define a specific Collateral Source Account as relating to a specific underlying client, where it is acting as a custodian or other intermediary per contract, identifying them for allocation to specific Collateral Accounts that are similarly defined as relating to that underlying client.

Collateral Allocation Process

ASX Collateral has a number of key features that are designed to manage the administrative functions of the collateral management process and to deliver exceptional value added services to Customers.

This section of the Product Guide will provide an overview of the key features of automatic collateral allocation "Auto-Assign" and how Customerscan benefit from its optimisation functions.

6.1. Collateral Allocation Options for Collateral Givers

Collateral Givers can choose to manually allocate assets as collateral or to use the ASX Collateral Auto-Assign functionality which will automatically allocate collateral to meet their exposures.

6.1.1. Collateral Optimisation Through Auto-Assign

A Collateral Giver who wishes to use the ASX Collateral auto-assign functionality must execute the Auto-Assign Supplement to the CSMA. This authorises the Collateral Manager to automatically allocate collateral from the Collateral Giver's identified accounts (Collateral Source Accounts) to meet its exposures. See section 5.1.4 of this Guide on the Auto-Assign Supplement.

In addition, a Collateral Giver can complete the customised asset allocation priority matrix in the Counterparty Acceptance List, Basket and Allocation Preferences appendix to specify the priority order for sourcing collateral from each of its Collateral Source Accounts. This priority order can include collateral that the Collateral Giver has received in its capacity as a Collateral Receiver and that it is entitled to re-use (i.e. the Collateral Giver can specify if it wishes to re-use collateral held in its Collateral Accounts before it uses collateral held in its Collateral Source Accounts. Note that re-use is only available in a Lodge Account structure). See section 5.1.1 to 5.1.2 of this Guide on the Customer Operational Profile and Counterparty Acceptance List, Basket and Allocation preferences appendices.

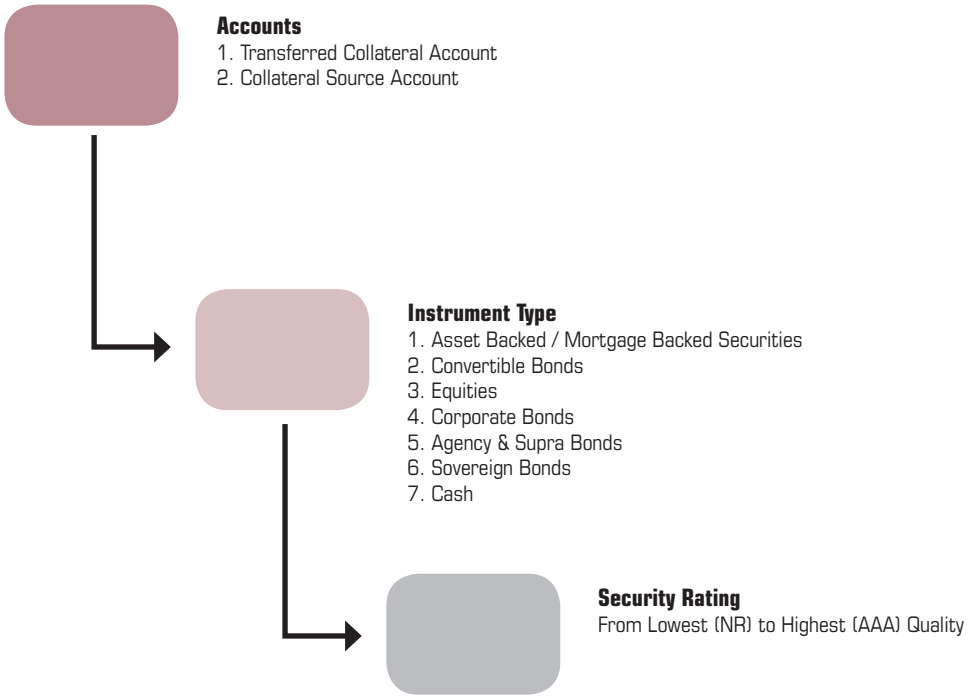
All eligible assets held in a Collateral Giver's Collateral Source Accounts (subject to the Collateral Giver nominating them as Collateral Source Accounts in their Customer Operational Profile) will be considered for collateral allocation, with the following exceptions:

- Securities marked for pending delivery eligible for settlement.
- Securities subject to corporate actions.
- Securities specifically excluded by the Collateral Giver.

6.1.1.1. ASX Default Allocation Order

The default allocation priority for the ASX Collateral Auto-Assign functionality is by ascending order of quality, or 'cheapest to deliver':

Figure 9 – Example Collateral Optimisation Default Allocation Order



The 'cheapest to deliver' allocation order will provide Collateral Givers with full optimisation within the constraints of the Collateral Receiver's eligibility criteria.

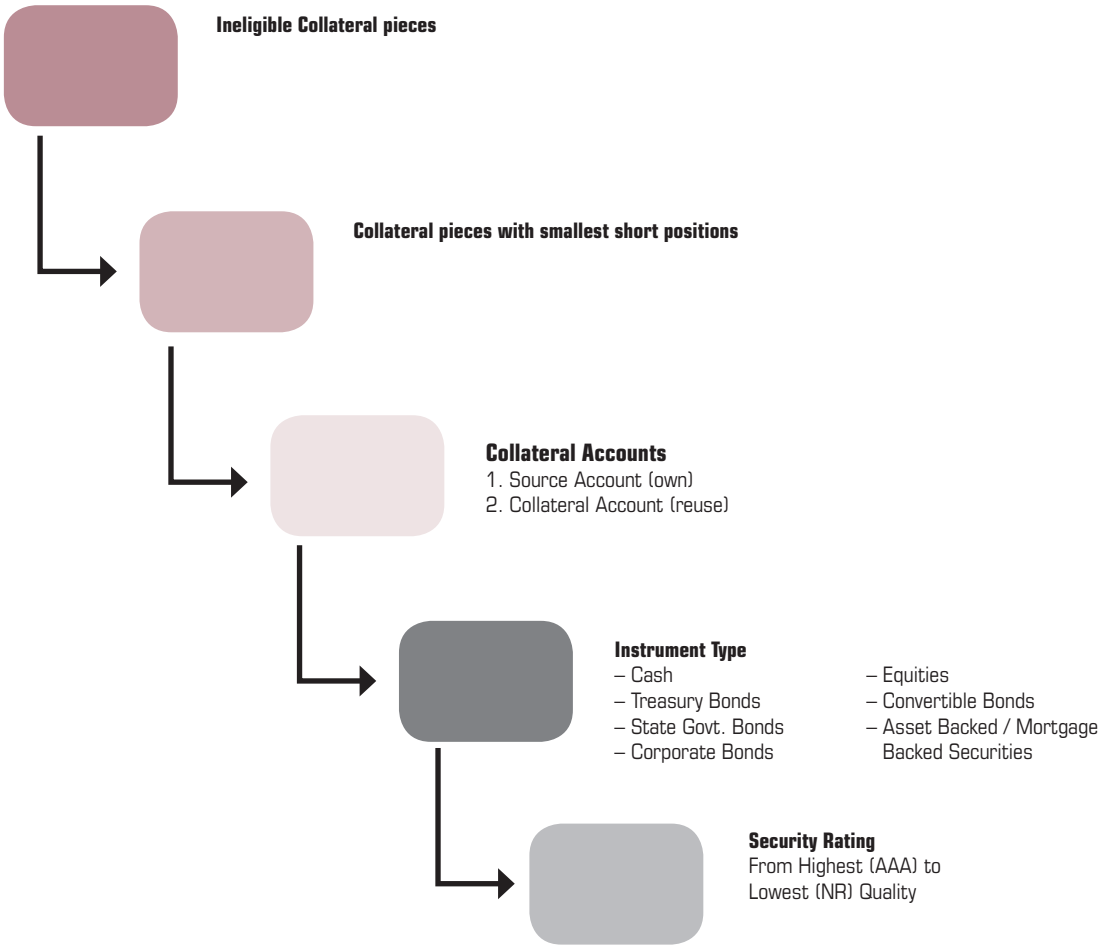
6.1.1.2. Default Withdrawal Order

When withdrawing collateral back to the Collateral Giver's account of origin (a Collateral Source Account or, in the case of collateral that has been re-used, a Collateral Account where a Lodge Account structure has been utilised and therefore a "Transferred Collateral Account" in Austraclear), the BAO process will apply the reverse of the allocation order, returning the highest quality collateral first.

The following additional factors will be taken into account during the withdrawal sequence:

- Ineligible collateral pieces.
- Short positions.
- Reused positions.

Figure 10 – Example of Collateral Optimisation Default Withdrawal Order



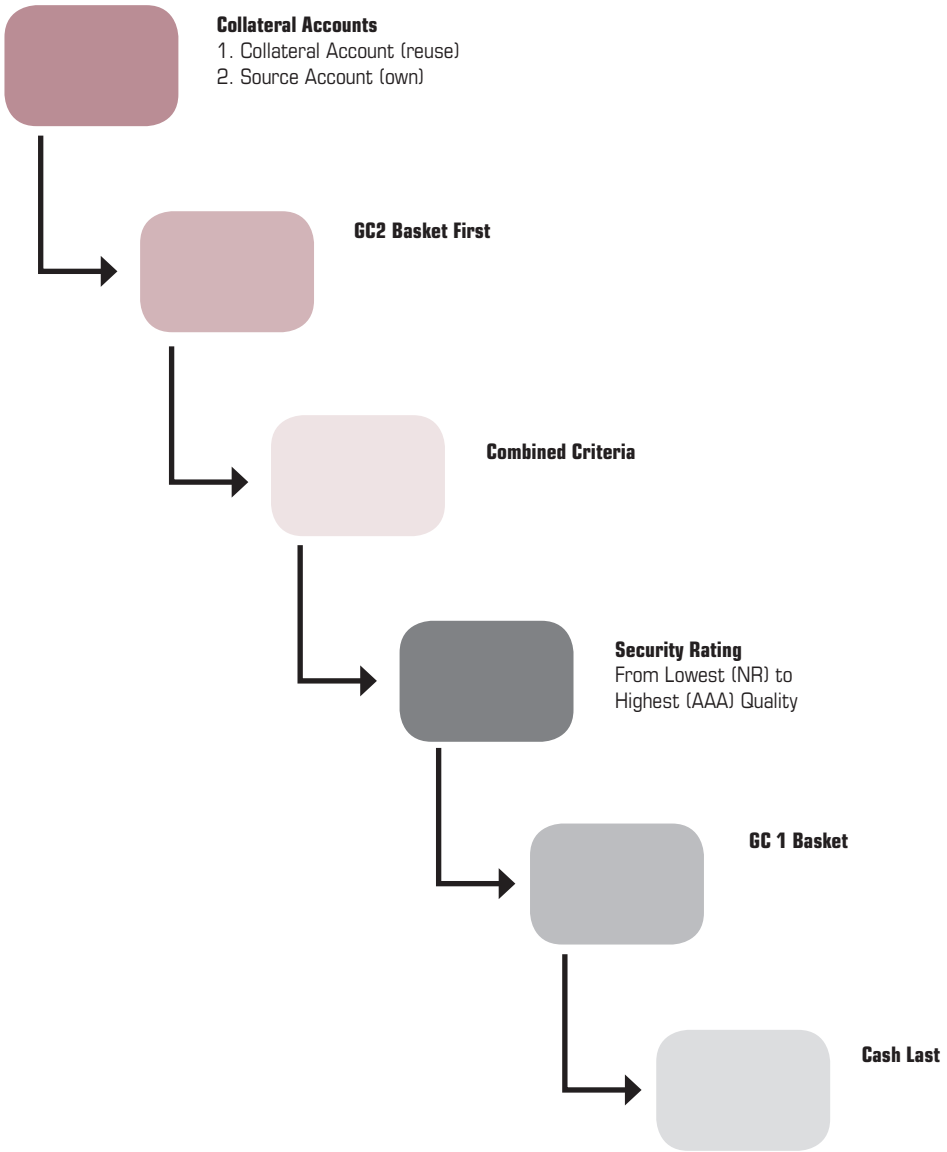
6.1.1.3. Fully Customisable Collateral Allocation Order

The ASX Collateral Auto-Assign functionality provides Collateral Givers with a fully customisable collateral auto-allocation process allowing the individual tailoring of collateral allocations to meet business needs and/or a desired risk profile. This allows Collateral Givers to manage their funding costs while maintaining control over their asset portfolios.

The customised asset optimisation is set at the Customer level and is applied across all tri-party services, counterparties and eligibility profiles.

See section 5.1.1 for further details of the CMSA (Collateral Giver) Appendix A Counterparty Acceptance List and Allocation Preferences.

Figure 11 – Example of Fully Customised Asset Optimisation



At the heart of the customised asset optimisation framework is the ability for the Customer to combine a number of parameters to define their allocation preferences.

A Collateral Giver is able to combine any of the asset criteria to create a bespoke asset optimisation order.

This ensures that the Collateral Giver retains complete control of the how assets are automatically allocated to cover their exposures.

6.1.2. Fully Customisable Collateral Withdrawal Order

ASX Collateral also offers the functionality to apply the reverse ordering for collateral withdrawals, so as to ensure that the Collateral Giver's priority ranking is respected.

6.1.3. Manual Collateral Allocation

The ASX Auto-Assign functionality offers a powerful tool to support the optimisation of collateral. However, some Customers may wish to retain the ability to manually allocate assets as collateral.

The ASX Collateral manual collateral allocation function allows a Collateral Giver to select the specific assets it wishes to allocate to cover a collateral obligation, subject to the Collateral Receiver's eligibility criteria. Manual collateral allocation can be selected at the time the new exposure is notified to ASX Collateral via ASXCOL+ . For further information on the manual allocation of collateral please see section 7 of this guide.

Where manual collateral allocation is selected, all substitutions, withdrawals and margin adjustments are instructed by the Collateral Giver through ASXCOL+.

Transaction Management

Throughout the life cycle of a collateral transaction, ASX Collateral will receive trade (exposure) notifications from both counterparties (or from one party if unilateral notification has been agreed by the Collateral Giver and Receiver); match and validate the instructions against tolerances; check collateral eligibility; generate against payment or free of payment settlement instructions; perform mark-to-market of collateral securities multiple times every hour; process margin calls and substitutions as well as support any adjustments that either party wishes to make to the terms.

Collateral Givers and Receivers will be provided with reporting to allow them to manage their exposures. See section 10 of this Guide on Reporting

Figure 12 – ASX Collateral Transaction Lifecycle

Processing of collateral transactions and settlements will be conducted in line with the Operational Profiles for the Collateral Giver and Collateral Receiver and the applicable cut-off times for the service (TRS or TCMS). See section 5.1.2. of this Guide on the Operational Profile. See Appendix A of this Guide for the cut-off times for the TRS and TCMS.

7.1. Transaction Management – ASX Collateral TRS

A reference in this guide to a repurchase agreement or repo is to an agreement between two parties under which one party sells a security to the other, with a commitment to buy back (repurchase) the security at a later date for a specified price. See section 3.1.1 of this Guide on the ASX Collateral TRS (Triparty Repo Service).

7.1.1. Intraday Repos

A reference in this Guide to an intraday repo is to a repurchase agreement under which both the sale and repurchase occur on the same day.

The process of managing collateral obligations for an intraday repo in ASX Collateral operates generally as follows:

Step 1: The opening leg is entered by the Collateral Giver and Collateral Receiver (unless unilateral instructions are permitted – see Section 7.3 of this Guide on unilateral instructions) entering matched instructions into ASXCOL+ through their ASX On-line portal

Step 2: ASX Collateral identifies eligible securities to be provided as collateral. (See Section 6 of this Guide on allocation of securities as collateral). Instructions for the movement of collateral will be sent with settlement on a DvP basis.

Step 3: The Collateral Giver and Collateral Receiver are able to monitor the open position through the ASXCOL+ secure web interface. At any point during the day, they can close out the position and generate the closing leg transaction by entering matched instructions (unless unilateral instructions are permitted).

Changes to the terms of the repo (including changes to the principal) can be notified by the Collateral Giver and Collateral Receiver by giving matched instructions (unless unilateral instructions are permitted), should the need arise.

Under a complete unilateral instruction agreement, should the Collateral Giver wish to extend the length of the repo, they can simply adjust the opening leg to reflect any changes to the agreed terms.

If the Collateral Receiver wishes to ensure that changes to terms or adjustments to principal are only processed on the receipt of matched instructions, they can chose to exclude these types of instructions from the unilateral instruction agreement with their counterpart.

If the Collateral Giver has selected the ASX Collateral Auto-Assign functionality, the assigned collateral will be monitored by ASX Collateral to ensure that they are fully optimised. Margin calls and substitution instructions will be generated automatically and can be monitored by the Collateral Giver and the Collateral Receiver via ASXCOL+ secure web interface.

Where a Collateral Giver has opted not to utilise the Auto-Assign functionality available as part of the ASX Collateral Service, they will be required manually monitor their exposures, using the ASXCOL+ web interface and the intraday reports provided by ASX Collateral to ensure they remain fully collateralised.

7.1.2. Term & Market Repos

A reference in this Guide to a term repo includes an overnight repo and a reference to a term or market repo is to a repurchase agreement under which the closing leg repurchase occurs at a future date that can either be defined (in the case of a term repo) at the time of entering the opening leg or is defined upon agreement by both parties at a point in the future (in the case of an 'at call' market repo or "evergreen" repo).

The process of managing collateral obligations for a term or market repo in ASX Collateral operates generally as follows:

Step 1: The opening leg and the date on which the closing leg will be executed are entered by the Collateral Giver and Collateral Receiver (unless unilateral instructions are permitted – see Section 7.3 of this Guide on unilateral instructions) entering matched instructions into ASXCOL+ through their ASX On-line portal).

Step 2: ASX Collateral identifies eligible securities to be provided as collateral. (See Section 6 of this Guide on allocation of securities as collateral). Instructions for the movement of collateral will be sent with settlement on a DvP basis.

Step 3: The Collateral Giver and Receiver are able to monitor the open position through the ASXCOL+ secure web interface. At any point during the life of the trade, they can close out the position and generate the closing leg transaction by entering matched instructions or unilateral instructions where this has been agreed with the counterparty.

Whilst the position remains open during the life of a trade, and where the Collateral Giver has opted to utilise the auto-allocation functionality, the allocated collateral will be monitored by ASX Collateral to ensure that they are fully optimised.

As such, the Collateral Giver will be able to monitor any margin calls or substitution instructions that the ASX Collateral system will automatically generate as required to ensure the position remains optimised and fully collateralised.

Where a Collateral Giver has opted not to utilise the Auto-Assign functionality available as part of the ASX Collateral Service, they will be required manually monitor their exposures, using the ASXCOL+ web interface and the intraday reports provided by ASX Collateral to ensure they remain fully collateralised.

The Collateral Giver and Collateral Receiver will also be able to adjust the terms of the repo, including changes to the principal, interest rate and, closing date should the need arise.

For 'at call' repos, the Customer will enter an opening leg and will then be able to monitor the open position via the ASXCOL+ web interface. At any point during the life of the repo, either party can close out the position and generate the closing leg transaction.

Whilst the position remains open and where the Collateral Giver has opted to utilise the Auto-Assign functionality, the assets will be monitored by ASX Collateral to ensure that they are fully optimised.

The Collateral Giver and Collateral Receiver will also be able agree to adjust the terms of repo, including changes to the principal and rates, should the need arise.

If the Collateral Giver has selected the ASX Collateral Auto-Assign functionality, the assigned collateral will be monitored by ASX Collateral to ensure that they are fully optimised. Margin calls and substitution instructions will be generated automatically and can be monitored by the Collateral Giver and the Collateral Receiver via ASXCOL+ secure web interface.

Where a Collateral Giver has opted not to utilise the Auto-Assign functionality available as part of the ASX Collateral Service, they will be required to manually monitor their exposures, using the ASXCOL+ web interface and the intraday reports provided by ASX Collateral to ensure they remain fully collateralised.

7.2. Transaction Management – ASX Collateral TCMS

See section 4.2 of this Guide for a description of ASX Collateral TCMS (Tri-party Collateral Management Service).

Customers, who have an existing principal agreement in place and have successfully on-boarded to the ASX Collateral platform, can utilise ASX Collateral to instruct the settlement of their collateral obligations to their counterparts.

Once these exposures are matched by ASX Collateral where the Collateral Giver has opted to utilise the Auto-Assign functionality, the system will select the optimal collateral to deliver, by ascending order of quality, or 'cheapest to deliver', from the Collateral Giver's nominated Collateral Source Account.

If the Collateral Giver has opted to manually allocate collateral, they must select the assets they wish to allocate via ASXCOL+ at the time of entering the exposure. The selected collateral will be validated against the Collateral Receiver's eligibility criteria before a settlement instruction is proposed.

Free of payment settlement instructions will be automatically generated and will immediately be sent to the Settlement Systems for settlement. The collateral will then be delivered to the Collateral Receiver's Collateral Account.

During the life of the exposure, ASX Collateral will continuously monitor and mark to market the collateral securities and, where the Collateral Giver has agreed to Auto-Assign, ASX Collateral will automatically instruct margin top ups or withdrawals to ensure that the collateral value is maintained in line with the underlying exposure.

All such margin related settlement instructions under TCMS will involve free of payment transfers between the Collateral Giver and the Collateral Receiver.

For the duration of the exposure, the Collateral Giver can recall the assets they have allocated as collateral and ASX Collateral will seek to substitute the assets for other eligible assets in their Collateral Source Accounts or Collateral Accounts.

7.3. Unilateral vs. Bilateral Instructions

Exposures are entered via ASXCOL+ which are then matched by the systems. Alternatively, the counterparties can agree to operate on the basis of unilateral instructions whereby only one of the counterparties is required to enter an exposure (i.e. no matching required) via ASXCOL+ before it is submitted to the Settlement Systems.

ASX Collateral can also allow users to agree what type of exposure instructions can be unilaterally instructed (e.g. openings) and what type of instructions require matched bilateral instructions (e.g. principal adjustments, closing legs etc.).

The unilateral instruction agreement will form a part of the Counterparty Acceptance List appendix.

7.4. Margin Call Management

ASX Collateral provides accurate and timely management of margin obligations arising due to changes in the valuation of collateral against an open exposure ("Margin Call Management").

ASX Collateral will manage the margin requirements based on the tolerances and margins that have been set by the Collateral Receiver as part of their eligibility criteria.

ASX Collateral will perform a mark to market of all collateral at least 4 times per hour during hours of operation, using the latest available pricing (previous business day end of day prices) and taking into account any changes to reference data or eligibility criteria that have been instructed, to ensure that the collateral allocated to the Collateral Receiver in relation to a contract remains within the excess / deficit tolerance set by the Collateral Receiver in its eligibility criteria.

See Section 8 of this Guide on eligibility criteria.

7.4.1. Margin Deficits

If the value of the assets held in a Collateral Account falls below the loan/exposure value plus any applicable margin (hair cut), and tolerance levels, there will be a collateral shortfall and top-up collateral will be required.

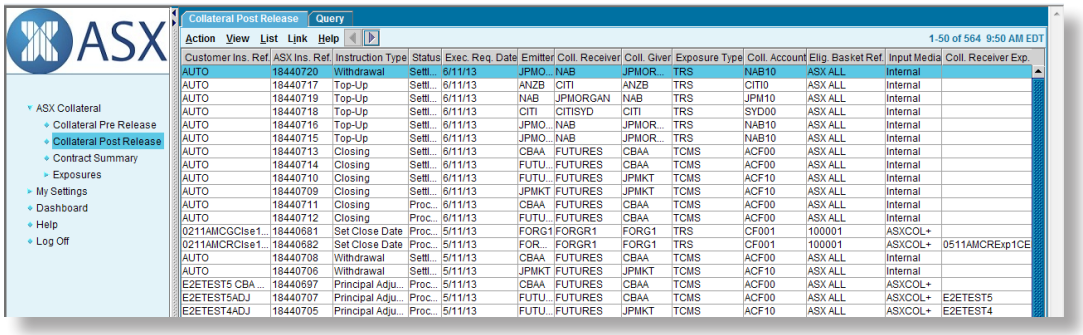
7.4.1.1. Automatic Margining

If the Collateral Giver has signed up to the ASX Collateral Auto-Assign functionality, the BAO process will automatically identify eligible securities in the Collateral Giver's accounts and generate free of payment instructions to deliver the securities to the Collateral Receiver to meet a collateral shortfall. As part of the optimisation process, ASX Collateral will seek to deliver assets by ascending order of quality, or 'cheapest to deliver', so that the lowest quality assets are delivered first, as top-up collateral, within the constraints of the Collateral Receiver's eligibility criteria and in line with the allocation preferences set by the Collateral Giver.

Settlement of the delivery of top-up collateral occurs on an FoP basis for same day value.

Customers are able to monitor margin calls through the ASXCOL+ secure web interface. Proposed top-up instructions can be viewed in the "Collateral Post Release" view.

Figure 13 – Example of Monitoring Margin Calls



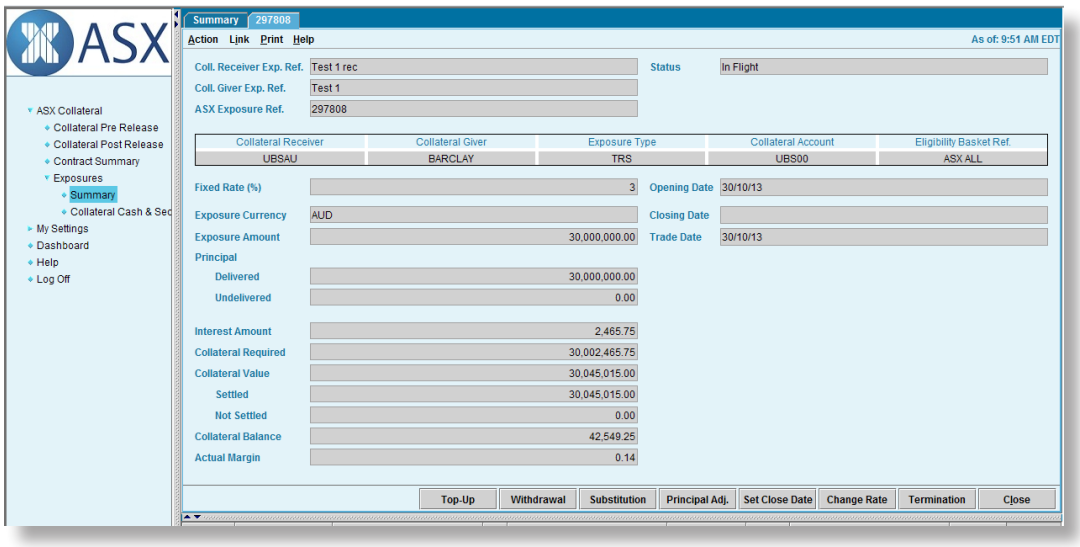
Customer Ins. Ref.	ASX Ins. Ref.	Instruction Type	Status	Exec. Req. Date	Emitter	Coll. Receiver	Coll. Giver	Exposure Type	Coll. Account	Elig. Basket Ref.	Input Media	Coll. Receiver Exp.
AUTO	18440720	Withdrawal	Setti...	6/11/13	JPMO...	NAB	JPMOR...	TRS	NAB10	ASX ALL	Internal	
AUTO	18440717	Top-Up	Setti...	6/11/13	ANZB	CITI	ANZB	TRS	CITI0	ASX ALL	Internal	
AUTO	18440719	Top-Up	Setti...	6/11/13	NAB	JPMORGAN	NAB	TRS	JPM10	ASX ALL	Internal	
AUTO	18440718	Top-Up	Setti...	6/11/13	CITI	CITISYD	CITI	TRS	SYD00	ASX ALL	Internal	
AUTO	18440716	Top-Up	Setti...	6/11/13	JPMO...	NAB	JPMOR...	TRS	NAB10	ASX ALL	Internal	
AUTO	18440715	Top-Up	Setti...	6/11/13	JPMO...	NAB	JPMOR...	TRS	NAB10	ASX ALL	Internal	
AUTO	18440713	Closing	Setti...	6/11/13	CBAA	FUTURES	CBAA	TCMS	ACF00	ASX ALL	Internal	
AUTO	18440714	Closing	Setti...	6/11/13	FUTU...	FUTURES	CBAA	TCMS	ACF00	ASX ALL	Internal	
AUTO	18440710	Closing	Setti...	6/11/13	FUTU...	FUTURES	JPMKT	TCMS	ACF10	ASX ALL	Internal	
AUTO	18440709	Closing	Setti...	6/11/13	JPMKT	FUTURES	JPMKT	TCMS	ACF10	ASX ALL	Internal	
AUTO	18440711	Closing	Proc...	6/11/13	CBAA	FUTURES	CBAA	TCMS	ACF00	ASX ALL	Internal	
AUTO	18440712	Closing	Proc...	6/11/13	FUTU...	FUTURES	CBAA	TCMS	ACF00	ASX ALL	Internal	
0211AMCGClse1...	18440681	Set Close Date	Proc...	5/11/13	FORG1	FORGR1	FORG1	TRS	CF001	100001	ASXCOL+	
0211AMCRClse1...	18440682	Set Close Date	Proc...	5/11/13	FOR...	FORGR1	FORG1	TRS	CF001	100001	ASXCOL+	0511AMCRExp1CE
AUTO	18440708	Withdrawal	Setti...	5/11/13	CBAA	FUTURES	CBAA	TCMS	ACF00	ASX ALL	Internal	
AUTO	18440706	Withdrawal	Setti...	5/11/13	JPMKT	FUTURES	JPMKT	TCMS	ACF10	ASX ALL	Internal	
E2ETEST5 CBA ...	18440697	Principal Adju...	Proc...	5/11/13	CBAA	FUTURES	CBAA	TCMS	ACF00	ASX ALL	ASXCOL+	
E2ETEST5ADJ	18440707	Principal Adju...	Proc...	5/11/13	FUTU...	FUTURES	CBAA	TCMS	ACF00	ASX ALL	ASXCOL+	E2ETEST5
E2ETEST4ADJ	18440705	Principal Adju...	Proc...	5/11/13	FUTU...	FUTURES	JPMKT	TCMS	ACF10	ASX ALL	ASXCOL+	E2ETEST4

7.4.1.2. Manual Margining

Collateral Givers who have opted for manual allocation of collateral assets will be required to monitor their margin requirements via ASXCOL+ and intraday ASX Collateral Reporting and will be required to enter instructions to provide top-up collateral to meet any collateral shortfalls.

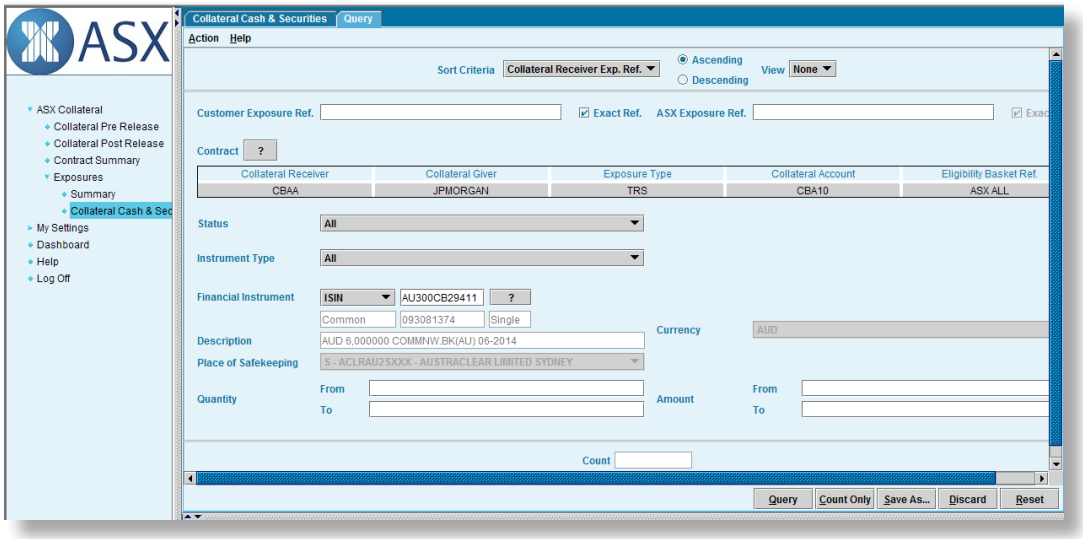
Via ASXCOL+, a Collateral Giver can select to top up a collateral shortfall by selecting the relevant exposure from the "Exposures Summary" and selecting "Top Up".

Figure 14 – Example of Manual Top Up



The Collateral Giver can then search for and select the individual securities they wish to allocate to meet the margin requirement, and instruct delivery of those securities.

Figure 15 – Example of manually selecting assets for collateral top up



ASX Collateral will check that the selected securities meet the Collateral Receiver's eligibility criteria and will also ensure that no concentration limits are breached by the proposed instruction, before creating the FoP settlement instructions that are then sent to the Settlement Systems.

With both automatic and manual margining, Customers can use ASX Collateral reports to manage their exposure and margin positions, with intra-day reports provided through ASX Collateral and Austraclear, and daily exposure reports from ASX Collateral. See section 10 of this Guide for a detailed explanation of the reports that will be available to users of the service.

The Collateral Receiver will be able to utilise their own intraday reporting from ASX Collateral and the ASXCOL+ web front end to monitor the status of their counterparty's collateral positions for their agreed exposures and will be able to easily identify if their positions are under-collateralised.

7.4.2. Margin Excess

Following the valuation of a collateral position, should the position be over-collateralised, excess assets can be withdrawn from the Collateral Receiver's account and returned to the Collateral Giver's account.

7.4.2.1. Auto-Withdrawal under Autoassign

Where Collateral Givers have signed up to use the ASX Collateral Auto-Assign functionality, the ASX Collateral Batch Asset Optimisation (BAO) process will identify the excess securities in the Receiver's Collateral account and generate free of payment instructions to deliver the securities back to the Collateral Giver's Collateral Source Account.

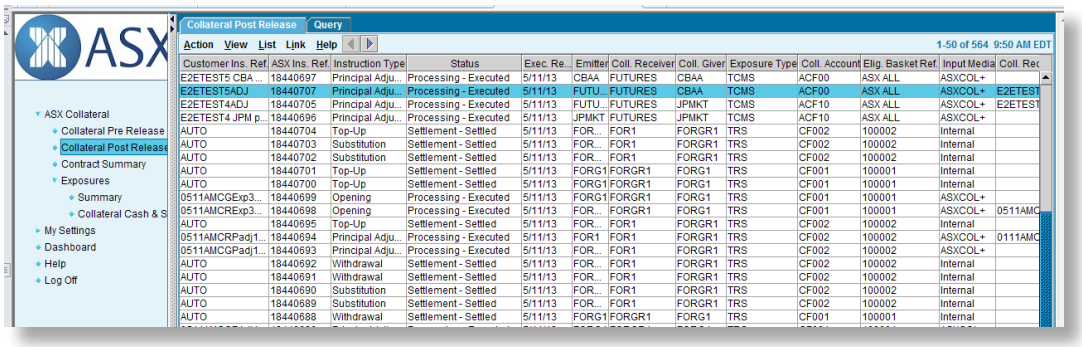
As part of the optimisation process, ASX Collateral will seek to withdraw the collateral by descending order of quality, so that the highest quality assets are returned first, in line with the preferences determined by the Collateral Giver.

It should also be noted that no margin excess withdrawal instructions will be generated if they would cause a breach to the agreed margin levels or existing minimum trading sizes for the selected security.

The free of payment movements of securities are submitted for the requested value date and sent to the ASX settlement systems to be settled.

Customers are able to monitor any margin calls via the ASXCOL+ web interface, as any proposed withdrawal instructions can be viewed in the 'Post Collateral' view.

Figure 16 – Example of Monitoring Auto-Withdrawals



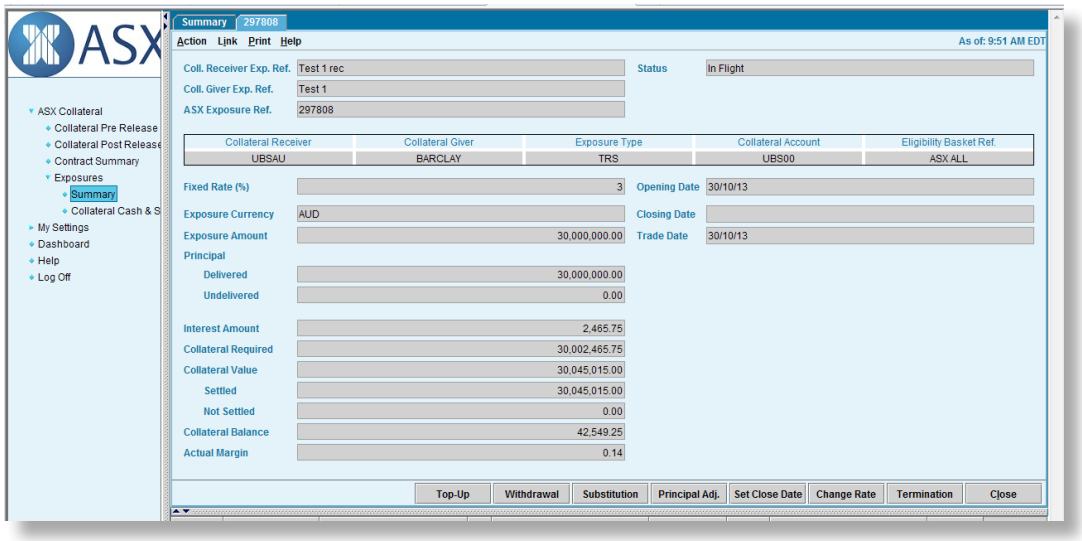
Customer Ins. Ref.	ASX Ins. Ref.	Instruction Type	Status	Exec. Re...	Emitter	Coll. Receiver	Coll. Giver	Exposure Type	Coll. Account	Elig. Basket Ref.	Input Media	Coll. Rec
E2ETEST5 CBA ...	18440697	Principal Adju...	Processing - Executed	5/11/13	CBAA	FUTURES	CBAA	TCMS	ACF00	ASX ALL	ASXCOL+	
E2ETEST5ADJ	18440707	Principal Adju...	Processing - Executed	5/11/13	FUTU...	FUTURES	CBAA	TCMS	ACF00	ASX ALL	ASXCOL+	E2ETEST
E2ETEST4ADJ	18440705	Principal Adju...	Processing - Executed	5/11/13	FUTU...	FUTURES	JPMKT	TCMS	ACF10	ASX ALL	ASXCOL+	E2ETEST
E2ETEST4 JPM p...	18440696	Principal Adju...	Processing - Executed	5/11/13	JPMKT	FUTURES	JPMKT	TCMS	ACF10	ASX ALL	ASXCOL+	
AUTO	18440704	Top-Up	Settlement - Settled	5/11/13	FOR...	FOR1	FORGR1	TRS	CF002	100002	Internal	
AUTO	18440703	Substitution	Settlement - Settled	5/11/13	FOR...	FOR1	FORGR1	TRS	CF002	100002	Internal	
AUTO	18440702	Substitution	Settlement - Settled	5/11/13	FOR...	FOR1	FORGR1	TRS	CF002	100002	Internal	
AUTO	18440701	Top-Up	Settlement - Settled	5/11/13	FORG1	FORGR1	FORG1	TRS	CF001	100001	Internal	
AUTO	18440700	Top-Up	Settlement - Settled	5/11/13	FORG1	FORGR1	FORG1	TRS	CF001	100001	Internal	
0511AMCGExp3...	18440699	Opening	Processing - Executed	5/11/13	FORG1	FORGR1	FORG1	TRS	CF001	100001	ASXCOL+	
0511AMCRExp3...	18440698	Opening	Processing - Executed	5/11/13	FOR...	FORGR1	FORG1	TRS	CF001	100001	ASXCOL+	0511AMC
AUTO	18440695	Top-Up	Settlement - Settled	5/11/13	FOR...	FOR1	FORGR1	TRS	CF002	100002	Internal	
0511AMCRPadj1...	18440694	Principal Adju...	Processing - Executed	5/11/13	FOR1	FOR1	FORGR1	TRS	CF002	100002	ASXCOL+	0111AMC
0511AMCGPadj1...	18440693	Principal Adju...	Processing - Executed	5/11/13	FOR...	FOR1	FORGR1	TRS	CF002	100002	ASXCOL+	
AUTO	18440692	Withdrawal	Settlement - Settled	5/11/13	FOR...	FOR1	FORGR1	TRS	CF002	100002	Internal	
AUTO	18440691	Withdrawal	Settlement - Settled	5/11/13	FOR...	FOR1	FORGR1	TRS	CF002	100002	Internal	
AUTO	18440690	Substitution	Settlement - Settled	5/11/13	FOR...	FOR1	FORGR1	TRS	CF002	100002	Internal	
AUTO	18440689	Substitution	Settlement - Settled	5/11/13	FOR...	FOR1	FORGR1	TRS	CF002	100002	Internal	
AUTO	18440688	Withdrawal	Settlement - Settled	5/11/13	FORG1	FORGR1	FORG1	TRS	CF001	100001	Internal	

7.4.2.2. Manual Withdrawal

Customers who have opted to manually manage their collateral assets will be required to monitor their margin positions via ASXCOL+ and enter instructions to withdraw any collateral positions that have become over collateralised due to changes in valuation.

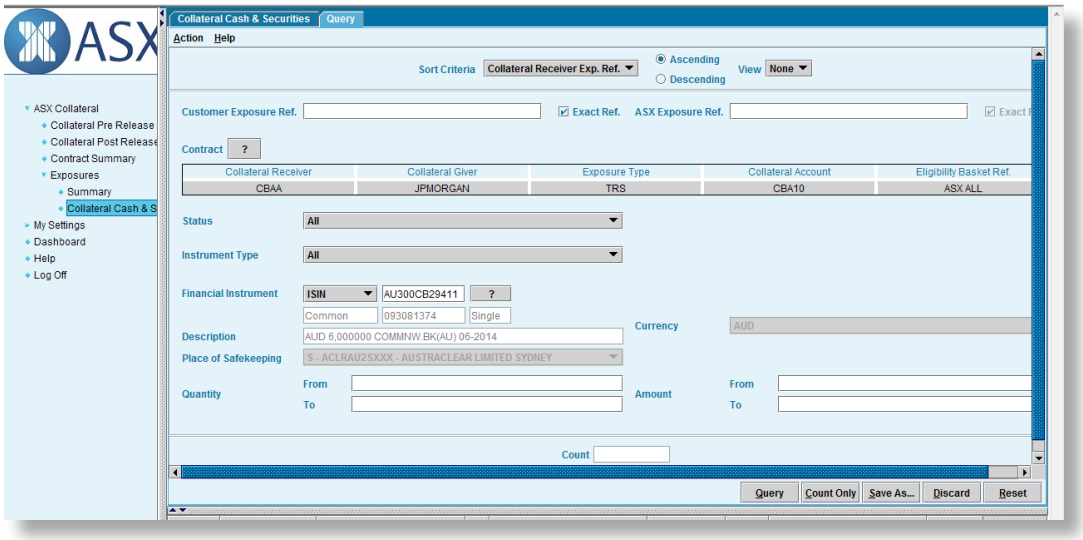
Via ASXCOL+, a user can select to withdraw assets from an over-collateralised exposure by selecting the relevant exposure from the 'Exposures Summary' and selecting 'Withdrawal'.

Figure 17 – Example of Manual Withdrawal



The user can then search for and a select the individual securities they wish to withdraw.

Figure 18 – Example of Manual selection of assets for margin withdrawal



Upon submission of the withdrawal transaction by the Customer, the ASX Collateral system will ensure the selected securities will not breach the margin requirements or cause any concentration limit breaches, before creating the free of payment settlement instructions that are then sent to the Settlement Systems.

7.5. Collateral Re-Use

A reference in this Guide to the re-use (or rehypothecation) of collateral means the use of collateral held in a Collateral Account in relation to one exposure (that is, collateral that has been given to a Collateral Receiver by way of transfer using a Lodge Account structure and therefore a "Transferred Collateral Account" in Austraclear") as collateral in relation to a different exposure.

ASX Collateral's innovative, cross-product collateral re-use functionality enables a Customer to maximise trading opportunities by using collateral it has received as a Collateral Receiver as collateral in relation to an exposure where it is a Collateral Giver.

ASX Collateral supports re-use by a Customer only with another Customer of ASX Collateral.

Re-use is supported in relation to any collateral held in a Transferred Collateral Account (that is, where a Lodge Account structure has been utilised and therefore a "Transferred Collateral Account" in Austraclear) unless the relevant Collateral Giver and Collateral Receiver have notified ASX Collateral in their eligibility criteria that re-use of the collateral is not permitted. Any change to the restrictions on re-use can be effected by making a change to the eligibility criteria. See section 5.2.2 of this Guide for an explanation of Transferred Collateral Accounts and section 8 for an explanation of eligibility criteria.

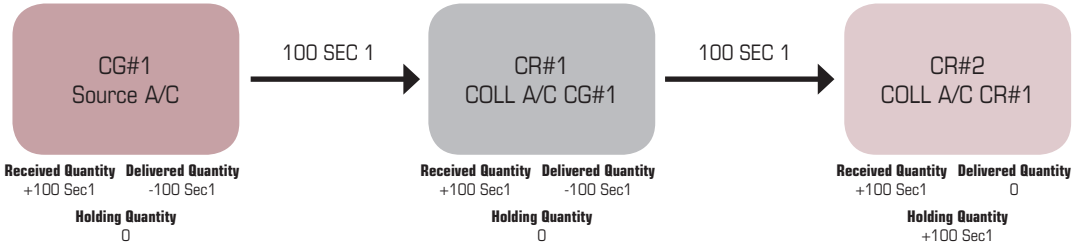
Re-use will not be supported by ASX Collateral if the Customer wishing to re-use the collateral has opted out of the ASX Collateral 'cash as collateral of last resort' functionality. This is to minimise the risk of settlement failure in a re-use chain in the event of a substitution, which would adversely impact all Customers in the chain.

The normal ASX Collateral functionality applies in relation to re-used collateral. For instance, if the Customer re-using collateral as a Collateral Giver elects to use the ASX Collateral Auto-Assign functionality then all of the services

associated with the Auto-Assign functionality will apply (for example, unlimited right of substitution, automatic recalls for settlement). See section 6 of this Guide for an explanation of the ASX Collateral Auto-Assign functionality.

By contrast, if the Customer re-using collateral as a Collateral Giver elects to use manual allocation, it must instruct all substitutions, withdrawals and margin adjustments through ASXCOL+. See section 6.1.3 of this Guide for an explanation of manual allocation.

Figure 19 – Example of Collateral Reuse



The diagram above illustrates the re-use by a Collateral Receiver ("CR#1") of collateral received from a Collateral Giver ("CG#1") to meet a collateral exposure that CR#1 has with CR#2. The diagram assumes that the collateral, 100 securities of type "1" ("100SEC1") was given to CR#1 by CG#1 by way of transfer of title (therefore using the Lodge Account structure) and with no restrictions on re-use notified to ASX Collateral.

CR#1 can give the collateral (100SEC1) to CR#2 by way of transfer of title (using the Lodge Account structure) or by way of security interest (using the Pledge Account structure). If the collateral is given to CR#2 by way of transfer of title (using a Lodge Account structure) and with no restrictions on re-use notified to ASX Collateral, then CR#2 will be free to re-use the collateral (100SEC1) in turn with another ASX Collateral Customer. If the collateral is given to CR#2 by way of security interest/pledge (using a Pledge Account structure) then CR#2 will not be free to re-use the collateral (because title has not been transferred by CR#1 to CR#2).

7.6. Using Cash as Collateral

Cash as collateral is supported by default within ASX Collateral. In order to not utilise cash as collateral, a Customer must opt out of to the service when completing their Operational Profile (see section 5.1.2 Operational Profile and Appendix B (Operational Profile)).

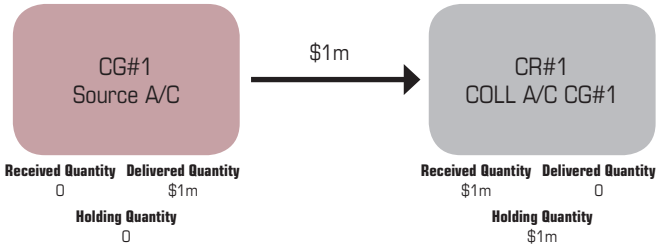
Within the ASX Collateral model, there are a number of key business rules that are applicable regarding the use of cash as collateral:

- Cash can only be sourced from a cash record linked to a nominated Collateral Source Account (a Cash Record linked Collateral Source Account) and must be returned to a cash record linked Collateral Source Account.
- Cash as collateral can never be re-used.
- Users will be required to manage their RITS queues (or have their participating bank do so on their behalf) such that settlement can be confirmed to allow the rest of the substitutions in a re-use chain to settle.
- The ability to re-use collateral will be contingent on the Customer nominating cash as collateral as last resort.
- Cash as collateral will be instructed as a cash transfer (MT202) instruction.
- A cash instruction will be raised via Austraclear into RITS.
- Once cash is authorised and settled in RITS, the asset can be settled within the Settlement Systems and then ASX Collateral.

In the example below, the Collateral Giver has no eligible securities in their Collateral Source Account to meet a collateral obligation with the Collateral Receiver.

Both parties have, as part of their bilateral agreement, authorised the use of cash as collateral. As such, ASX Collateral will raise a cash instruction to transfer the required cash collateral from the Colalteral Giver to the Collateral Receiver.

Figure 20 – Cash as Collateral



7.7. Substitution

Collateral Substitutions occur when collateral that has been lodged or pledged need to be recalled and therefore replaced.

The success of a substitution is conditional upon having eligible securities (or cash) available to replace the securities being recalled.

7.7.1. Substitution Triggers

A number of events can trigger a substitution.

7.7.1.1. Withdrawal Or Sale Of Asset

When a Customer places assets within the ASX Collateral framework, they are still able to withdraw or dispose of the asset, as long as they are able to substitute it with an asset that meets the eligibility and valuation criteria of their counterpart.

Where an asset is allocated as collateral (regardless of whether lodged or pledged) and the Collateral Giver wants to recall the asset to their Collateral Source Account they can recall the asset through the ASXCOL+ interface.

Alternatively, if the Collateral Giver sells an asset that has been placed in the ASX Collateral framework (regardless of whether lodged or pledged), matching settlement instructions for the sale in the Settlement System will automatically trigger the delivery of a position update from the Settlement Systems to ASX Collateral which will in turn trigger a substitution process in the next Batch Asset Optimisation (BAO) cycle.

Furthermore, a Customer can simply recall a position through ASXCOL+. This action triggers a substitution request.

7.7.1.2. Collateral Becomes Ineligible

A Collateral Receiver, as part of the bilateral agreement with the Collateral Giver, will determine which assets they are willing to accept as collateral based on a number of criteria. These can include asset type (e.g. Govt. bonds only) and credit rating (e.g. AAA only).

During the life time of the exposure agreement, the Collateral Receiver may need to adjust the acceptable collateral and this will automatically trigger a substitution process as the collateral originally given is now ineligible. Adjustments to eligibility are only effective when accepted and processed by the Collateral Manager.

Acceptance includes matching instructions by the counterparty where required.

An asset may also have its credit rating downgraded by an external credit agency and this too could make the asset given as collateral no longer eligible. Again, a substitution event would be triggered within ASX Collateral system, upon receipt of the amended securities reference data file.

An asset can also become ineligible due to an impending maturity, which can either be defined by the Collateral Receiver's eligibility criteria (they may chose not to accept assets with a maturity of less than 30 days for example) or by the maturity date being reached, at which point the asset will be valued at 0 and will generate a substitution.

7.7.1.3. Corporate Actions

As part of the ASX Collateral service, the Collateral Giver retains the economic benefit of the securities allocated as collateral. To this end, CHESS assets (when CHESS functionality within the ASX Collateral product becomes available as a later phase) may be made temporarily unavailable for use as collateral and returned to the Collateral Giver's account during certain voluntary corporate actions to ensure that the entitlement generated by the event is credited to the correct account. The corporate action may trigger a substitution request before or on record date.

For further details on how corporate actions will be managed in ASX Collateral, including the mitigating option where substitution is not possible, please refer to section 9 Corporate Actions of this Guide.

7.7.1.4. Concentration Breach

As part of the eligibility criteria that a Collateral Receiver has agreed, bilaterally with the Collateral Giver, a Collateral Receiver can also determine the concentration levels of a particular type of asset they are willing to accept as collateral based on a number of criteria.

For example, the Collateral Receiver may determine that they will only accept 20% of the collateral they receive as being BBB+ rated assets. In the event that this limit is breached by a change in credit rating, valuations or by the Customer amending their concentration levels or as consequence of closing exposures where remaining open exposures contributes to a concentration breach, a substitution event will be triggered.

Upon receipt of trigger event (e.g. asset withdrawal, eligibility criterion etc.), ASX Collateral will run a Batch Asset Optimisation (BAO) process to automatically replace the withdrawn or ineligible asset with assets from the Collateral Giver's Collateral Source Account(s).

7.7.2. Overall Substitution Methodology

ASX Collateral operates on the basis of periodic BAO cycles which determine the optimal allocation of available collateral across collateral accounts that are required to satisfy a set of Customer agreed bilateral obligations.

In order to determine this allocation, it uses the following inputs:

- Collateral and trading accounts (together with holdings) – Mirrored from settlement systems.
- Security Valuations – Sourced from independent price providers, or Customer provided prices.
- Collateral Obligations – Bilateral collateral obligations are entered directly into ASXCOL+ by Customers.
- Acceptable Collateral and Concentration Limits – Provided by Customers and maintained by ASX Collateral.
- Available Collateral – Maintained within trading accounts.
- Collateral Giver's allocation preference (i.e. allocation from Collateral Source Accounts first).

If assets that meet the Collateral Receiver's eligibility requirements are not available within the Collateral Giver's Collateral Source Accounts, ASX Collateral will seek to perform a "Collateral Swap", whereby assets that are being used as collateral with another party that do meet the Collateral Receiver's requirements, are swapped with freely held assets from the Collateral Giver's Collateral Source Accounts.

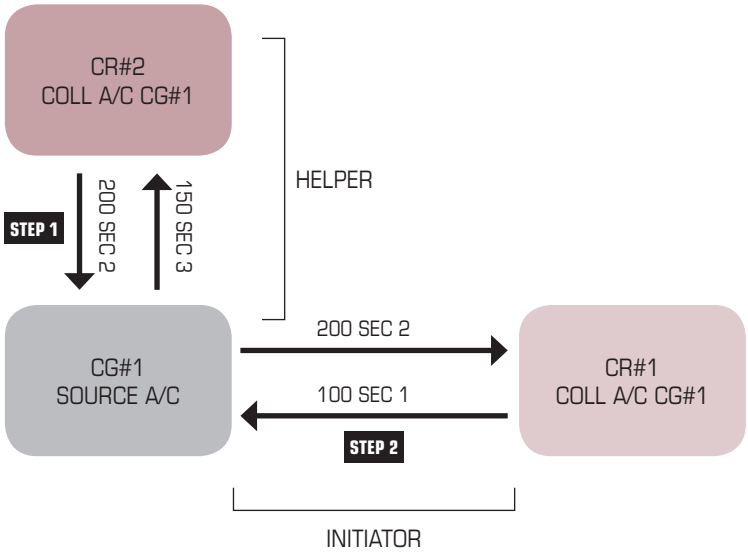
If no such Collateral Swap can be undertaken due to insufficient eligible assets being held, ASX Collateral will seek to use Cash from the Collateral Giver's Collateral Source Account, as collateral of last resort.

At the conclusion of each BAO cycle, ASX Collateral generates a set of settlement instructions and sends them to the Settlement Systems for settlement. The Settlement Systems notify ASX Collateral of the success (or failure) of these instructions so that the system can update its accounts to mirror the positions held in the settlement systems.

All settlements related to substitution activity will be handled in a delivery versus delivery (DvD) settlement mechanism. That is, the allocation leg is linked to the withdrawal leg and either both settle or both fail, including the scenario where cash is used. Please see section 7.7.5.2 on DvD settlement in this Guide for further details.

7.7.3. Collateral Swaps

Figure 21 – Example of Collateral Swap



The ASX Collateral system utilises proprietary functionality to support the optimal use of collateral amongst Customers. The Batch Asset Optimisation (BAO) process, running at least 4 times per hour, will monitor collateral held across the user's accounts and will automatically execute a Collateral Swap where it identifies a concentration breach or a pending delivery. This will ensure that Customers will always have "the right collateral, at the right time, in the right place".

As part of the substitution process, ASX Collateral will use Collateral Swaps when it is unable to source freely held assets that are eligible for the Collateral Receiver in the substitution chain for use as collateral within a user's Collateral Source Account or Collateral Account. In such circumstances, ASX Collateral will identify collateral already placed with another Collateral Receiver, who is not part of the substitution chain and whose eligibility criteria allows another freely held asset to be used as collateral, and will swap these assets.

7.7.4. Sources of Collateral for Collateral Receivers

A Collateral Receiver who is re-using collateral will also have the opportunity to meet substitution requirements from their Collateral Source Account or other Collateral Accounts. It does not need to be sourced from the Collateral Account. This can be determined as part of the Customer's Operational Profile and their allocation preference.

7.7.5. ASX Collateral Substitutions: Transaction Model

7.7.5.1. Transaction Requirements

The transaction model for substitutions needs to adhere to the following requirements.

- Collateralisation requirements are maintained at all times
- No principal risk is introduced at any time

7.7.5.2. Delivery versus Delivery ("DvD") Settlement

A DvD transaction is the exchange of two or more securities positions (for whatever purpose, including but not limited to, substitutions of collateral and not necessarily involving the transfer of ownership), whereby the execution of any delivery is dependent on the delivery of all other deliveries in the DvD transaction.

That is, all legs of the DvD transaction must deliver successfully or none of the legs will deliver at all (all or nothing). Hence, the understanding of a DvD as two or more linked FoP transactions, each being dependent (contingent) on all other FoP transactions in the DvD transaction, is correct.

In order to meet these requirements, ASX Collateral will use a DvD settlement model based on transactional settlement of all settlement instructions in a system generated "Substitution ID".

After each BAO cycle, ASX Collateral generates a set of settlement instructions which are passed to the Settlement Systems. ASX Collateral provides a Substitution ID reference on all the settlement instructions and this allows ASX Collateral to manage settlement of the Substitution ID as a single transaction group.

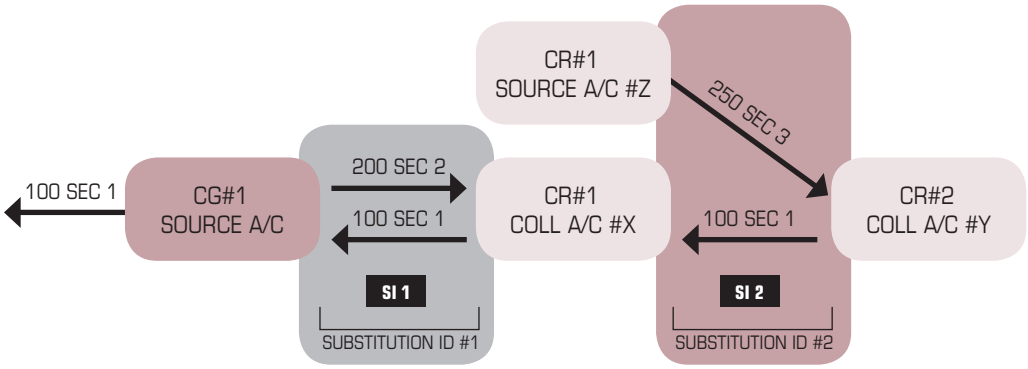
Once all of the legs for Substitution ID have been received, they will be settled according to the DvD transaction protocol where either all instructions settle or none settle.

In the following example, there are 2 independent DvD transactions:

- The green transaction consisting of the two legs associated with Substitution ID #1
- The orange transaction consisting of the two legs associated with Substitution ID #2

The DvD protocol guarantees that the settlement of all the legs either successfully completes or no legs settle.

Figure 22 – Substitution Chain



DvD settlement ensures:

- The net sum total of the collateral value of each Substitution ID is 0. That is, the allocation legs (the assets that are being proposed to replace the original assets) balance the withdrawal leg(s) (the originally allocated assets that are to be replaced) within a predetermined tolerance. This ensures collateral requirements are maintained on a per Substitution ID basis.
- At no point is it possible for one settlement within a Substitution ID to succeed while others fail. This ensures no principal risk is introduced during settlement of a Substitution ID.

7.7.5.3. DvD Settlement: Withdrawal LEG Dependencies

There may be dependencies on withdrawal legs across Substitution IDs. This is acceptable and will be managed by ASX Collateral controlling the order of DvD settlement across Substitution IDs.

For example, in the previous example, SI 1 is dependent on settlement of SI 2. ASX Collateral will manage this by settling Substitution ID #2 first and only attempting settlement of Substitution ID #1 when the 100 SEC1 securities are available in A/C #X.

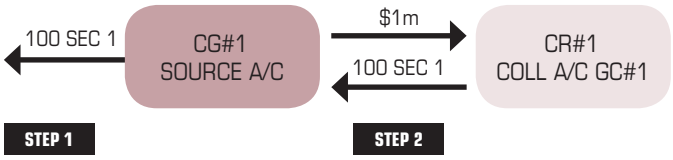
No dependencies are allowed in the allocation leg of substitutions, meaning that in the case of a re-use chain, ASX Collateral will not allow the proposed asset in the first allocation leg of the substitution to be reused in the second allocation leg and this party must source another freely held asset to be proposed as the allocated security. See figure 22 above.

7.7.5.4. DvD Settlement: Cash As Collateral of Last Resort

While most of the discussion is based on securities as collateral, cash as collateral of last resort will be a contingent requirement in allowing Customers to re-use collateral. Cash can form the basis of either an allocation or withdrawal (when cash is returned) leg in a substitution.

It should be noted that there will only ever be one cash leg within a Substitution ID. To manage this within the DvD transaction, the securities will be reserved for later settlement and the cash settlement will then be attempted. If it settles, then all securities movements will be settled DvD. If it fails, then the securities will be released (that is, un reserved) and the entire Substitution ID transaction will not settle.

Figure 23 – Example of Cash as Collateral of Last Resort in Substitution



7.7.6. Substitution Re-Use Scenario

The following scenario illustrates the settlement process under normal and exceptional circumstances.

The scenario uses the case of a single substitution sourcing assets from a Collateral Source Account to induce a ripple substitution to retrieve re-used assets from a second Collateral Account but the same concepts and outcomes apply equally to substitution chains of arbitrary complexity.

7.7.7. Substitution Re-Use

Customers that have agreed to the re-use of lodged collateral retain the right to substitute the original asset should they need to withdraw or dispose of it.

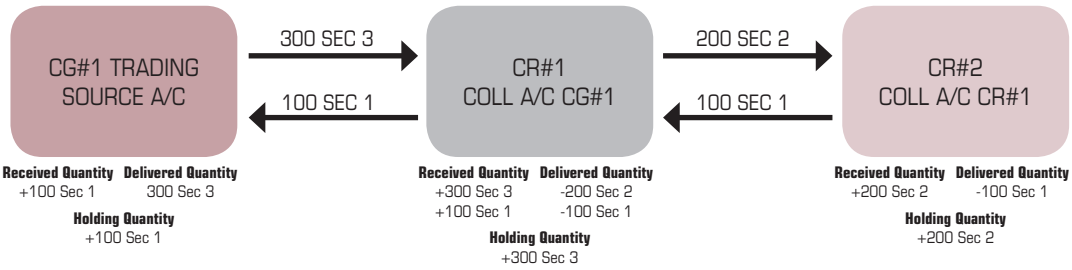
Throughout the business day, the Settlement Systems will send position updates, in near real time, to the ASX Collateral system, advising of any changes in the holdings. Upon receipt of an updated position from the Settlement Systems, at the next BAO cycle, the ASX Collateral

system will automatically generate proposed substitutions in order to withdraw the required collateral and replace it with eligible collateral throughout the re-use chain.

Only assets that meet the eligibility criteria and concentration limits of the Collateral Receiver will be proposed.

Upon completion of the BAO Cycle, the system will generate Free of Payment settlement instructions to allocate a specific asset or assets that will be lodged as the replacement security across all collateral accounts within the re-use chain. At the same time, Free of Payment settlement instructions will be created to recall the withdrawn asset across all collateral accounts within the re-use chain.

Figure 24 – Example of Substitution Reuse Chain



7.8. Term Adjustments

ASX Collateral offers complete flexibility when it comes to managing open exposures. Customers can, in so far as their bilateral agreements allow them to, re-negotiate the terms of their exposure and then adjust them accordingly via ASXCOL+.

Where Customers have agreed to unilateral instructions, only one of the Customers is required to enter their adjustments via ASXCOL+. If there is no unilateral instruction agreement, both parties will be required to enter the adjustments and these will be matched within agreed to tolerances, before any instructions or amendment calculations are made.

This functionality is available to all exposure types, including intraday repos and allows counterparties to quickly and effectively manage any changes to their exposures, be it a change in amount, duration or rate, or any combination of these.

Once the adjustments to the terms are made and (if necessary) matched, ASX Collateral will recalculate the collateral requirements and automatically create any necessary settlement instructions to ensure that the position remains collateralised.

7.9. Close Outs

ASX Collateral has been designed to provide Customers with complete control over their collateral exposures for the full lifecycle of the transaction.

For intra-day and 'at call' repos, this means giving the Customers control as to when the closing leg of the trade is created.

All closing instruction must be made in line with ASX Collateral cut off times. Please see the Hours of Operation section in Appendix A of this Guide for more details.

ASX Collateral Customers should endeavor to have sufficient Principal Cash and Collateral securities on their Proprietary accounts on agreed TRS Exposure Open Date in order to settle the TRS opening instructions.

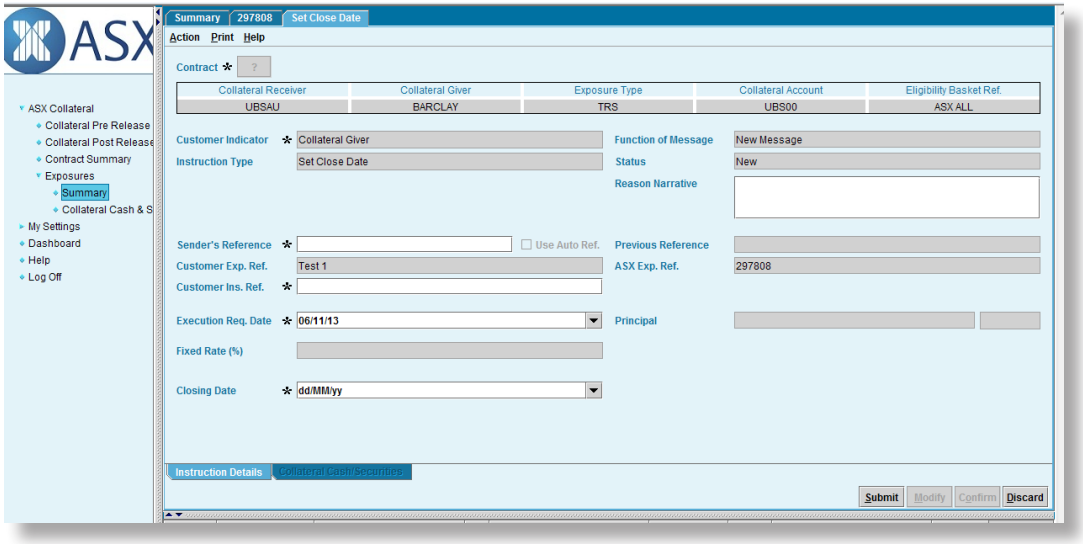
ASX Collateral Customers should promptly inform ASX Collateral Operations if they encounter any settlement issues on their TRS opening exposure instructions within the ASX business day.

Under normal circumstances, TRS Exposures should not be closed before the opening instructions are settled. Therefore, ASX Collateral Customers are strongly encouraged against setting a close date to unwind problematic opening exposures intraday before the opening instructions settles.

7.9.1. Closing Out an Intraday or At Call Repo

Where Customers have agreed to unilateral instructions, to close out the intraday repo position, a user can simply highlight the exposure in ASXCOL+ and set the close date.

Figure 25 – Closing out an Intra-day Repo



This will open the Repo transaction and allow the user to select the Closing Date (today) and the closing amount (Principal + agreed fees).

Where there is no unilateral instruction agreement, both parties to the transaction must enter their close out instructions and these will be matched within the ASX Collateral system prior to instructions being raised.

7.9.2. Closing Out a Term Repo

To close out the Term repo position, the ASX Collateral Customer is not required to perform any actions with the ASXCOL+ web interface.

Upon reaching the closing date entered at the opening of the term repo, the ASX Collateral system will automatically close the position, calculate the closing settlement amount, based upon the terms and the rates entered when the position was originally opened and generate the closing leg settlement instructions accordingly.

The ASX Collateral Management Engine will generate a Delivery vs. Payment Instruction to transfer the Collateral from the Collateral Receiver's Collateral Account to the Collateral Giver's Collateral Source Account in the appropriate Settlement System (e.g. Austraclear, and later CHESS) whilst simultaneously instructing a Cash Movement from the Collateral Giver's Cash Account to the Collateral Receiver's Cash Account via RITS.

7.9.3. Closing Out an Exposure Under TCMS

To close out an exposure under the Collateral Management Service, Customers are simply required to reduce the exposure to zero.

Where there is no unilateral instruction agreement, both parties to the transaction must enter the exposure reduction instructions and these will be matched within the ASX Collateral system prior to instructions being raised.

Once matched, the next BAO cycle will revalue the collateral against the zero exposure and propose a Free of Payment instruction to deliver the excess collateral from the Collateral Receiver to the Collateral Giver's account.

Eligibility, Price Selection Process, Valuation and Ratings

8.1. Eligibility

The eligibility of collateral is a key component of the Collateral Management process. In order to manage exposures and risks appropriately, both Collateral Givers and Collateral Receivers must have confidence that the collateral they propose or accept meets the requirements of their counterparty as well as their own risk profiles and portfolios.

By providing such surety in the process, ASX Collateral provides Customers with a powerful, yet flexible tool in the risk management of their counterparties and collateral exposures.

The current draft of the Eligibility Criteria Form for ASX Collateral is available on request.

8.1.1. Counterparty Eligibility

Customers within ASX Collateral have complete control over who they are willing to transact with. Customers can add or remove counterparties and services depending on their risk appetite or lending requirements.

Following the execution of a bilateral agreement between the two Customers, both parties can inform ASX Collateral of their intention to utilise the ASX Collateral service to manage their exposures.

ASX Collateral will process this information and create new collateral accounts within the ASX Collateral system and mirrored in the Settlement Systems to allow Customers to begin executing collateral transactions.

8.1.2. Collateral Eligibility

At the same time as they identify the Collateral Givers they wish to transact with, a Collateral Receiver can also provide ASX Collateral with details of the collateral they are willing to accept from these counterparts.

Collateral eligibility is completely bespoke and the Collateral Receiver can determine eligibility from a general level, such as General Collateral baskets, right down to a granular level, by identifying acceptable assets by individual ISIN.

8.1.3. Collateral Baskets

ASX Collateral has created standard collateral baskets that can be adopted automatically across the ASX Collateral Service by customers who wish to apply standard market collateral eligibility rather than completing bespoke criteria for each counterparty. ASX Collateral will continue to collaborate with the industry to add complexity to these standard baskets, and to add further standard baskets, as required but currently the standard baskets supported are as follows:

"ASXGC1"

- All Sovereign (Australian)
- Agency – All Australian Semi-Government

"ASXGC2"

- All Sovereign (Australian)
- All Agency – All Australian Semi-Government
  – All Supranational

ASX Collateral will also support the list of RBA eligible securities published on the RBA website and maintain these as the RBA's own eligibility profile.

Standard baskets have been set up for customers who will transact with ASX Clearing Corporation and ASX Clear (Futures). These standard baskets will be defined as "ASXCC" and ASXCF" respectively. The composition of the ASXCC and ASXCF standard baskets can be viewed on the ASX website at (http://www.asx.com.au/services/clearing.htm). Changes to the ASXCC and ASXCF standard baskets will be communicated to customers directly.

8.1.4. Issuer Eligibility

The Collateral Receiver can identify the types of issuer whose assets they will accept as collateral.

For Phase 1 of the ASX Collateral Service, only securities lodged and held in Austraclear will be eligible:

- Sovereign (Australian Government Bonds)
- Agency Bonds (State or Territory Government Bonds and Supranationals)
- Corporate Bonds
- Structured Securities
- Convertible Bonds

8.1.5. Specific Issuers / Issues

A Collateral Receiver can choose to exclude or include specific issuers and issues from the collateral they are willing to accept. They can also specify the particular margin % (hair cut) they wish to apply to specific issues and issuers.

However, ASX Collateral will automatically ensure that a Counterparty's own issuance is excluded by default based on issuer name information from recognised securities data vendors, such that a Counterparty would be unable to provide their own issued bonds or equities as collateral.

Collateral Receivers can augment their exclusion list by specifying at an ISIN level what is to be excluded. This is necessary where related party issues are not identifiable by name only.

8.1.6. Security / Issuer Ratings

If security ratings are unavailable, the Collateral Receiver can determine for individual issuer types, to have issuer ratings applied by default.

8.1.7. Security Types

A Collateral Receiver can choose to exclude or include specific security types from their eligibility criteria:

For example:

- Asset Backed Securities
- Bills
- Certificates of Deposit
- Commercial Paper
- Convertible Bonds
- Discount Securities
- Mortgage Backed Securities
- Promissory Notes
- All

8.1.7.1. Structured Securities

A Collateral Receiver can choose to exclude or include specific Structured Securities from their eligibility criteria:

- Asset Backed Securities
- Mortgage Backed Securities
- CDO/CLO
- Covered Bonds
- Credit Linked Notes

8.1.8. Denomination Currency

ASX Collateral will only support AUD denominated securities during this phase.

8.1.9. Concentration Limits

Collateral Receivers can also apply concentration limits to restrict the percentage of a specific type of security they are willing to hold as collateral against exposures.

These concentration limits are managed and applied at an individual contract level and do not take into account the overall exposures and concentrations between the two counterparties.

Concentration limits can be applied across a range of criteria either across asset classes, or for bonds only (or equities only during a later phase).

In the case of fixed income securities, concentration limits can be applied either per issuer type or across all bonds.

In either case, the limits will be expressed per eligible credit rating, as follows:

- Total limit – Applies to the category as a whole (combining a specific credit rating band and issuer type);
- Issuer limit – Applies to each issuer of a security per eligible credit rating (therefore more restrictive than a total limit);
- Security limit – Applies to each security per eligible credit rating (therefore more restrictive than an issuer limit);
- Outstanding issue amount – Limits the amount of a security that can be allocated as collateral with respect to the total amount of that asset issued on the market per eligible credit rating (therefore differing from the limits defined above, which are expressed as a function of the total collateral allocated to cover all exposures between two counterparties in the centralised collateral environment)

8.1.10 Amendments to Eligibility Criteria

Amendments to Eligibility Criteria (contained in Appendix A) can be changed if:

- ASX Collateral receives an instruction from the Collateral Receiver evidencing that all impacted Collateral Givers have agreed to such amendment. No changes will be made unless ASX Collateral can confirm that all impacted Collateral Givers have agreed. ASX Collateral will confirm this by checking signatures on the amendment instruction against the Authorised Signatory lists provided by the counterparties.
- The Collateral Receiver and Collateral Giver have agreed at the outset that the Collateral Receiver may instruct ASX Collateral unilaterally and communicated this agreement to ASX Collateral by an election in Appendix A that must be matched by ASX Collateral at the outset. In such case ASX Collateral will accept a unilateral instruction from the Collateral Receiver following confirmation by ASX Collateral of the instruction against the Authorised signatory list of the Collateral Receiver only.

8.2. Pricing and Valuations

A fundamental component of ASX Collateral is the accurate and timely mark to market of all collateral positions within the system. Customers must have confidence in the pricing and valuation process and the ASX Collateral solution delivers this.

ASX Collateral delivers a sophisticated price selection model to ensure that the most recent and accurate prices are applied to collateral valuations. To this end, prices are weighted according to predetermined quality criteria, tolerance checks are applied and price age is monitored.

For more information on ASX Collateral price selection and price control methodology, please click on this link http://www.asx.com.au/services/asx-collateral.htm

ASX Collateral will utilise pricing from a number of internationally recognized external information providers as well as allowing Customers to provide their own prices and apply those to nominated contracts.

If market prices are unavailable the Collateral Receiver can determine for individual issuer types, to have evaluated prices applied by default.

8.2.1. Valuation Method

The ASX Collateral Service will allow the Collateral Receiver to determine whether to use either the US or European valuation method to calculate the margined value of a security, if no preference is expressed, the system will apply the US valuation methodology by default.

8.2.2. European Valuations

Bonds

$$\text{Quantity} * \frac{[\text{Market Price} + \text{Accrued Interest}]}{[100 + \text{Margin}]} * \text{Valuation Factor}$$

Equities

$$\text{Quantity} * \frac{[\text{Market Price}]}{[100+\text{Margin}]/100}$$

8.2.3. US Valuations

Bonds

$$\text{Quantity} * \frac{[\text{Market Price} + \text{Accrued Interest}]}{100} * \frac{[100-\text{Margin}]}{100} * \text{Valuation Factor}$$

Equities

$$\text{Quantity} * \text{Market Price} * \frac{[100- \text{Margin}]}{100}$$

8.2.4. External Collateral Valuation Parameters

The Collateral Receiver can determine whether external collateral valuation parameters (prices and/or margins) should be applied. An external valuation can replace the default valuation provided by ASX Collateral as the neutral collateral agent or it can be given priority over ASX's valuation.

This means that the user can choose to only use the external price and use an older price when no new price is available or to use external price source first but ASX collateral pricing if no new price is available from the external price source.

8.2.5. Dirty vs. Clean Pricing

The Collateral Receiver can determine whether they wish to apply dirty or clean prices to the collateral valuation parameters.

The Clean Price is the Bond Price without Accrued Interest.

The Dirty Price is the Clean Price + Accrued Interest.

8.2.6. Margins (Hair Cuts)

Incremental margins can be applied per asset class, by credit rating or by price age

8.2.6.1. Bonds

Margins on bonds can be applied as a function of rating. Additional margins can be applied to bonds with an evaluated price, if such prices are eligible, at issuer type level.

Dynamic margins for bonds can be applied on price quotation age, alongside a price age ceiling. These margins will apply cumulatively, on top of those imposed on rating and evaluated prices

8.2.6.2. Bond Credit Ratings

The Collateral Receiver can select eligible Credit Ratings and indicate a % margin and minimum time to maturity, if applicable.

8.2.6.3. Dynamic Margin And Price Quotation Age

The Collateral Receiver can also dynamically determine additional margin to be added to a Collateral Valuation based on the age of the price available.

For more information on the ASX Collateral default valuation methodology please contact ASX Business Development.

Corporate Actions

One of the many innovative services offered by ASX Collateral is the management of Corporate Actions on assets held as collateral and the allocation of entitlements derived from them.

A key principal of a TRS or TCMS is that the Collateral Giver retains the economic benefit of the securities allocated as collateral. It is the Collateral Giver, therefore, who is entitled to all income and corporate action proceeds accruing on the collateral securities.

Under current processes in the Australian market, there is a significant operational burden to Customers when it comes to managing corporate actions on assets that have been used as collateral. Issuers, who are responsible for paying the entitlements, only have visibility via a Record Date Holders Report of who has the asset in their account in Austraclear or CHESS on record date. This current view does not take into account who is entitled to the economic benefits of the assets.

Sell Buy Back transactions involving settlement of coupons or other corporate action entitlements at time of exposure close out are not supported by the ASX Collateral service. ASX Collateral will, in all transactions accrue and pay the entitlement on date due to the original Gollateral Giver only.

9.1. ASX Collateral Corporate Actions Service

ASX Collateral offers Customers a multi-faceted solution that seeks to reduce the operational burdens of reconciling corporate action entitlements and the need to reclaim corporate action payments for both Collateral Givers and Collateral Receivers.

It also seeks to mitigate the impacts on Issuers by ensuring that they are in receipt of the correct information for payment of entitlements on Payment Date.

9.1.1. Manufactured Record Date Holders Report – Austraclear

ASX Collateral will use functionality within the ASX Collateral system to create a 'Manufactured Record Date Holders Report' in Austraclear that will be sent to Issuers. This report takes information from the existing Austraclear Record Date Holders Report and overlays it with information from ASX Collateral to identify the Customer entitled to the economic benefit.

Even where assets have been re-used across a number of bilateral arrangements, the ASX Collateral system will be able to identify the Customer entitled to the payment on record date.

The 'Manufactured' report will provide the same details as the original Record Date Holders Report but will provide the Issuer with the payment details of the Customer who is legally (pursuant to the Principal Agreement in existence between the two parties) entitled to the benefit.

By managing the complexity of corporate actions for collateral assets on behalf of the Customer, ASX Collateral will deliver a value added service to tri-party collateral arrangements.

9.1.2. Collateral Substitution due to Corporate Actions

ASX Collateral will monitor assets held in CHESS (when such functionality becomes available in the later phase) on a daily basis to identify upcoming voluntary corporate actions and will seek to exclude the impacted assets from being eligible as collateral.

When an event is identified, the asset will be flagged as ineligible during the ASX Collateral overnight process and as part of the first BAO cycle the following day, ASX Collateral will seek to substitute out the asset from the Collateral Receiver's Collateral Account and replace it with another asset from the Collateral Giver's Collateral Source Account.

In line with ASX Collateral's substitution methodology, detailed earlier in this guide, any proposed substitutions will always adhere to the Collateral Receiver's eligibility criteria and concentration limits, and where possible, ensure that the Collateral Giver's allocation priorities are respected. It should be noted however, that Collateral Giver's allocation priorities may be set aside in order to ensure a successful substitution.

Reporting

The reporting suite for ASX Collateral will consist of:

- New collateral specific reports generated via the ASX Collateral system and delivered to Customers via **ASXOnline**.
- Existing Austraclear reports augmented to include the new Collateral Accounts (see section 10.3).

It should be noted that the examples provided in this document are for illustrative purposes and the final versions of these reports may differ in format.

10.1. ASXOnline User Access

ASX Collateral Customers will be able to access their ASX Collateral reporting via the ASX Online Market Information portal at http://www.asxonline.com.au or https://www.asxonline.com/Marketinfo/Login using valid login credentials.

Initially, each organisation will have to identify a primary ASX Online user to associate with the ASX Collateral service who will act as the account administrator.

Subsequent to successful subscription, Customers will be able to manually download required reports, or automatically download reports using the ASX supported Java application.

Administrator login credentials are provided by ASX, however if additional assistance is required while trying to login, please contact Market Information via the following email: Marketdata.Admin@asx.com.au.

10.1.1. Manual Browsing Access

Users will be able to access reports through the following URL – https://www.asxonline.com/Marketinfo/Login

Once logged on, a folder for each subscribed product will be displayed on the left; this may include a range of market data products as well as the ASX Collateral files. Users can either have the ASX Collateral product added to an existing ASX Online Market Information account or have a dedicated account created for their convenience.

The top level folder contains the file for the current day, and the subfolder entitled "History" contains files for the previous 90 business days. Clicking the files presents the user with a choice to either download the file or open it in an associated application (e.g. Adobe Acrobat Reader for PDF files).

10.1.2. Automatic Data Access (for downloading)

Users of this service can automatically download the ASX Collateral Report files using the java application available on ASX Online. Supporting documentation on how this can be done is available through: https://www.asxonline.com/marketinfo/help.shtm#a3.

Connection details need to be added to the configuration file, entitled ami.ini

- Products to be downloaded, as well as the destination all files are to be downloaded to, need to be added to the file entitled products.ini
- The java app may then be scheduled to run at any time.

Once a new file becomes available on the site it will be downloaded to the location stipulated in the products.ini file.

By using the ASX Online automatic data access function, ASX Collateral users will be able to automate the delivery of intraday exposure updates to their systems, thus reducing the need for manual intervention to update positions.

For further technical details, including templates and report formats, please refer to ASX Collateral User Guide, Part 2: Exposure Management and Reporting.

10.2. Daily and Intraday Exposure Reports

The Intraday Exposure Reports provide Collateral Receivers and Collateral Givers with details of their outstanding exposures and lists the allocated collateral per exposure throughout the business day.

The reports provide exposure details, including margin deficits / excesses and all allocated collateral broken down by service.

10.2.1. Intraday Collateral Exposure Statements (XML)

The MT569 Collateral and Exposure Statement provided to both Collateral Givers and Collateral Receivers is based on the SWIFT standard MT569 statement format.

The statement is structured to combine the summary and detailed daily exposure report for Customers in their role as either Collateral Giver or Collateral Receiver. A statement will be produced for each role, so a Customer who acts in the capacity of both a Collateral Giver and Receiver can expect to receive two MT569 statements.

The MT569 statement is produced at hourly intervals throughout the business day and Customers can import the file in XML format from ASX Online to update their Collateral Positions.

The MT569 will only be available in XML format.

10.2.2. Daily Summary Exposure Report (PDF)

The Summary Daily Exposure Report is a report available for both Collateral Receivers and Collateral Givers and provides a summary of ASX Collateral activity with a breakdown per service type.

In addition, it provides details of open exposures against all counterparties and the net exposure and collateral allocated against each of them.

The report only considers and shows the exposures with a status "In-flight" or "Closing" in the calculations, exposures with statuses of "Pending" or "Cancelled" will not be included.

The specification below will provide details of the fields for this report as well as the PDF format.

This report will be available at end of day and the delivery mechanism will be PDF.

Figure 26 – Example Collateral Giver Daily Summary Exposure Report

Daily Summary Exposure Report
ASX CLEARING CORPORATION LIMITED
ASXCORP
ASXC20
Collateral Giver
End of Day

Total Exposure: ALL

Total Exposure Amount:	181,000,000.00	No. of Exposures:	1	Reporting Currency:	AUD
Total Collateral Required:	181,017,356.16	Average Exposure Amount:	181,000,000.00		
Total Collateral Value:	181,017,357.51	Average Duration:			
Own Collateral:	181,017,357.51	Actual Margin:	+0.00%		
Reused Collateral:	0.00				
Collateral Balance:	+1.35				

Service Type: TRS

Total Exposure Amount:	181,000,000.00	No. of Exposures:	1	Reporting Currency:	AUD
Total Collateral Required:	181,017,356.16	Average Exposure Amount:	181,000,000.00		
Total Collateral Value:	181,017,357.51	Average Duration:			
Own Collateral:	181,017,357.51	Actual Margin:	+0.00%		
Reused Collateral:	0.00				
Collateral Balance:	+1.35				

Collateral Giver:	ASXCORP	Total Exposure Amount:	181,000,000.00	Total Collateral Required:	181,017,356.16	Total Collateral Value:	181,017,357.51
Collateral Receiver:	RBA	Collateral Balance:	+1.35	Actual Margin:	+0.00%	No. of Exposures:	1
Basket Reference:	ASX MARGIN	ASX Collateral Account:	RBA10	Austraclear Account:	RBAA20-CARBAL002		

ASX Exposure Reference	Customer Exposure Reference	Opening Date	Closing Date	Currency	Exposure Amount	Collateral Required	Collateral Value	Collateral Balance	Rate	Status	Actual Margin
297696	Termation test	26 Sep 2013	OPEN	AUD	181,000,000.00	181,017,356.16	181,017,357.51	+1.35	3.50	In-Flight	+0.00%

10.2.3. Daily Detailed Exposure Report

The Detailed Daily Exposure Report will be broken down by counterparty and exposure type and will be provide the user with information regarding their exposures, broken down by counterparty and by service.

The report will provide details of the collateral allocated to an exposure at an ISIN level. Providing information on rating, quantity, price and any margins applied.

The report will be similar in format for both a Collateral Giver and a Collateral Receiver; however, the source account information for collateral will only be available on the Collateral Giver's report.

Figure 27 – Example Collateral Giver Daily Detailed Exposure Report

Daily Detailed Exposure Report
ASX CLEARING CORPORATION LIMITED
ASXCORP
ASXC20
Collateral Giver
End of Day

ASX

Exposure Type:	TRS	**ASX Exposure Reference:**	297696	**Customer Exposure Reference:**	Termation test	**Exposure Amount:**	181,000,000.00
Collateral Giver:	ASXCORP	**Collateral Required:**	181,138,849.29	**Collateral Value:**	181,138,850.81	**Collateral Balance:**	+1.52
Collateral Receiver:	RBA	**Status:**	In-Flight	**Opening Date:**	26 Sep 2013	**Closing Date:**	07 Oct 2013
Basket Reference:	ASX MARGIN	**Currency:**	AUD	**Rate:**	3.500000	**Actual Margin:**	+0.00%
Collateral Account:	RBA10	**Reporting Currency:**	AUD				

Collateral Held - Securities

Collateral Source Account	ISIN	Security Name	Maturity Date	Composite Rating	Currency	Face Value / Quantity	Accrued Interest	Market Price	Margin %	Marginal Value	Collateral Value
ACC01	AU0000XCLWM5	AUD 5.75 AUSTRALIAN GOVT 07-2021	15-May-2021	AAA LT	AUD	33,107,000.00	408,664.53	116.32	2.00	37,756,383.17	37,756,383.17
ACC01	AU3FN0017943	AUD FL.R RBK.NEDERLAND AU (RN2037) 13-2014	21-Feb-2014	A-1+ ST	AUD	35,000,000.00	0.00	100.00	2.00	34,313,725.49	34,313,725.49
ACC01	AU3TB0000036	AUD 4.50 AUSTRALIAN GOVT 09-2020	15-Apr-2020	AAA LT	AUD	7,000.00	93.81	107.84	2.00	7,400.80	7,400.80
ACC01	AU3TB0000051	AUD 5.75 AUSTRALIAN GOVT 10-2022	15-Jul-2022	AAA LT	AUD	4,000.00	11.25	115.50	2.00	4,529.46	4,529.46
ACC01	AU3TB0000069	AUD 5.50 AUSTRALIAN GOVT 10-2013	15-Dec-2013	AAA LT	AUD	50,680,000.00	365,560.41	101.81	2.00	50,584,756.88	50,584,756.88
ACC01	AU3TB0000077	AUD 4.75 AUSTRALIAN GOVT 10-2016	15-Jun-2016	AAA LT	AUD	50,639,000.00	315,456.16	106.62	2.00	52,934,113.88	52,934,113.88
ACC01	AU3TB0000101	AUD 5.50 AUSTRALIAN GOVT 11-2023	21-Apr-2023	AAA LT	AUD	3,846,000.00	59,528.93	116.28	2.00	4,384,357.57	4,384,357.57
ACC01	AU3TB0000143	AUD 2.75 AUSTRALIAN GOVT (137) 12-2024	21-Apr-2024	AAA LT	AUD	1,238,000.00	9,580.97	90.79	2.00	1,101,903.83	1,101,903.83
ACC01	AU3TB0000150	AUD 3.25 AUSTRALIAN GOVT 12-2029	21-Apr-2029	AAA LT	AUD	59,000.00	539.62	89.34	2.00	51,679.73	51,679.73

10.2.4. Collateral Shortage Report (PDF)

Where the ASX Collateral system is unable to complete a substitution due to insufficient collateral, either in the form of securities or cash being available in a Customer's Source or Collateral Accounts, the Customer will see an under collateralised position in ASXCOL+. To augment this and aid the Customer in expediently managing any collateral short positions, ASX Collateral will produce a 'Collateral Shortage Report' and send it to the Customer.

This report will be provided to Collateral Givers on an intra-day basis, every 2 hours, providing information on collateral activities and positions that have not been fully processed during that day due to a lack of eligible collateral in the Collateral Giver's accounts. This could be due to any number of events, including partially covered trades and substituted positions.

Note: Collateral Shortage Report to become available by the end of 2013

Figure 28 – Example Collateral Giver Detailed Daily Exposure Report

ASX Collateral Management Collateral Shortage Report
Bank of Somewhere Ltd, Sydney
ASXCOL Ref: BANKB
Austraclear Ref: ABCD20

ASX AUSTRALIAN SECURITIES EXCHANGE

Report Date: 22/11/2012 09:00

Partially Opened Repo

Exposure Ref No.	Collateral Giver	Collateral Receiver	Collateral Account	Composite Rating	Basket Number	Closing Date	Status	Rate	Undelivered Principal
543210	BANKB	BANKA	12345	TRS	CB-GC1	30/11/2012	In-Flight	1.00	48,000,000.00

Under Collateralised Trades

Exposure Ref No.	Collateral Giver	Collateral Receiver	Collateral Account	Composite Rating	Basket Number	Closing Date	Status	Under Collateralised Value	Contract Under Collateralised Value
594120	BANKB	BANKA	12345	TRS	CB-GC1	-	In-Flight	44,893,685.31	54,626,119.25
594121	BANKB	BANKA	12345	TRS	CB-GC1	-	In-Flight	295,783.01	54,626,119.25

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10.2.5. Intraday Forecast Report (PDF)

The intraday Forecast Reports can be utilised by Collateral Givers who have an Auto Assign agreement in place with ASX Collateral and it will give a view of potential trading capacity against each counterparty.

The report provides an intraday snapshot indication (every four hours) of all the securities which are available at a given moment and their respective collateral value against each counterparty.

The report takes into account the eligibility and concentration profiles set by the relevant Collateral Receivers and includes pending ASX Collateral management and securities settlement instructions. ASX Collateral Customers can choose to include or exclude unmatched securities settlement instructions.

The report will breakdown the forecast by showing the total collateral value of securities currently available in the User's own source accounts towards the particular counterparty, as well as showing the value of all collateral held both in the source account and any collateral accounts that are eligible.

Note: Intraday Forecast Report to become available by the end of 2013

Figure 29 – Example Forecast Report

ASX Collateral Management Service Forecast Report

ASX

ASX Collateral User Full Name: Bank of Somewhere Ltd, Sydney
Collateral Giver Participant ID: BANKB
Collateral Giver Settlement ID: ABCD20
Reporting Currency: AUD

Report Generated: 17/09/2012 08:15

Collateral Held - Securities

Business Date	Collateral Receiver	Eligibility Basket	ISIN	Security Name	Instrument Type	ASX Composite Rating	CCY	Eligible Amount	Allocated Amount	Allocatable Amount	Collateral Source Account
18/09/2012	BANKA	GC1-MKT	AU3TB0000044	AUSTRALIA (COMMONWEALTH OF) 4.75 11/15/2012	Sovereign Bond	AAA	AUD	52,157,277.00	0.00	52,157,277.00	54321
18/09/2012	BANKC	PS1-MKT	AU3CB0177673	BNZ INTERNATIONAL FUNDING LTD 6.25 14/06/2013	Corporate Bond	AAA	AUD	10,350,256.00	0.00	10,350,256.00	54321
18/09/2012	BANKD	GC1-MKT	AU3TB0000077	AUSTRALIA (COMMONWEALTH OF) 5.25 03/15/2019	Sovereign Bond	AAA	AUD	15,000,000.00	14,000,000.00	1,000.000.00	BANKB4BD
19/09/2012	BANKA	GC1-MKT	AU3TB0000044	AUSTRALIA (COMMONWEALTH OF) 4.75 11/15/2012	Sovereign Bond	AAA	AUD	52,157,277.00	0.00	52,157,277.00	54321
19/09/2012	BANKC	PS1-MKT	AU3CB0177673	BNZ INTERNATIONAL FUNDING LTD 6.25 14/06/2013	Corporate Bond	AAA	AUD	15,350,256.00	0.00	15,350,256.00	54321
19/09/2012	BANKD	GC1-MKT	AU3TB0000077	AUSTRALIA (COMMONWEALTH OF) 5.25 03/15/2019	Sovereign Bond	AAA	AUD	15,000,000.00	0.00	15,000.000.00	BANKB4BD

Page 1 of 2 ASX Collateral Issued on 23 August 2012

10.3. Existing Settlement Systems Reports and User Interfaces

As well as the new reports direct from the ASX Collateral system, Customers will also be able to access new and existing reports from Austraclear and CHESS to support their collateral management business.

Further details, along with report examples, can be found in ASX Collateral User Guide, Part 2: Exposure Management and Reporting.

10.3.1. Austraclear

As part of the overall ASX Collateral service, Austraclear will be enhanced to specifically identify collateral accounts, transactions and movements.

Austraclear users who are utilising the ASX Collateral service will be able to run queries and reports in Austraclear to identify and return data specific to their collateral transactions.

10.3.1.1. Swift MT535 Holdings Message

The SWIFT MT535 Statement of Holdings is available to ASX Collateral Customers on an intraday, interim and end of day basis and will provide users with details of all collateral holdings across their sub accounts.

Tag 97A will contain the sub Customer and Sub Account details which will allow users, as Collateral Receivers to identify the collateral holdings they have.

It will also allow Collateral Givers to identify any pledged assets they have in designated pledge sub-accounts held under their sub-participant code.

For more details regarding the SWIFT MT535 format please refer to the ASX Austraclear SWIFT Message Protocols available here: http://www.asx.com.au/documents/professionals/austraclear_system_swift_message_protocols.pdf

10.3.1.2. Austraclear GUI Enquiry Functionality

Austraclear already has extensive GUI functionality that allows users to search for trades and holdings using a number of different attributes. These interfaces will be enhanced to include attributes specific to ASX Collateral, to allow users to isolate and query on transactions and holding that have been generated from the ASX Collateral system.

This section of the guide will provide an overview of how users can use the Austraclear screens to manage their collateral transactions, settlements and holdings.

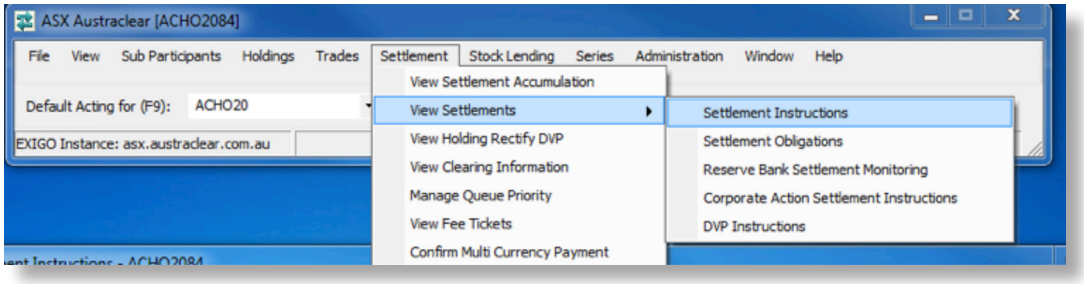
As with all Austraclear GUI enquiries, the returned data can be exported to excel via CSV, by right clicking on the screen and selecting 'Export to Excel'.

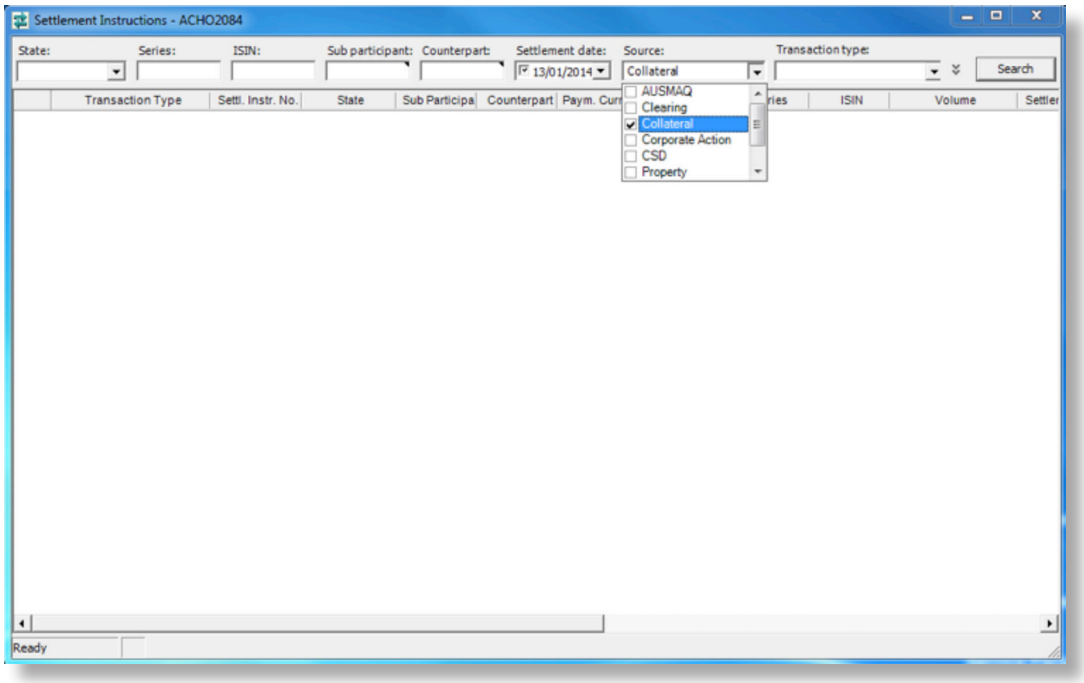
10.3.1.3. Settlement Instructions

Users will be able to monitor collateral transactions via Austraclear using the Austraclear View Settlement Instructions GUI.

By filtering on the Collateral transaction types (see below), users can view the transactions for given settlement dates or by Counterparty.

Figure 30 – Austraclear View Settlement Instructions GUI





10.3.1.4. Settlements Instructions

As part of the ASX Collateral service, the ASX Collateral system will be required to automatically create and generate security and cash instructions to Austraclear. These may be in relation to such events as automatically assigned collateral, top ups, withdrawals or substitutions that have been proposed by an automated Batch Asset Optimisation cycle.

ASX Collateral will immediately send the instructions to Austraclear upon completion of the Batch Asset Optimisation cycle. The settlement instructions will be in MT54x format for security instructions and MT202 for Cash instructions and will contain information required to create corresponding settlement instructions in Austraclear. e.g. Customer, Accounts, Securities/Cash movements and Transaction types.

Austraclear will create Settlement Instructions based on the security/cash movements specified in the request.

Settlement Instructions created by ASX Collateral will be created as authorised in the Settlement System.

10.3.1.5. Identifying New Settlement Instructions

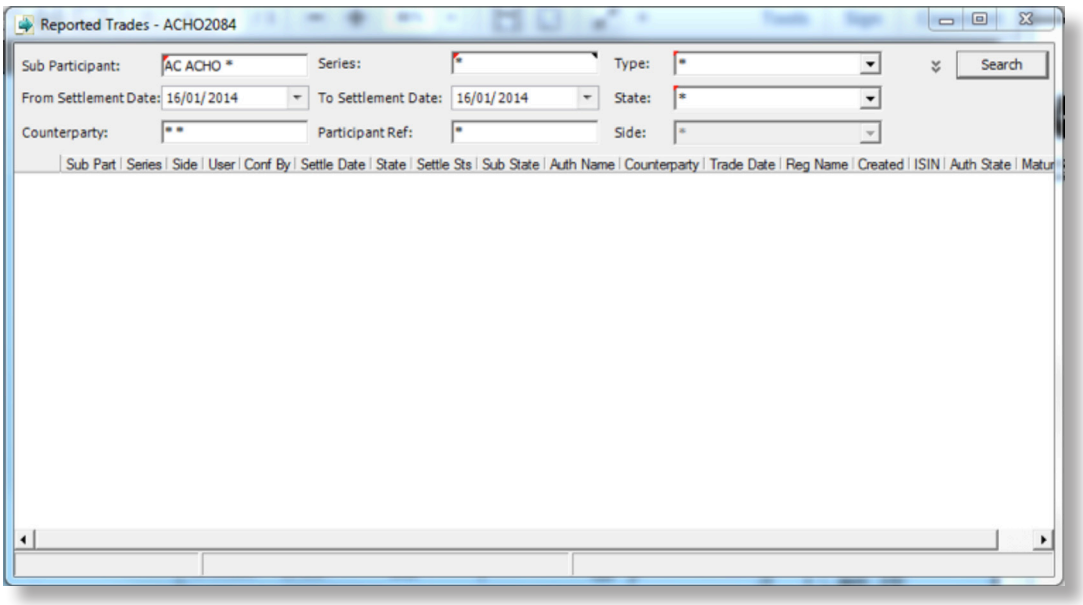
In order to ensure that settlement instructions created and generated by the ASX Collateral system can be distinguished from settlement instructions raised directly by the Customer, a new source and new transaction types have been created.

All automatically created settlement instructions originating from the ASX Collateral system will have the source set to "Collateral", such that six new transaction types will be introduced:

- Collateral Security Transfer
- Collateral Cash transfer
- Collateral Repo 1st leg
- Collateral Repo 2nd leg
- Collateral Intraday Repo 1st leg
- Collateral Intraday Repo 2nd leg

The Transaction types will be added in the Austraclear GUI grids and in dropdowns using Transaction Type as search criteria in View Settlement Instruction.

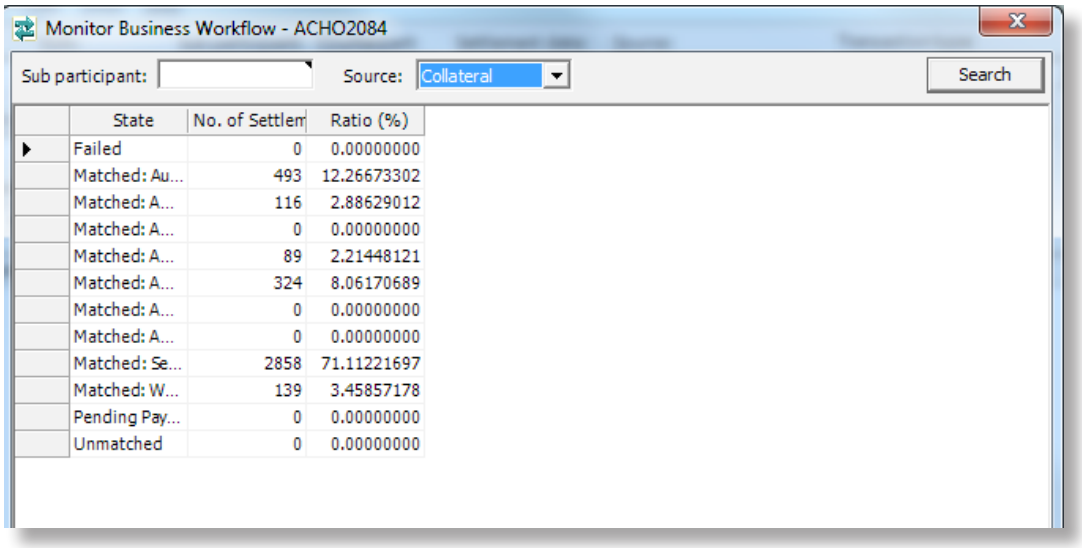
Figure 31 – Austraclear View Settlement Instructions GUI



10.3.1.6. Customer Monitoring of Austraclear Settlement Instructions

Settlement Instructions from the ASX Collateral system can also be monitored in the Monitor Business Workflow with Source 'Collateral' as search criteria.

Figure 32 – Austraclear Monitor Workflow GUI



State	No. of Settlem	Ratio (%)
Failed	0	0.00000000
Matched: Au...	493	12.26673302
Matched: A...	116	2.88629012
Matched: A...	0	0.00000000
Matched: A...	89	2.21448121
Matched: A...	324	8.06170689
Matched: A...	0	0.00000000
Matched: A...	0	0.00000000
Matched: Se...	2858	71.11221697
Matched: W...	139	3.45857178
Pending Pay...	0	0.00000000
Unmatched	0	0.00000000

10.3.1.7. Viewing Collateral Giver's Collateralised Holdings

A new Collateralised Holdings view will be created in Austraclear. In this view, Customers will be able to query data regarding the volume of securities received from Collateral Source Accounts, delivered to Collateral Accounts and pending security movements.

10.3.1.8. Corporate Actions Issuer Representative's Collateralised Holdings Report

The new report is called Issuer Representatives Collateralised Holdings report and will be similar to the existing Issuer Representative's Holding report.

The ASX Collateral system will provide Austraclear with ISIN, Sub Participant and Volume. Austraclear will then source the remaining required data from the Austraclear system.

The new report Issuer Representative's Collateralised Holdings should be generated in the batch DayEnd and AfterBusiness, in line with current holding reports from Austraclear.

The Issuer Representatives Collateralised Holdings report is to be created in PDF format only in line with current holding reports from Austraclear.

Events Of Default

A Collateral Giver or Collateral Receiver may notify the Collateral Manager that its counterparty is in default under the principal agreement between them. This notification must be made using the form provided as Appendix D of the Collateral Management Services Agreement.

The Collateral Manager is entitled to take a notice of default at face value and to take action in response to the notice without verifying its contents (other than validating the authorised signatories who have signed the notice).

11.1. Notification of a Default Under the Principal Agreement

A notice of default will only be accepted by the Collateral Manager in the approved template. This notification must be made using the form provided as Appendix D of the Collateral Management Services Agreement.

A notice of default can be given to the Collateral Manager by:

- Delivery
- Post
- Email
- Fax

The CMSA sets out the rules that apply to the giving of notices, including default notices.

11.2. Collateral Giver in Default

If a Collateral Receiver gives notice to the Collateral Manager that the Collateral Giver is in default under the principal agreement, then:

- To the extent permitted by law, the Collateral Manager will act on any instructions in the default notice from the Collateral Receiver to move the relevant collateral from the Collateral Account to an account of the Collateral Receiver.
- Otherwise, activity in respect of the collateral obligations for the impacted exposure(s) including intraday collateral movements will be suspended as soon as possible
- The Collateral Manager will seek to notify the Collateral Giver and Collateral Receiver that this action has been taken.
- The Collateral Manager will otherwise act consistently with the relevant terms of the CMSA, which provide in general terms that it will act consistently with instructions given under the CMSA if it considers that it is in a position to do so; it will act on matched instructions from the Collateral Giver and Collateral Receiver; and it will act on a court order.

11.3. Collateral Receiver in Default

If a Collateral Giver gives notice to the Collateral Manager that the Collateral Receiver is in default under the principal agreement, then:

- Activity in respect of the collateral obligations for the impacted exposure(s) including intraday collateral movements will be suspended as soon as possible.
- The Collateral Manager will seek to notify the Collateral Giver and Collateral Receiver that this action has been taken.
- The Collateral Manager will otherwise act consistently with the relevant terms of the CMSA, which provide in general terms that it will act consistently with instructions given under the CMSA if it considers that it is in a position to do so; it will act on matched instructions from the Collateral Giver and Collateral Receiver; and it will act on a court order.

11.4. Collateral Giver or Collateral Receiver in Breach of the Operating Rules

ASX Collateral may only be used by a Customer whose Participant status is not resigned, suspended or terminated, or subject to a condition restricting such use. One circumstance, in which a Customer's Participant status may be suspended or terminated, is where the Customer is in breach of the operating rules. This may be associated with a default under the principal agreement. In this event, the consequences can include:

- Termination of the CMSA by the Collateral Manager.
- A requirement that all collateral be removed from Collateral Accounts into ordinary trading accounts.

Appendix A – Hours of Operation

The ASX Collateral proposed hours of operation are designed to meet the needs of Customers whilst ensuring that market regulations and existing cut off times are adhered to.

In order to maximise the utility of the ASX Collateral Batch Asset Optimisation process for Customers using ASX Collateral, ASX will ensure sufficient processing time is allowed between the latest times it will accept a notification from a user and the closure off the Settlement Systems.

The proposed ASX Collateral Hours of Operation are detailed below and broken down by product to provide clarity as to how Customers can manage their repo and collateral obligations effectively.

Overall Hours of Operation

Customers who are identified as a '**Bank**' in Austraclear for cash settlement purposes will be able to actively manage their collateral positions and repo exposures between the hours of 07:00 and 18:00 (during Australian Eastern Standard time "AEST") or 20:00 (during Australian Daylight Savings Time "ADST") every business day. As with Austraclear, the timing is based on the time of year and the application of Australian Daylight Saving Time ("ADST).

In order to utilise the '**Bank**' cut off times both parties to the exposure must be identified as Banks in Austraclear, therefore, an exposure between a '**Bank**' and a '**Non-Bank**' will be subject to '**Non-Bank**' cut off times.

Note that 'Non-Bank' includes 'Banks' that are non evening approved.

Customers who are identified as a '**Non-Bank**' in Austraclear for cash settlement purposes will be able to actively manage their repo exposures between the hours of 07:00 and 16:00 every business day. For the collateral positions that are free of payment, users will be able to transact on their collateral accounts until 20:00 during Australian Daylight Saving Time and 18:00 throughout the rest of the year.

Users of ASX Collateral will be responsible for ensuring that all instructions relating to their collateral are received by ASX prior to these cut off times, in order to achieve settlement and ensure that their obligations are met.

Customers will also have the ability to connect to the ASX Collateral system via the Web Front End at any time between Monday 07:00 through until Saturday 16:00 to view and query their positions.

New Customers should allow a minimum of up to ten Business Days between the submission of their Customer Profile and the commencement of creating exposures in the ASX Collateral Management System. If an Austraclear Full Participant accounts needs to be established, this may impact on the time the service can be activated. Please contact your ASX Collateral Relationship Manager in the first instance for account creation.

Customers should allow up to 4 Business Days between the submission of a new or amended contract and should be aware that no new contract can be created by ASX Collateral unless completed forms are received from both counterparts, where applicable.

Customers who wish to amend their Eligibility profiles should allow up to 72 hours for updates to their profiles to take effect.

Summary of Operating Hours – ASX Collateral Service

Table 1 – Overall Hours of Operation for Banks

ACTION	VIA	FROM	TO
System Access	ASXCOL+	Mon 07:00	Sat 16:00
New Repo Instructions (DvP) involving 'Bank' to 'Bank' Counterparties	ASXCOL+	07:00 (Mon-Fri)	**AEST** 18:00 (Mon-Fri) **ADST** 20:00 (Mon-Fri)
New Repo Instructions (DvP) involving 'Non-Bank' Counterpart	ASXCOL+	07:00 (Mon-Fri)	16:00 (Mon-Fri) best effort after this time
New TCMS Instructions (FoP) All Counterparty Types	ASXCOL+	07:00 (Mon-Fri)	**AEST** 18:00 (Mon-Fri) **ADST** 20:00 (Mon-Fri)
Bank to Bank Settlements Optimisation Withdrawals Substitutions	ASXCOL+, ASX Collateral, Austraclear, CHESS	07:15 (Mon-Fri)	**AEST** 18:00 (Mon-Fri) **ADST** 20:00 (Mon-Fri)
Non-Bank Settlements Optimisation Withdrawals Substitutions	ASXCOL+, ASX Collateral, Austraclear, CHESS	07:15 (Mon-Fri)	16:00 (Mon-Fri) best effort after this time
New Customer Set Up	Email	09:00 (T-10)	16:00 (T-10)
New or Amended Contracts	Email	08:00 (T-4)	16:00 (T-4)
Change to Eligibility: **- Concentration limits** **- ISIN exclusions** **- Basket Changes** **- Margins** **- Haircuts**	Email	09:00 (T-3)	16:00 (T-3)
ASX Collateral Support	Phone / Email	08:30 (Mon-Fri)	17:00 (Mon-Fri)

Intra-Day TRS Cut Off Times

For intra-day repos, Customers can enter exposures from 07:00 each day; however, whilst the instructions can be confirmed and matched, any proposed settlement instructions will be queued until the Settlement Systems open at 07:15.

Once the Settlement Systems are open, ASX Collateral will propose delivery vs. payment settlement instructions based on agreed collateral eligibility for auto-assign and for specific securities for manual assign.

For exposures involving Bank to Bank settlement, a Customer can choose to close out their intra-day position at any time up until 18:00 during AEST and 20:00 during ADST for Banks.

Any renegotiation of terms for the intra-day repo must be submitted via ASXCOL+ by 18:00/20:00 on Trade Date.

For exposures involving a Non-Bank settlement, a Customer can choose to close out their intra-day position at any time up until 16:00. After this time it will be on a best efforts basis to allow matched settlement instructions to exist in Austraclear at 4:27pm for settlement to occur in Austraclear before the day session end at 5:15pm.

Any renegotiation of terms for the intra-day repo must be submitted via ASXCOL+ by 16:00 on Trade Date.

Intra-Day TRS Cut Off Times – Bank To Bank

TABLE 2 – INTRADAY REPOS – ASX COLLATERAL CUT OFF TIMES – BANK TO BANK

ACTION	VIA	CUT OFF TIMES
New Exposure[2]	ASXCOL+	AEST 18:00 ADST 20:00
Exposure Increase / Decrease	ASXCOL+	AEST 18:00 ADST 20:00
Close Out – Intra Day Repos	ASXCOL+	AEST 18:00 ADST 20:00
Change Close Date (Roll) – Intra Day Repos	ASXCOL+	AEST 18:00 ADST 20:00
Rate Change	ASXCOL+	AEST 18:00 ADST 20:00
Recall of Collateral for same day settlement (via ASXCOL+)	ASXCOL+	AEST 18:00 ADST 20:00
Authorise Cash Settlements	RITS	AEST 18:28 ADST 20:28

2 It is incumbent on Users to ensure they have sufficient time to open and close an intra-day repo in-line with Cut off Times.

Intra-Day TRS Cut Off Times – Non-Bank

Table 3 – Intraday Repos – ASX Collateral Cut Off Times – Non-Bank

ACTION	VIA	CUT OFF TIME
New Exposure[3]	ASXCOL+	16:00
Exposure Increase / Decrease	ASXCOL+	16:00
Close Out – Intra Day Repos	ASXCOL+	16:00
Authorise Cash Settlements	RITS	17:15
Change Close Date (Roll) – Intra Day Repos	ASXCOL+	16:00
Rate Change	ASXCOL+	16:00
Recall of Collateral for same day settlement (via ASXCOL+)	ASXCOL+	16:00

At Call (Market) TRS Cut Off Times

For At Call repos, Customers can enter exposures from 07:00 each day; however, whilst the instructions can be confirmed and matched, any proposed settlement instructions will be queued until the Settlement Systems open at 07:15.

Once the Settlement Systems are open, ASX Collateral will propose delivery vs. payment settlement instructions based on agreed collateral eligibility for auto-assign and for specific securities for manual assign.

For exposures involving Bank to Bank settlement, a Customer can choose to close out their at call position at any time up until 18:00 during AEST and 20:00 during ADST for Banks.

Any renegotiation of terms for the' at call' repo must be submitted via ASXCOL+ by 18:00/20:00.

For exposures involving a Non-Bank settlement, a Customer can choose to close out their at call position at any time up until 16:00.

Any renegotiation of terms for the 'at call' repo must be submitted via ASXCOL+ by 16:00 on Trade Date.

It should be noted that if users wish to set the close date of their at call repo for the next business day, any changes the wish to make to the exposure subsequent to this must be made in-line with the Cut Off Times for Term Repos (see below).

3 It is incumbent on Users to ensure they have sufficient time to open and close an intra-day repo in-line with Cut off Times.

At Call TRS Cut Off Times – Bank To Bank

Table 4 – At Call Repos – ASX Collateral Cut Off Times – Bank to Bank

ACTION	VIA	CUT OFF TIMES
New Exposure	ASXCOL+	**AEST** 18:00 **ADST** 20:00
Exposure Increase / Decrease	ASXCOL+	**AEST** 18:00 **ADST** 20:00
Close Out – At Call Repos	ASXCOL+	**AEST** 18:00 **ADST** 20:00
Set Close Date (Roll) – At Call Repos	ASXCOL+	**AEST** 18:00 **ADST** 20:00
Rate Change	ASXCOL+	**AEST** 18:00 **ADST** 20:00
Recall of Collateral for same day settlement (via ASXCOL+)	ASXCOL+	**AEST** 18:00 **ADST** 20:00
Authorise Cash Settlements	RITS	**AEST** 18:28 **ADST** 20:28

At Call TRS Cut Off Times – Non-Bank

Table 5 – At Call Repos – ASX Collateral Cut Off Times – Non-Bank

ACTION	VIA	CUT OFF TIME
New Exposure	ASXCOL+	16:00 Best effort only after this time
Exposure Increase / Decrease	ASXCOL+	16:00
Close Out	ASXCOL+	16:00
Authorise Cash Settlements	RITS	16:28
Set Close Date	ASXCOL+	16:00
Rate Change	ASXCOL+	16:00
Recall of Collateral for same day settlement (via ASXCOL+)	ASXCOL+	16:00

Term TRS Cut Off Times

For term repos, Customers can enter exposures from 07:00 each day; however theses instructions will be queued by the system until the Settlement Systems open at 07:15.

Once the Settlement Systems are open, ASX Collateral will propose delivery vs., payment settlement instructions based on agreed collateral eligibility for auto-assign and for specific securities for manual assign.

For all term repo exposures involving Bank to Bank settlement, a Customer can choose to amend the terms of the repo including changing the close out date of their position to the current business day, at any time prior to Settlement Date (SD) up until 18:00 during AEST and 20:00 during ADST on SD-1.

For all term repo exposures involving Non-Bank settlement, a Customer can choose to amend the terms of the repo at any time prior to Settlement Date (SD) up until 18:00 during AEST and 20:00 during ADST on SD-1.

NB. For Non-Bank Term Repos, if a user wishes to change the close out date of the position to the current business day, this must be received by 16:00

Authorisation of the cash settlement must be received in RITs by 16:28 on SD to ensure settlement.

Term TRS Cut Off Times – Bank To Bank

Table 6 – Term Repos – ASX Collateral Cut Off Times – Bank to Bank

ACTION	VIA	CUT OFF TIMES
New Exposure	ASXCOL+	**AEST** 18:00 **ADST** 20:00
Exposure Increase / Decrease	ASXCOL+	**AEST** 18:00 (SD-1) **ADST** 20:00 (SD-1)
Change Close Out Date to Current Day	ASXCOL+	**AEST** 18:00 **ADST** 20:00
Rate Change	ASXCOL+	**AEST** 18:00 (SD-1) **ADST** 20:00 (SD-1)
Recall of Collateral for same day settlement (via ASXCOL+)	ASXCOL+	**AEST** 18:00 **ADST** 20:00
Authorise Cash Settlements	RITS	**AEST** 18:28 (SD) **ADST** 20:28 (SD)

Term TRS Cut Off Times – Non-Bank

Table 7 – Term Repos Cut Off Times – Non Banks

ACTION	VIA	CUT OFF TIME
New Exposure	ASXCOL+	16:00
Exposure Increase / Decrease	ASXCOL+	16:00
Change Close Out Date to Current Day	ASXCOL+	16:00
Rate Change	ASXCOL+	16:00 (SD-1)
Recall of Collateral for same day settlement (via ASXCOL+)	ASXCOL+	16:00
Authorise Cash Settlements	RITS	16:28 (SD)

TCMS Cut Off Times

For Triparty Collateral Management Services (TCMS), Customers can enter exposures from 07:00 each day; however, whilst the instructions can be confirmed and matched, any proposed settlement instructions will be queued until the Settlement Systems open at 07:15.

Once the Settlement Systems are open, ASX Collateral will propose free of payment settlement instructions based on agreed collateral eligibility for auto-assign and for specific securities for manual assign.

For all TCMS exposures, a Customer can choose to close out their position at any time up until 18:00 during AEST and 20:00 during ADST for all Customers.

Any renegotiation of terms must be submitted via ASXCOL+ by 18:00/20:00 on Trade Date.

NB. Any instructions requiring the transfer of Cash must be received in line with the cash settlement capabilities of either party.

TCMS Cut Off Times – All

Table 8 – TCMS Cut Off Times – All users

ACTION	VIA	CUT OFF TIMES
New Exposure	ASXCOL+	**AEST** 18:00 **ADST** 20:00
Exposure Increase / Decrease	ASXCOL+	**AEST** 18:00 **ADST** 20:00
Close Out	ASXCOL+	**AEST** 18:00 **ADST** 20:00
Change Close Date	ASXCOL+	**AEST** 18:00 **ADST** 20:00
Recall of Collateral for same day settlement (via ASXCOL+)	ASXCOL+	**AEST** 18:00 **ADST** 20:00
Settlements **Optimisation** **Withdrawals** **Substitutions (non- Cash)**	ASXCOL+, ASX Collateral, Austraclear, CHESS	**AEST** 18:00 **ADST** 20:00

ASX Collateral Cut-Off Times and Austraclear Settlement Sessions

It should be noted that all ASX Collateral cut-off times are influenced by the relevant settlement sessions available in Austraclear by Participant types, Banks (RITS evening agreed) and Non-Banks (RITS non evening agreed) in Austraclear.

Austraclear's deadline for settlement instructions is 4:28pm for settlements to occur in Austraclear before the Austraclear day session end at 5:15pm. ASX Collateral correspondingly requests that, for same day instructions from customers where at least one party to a transaction is a Non-Bank and the transaction includes a payment leg through a delivery versus payment ("DvP") trade or clean cash payment instruction, these instructions must be with ASX Collateral by 4pm. Instructions received between 4pm and 4:28pm will dealt with on a best efforts basis.

Similarly, Bank to Bank instructions and all free of payment instructions involving Non-Banks must be submitted by 6pm (Winter time) or 8pm Summer time, must be submitted and accepted by ASX Collateral. Instructions received after this time will eb on best efforts basis.

Where instruction received late or because of delays associated with any ASX Collateral service or system outages, Austraclear settlement extension requests can be initiated by either Participants or ASX Collateral will request settlement extensions on behalf of Customers. ASX Collateral will, in requesting settlement extensions, do so in accordance with the RBA procedures and criteria.

Notes

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