Triparty Collateral Management Service (CmaX)

Product Guide
Foreword

Clearstream Banking launched the world’s first multi-currency Triparty Repo Service in September 1992 and has continued to launch innovative collateral management products and services to address the financing and secured investment needs of international traders and investors.

The range of customers using these services continues to grow and includes central and sovereign banks, securities lenders and borrowers, custodians, commercial banks, international broker-dealers and assets managers.

Clearstream Banking’s knowledge, experience and innovation is increasingly sought by major domestic institutions throughout the world either to guide them in the development of similar products to serve their local markets or to enter into a partnership to enhance the mobilisation of collateral.

This Product Guide contains information organised in the following chapters:

- 1. Overview on page 1-1;
- 2. Products and services on page 2-5;
- 4. Getting started on page 4-21;
- 5. Transaction life cycle on page 5-37;
- 6. Collateral reuse on page 6-47;
- 7. Collateral eligibility, price selection process, valuation and ratings on page 7-51;
- 8. Custody events and corporate actions on page 8-61;
- 9. Connectivity and customer reporting on page 9-67;
- 10. Event of Default on page 10-71;

A Glossary of terms is included at the end of this Guide.

Client services

The daily administration and operational aspects of Clearstream Banking’s Collateral Management Services are handled by a dedicated Collateral Management Services team in Luxembourg.

Assistance is directly available from the Collateral Management Desk, as follows:

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If you are interested in further information about any of our Global Securities Financing solutions, please contact our dedicated GSF team.

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1. Overview

Clearstream Banking launched the Collateral management eXchange (CmaX) system in October 2006. The CmaX application centralises all collateral management services, from straightforward repos to tailored reuse structures, on a single platform. 2009 witnessed an expansion into new asset classes, with the launch of our equities service, which, in 2010, was developed into a fully customised service at par with our fixed income capability.

Over the last years, Clearstream Banking has entered into partnerships with market infrastructures to enhance the mobilisation of collateral. This has enabled CmaX to source assets held at other locations together with assets held at Clearstream to be used as collateral within Clearstream’s triparty collateral management services. Partnerships have been made with providers of local custodian services as well as with Clearstream Banking Frankfurt. The latter has resulted, in 2017, in the launch of a single collateral management service which provides harmonisation as well as interoperability between the services offered by Clearstream Banking Luxembourg (CBL) and Clearstream Banking Frankfurt (CBF).

Collateral management umbrella

Clearstream Banking offers a complete range of services under its collateral management umbrella:

- **Triparty Repo Service (TRS)**
  
  For the settlement, collateralisation and maintenance of multicurrency repo transactions.
  
  Cash settlement and collateral management is based on delivery against payment (DVP) settlement.

- **Triparty Securities Lending Services (TSLS)**
  
  For the collateralisation and settlement of securities lending transactions.
  
  - TSLS1 - loan settlement, valuation and collateral management;
  
  - TSLS2 - loan valuation and collateral management.

- **Triparty Collateral Management Services (TCMS)**
  
  For the collateralisation of various exposures, such as bilateral cash loans, CSA, CSD and Central Counterparty (CCP) margining, central bank discount borrowing, securities lending transactions and management of initial margin exchange for uncleared derivatives etc.

- **General Collateral (GC) Services**
  
  For the management of electronic repo transactions, combining the CCP services of Eurex Clearing or LCH.Clearnet with Clearstream Banking’s collateral services.

- **Pledge to Central Banks**
  
  For collateral pledges in favour of central banks, to gain access to intraday or overnight liquidity, participate in tender operations, for risk management purposes etc.

- **CCP margining**
  
  For the collateralisation of member margin obligations with central counterparties.
Clearstream’s triparty collateral management services simplify the administration of various multi-currency agreements for both Collateral Receivers and Collateral Givers. These services aim to reduce the operational risks associated with such transactions by offering true delivery against payment or free of payment settlement and securities safekeeping and monitoring services.
### Role of Clearstream Banking

Clearstream Banking acts as Collateral Agent, fulfilling a facilitating role:

- Undertaking administrative functions, thus reducing cost and workload for customers;
- Providing a fully documented and neutral service;
- Ensuring reduced risk through independent agency services;
- Providing a secure environment.

<table>
<thead>
<tr>
<th>Core features</th>
<th>Added-value services</th>
</tr>
</thead>
<tbody>
<tr>
<td>- True delivery against payment (TRS and TLS1) and free of payment settlement (T2LS2, TCMS, pledge to central banks and GC services)</td>
<td>- Proactive counterparty introduction service, whereby carefully selected counterparties are introduced to one another</td>
</tr>
<tr>
<td>- Use of sophisticated Auto-Assign (AA Facility, which automatically selects and allocates securities to triparty transactions)</td>
<td>- A “state-of-the-art” Collateral Reuse service, enabling Collateral Givers to reuse securities received in triparty transactions</td>
</tr>
<tr>
<td>- Unlimited substitution facilities (DVP)</td>
<td>- Flexible, customer-defined eligibility profiles, concentration limits and margins</td>
</tr>
<tr>
<td>- Pre-record date substitutions of taxable securities for AA customers</td>
<td>- A wide range of communication options, including SWIFT, secure email, CreationOnline and CreationDirect</td>
</tr>
<tr>
<td>- Daily mark-to-market and detailed daily valuation reports by transaction and by net exposure</td>
<td>- Flexible cash management options</td>
</tr>
<tr>
<td>- Proactive margin calls for customers that have subscribed to the AA facility</td>
<td>- A multi-asset class capability</td>
</tr>
</tbody>
</table>

1. Exception is made for securities lending and borrowing offering services where substitutions are processed via SFOP.

Figure 1-2. CmaX core features and added value services
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2. Products and services

Triparty Repo Service (TRS)

The Triparty Repo Service offered by CBL is designed to simplify the process of administering multicurrency repurchase agreements for both Collateral Receivers and Collateral Givers. Furthermore, operational risks are reduced through an effective delivery against payment settlement process and a comprehensive securities safekeeping service.

Collateral received in connection with a triparty repo exposure is monitored and marked-to-market on a daily basis to ensure that collateral margin requirements are maintained.

When the trade notifications have been validated and matched, the collateral eligibility check is performed. Based on this eligibility check, CBL generates delivery against payment instructions to transfer the collateral against its cash countervalue from the Collateral Giver’s account to the collateral account in favour of the Collateral Receiver.

The Triparty Repo Service supports both fixed and floating rate repo transactions.

Figure 2-1. Triparty Repo Service (TRS)
Floating rate repo

Triparty trades that are priced on a floating rate basis can be pegged to one of the following money market benchmarks:

- EONIA
- RONIA
- LIBOR Overnight (EUR, GBP, USD)
- LIBOR SpotNext (CHF, JPY)
- SONIA

Repo transactions linked to overnight benchmark rates are subject to a provisional intraday interest accrual calculation based on the previous day’s benchmark rate value. The provisional calculation will apply from trade opening until the reference rate is updated. CmaX will then retroactively recalculate the applicable interest amounts and adjust the collateral amount calculation accordingly.

Flexible interest payments

Counterparties to a repo trade may agree to settle interest payments at regular intervals during the life of a transaction. This should be communicated to CBL via matching notifications, along with the agreed periodicity of interest payments (daily, weekly, fortnightly, monthly, quarterly, semi-annually or annually) and/or a list of ad-hoc payment dates. The interest payment schedule can subsequently be updated as required during the trade life cycle.

For information on the cash management process for Collateral Receivers, please refer to "Cash management options for Collateral Receivers" on page 4–28.
Triparty Securities Lending Services (TSLS)

Clearstream offers two triparty securities lending services, giving customers the choice between settling the underlying loan within CBL’s triparty framework (TSLS1) or settling the loan externally (TSLS2). Collateral management and loan valuation are common to both services.

Triparty Securities Lending Service 1 (TSLS1)

TSLS1 is a comprehensive service that provides complete settlement and valuation of a securities loan as well as the related collateral management for the duration of the trade.

Simultaneous exchange of the loan principal against collateral enables settlement of both sides of the transaction, thus reducing risk and increasing efficiency.

The collateral is allocated to a special segregated account (the collateral account) and marked-to-market daily. Detailed and comprehensive reporting is sent to both counterparties.

**Note:** As the loan principal will be simultaneously exchanged against collateral, the loan securities must be delivered to the Collateral Receiver’s main account in CBL.

The process is illustrated below:

![Diagram of TSLS1](image)

**Figure 2-2. Triparty Securities Lending Service 1 (TSLS1)**

1. Loan securities are transferred against a cash amount, equal to the value of the loan, from the Collateral Receiver’s account to the Collateral Giver’s account.
2. The collateral securities are transferred to the collateral account in favour of the Collateral Receiver against an equal amount of cash.
3. The resulting cash position is transferred from the Collateral Receiver’s account to the collateral account.
Triparty Securities Lending Service 2 (TSLS2)

TSLS2 provides collateral management services and valuation, but not settlement, of loan securities to customers that want to settle the loan securities on a bilateral basis.

The details of the loan securities must be provided to CBL for valuation purposes. The collateral and the loan securities are marked to market on a daily basis and margin calls performed if required.

Collateral is delivered form the Collateral Giver’s account to the collateral account in favour of the Collateral Receiver.

Settlement of the collateral is free of payment.

Figure 2-3. Triparty Securities Lending Service 2 (TSLS2)

Note: If the Collateral Giver and Collateral Receiver decide to settle the collateral free of payment within CBL’s TSLS service, they must ensure that the loan settles in the correct sequence because the transfer of the loan and the collateral are not processed at the same time.

Triparty Collateral Management Service (TCMS)

TCMS simplifies collateral administration for both Collateral Receivers and Collateral Givers. The service can be used to cover various types of principal agreements that the counterparties may have entered into, such as:

- Bilateral cash loans;
- ISDA/CSA margining including initial margin segregation;
- Collateralisation for central bank credit and liquidity programmes;¹
- Collateralisation for CCP member margin requirements;²
- Collateralisation of securities lending transactions etc.

¹ The participation and setup requirements for the Deutsche Bundesbank are set out in the Guidelines for accessing Eurosystem liquidity via Deutsche Bundesbank.
² The participation and setup requirements for the Eurex Clearing members are set out in the Guidelines for the Eurex Margining service.
Collateral is delivered from the Collateral Giver’s account to the collateral account, free of payment. Clearstream performs a daily mark-to-market of the collateral securities and instructs margin calls to keep the collateral value in line with the underlying exposure. The participants must communicate, through matching notices, any change in the value of the principal.
General Collateral (GC) services

GC Pooling

GC Pooling combines anonymous electronic trading on the Eurex Repo platform with the Central Counterparty (CCP) service of Eurex Clearing and Clearstream’s fully automated collateral management and settlement services\(^1\). Collateral received can be reused for further GC Pooling trades or for onward pledges to the German Central Bank\(^2\).

The life cycle of a GC Pooling trade is illustrated in the figure below:

![Figure 2-5. GC Pooling life cycle](image)

1. Participants execute a GC Pooling trade on Eurex Repo;
2. Eurex Repo submits the trading data to Eurex Clearing, which acts as Central Counterparty (CCP);
3. Eurex Clearing sends standard clearing reports to the banks;
4. Eurex Repo produces a trade slip for the parties involved;
5. Eurex Clearing performs netting (optional) and shaping of trades and submits the resulting settlement instructions to Clearstream;
6. The Clearstream Collateral Management Systems, Xemac and CmaX, collateralise the (net) exposures with one of the following standardised baskets: EGCP and EGCPX (comprising ECB-eligible securities), GCPINTMXQ, GCPEquity or GCPCTD\(^3\);

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\(^1\) For further information about participation and setup requirements for the service, please refer to the Guidelines for accessing GC Pooling market liquidity on the Clearstream website.

\(^2\) Excluding GCPCTD basket.

\(^3\) The GCPEquity and GCPCTD baskets can be traded in EUR only; the EGCP, EGCPX and GCPINTMXQ baskets can be traded in EUR, USD and CHF.
7. The cash is settled in central bank money with the Deutsche Bundesbank (Euro GC Pooling) or in commercial bank money in Creation (USD and CHF GC Pooling). Securities settle in CASCADE and/or Creation. Settlement reports are produced;
8. Eurex Clearing performs the risk management, which is supported by the Xemac system.

**Settlement**

Two dedicated collateral accounts will be opened in Creation for GC Pooling settlement:
- Collateral reservation account, containing assets to be allocated in GC Pooling (Collateral Giver activity);
- Collateral segregation account, containing assets received via GC Pooling (Collateral Receiver activity).

A dedicated cash account and an RTGS account are required for GC Pooling activity.

The account structure and settlement process are illustrated in the figure below:

![Figure 2-6. Account structure and settlement process for GC Pooling](image)

**Note:** CBF customers can combine their assets held in the CBF settlement platform CASCADE with any assets held in Creation to form a single collateral pool.

Euro GC Pooling trades are settled in central bank money with the Deutsche Bundesbank in CBF. For customers without access to the CBF infrastructure, CBL will provide cash settlement on their behalf.

The funding of Euro GC Pooling trade cash legs can be done in central bank money through a RTGS account or in commercial bank money through a Creation account. Cash funding in commercial bank money in EUR is allowed under certain conditions.

USD and CHF GC Pooling trades are settled in commercial bank money in Creation. Trades resulting in net sales (purchases) of securities will lead to a cash credit (debit) in the customer’s dedicated Creation cash account.

**Note:** The collateral valuation of eligible securities conforms to the rules defined by the ECB [for example, haircuts and prices].

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1. Please refer to the specific funding deadlines for Euro GC Pooling trades, indicated in Appendix A. If purchases of securities are not funded on time, Clearstream cannot guarantee settlement.
CmaX

LCH.Clearnet €GC service

The €GC service combines electronic repo trading with RepoClear’s Central Counterparty (CCP) service and Clearstream’s fully automated collateral management and settlement services.

The €GC service comprises a range of €GC country baskets and the following multimarket GC baskets:

- RepoClear €GC AAA Euro Government Bond Basket;
- RepoClear €GC AA Euro Government Bond Basket;

Collateral received as a result of €GC transactions will be available for reuse within Clearstream.

The process is illustrated below:

1. Participants execute a €GC Repo trade either bilaterally, using an Automated Trading System (ATS), or via a voice broker (ECTMS).
2. The trade is sent to LCH.Clearnet S.A., which acts as Central Counterparty (CCP) and netting agent, through RepoClear.
3. RepoClear produces a trade acceptance message for the parties involved and notifies Clearstream of the net exposures.
4. Netting results in one movement per participant per €GC basket per day. Repo interest is netted by payment date and by participant in respect of all closing trades.
5. Clearstream’s CmaX performs the collateralisation (checks collateral eligibility; values and allocates securities).
6. Relevant reporting is sent by LCH [trade and position reports; margin reports; netting reports] and by Clearstream [matching; positions; settlement reports].
Collateral pledge to central banks

Collateral pledge to the Deutsche Bundesbank

Clearstream acts as an intermediary for international customers, allowing them to pledge assets in favour of the German central bank. International customers who subscribe to this service must meet the Deutsche Bundesbank’s eligibility criteria, including having an account with the Bundesbank and a branch in Germany.

As a result of the link between Clearstream’s two collateral management systems - CmaX in Luxembourg and Xemac in Frankfurt - customers can set collateral aside in CBL to be used solely by Xemac. In addition to their own assets, customers can reuse assets received through Euro GC Pooling to pledge to the Bundesbank.

The following two accounts can be set up, creating a single pool of collateral:

- Collateral reservation account, containing own assets to be pledged to the Bundesbank (or to collateralise Euro GC Pooling trades);
- Collateral segregation account, containing assets received via Euro GC Pooling.

![Diagram of collateral pledge to the Deutsche Bundesbank]

1. Upon receipt of the Collateral Giver’s notification, Clearstream automatically allocates collateral from a basket of ECB-eligible securities in favour of the Bundesbank.

2. On behalf of the counterparty, Clearstream informs the Bundesbank of the global amount to be booked to the counterparty’s collateral account. This global amount comprises the aggregated lending values of the securities held by the counterparty in Xemac and pledged in favour of the Bundesbank.

3. The cash is settled directly in central bank money.

Note: CBF customers can combine their assets held in CASCADE with any assets held in Creation to form a single pool of collateral.
Collateral pledge to the Banque centrale du Luxembourg (BcL)

Customers can pledge ECB-eligible assets to the Banque centrale du Luxembourg (BcL) via Clearstream to access Eurosystem liquidity. Participation requirements include adherence to the BcL general terms and conditions of operations and, in particular, to the BcL criteria for participation in monetary policy operations.\(^1\)

Clearstream provides end-to-end collateral management and settlement services, comprising all the features included in the general triparty product offering: daily mark-to-market, automatic margin calls, unlimited collateral substitutions and handling of custody events. The BcL’s eligibility and valuation criteria are applied at all stages of the process.

The domestic collateral management process is outlined below:

1. The Bank in Luxembourg (Collateral Giver) advises both BcL (via SWIFT MT527) and Clearstream of the amount of collateral to be pledged via triparty collateral management services.
2. To initiate a new exposure or adjust an existing exposure with a counterparty, the BcL sends Clearstream an instruction mentioning the global amount to be collateralised.
3. Upon matching, Clearstream’s AutoAssign facility checks collateral eligibility and accordingly generates free of payment settlement instructions to transfer securities from the Collateral Giver’s account to the collateral account, in favour of the BcL.
4. Clearstream confirms the collateralisation status to the Bank in Luxembourg (via SWIFT MT558, CreationDirect or CreationOnline) and to the BcL (via SWIFT MT558).

The credit extension is administered bilaterally by BcL once the exposure has been adequately collateralised.

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\(^1\) For further information about participation requirements, as well as details on the BcL’s intraday credit and standing facilities, please refer to their website at [www.bcl.lu](http://www.bcl.lu).
Collateral pledge to the BcL: Cross-border triparty collateral management service via Correspondent Central Bank Model (CCBM)

Cross-border triparty services via the CCBM, implemented by the Eurosystem, enhance counterparty access to Eurosystem liquidity, leveraging the ECB-eligible collateral issued in other countries on a cross-border basis.

Under Triparty CCBM, there are two so-called “models”, as follows:

- **Domestic Model**
  BcL continues to act as National Central Bank (NCB) for Luxembourg-based participants and provides access to Eurosystem liquidity via Clearstream.

- **Cross-Border Model**
  As a complement to the Domestic Model, BcL can also act as Correspondent Central Bank (CCB) in the name and on behalf of the Home Central Bank (HCB), granting liquidity against collateral pledged by the participants of the HCB country.

Participation requirements for cross-border triparty collateral management include adherence of the HCB to the respective participants’ general terms and conditions of operations.¹

Clearstream provides end-to-end collateral management and settlement services, comprising all the features included in the general triparty product offering: daily mark-to-market, automatic margin calls, unlimited collateral substitutions and handling of custody events. Depending on the model, the eligibility and valuation criteria of BcL or of the respective HCB are applied at all stages of the process.

The cross-border triparty collateral management process is outlined below:

![Diagram of cross-border triparty collateral pledge](image)

**Figure 2-10. Cross-border Collateral Pledge to Banque centrale du Luxembourg acting as CCB**

¹ For further information about participation requirements, please refer to the HCB website.
During the processing of the triparty collateral management services, any cash proceeds resulting from capital redemption events (that is, final redemption, early redemption and pool factor, excluding coupon) that affect the eligible collateral posted by the Collateral Giver and leading to an exposure deficit coverage under the CMSA will be transferred to a specific TARGET2 account on behalf of BcL, as per the recommendations of the Eurosystem. This process is in line with the operating timelines of TARGET2 by Clearstream.

Clearstream shall not be responsible for the compliance or non-compliance of the collateral with the collateral use criteria (that is, close links or concentration limits) set by ECB. The monitoring and compliance of the collateral with the collateral use criteria shall be the sole responsibility of the Collateral Giver.

Collateral pledge to the U.S. Federal Reserve

U.S. depository institutions, as well as U.S. agencies and branches of foreign banks that meet the eligibility requirements of the Federal Reserve (Fed), can pledge collateral through Clearstream in favour of the Fed to access credit facilities, through the Discount Window framework.  

Clearstream acts as a neutral agent, facilitating access to the Fed’s liquidity through a complete collateral management service. CBL will check collateral eligibility, value and allocate collateral in accordance with the exposure communicated, mark the securities to market daily, perform automatic margin calls and substitutions and handle corporate actions.

---

1. For further information about the Federal Reserve’s liquidity services, please refer to their website at www.federalreserve.gov.
The process is outlined below:

1. Upon receipt of the Collateral Giver’s notification, Clearstream automatically selects eligible collateral and generates free of payment settlement instructions in favour of the Fed’s collateral account. No matching notification from the Fed is required.

2. Clearstream sends detailed reporting on securities holdings to the Fed, on the basis of which the Fed will extend credit bilaterally to the Collateral Giver.

3. On a daily basis, the Collateral Giver can send an instruction to adjust the exposure. In the case of an increase in exposure, no matching notification from the Fed is required, but any decrease in exposure must be pre-approved by the Fed via a matching instruction.

**Central Counterparty (CCP) margining**

Clearing members can collateralise their exposures towards Central Counterparties (CCPs) under Luxembourg Law via Clearstream’s Triparty Collateral Management Services.

CmaX, acting as collateral location, enables clearing members to cover initial margin requirements for centrally cleared derivatives using the triparty collateral management model.

The collateralisation of exposures in favour of CCPs is performed under TCMS in AutoAssign mode\(^1\).

On a daily basis, the Collateral Giver can send an instruction to adjust the Collateral Amount Required\(^2\) via all CBL communication channels.

---

1. The participation and setup requirements for Eurex Clearing are set out in the Guidelines for the Eurex Margining service.
2. In the case of a decrease in the collateral amount required, an authorisation request is systematically submitted to the CCP. The CCP’s reply can be either an authorisation or a denial.
The process is illustrated below:

**Figure 2-12. Central Counterparty (CCP) margining**

1. Initial Margin Requirement
2. Exposure Notification
3. Exposure coverage (AutoAssign)
4. Exposure coverage status
3. Links to electronic trading platforms

CBL has established partnerships with leading automated repo trading platforms, 360T and Bloomberg, opening new routes to liquidity for customers. The service offers straight-through communication of transaction information from the point of trade execution/affirmation directly to CBL’s integrated collateral and risk management infrastructure.

360T

CBL and 360T Trading Networks AG are cooperating in the delivery of a streamlined, fully automated triparty repo solution. Using 360T’s sophisticated electronic trading platform, cash providers can request quotes for a given currency and required collateral basket combination from a multitude of potential Collateral Givers with “one click”. Once a quote is hit, it is immediately transmitted to CBL’s Liquidity Hub that ensures collateralisation, optimisation and substitution in a secure and efficient triparty environment.

Through the integration of 360T and CBL’s platforms, traders get immediate feedback on the status of their trades and successful settlement in CBL’s Liquidity Hub.

Figure 3-1. CBL’s partnership with 360T – Trading
Bloomberg

The link between CBL’s Global Liquidity Hub and Bloomberg’s Professional Service offers customers faster and easier access to triparty repo through an automated order routing service.

Counterparties to a triparty repo transaction can initiate and execute the trade directly from their Bloomberg terminal, where it can be affirmed through Bloomberg VCON, indicating CBL as triparty agent. Bloomberg will automatically send the trade ticket to CBL via SWIFT MT527, on behalf of the collateral taker, thereby removing the need for additional connectivity.

CBL will match this SWIFT message with the corresponding message from the Collateral Giver and proceed to automatically handle the allocation, substitution and optimisation of collateral with real-time reporting.

1. The counterparties execute the trade bilaterally.
2. Trade affirmation takes place through Bloomberg VCON matching and allocation functionality.
3. Bloomberg sends an MT527 message automatically to CBL communicating the trade initiation on behalf of the Collateral Receiver.
4. The Collateral Giver sends a corresponding MT527 that CBL will match with the Collateral Receiver’s message before proceeding to process and collateralise the trade.

Figure 3-2. Triparty Repo Service (TRS)
4. Getting started

Documentation

To facilitate the account opening process, the requirement to have a triparty contract in place per underlying bilateral relationship has been replaced by a single service agreement per customer, signed bilaterally with CBL. As detailed below, a list of all accepted counterparties (with whom it is assumed that a bilateral contract is in place) will be added as an appendix.

Legal agreements

Collateral Givers and Collateral Receivers must provide an executed copy of the service agreements\(^1\), as appropriate:

- Collateral Management Service Agreement (CMSA) for Collateral Givers; and/or\(^2\)
- Collateral Management Service Agreement (CMSA) for Collateral Receivers.

The services provided by CBL under the CMSA are independent of the provisions and obligations of the respective parties under the principal agreement and do not require the Collateral Giver and/or Collateral Receiver to be principal[s] under, or a party to, the relevant principal agreement in relation to which the services pursuant to the CMSA are provided. Therefore the Collateral Giver and/or Collateral Receiver may enter into the relevant CMSA on behalf, or as representative of, the respective principals under the principal agreement. This does however not affect the role, position and responsibilities of the Collateral Giver and Collateral Receiver as sole principals under the respective CMSA.

Note: Customers with a Transaction Bank Agreement must indicate this in the relevant section of Appendix A to the CMSA. By signing this Appendix, the customer acknowledges that all relevant collateral management reporting will be disclosed to both the counterparty and the Transaction Bank.

Collateral Givers and Collateral Receivers must provide the following, as appropriate:

- Appendix A: Counterparty acceptance list and collateral eligibility criteria.
  The counterparties with which Collateral Receivers want to set up a triparty relationship must be listed in this document\(^3\), as well as the service type and the applicable collateral eligibility criteria.
- AutoAssign Supplement (Collateral Giver only)
  This is a bilateral agreement between the Collateral Giver and CBL that authorises the automatic selection of securities from the Collateral Giver’s account.
- Signed Indemnity Letter for CBL’s Global Securities Financing Services
  This document enables Collateral Receivers and Collateral Givers to receive reports via email.
- Completed Triparty Collateral Management Customer Operational Profile
  This document, which must be completed by any Collateral Receiver and Collateral Giver and sent to CBL’s Global Securities Financing specialists, enables CBL to obtain key information from both counterparties to set up customer operational preferences and facilitate the account opening process.

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1. Covering all CBL Triparty Collateral Management Services (TRS, TLS1, TLS2, TCMS), including the collateral reuse functionality.
2. Customers that want to benefit from the reuse functionality are required to execute both agreements.
3. If the holder of the Collateral Giver’s source account is a different entity from the Collateral Giver, then the names and contact details of both entities must be listed in Appendix A.
Principal agreements

When exposure instructions are received for processing in CmaX, CBL assumes that the appropriate bilateral principal market agreement has been executed between the operating parties. The setting up of such an agreement is within the sole responsibility of the counterparties. The principal agreements can include:

- Global Master Repurchase Agreement (GMRA);
- Clearstream Repurchase Conditions (CRC);
- Clearstream Pledge Conditions (CPC);
- European Master Agreement (EMA);
- Association du Forex et des Trésoriers de Banques (AFTB);
- Rahmenvertrag für echte Pensionsgeschäfte (REPOS);
- Overseas Securities Lending Agreement (OSLA);
- Global Master Securities Lending Agreement (GMSLA);
- ISDA Clearstream Collateral Transfer Agreement (CTA);
- ISDA Clearstream Security Agreement;
- ISDA Credit Support Annex (English Transfer of title).

Clearstream Repurchase Conditions (CRC)

The CRCs represent a simpler version of other industry master repurchase agreements available on the market. The CRCs target “plain vanilla” triparty repo only and forms a unique link to our CMSA, tying it to Clearstream’s triparty environment.

New triparty entrants, in particular corporates and non-banks, can take advantage of the new agreement to shorten time to market and achieve one-stop counterparty access. If two counterparties under the CRC want to extend their relationship to other forms of repo (Bilateral/Classic or Buy and Sell back), they can enter into an Industry Master Repurchase Agreement and terminate the CRC.

The CRCs are governed under Luxembourg law and are dedicated to collateral transactions that are managed in the CBL triparty environment. Due to the multilateral nature of the contract, customers only need to sign the CRCs once and have immediate access to all counterparties under the CRCs. Customers are also required to send CBL an executed copy of Appendix E.

Clearstream Pledge Conditions (CPC)

The CPCs are made available by CBL to its customers to facilitate compliance with margin posting requirements on derivatives transactions, as well as other bilateral pledge arrangements including posting and/or receiving haircuts under pledge for repo transactions.

The CPCs are governed under Luxembourg law and are dedicated to collateral transactions that are managed in the CBL triparty environment. Customers who choose to sign the CPCs bilaterally with one or more counterparties are required send CBL an executed copy of Appendix E.
ISDA Clearstream Collateral Transfer Agreement (CTA)

The CTA governs transfers of margin in the context of uncleared OTC derivatives transactions concluded under English law ISDA master agreements and/or New York law ISDA master agreements.

This is an agreement drawn up in cooperation with ISDA, which can be entered into bilaterally between the counterparties as an alternative to the ISDA Credit Support Deed (CSD) to provide initial margin (IM) in connection with the ISDA master framework agreement. The CTA contains substantially the same terms as the ISDA CSD, but is adapted to reflect the CBL triparty mechanics set out in the CMSA. Counterparties who enter into the Clearstream CTA are also required to send CBL an executed copy of Appendix E.

ISDA Clearstream Security Agreement

The Clearstream Security Agreement is designed to be used in conjunction with the ISDA master framework agreement and the Clearstream CTA either under English or New York law.

The Clearstream CTA and Security Agreement jointly establish the credit support relationship between the parties to the main framework agreement, that is, the ISDA Agreement.

The Agreement is governed by Luxembourg law and is entered into bilaterally by the counterparties. Counterparties who sign the Clearstream Security Agreement are also required to send CBL an executed copy of Appendix E.

Account structure

Both the Collateral Receiver and the Collateral Giver are required to have a CBL account. Collateral accounts are opened by CBL upon receipt of Appendix A or B to the Collateral Management Service Agreements (CMSAs), duly signed or notified by SWIFT message in accordance with the CMSAs. Collateral accounts are set up in accordance with the Customer Operational Profile (Appendix D to the CMSAs).

Collateral accounts fall into two categories:

- Transfer of title structures - the Collateral Receiver is the collateral account holder;
- Pledge structures - the Collateral Giver is the collateral account holder.

Note: In pledge structures it is the Collateral Giver who, as legal owner of the securities throughout the trade life cycle, must submit the relevant tax certification forms.

1. Collateral Givers using only External sourcing are also required to open a central account with CBL.
Flexible account setup for Collateral Receivers

Triparty collateral accounts can be freely structured according to the Collateral Receiver’s own objectives. By choosing to aggregate all the collateral received from their triparty activity into a reduced number of collateral accounts, they can ensure segregation along business lines, simplify reconciliation and facilitate the tax exemption process.

Figure 4-1 compares the following options, available to Collateral Receivers.

One account per counterparty

<table>
<thead>
<tr>
<th>Collateral Giver</th>
<th>Basket 1</th>
<th>Collateral Receiver - Account 1</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Basket 2</td>
<td></td>
</tr>
</tbody>
</table>

One account per Triparty service

<table>
<thead>
<tr>
<th>Collateral Giver</th>
<th>TRS</th>
<th>Collateral Receiver - Account 1</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TCMS</td>
<td>Collateral Receiver - Account 2</td>
</tr>
</tbody>
</table>

One collateral account per eligibility basket

<table>
<thead>
<tr>
<th>Collateral Giver</th>
<th>Basket 1</th>
<th>Collateral Receiver - Account 1</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Basket 2</td>
<td>Collateral Receiver - Account 2</td>
</tr>
</tbody>
</table>

Figure 4-1. Flexible account setup for Collateral Receivers
Multiple collateral source account option for Collateral Givers

Collateral Givers that have subscribed to AutoAssign can define and prioritise multiple proprietary accounts within CBL as collateral source accounts to collateralise different exposure types automatically. For this setup it is required to define a new account as a central account, following the example in Figure 4-2 below. Through this configuration, the customer will have the option to either give the same priority to all source accounts or to give a [specific] priority to the source accounts.

If the same priority is given to [all] accounts, AutoAssign will select the collateral across the different accounts. If different priorities have been defined by the customer, AutoAssign will first select the collateral from source accounts with priority 1 after which collateral will be selected with priority 2 followed by priority 3 etc.

A standing internal cash book transfer instruction can be set up such that CmaX will automatically perform the book transfer between the central account and the customer’s main account, either at the opening or at the closing of the exposure.

External Sourcing

Domestic assets\(^1\) held with CBF or local agent banks\(^2\) can be leveraged for collateral purposes in CBL’s triparty collateral management service without impacting domestic clearing and settlement processes and the chosen local custody solution. By defining their account(s) with CBF and/or with partnering

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1. External Sourcing supports Fixed Income, Equities as well as ETF’s. The service does not support cash.
2. External Sourcing from accounts with local agent banks is made possible through Clearstream’s Liquidity Hub Connect Service.
custodian banks as a source account, customers can pool assets held at these locations together with their assets held at CBL to be used as collateral within Clearstream’s triparty collateral management services.

Upon subscription to the service, CBF and/or partnering custodian banks will provide full details of the customer’s locally held assets to CBL. CmaX can then select assets out of the account(s) at CBF and/or the custodian bank and send the necessary settlement instructions to transfer the assets to CBL’s sub-custodian by which they can be used for collateral management.

Customers subscribing to External Sourcing are required to provide an executed Power of Attorney (POA) as well as an executed copy of Appendix F to CBL.

**Note:** External Sourcing is only available for customers that have subscribed to Auto Assign.

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**Figure 4-3. External Sourcing from an account at a local custodian and an account at CBF**

For further information about eligible markets, setup requirements and service details, please contact your GSF Sales and Relationship representative (see ”Client services” on page -i.

---
Specific collateral source account structure for Collateral Givers

Collateral Givers have the option of implementing one or more specific collateral source account structures, so as to better control the flows of collateral allocation and target them to meet specific business structures or needs.

This option enables customers to define specific source accounts per contract, “earmarking” them for allocation to specific collateral accounts. This “one-to-one” account structure complements the multiple source account option described in the previous section, thus offering customers full flexibility to tailor the collateralisation process to their requirements.

**Note:** If multiple collateral source accounts are being used, the Collateral Giver will be required to open a Central account with CBL.
Cash management options for Collateral Receivers

Collateral Receivers can define their cash management profile in Appendix D of the CMSA Agreement.

- Customers with a CBL main or cash account:
  At the opening of a triparty repo transaction, Collateral Receivers provision their main or cash account with CBL. CBL will generate an internal transfer of funds to debit the Collateral Receiver’s main CBL account and credit the related collateral account.
  In case of a positive repo interest rate, at the closing of a triparty repo transaction, CBL will debit the repo principal amount plus interest from the Collateral Giver’s source account and credit the collateral account. In case of a negative repo interest rate, at the closing of a triparty repo transaction, CBL will debit the repo principal amount minus interest from the Collateral Giver’s account and credit the collateral account.
  Upon transaction closing, CBL will generate a payment instruction to transfer the resulting cash proceeds to the Collateral Receiver’s main or cash account with CBL.

- Customers with no CBL account:
  At the opening of a triparty repo transaction, Collateral Receivers instruct their cash correspondent bank (CCB) for the relevant currency\(^1\) to transfer the cash value of the transaction to CBL’s CCB for that currency in favour of the related collateral account. CBL will automatically generate the pre-advice of entry of funds on behalf of the Collateral Receiver to the collateral account.
  Subject to specific conditions, customers can set up a direct transfer between their collateral accounts and their CCB account(s) so that the funds and repo interest are transferred to the CCB at the closing of a triparty repo transaction.

Cash shaping functionality

Collateral Receivers have the option of “shaping” their cash instructions for DVP triparty trades. This functionality enables cash instructions to be split into ‘shapes’, or fractions of the total cash amount, which settle as cash becomes available throughout the day, thus smoothing the settlement process.

In Appendix D of the CMSA, Collateral Receivers can indicate whether they wish to implement the shaping functionality and, if so, for which currencies. The minimum possible shape per currency is 50 million.

Example: The following example illustrates the initiation of a triparty repo trade with an exposure amount of EUR 150 million. The Collateral Receiver has opted for a maximum shape size of 50 million for EUR cash instructions.

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1. For cash transfers in EUR, Collateral Receivers must credit Clearstream’s TARGET 2 account at the Banque centrale du Luxembourg.
The Collateral Receiver funds the collateral account via an automatic transfer of cash from his Clearstream cash account in three shapes of 50 million. Should only 120 million be available upon trade initiation, two shapes of 50 million will settle immediately, enabling partial settlement of the trade, with the final shape settling upon receipt of the remaining 30 million.

Upon closing of the trade, the Collateral Receiver can choose to bundle principal and interest together in a single payment to his cash account, or opt for two separate cash movements. This will be taken into account in conjunction with the shaping functionality.

Note: If a customer has opted for collateral re-use, any cash shaping option selected under his Collateral Receiver profile will also apply to his activity as Collateral Giver.

**Umbrella credit and collateral facilities**

Collateral Receivers are required to set up an umbrella credit and collateral structure, with the benefit of simplified and more efficient cash and collateral management.

Triparty accounts are linked to Clearstream source account(s), forming a consolidated pool of collateral that can be used to secure customers’ credit lines, thus easing credit usage both for triparty and settlement activity. In addition, sharing credit lines across multiple accounts contributes to the timely settlement of triparty trades, and smoothes out intraday discrepancies resulting from different currency deadlines.

**Figure 4-5** indicates the five possible account structures available to Collateral Receivers to define the role of each account in the umbrella facility.

Each account is defined as a function of the following attributes:

- Whether it can use collateral from the shared collateral pool;
- Whether it contributes collateral to the pool; and
- Whether it shares the umbrella credit line(s).

<table>
<thead>
<tr>
<th>Account option</th>
<th>Use shared collateral pool</th>
<th>Contribute collateral to the pool</th>
<th>Share credit line(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>2</td>
<td>✓</td>
<td>-</td>
<td>✓</td>
</tr>
<tr>
<td>3</td>
<td>-</td>
<td>-</td>
<td>✓</td>
</tr>
<tr>
<td>4</td>
<td>✓</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5</td>
<td>✓</td>
<td>✓</td>
<td>-</td>
</tr>
</tbody>
</table>

**Figure 4-5. Umbrella credit and collateral facility**
For further information on setting up an umbrella credit and collateral structure, please contact your CBL Relationship Officer.

Collateral allocation options for Collateral Givers

CBL offers the possibility of processing collateral selection in either of the following modes:

- AutoAssign (AA) mode;
- Manual mode.

AutoAssign (AA) mode

Collateral Pool

In the CMSA, Collateral Givers can specify which account(s) form part of their eligible collateral pool for allocation in triparty. They can also assign a selection sequence to determine the order of priority for sourcing collateral from each account and, in the case of reuse, the order for sourcing own versus received collateral.

All eligible assets held in the specified accounts will be considered for collateral allocation, with the following exceptions:

- Securities marked for pending delivery eligible for settlement;
- Securities prioritised for Bridge delivery;
- Securities subject to certain upcoming income events and corporate actions (see “Custody events and corporate actions” on page 8-61 for further information);
- Receipt instructions with status “on hold”.

Receipt and delivery instructions that are “linked” to one or more other instructions will only be taken into account by AutoAssign after the successful settlement of all linked instructions.

Characteristics

Clearstream’s extended real-time settlement window runs between 21:30 CET on SD-1 and 20:05 CET on SD. The AutoAssign module runs continuously during this period (between 22:30 on SD-1 and 19:45 on SD).

- All initiations of new triparty exposures are treated in real time, upon receipt of matching instructions from both counterparties.
- Collateral is automatically selected from the Collateral Giver’s collateral pool according to the eligibility profile defined by the Collateral Receiver.
- In the event of a partial opening, a collateral swap (substitution of collateral between collateral accounts) is triggered immediately, to attempt to fully cover all exposures.
- Collateral swaps are initiated to facilitate substitutions or to reduce or eliminate (partial) fails. A swap is triggered provided that differences in eligibility profiles between a Collateral Giver’s counterparties create the opportunity for a three-way substitution. All securities movements are DVP.

The following operations are triggered three times per hour, generating settlement instructions:

- Substitutions (DVP) are triggered to meet settlement deliveries or to reimburse borrowed positions incurred through Clearstream’s Automated Securities Lending and Borrowing Service.

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1. The order of priority for sourcing own versus received collateral is determined by the customer in his Customer Operational Profile.
2. The system will not trigger any automatic substitutions to meet delivery instructions that are “on hold”.
3. Exception is made for securities lending and borrowing offering services where substitutions are processed via SFOP.
• A mark-to-market of collateral (and loan) securities automatically triggers margin calls in response to any updates in security prices.

• In advance of a number of custody events and/or corporate actions, subject to certain conditions, substitutions are triggered in order to facilitate the reconciliation process.

Collateral selection order

Default allocation order

When selecting collateral to cover a triparty exposure, AutoAssign allocates collateral in ascending order of quality, in accordance with the predefined sequence shown in Figure 4-6 below:

Collateral pool

The customer can define a flexible ordering of all source and collateral accounts in the Customer Operational Profile.

Instrument type

1. Structured securities
2. Investment funds
3. Convertible bonds
4. Equities
5. Corporate bonds
6. Agency bonds
7. Sovereign bonds

Security rating

From lowest [NR] to highest [AAA] quality

Figure 4-6. AutoAssign default collateral allocation order

This allocation order will ensure that, while the eligibility profile defined by the Collateral Receiver is respected throughout the duration of the trade, the Collateral Giver’s portfolio of securities is deployed in an efficient manner and the possibility of fails on future transactions is reduced. If the customer has enabled the External Sourcing from their account(s) with CBF, the same asset can be held in a source account with CBL and in a source account with CBF. In this situation AutoAssign will allocate for the purpose of settlement efficiency, the position which is already in the settlement system of CBL.1

1. Assets allocated through External Sourcing from a local custodian are always considered to be in the settlement system of CBL.
**Default withdrawal order**

When withdrawing collateral back to the Collateral Giver’s account of origin, AutoAssign applies the reverse of the allocation order, thus 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.

The withdrawal sequence is illustrated in [Figure 4-7](#) below.

![Figure 4-7. AutoAssign default collateral withdrawal order](#)

If the customer has enabled the External Sourcing from its account(s) with CBF, the same asset can have been allocated by Auto Assign from a source account with CBL and in a source account with CBF. In this situation Auto Assign will withdraw for the purpose of settlement efficiency, the position which had been allocated from a source account with CBL.¹

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¹ Assets allocated through External Sourcing from a local custodian are always considered to be in the settlement system of CBL.
Customised allocation order

Collateral Givers can opt to customise the AutoAssign allocation ordering in accordance with their business needs. This option gives customers the tools to minimise funding costs and enables a closer control over asset portfolios.

The customised ordering is set up at participant level and applies to all the triparty activity across counterparties, eligibility profiles and transactions. Collateral Givers can define their customised allocation order on the basis of the criteria shown in Figure 4-8 below.

Collateral pool
The customer can define a flexible ordering of all source and collateral accounts in the Customer Operational Profile.

Basket first

Combined criteria

Security rating
From lowest to highest

Basket last

Figure 4-8. AutoAssign customised collateral allocation order

The combined criteria are at the core of the customised allocation order and can consist of any combination of the parameters listed in Figure 4-9 below.

Collateral Givers opting to customise the AutoAssign allocation ordering can also indicate if the External Sourcing from their account(s) with CBF has been enabled and the same asset is held in a source account with CBL and in a source account with CBF, which of both locations should be prioritised. It is therefore possible to indicate if in this situation the securities already in CBL’s settlement system should be allocated first, last or to set no preference.
Figure 4-9. Combined criteria for customised collateral allocation

**Figure 4-10** shows an example of possible combined criteria configurations:

<table>
<thead>
<tr>
<th>Rank</th>
<th>Instrument category</th>
<th>Instrument group</th>
<th>Issuer type</th>
<th>Min. rating</th>
<th>Max. rating</th>
<th>Baskets</th>
<th>Indices</th>
<th>Countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Convertible bonds</td>
<td></td>
<td>BBB+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Preferred convertible shares</td>
<td></td>
<td>BBB-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Depository receipts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Argentina</td>
</tr>
<tr>
<td>4</td>
<td>Depository receipts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Venezuela</td>
</tr>
<tr>
<td>5</td>
<td>Equities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Euronext 100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Equities</td>
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<td></td>
<td></td>
<td></td>
<td>S&amp;P 100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Equities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CBEQUITY</td>
<td></td>
<td></td>
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<tr>
<td>8</td>
<td>Bonds</td>
<td></td>
<td>Agency</td>
<td></td>
<td></td>
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<tr>
<td>9</td>
<td>Bonds</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Sovereign</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Figure 4-10.** Example of combined criteria configuration

In this example, AutoAssign will start by allocating all eligible convertible bonds from the collateral pool and proceed by allocating securities that meet the specified criteria in ascending ranking order.

**Customised withdrawal order**

When withdrawing collateral back to the Collateral Giver’s account of origin, AutoAssign applies the reverse ordering, so as to ensure that the participant’s priority ranking is respected. The withdrawal sequence is illustrated in **Figure 4-11** below.
Figure 4-11. AutoAssign customised collateral withdrawal order

**Note:** Customised ordering is applied in cases of trade initiations, exposure adjustments, margin calls, substitutions and collateral withdrawals. When processing a collateral swap, AutoAssign overlooks customised ordering to ensure full coverage of a maximum of triparty exposures. If the customer has enabled the External Sourcing from their account(s) with CBF the same asset can be allocated by AutoAssign from a source account with CBL and in a source account with CBF. In this situation AutoAssign will, depending on the choice of the customer, either withdraw the position allocated from a source account with CBL or the position allocated from a source account with CBF.

### Manual collateral selection mode

#### Collateral Pool

In the CMSA, Collateral Givers can specify which account(s) form part of their eligible collateral pool for allocation in triparty. Securities marked for pending delivery eligible for settlement or for receipt instructions with status “on hold” will not be considered as available collateral.

Receipt and delivery instructions that are “linked” to one or more other instructions will only be taken into account after the successful settlement of all linked instructions.

#### Characteristics

- The Collateral Giver notifies Clearstream of the securities to be allocated to/withdrawn from the collateral account.
- After successful completion of the eligibility and sufficiency check, the instructions are generated automatically.
- Substitutions, withdrawals and margin excess/deficit adjustments¹ are performed upon request from the Collateral Giver.

---

1. The Collateral Giver will be made aware of any margin deficit via the daily exposure report and will be required, in accordance with the stipulations of the CMSA, to post additional collateral to fully cover the exposure.
**Note:** If the Collateral Giver wants to source securities from a Euroclear account:

- The Collateral Giver notifies CBL of the securities to be allocated/withdrawn for all operations during the life cycle of the transaction.
- For each operation, CBL sends the Collateral Giver details of the instructions that must be entered into the Euroclear system for matching, in accordance with the published deadlines.
5. Transaction life cycle

Throughout the life cycle of a transaction, Clearstream will receive matching trade notifications from both counterparties\(^1\); validate the instructions; check collateral eligibility; generate against payment or free of payment settlement instructions; perform a daily mark-to-market of collateral (and loan) securities; process margin calls and substitutions and generate relevant reporting.

![Figure 5-1. Transaction life cycle](image)

Processing can take place during the daylight or overnight processing windows, depending on the execution date and the time of receipt and matching of the message. For the appropriate deadlines, please refer to Appendix A.

For details on the available communication channels and examples of all notification types, please refer to the CmaX Connectivity Guide, available on the Clearstream website.

Loan/exposure initiation

The Collateral Receiver and the Collateral Giver send CBL a notification of the new triparty exposure.

**Triparty Repo Service (TRS)**

The delivery against payment (DVP) movements of securities and cash are submitted for the requested value date. The securities are delivered to the collateral account and the cash is delivered simultaneously to the Collateral Giver’s account.

See Figure 5-2 overleaf.

**Triparty Securities Lending Service 1 (TSLS1)**

Loan securities are transferred against a cash amount equal to the value of the loan from the Collateral Receiver’s account to the Collateral Giver’s account. The collateral securities are transferred to the collateral account against an equal amount of cash. The resulting cash position is transferred from the Collateral Receiver’s account to the collateral account in favour of the Collateral Giver.

See Figure 5-3 overleaf.

**Triparty Securities Lending Service 2 (TSLS2 and TCMS)**

The delivery instructions to transfer the collateral from the Collateral Giver to the collateral account are submitted for the requested value date.

See Figure 5-4 on page 5-39.

---

\(^1\) If both counterparties agree to a unilateral instruction setup, they are requested to sign a dedicated power of attorney (POA) authorising Clearstream to process specific types of instructions on the basis of unilateral notifications from one of the two parties.
Figure 5-2. Loan/exposure initiation for TRS

Figure 5-3. Loan/exposure initiation for TSLS1
Margin calls

Note: The Collateral Receiver can define a margin excess/deficit tolerance level per contract, which AutoAssign will take into account when triggering margin calls. The tolerance level will apply individually to each transaction linked to that contract.

Margin deficit

If the net value of the securities held in a collateral account falls below the total loan/exposure value of all outstanding transactions between the same counterparties plus the appropriate margin, a securities top-up will be initiated.

- For Collateral Givers using AutoAssign, sufficient eligible securities are automatically selected from the Collateral Giver’s account.
- Collateral Givers that have opted for manual mode processing must send a margin call notification, notifying Clearstream of the specific securities to be pledged as top-up collateral.

The free of payment movements of securities are submitted for the requested value date. A margin deficit can be identified in the daily triparty collateral management reports sent by CBL to both Collateral Receivers and Collateral Givers.

The top-up process is outlined below:
Margin excess

The Collateral Giver may initiate a securities withdrawal if the net value of securities held in the collateral account is in excess of the netted loan/exposure value plus the required margin.

- For Collateral Givers using AutoAssign, excess securities are automatically withdrawn from the collateral account and returned to the Collateral Giver’s account.
- Collateral Givers that have opted for manual mode processing must send a withdrawal notification to the Collateral Management Desk to request the withdrawal.

A securities withdrawal request will only be executed if the Collateral Management Desk determines that such a withdrawal will not incur a margin deficit.

The free of payment movements of securities are submitted for the requested value date.

A margin excess can be identified in the daily triparty collateral management reports sent by CBL to both Collateral Receivers and Collateral Givers.

The withdrawal process is outlined below:

Substitutions

At any time during the life of a transaction, within the applicable deadlines, Collateral Givers may substitute the securities held in a collateral account with other eligible securities.

- For Collateral Givers using AutoAssign, sufficient eligible securities are automatically substituted between the collateral account and the Collateral Giver’s account, provided that the Collateral Giver holds sufficient replacement securities in his source account(s).

AutoAssign detects any pending delivery instructions on the Collateral Giver’s source account(s), as well as any borrowed positions (via CBL’s Automatic Securities Lending Programme) and, if the securities are held in collateral accounts, substitutions will be triggered automatically.

- Collateral Givers that have opted for manual mode processing must send a substitution notification to the Collateral Management Desk to request the substitution and propose new, replacement collateral.

In all collateral management services (TRS, TSLS and TCMS), substitutions settle against payment.\(^1\)

The substitution process is outlined in Figure 5-7 overleaf.

---

1. Exception is made for securities lending and borrowing offering services where substitutions are processed via SFOP.
Adjusting the terms of the trade

During the life of a triparty transaction, both counterparties may agree to modify the terms of the trade. Upon receipt of matching notifications, Clearstream will process the requested changes with good value. Changes can be processed to amend the following parameters:

- Exposure adjustment;
- Pricing rate (Repo);
- Fee change (TSLS1);
- Closing date;
- Closing amount.

Note: Pricing rate and Fee changes can be initiated up to two business days before the transaction is due to mature.

Loan/exposure termination

Both counterparties advise CBL of the maturity date of the transaction either at initiation or, for open loan/exposures, during the lifecycle of the trade by sending CBL a matching Set Close Date notification. The Set Close Date notification can be sent up until, and including, the planned maturity date, in accordance with the relevant market deadline.

1. Exception is made for securities lending and borrowing offering services where substitutions are processed via SFOP.
**Triparty Repo Service (TRS)**

The securities are delivered back to the Collateral Giver’s account and the cash proceeds, including the exposure interest, are simultaneously transferred to the Collateral Receiver’s collateral account. The cash is then transferred by CBL either to the Collateral Receiver’s account in CBL or to the Collateral Receiver’s CCB (see “Cash management options for Collateral Receivers” on page 4–28).

The loan/exposure termination process for TRS is outlined in Figure 5-8 below.

**Triparty Securities Lending Service 1 (TSLS1)**

The movements of securities against cash are generated for the Mandatory Settlement Period of the requested value date. The loan securities are delivered back to the Collateral Receiver’s (Lender’s) account and the collateral securities are transferred to the Collateral Giver’s (Borrower’s) account.

The loan/exposure termination process for TSLS1 is outlined in Figure 5-9 below.
Triparty Securities Lending Service 2 (TSLS2) and Triparty Collateral Management Service (TCMS)

The collateral is transferred free of payment from the collateral account to the Collateral Giver’s Account and the principal settles outside the framework of triparty. It is the responsibility of the counterparties to time their instructions so that the collateral is reversed to the Collateral Giver only once the principal has fully settled.

The loan/exposure termination process for TSLS2 and TCMS is outlined in Figure 5-10 below.
Partial openings

If a transaction fails to settle fully for the specified value date, CBL will notify both the Collateral Receiver and the Collateral Giver.

In a DVP transaction, the Collateral Receiver will only deliver the cash countervalue of the collateral securities actually received. Any residual cash will remain on the Collateral Receiver’s account, until sufficient collateral is delivered, thus ensuring that the Collateral Receiver is fully covered throughout the trade. Similarly, if the partial settlement is due to a shortage of funds on the Collateral Receiver’s side, the Collateral Giver will be long in securities until the trade can be fully covered.

In AutoAssign mode, should a trade fail to settle fully upon initiation, the system will continue to attempt to collateralise the remaining exposure in every subsequent run, up until the close of the trade.

Similarly, in manual mode, provided that the conditions for full settlement are met (either sufficient eligible collateral becomes available and is pledged through a new instruction by the Collateral Giver or, in the case of DVP trades, sufficient cash is credited to the collateral account by the Collateral Receiver), the trade can be fully settled during the interval between trade initiation and close.

In the case of DVP transactions, the Collateral Giver will return the cash principal, with any interest due, on termination date, regardless of whether the trade was fully collateralised throughout its life cycle.

Cash as collateral

In the event of insufficient eligible securities to fully collateralise a triparty collateral management exposure, the Collateral Receiver will have a positive cash balance on his collateral account, as detailed in the section above.

In the event of a margin deficit following a mark-to-market process, should the Collateral Giver not have sufficient eligible top-up securities, Clearstream allows the option of allocating cash as collateral to cover the exposure. This process is handled manually (for AutoAssign contracts) in order to ensure that it is only used as a last-resort measure and to enable customers to easily opt-out if their business model so requires.

Cash as collateral is recognised as a temporary measure, in order to ensure that the Collateral Receiver is not exposed during the trade life-cycle. However, it is recommended that temporary cash held on a collateral account intraday be substituted out by the close of business. Overnight cash balances will only be reinvested on a best effort basis and there is no guarantee that interest will be paid.

Collateral Receivers do not have the option of withdrawing cash from their collateral account during the life of the trade in order to invest it on their own initiative. Under the collateral management agreement, cash must remain within the triparty environment and can therefore only be invested by Clearstream on the participant’s behalf.

**Note:** Cash as collateral applies to triparty trades managed by CBL’s collateral management engine (CmaX). It cannot be used with CBF’s collateral management engine (Xemac) and therefore cannot be used to collateralise EGCP trades or exposures with the Deutsche Bundesbank. Note also that reuse of cash is not possible.

Extended Matching Period

To support the same day matching of collateral management instructions where Collateral Receiver and Collateral Giver are within different time zones, an extended matching period for collateral management instructions under TCMS service is introduced, at contract level.
Collateral Givers and Collateral Receivers, selecting the use of extended matching period at contract level, have the possibility of instructing and matching their instructions until 23:30 (CET) subject to certain conditions. Extended matching functionality is only permitted to a subset of transaction lifecycle events: initiation (new exposure) and change of principal (increase or decrease).

If either counterparty to the contract sends a same day settlement instruction that matches after Clearstream change of business day (COD), the matching will take place with next day value. Instructions received after Clearstream COD will only be recycled once. This functionality will only be available to STP notifications that is instructions received via SWIFT (MT527 format), CreationOnline or Xact Web Portal. Notifications received via other communication channels and subject to manual processing, for extended matching purposes, will not be supported.

**Principal Matching Tolerance**

Customers have the choice of defining a matching tolerance at contract level, as either a fixed amount and currency or percentage, which is applicable during matching of principal amount. Principal tolerance matching is only applicable to Triparty Collateral Management Services (TCMS) and for the following exposure notification types: initiation (new exposure) and change of principal (increase or decrease).

Matching of principal based on tolerance matching takes place on the lowest undisputed amount (of the two principal amount instructed by both participants), if both requested principal amounts are within the principal amount of matching tolerance defined at contract level.
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6. Collateral reuse

Clearstream’s innovative, cross-product collateral reuse functionality enables Collateral Receivers to maximise trading opportunities by reallocating collateral received in triparty transactions to collateralise other triparty exposures where they act as Collateral Giver.

Collateral Receivers that reuse collateral in AutoAssign mode will benefit from all existing advantages offered by the collateral agent (for example, unlimited right of substitution, automatic recalls for settlement or taxable corporate actions).

Collateral Givers using manual selection of collateral also have access to unlimited collateral reuse and will retain responsibility for the securities selection across all operations (initiation, adjustment of exposure, deficit adjustment, substitution etc).

Benefits and key features

Cross-product collateral reuse enables customers to reuse any collateral received in triparty transactions across the different triparty collateral products:

- Triparty Repo Service (TRS)
- Triparty Securities Lending Services (TSLS)
- Triparty Collateral Management Service (TCMS)
- Euro General Collateral (GC) services
- Collateral Pledge to Central Banks

While retaining the full benefits of the traditional triparty structure, reuse lifts liquidity constraints and maximises trading opportunities within a secure environment.

Reuse structures can be tailored to cater for specific customer needs. For further details, please contact your Global Securities Financing specialist.

An illustration

As Collateral Receiver in Figure 6-1 overleaf, you have entered into triparty trades with Collateral Givers A, B and C and, as a result, have received collateral that may be the proprietary assets of your counterparties or assets that they in turn have received through other triparty trades. When acting as Collateral Giver in future trades with participants D, E and F, you can opt to pledge your proprietary assets as collateral or to onward pledge the assets received from participants A, B and C, thereby maximising your trading possibilities.
Collateral Givers that have subscribed to AutoAssign can define and prioritise collateral accounts available for reuse as collateral source accounts to collateralise different exposure types automatically. For this setup it is required to define a new account as a central account, following the example above. Through this configuration, the customer will have the option to either give the same priority to all source accounts or to give a (specific) priority to the source accounts.

If the same priority is given to (all) accounts, AutoAssign will select the collateral across the different accounts. If different priorities have been defined by the customer, AutoAssign will first select the collateral from source accounts with priority 1 after which collateral will be selected with priority 2 followed by priority 3 etc.
Reuse of collateral to pledge to underlying clients

Lending desks or any Collateral Receivers who are looking for a sound legal structure and easy setup to allocate received collateral in return for loan securities or any other exposure can also benefit from the reuse functionality offered by CBL.

As illustrated in Figure 6-2, Collateral Receivers that require allocation of collateral to underlying clients can do so by opening segregated collateral accounts in their own names, on which the assets are pledged free of payment to their underlying clients.
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7. Collateral eligibility, price selection process, valuation and ratings

Collateral eligibility

The eligibility profiles are part of Appendix A of the Collateral Management Service Agreement for Collateral Receivers, available on the Clearstream website.

Eligibility profiles

Eligibility profiles can consist of:

- Clearstream standardised baskets - set profiles representing a clearly defined level of risk, standardised across the triparty world (see Appendix D); or
- Customised eligibility profiles based on a range of criteria defined by Collateral Receivers in accordance with their risk tolerance levels. Customers can freely combine any number of available collateral criteria to create customised eligibility rules in the most flexible way. Customised eligibility profiles can be mixed (multi-asset class) or bonds, equities or funds only.
- Customers can choose to combine different reference data fields that may be captured by Clearstream Banking using different data vendors to build up their eligibility profiles. Asset categorisation of selected reference fields is based solely on the published categorisation of the data vendors. Eligibility rules will be based on the categorisation applied to selected reference data fields.

Note: Customers can also set up eligibility profiles on the basis of lists of specific issuers, securities or groups of securities.

Bonds

Eligibility criteria for bonds include security type, issuer type, issuer country, rating and industry sector. These criteria can either be applied to all bonds or can be set up at issuer type level or, if applicable, at structured security type level.

- Issuer types are:
  Sovereign, Agency, Corporate, Structured, Convertible bonds.
- Structured security types are:
  Covered bonds, Asset-backed securities, Collateralised debt obligations, Credit-linked notes, Mortgage-backed securities

For a list of eligible markets, please refer to Appendix F.

Equities

Eligibility criteria for equities include security type, issue country, rating, industry sector, market capitalisation and market index.

For a list of eligible markets, please refer to Appendix F.
Investment funds

Eligibility criteria for funds include security type, country of domicile, geographical focus, open/closed-ended, UCITS/non-UCITS and NAV calculation frequency.

Exposure

As well as the specific asset class criteria described above, customers can also define eligibility criteria based on exposure related parameters, including exposure currency, exposure duration or remaining duration and exposure opening/closing date.

Customers can also use business date and time to fine-tune collateral eligibility to a more granular level. For example, they can exclude a particular type of instrument during a certain time window every day, or can restrict/expand collateral eligibility during particular days or weeks.

Concentration limits

Customers can apply concentration limits to restrict the quantity (expressed in amount or percentage value) of a specific type of security in their portfolio and/or to diversify their holdings.

Calculation

Concentration limits are applied at contract level. A base amount is calculated for each transaction as the maximum between two values, as follows:

\[
\text{Max} \{\text{Exposure amount}; \text{Collateral value of allocated collateral}\}
\]

Each concentration limit will apply to the sum of the base amounts of all underlying transactions. When allocating collateral securities to cover an exposure, the system will ensure that their collateral value does not breach any of the concentration limits under the contract. Where there is an overlap between two concentration limits, the strictest limit will always prevail.

Example:

- 40% limit on U.S. bonds
- 20% limit on U.S. corporates
- 10% limit on BBB rated bonds

In this example, U.S. bonds can be allocated to cover up to 40% of the collateral requirements under a contract. Of this 40%, half can consist of U.S. corporate securities. Furthermore, U.S. corporates with a rating between BBB+ and BBB- will only be allocated up to 10% of the total exposure.

Flexible options

Concentration limits can be applied across a range of criteria either across asset classes, or for bonds, equities or funds only.

Concentration limits for bonds can be applied on criteria such as security type, issuer country, credit rating, outstanding amount, industry sector, time to maturity and price characteristics.

Concentration limits for equities can be applied on criteria such as security type, outstanding issue size, market capitalisation, average traded volume and market index.

Concentration limits for funds can be applied on criteria such as security type, geographical focus and outstanding issue size.
Haircuts

Haircuts are constructed on the basis of groups of rules which are applied incrementally. With respect to any single piece of eligible collateral, the haircut derived from each group of rules is added to the haircuts derived from all other groups in the collateral basket to derive the final applicable haircut.

Haircuts can be applied per asset class:

- Haircuts on bonds
  Haircuts on bonds can be applied as a function of, for example, issuer country, industry sector, credit rating, evaluated price and price quotation age.
  Haircuts can be applied to all bonds or can be set up at bond risk profile level. Bond risk profiles are:
  - Sovereign, Agency, Corporate, Structured, Convertible.
- Haircuts on equities
  Haircuts on equities can be applied, for example, per eligible market index, currency, price volatility, price quotation age, market capitalisation and average traded volume.
  Haircuts can be applied to all equities or can be set up at the security type level. Security types are:
  - Ordinary shares, Preferred shares, Preferred convertible shares, Depository receipts, Rights, Warrants.
- Haircuts on investment funds
  Haircuts on funds can be applied, for example, per country of geographical focus, currency, market capitalisation, NAV frequency and NAV volatility brackets.
  Haircuts can be applied to all funds or can be set up at the security type level. Security types are:
  - Balanced funds, Bond funds, Equity funds, Money market funds, Other funds.

It is possible to define, at contract level, whether haircuts should be calculated using the European or the U.S. margin calculation method.

Valuation corrective measures

If neither haircuts on price quotation age nor a price age ceiling is defined by the parties in their collateral eligibility criteria, Clearstream applies valuation corrective measures for any security whose price has not been updated within the last 30 business days.

The default additional haircuts\(^1\) for ageing prices are as follows:

- Additional 10% margin for any sovereign or agency issuer;
- Additional 20% margin for any corporate or structured security.

---

\(^1\) These additional haircuts are applied to the most recent price received. Please refer to "Price source and type" on page 7-56.
<table>
<thead>
<tr>
<th>Bond type</th>
<th>Over (# days)</th>
<th>Additional margin (%)</th>
<th>Inseligible after (# days)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All bonds</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sovereign</td>
<td>30</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Supranational &amp; Agency</td>
<td>30</td>
<td>10</td>
<td></td>
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<td>Corporate</td>
<td>30</td>
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<td>Structured</td>
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</tr>
<tr>
<td>Convertible</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 7-1. Dynamic haircuts and price quotation age
Valuation method

Customers can choose between the European or U.S. valuation method for calculating the collateral value of a security. The two valuation methods are defined below:

- European valuation [default]

  \[
  \text{Margined value:} \quad \text{Quantity} \times \frac{\text{Market Price} + \text{Accrued Interest}}{100 + \text{Margin}} \times \text{Valuation Factor}
  \]

  \[
  \text{Equities:} \quad \text{Quantity} \times \frac{\text{Market Price}}{100 + \text{Margin}/100}
  \]

- U.S. valuation [optional]\(^1\)

  \[
  \text{Bonds:} \quad \text{Quantity} \times \frac{\text{Market Price} + \text{Accrued Interest}}{100} \times \frac{100 - \text{Margin}}{100} \times \text{Valuation Factor}
  \]

  \[
  \text{Equities:} \quad \text{Quantity} \times \frac{\text{Market Price}}{100} \times \frac{100 - \text{Margin}}{100}
  \]

**Margined value:**

The collateral value of the security expressed in the quotation currency of the security.

**Accrued interest:**

Customers can define, at contract level, whether clean or dirty prices should be used to value collateral.\(^2\)

**Valuation factor:**

Either the pool factor or the index factor for valuation of the security.

**Foreign Exchange rates:**

Clearstream uses daily exchange rates obtained from recognised data providers to evaluate collateral securities and exposures across currencies.

---

1. The default valuation method for the collateral pledge service to the U.S. Federal Reserve and Initial Margin Segregation baskets.
2. Dirty price is used by default across triparty collateral management services. Clean price is the default option for the collateral pledge service to the U.S. Federal Reserve.
Pricing selection process

Clearstream uses a sophisticated price selection model to value over 800,000 securities and to ensure that the most recent and accurate prices are applied. To this end, prices are weighted according to predetermined quality criteria, tolerance checks are applied and price age is monitored.

Note: This section describes the default pricing methodology that CBL applies to all collateral under management as neutral triparty agent.

For information on external valuation options, see “External valuation options” on page 7-58.

Price source and type

Securities prices are automatically collected, on a daily basis, from several recognised external information providers, such as Bloomberg, IDC (Interactive Data Corporation) and SIX Financial Information.

Prices of debt instruments, equities and warrants are automatically updated with the Bloomberg or IDC prices of the previous business day. If market prices are not available for bonds, Clearstream may use evaluated prices from external providers 1.

If, on a given date, no new price for a security is received from the above sources, Clearstream will maintain the most recent available price.

Price selection

As Clearstream uses multiple external pricing sources, it uses a complex and conservative selection algorithm to obtain the most appropriate available price to replace the previous one.

Prices are categorised as follows:

<table>
<thead>
<tr>
<th>Price Type</th>
<th>This defines whether the price is closing (end of day), bid, mid or ask;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price Category</td>
<td>This defines the origins of the price, for example, market, composite, evaluated etc.</td>
</tr>
<tr>
<td>Price Provider</td>
<td>This is the data provider who is sending the price.</td>
</tr>
</tbody>
</table>

Prices are weighted according to the above categories as well as by price value date. The weights are assigned as shown in Figure 7-2 below, in descending order of priority:

---

1. At contract level, customers can exclude or impose additional haircuts on securities with evaluated prices, depending on issuer type (sovereign, agency, corporate, structured and convertible bonds).
Figure 7-2. Price weighting

Figure 7-3 shows the price rankings per category and data provider.

Figure 7-3. Price selection rules
Price control

The following quality controls are in place to ensure that the chosen price is as close as possible to the current market levels for the security:

- **Market consensus**
  If multiple prices are received for the same instrument, the algorithm will check whether sets of prices are sufficiently clustered to form a “market consensus”. Depending on the number of prices within the market consensus, a trust level is assigned to the price.

- **Tolerance checks**
  Once a price has been selected, checks are performed to verify whether the change in the value of the price is within standard market variations. Differences of value date and trust level are taken into account in this process.

- **Price age checks**
  Operational processes are also in place to track securities with prices older than three business days, triggering an additional follow-up process. These additional quality controls are performed on the whole Clearstream database, which comprises more than 800,000 securities.

Leverage of evaluated prices

For bonds, if a recent price is not available, alternative sources of evaluated prices are used like IDC bond evaluations or SIX Financial Information.

**Note:** At contract level, customers can exclude evaluated prices or impose additional haircuts on securities with evaluated prices at issuer type level (sovereign, agency, corporate, structured, convertible bonds) or structured security type level (covered bonds, asset-backed securities, collateralised debt obligations, credit-linked notes, mortgage-backed securities).

External valuation options

As neutral collateral management agent, Clearstream currently applies an independent in-house valuation of collateral securities across triparty contracts, as described in preceding sections.

Customers can, however, choose to apply, across selected contracts, their own valuation parameters (prices and/or haircuts), those of their counterparty or those of a third-party data provider.

You can choose from two types of service for external valuation:

- **Strict option** - restricting collateral eligibility to the securities actually valued by the appointed party;
- **Flexible option** - prioritising external valuation parameters but, when unavailable, using Clearstream default valuation as fall-back.

The choice of service and external data provider should be indicated per contract in Appendix A of the Collateral Management Service Agreement.

The third-party data provider is responsible for sending a single valuation file per day or multiple intraday valuation files, as the case may be. The files should be sent to Clearstream via CreationDirect, our internet file transfer solution, and should contain information as shown in Figure 7-4 below.
Figure 7-4. Valuation file content

For a CSV file template, please contact your GSF Sales and Relationship representative (see "Client services" on page i).

A feedback file is sent back to the data provider via the same communication channel. The processing status indicates whether the file is correctly processed or whether specific securities have failed the validation checks.

**Note:** When incremental haircuts on security price age have been applied to a contract, these are always taken into account, regardless of whether the initial margin calculation is done by Clearstream or by an external party.

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<thead>
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<th>Field name</th>
<th>Attribute</th>
<th>Field description</th>
<th>Possible values</th>
</tr>
</thead>
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<td>Mandatory field</td>
<td>Alpha numerical</td>
<td>ISIN codes accepted in CBL</td>
</tr>
<tr>
<td>Price</td>
<td>Conditional field (Mandatory if the Margin field is blank)</td>
<td>Numerical character</td>
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<tr>
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<td>Mandatory field for equities. Optional for bonds &amp; funds.</td>
<td>Alpha numerical</td>
<td>ISO format 3 character</td>
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<td>Value Date</td>
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</table>
Clearstream ratings

Clearstream applies an in-house composite rating to both security and issuer ratings in order to determine eligibility under each contract. The composite ratings are derived through a combination of the Moody’s, S&P and Fitch ratings of a security or issuer, respectively. If the three providers have a split rating, the Clearstream composite is equivalent to the lowest rating of the three.

Sovereign securities are assigned a composite derived from the lowest between security and issuer rating.

Non-sovereign fixed income securities are assigned a composite security rating by default. If security ratings are not available, issuer ratings will be applied. At contract level, Collateral Receivers can override this default rule by excluding issuer ratings per eligible issuer type (agency, corporate, structured, convertible bonds) and/or structured security type.

Issuer ratings are used by default to value equity collateral.

**Note:** The credit rating selected in accordance with defined customer preferences will be consistently applied to both the eligibility check and the relevant concentration limit calculation.

Clearstream composite ratings are shown on the Triparty Collateral Management Daily Exposure report. **Figure 7-5** below compares the long-term and the short-term ratings of the three ratings providers with Clearstream’s own composite ratings.

<table>
<thead>
<tr>
<th>Clearstream composite</th>
<th>Moody’s</th>
<th>S&amp;P</th>
<th>Fitch</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Long term</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AAA</td>
<td>Aaa</td>
<td>AAA</td>
<td>AAA</td>
</tr>
<tr>
<td>AA+</td>
<td>Aa1</td>
<td>AA+</td>
<td>AA+</td>
</tr>
<tr>
<td>AA</td>
<td>Aa2</td>
<td>AA</td>
<td>AA</td>
</tr>
<tr>
<td>AA-</td>
<td>Aa3</td>
<td>AA-</td>
<td>AA-</td>
</tr>
<tr>
<td>A+</td>
<td>A1</td>
<td>A+</td>
<td>A+</td>
</tr>
<tr>
<td>A</td>
<td>A2</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>A-</td>
<td>A3</td>
<td>A-</td>
<td>A-</td>
</tr>
<tr>
<td>BBB+</td>
<td>Baa1</td>
<td>BBB+</td>
<td>BBB+</td>
</tr>
<tr>
<td>BBB</td>
<td>Baa2</td>
<td>BBB</td>
<td>BBB</td>
</tr>
<tr>
<td>BBB-</td>
<td>Baa3</td>
<td>BBB-</td>
<td>BBB-</td>
</tr>
<tr>
<td>BB+</td>
<td>Ba1</td>
<td>BB+</td>
<td>BB+</td>
</tr>
<tr>
<td>BB</td>
<td>Ba2</td>
<td>BB</td>
<td>BB</td>
</tr>
<tr>
<td>BB-</td>
<td>Ba3</td>
<td>BB-</td>
<td>BB-</td>
</tr>
<tr>
<td>B+</td>
<td>B1</td>
<td>B+</td>
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<tr>
<td>B</td>
<td>B2</td>
<td>B</td>
<td>B</td>
</tr>
<tr>
<td>B-</td>
<td>B3</td>
<td>B-</td>
<td>B-</td>
</tr>
<tr>
<td>CCC</td>
<td>Caa1</td>
<td>CCC+</td>
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</tr>
<tr>
<td>CCC</td>
<td>Caa3</td>
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<td>CCC-</td>
</tr>
<tr>
<td>CC</td>
<td>Ca</td>
<td>CC</td>
<td>CC</td>
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<tr>
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<td>C</td>
<td>C</td>
</tr>
<tr>
<td>D</td>
<td>D</td>
<td>D</td>
<td>D</td>
</tr>
<tr>
<td>NR</td>
<td>NR</td>
<td>NR</td>
<td>NR</td>
</tr>
<tr>
<td><strong>Short term</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A-1+</td>
<td>P-1</td>
<td>A-1+</td>
<td>F1+</td>
</tr>
<tr>
<td>A-1</td>
<td>P-1</td>
<td>A-1</td>
<td>F1</td>
</tr>
<tr>
<td>A-2</td>
<td>P-2</td>
<td>A-2</td>
<td>F2</td>
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<td>C</td>
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<tr>
<td>D</td>
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<td>D</td>
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</tr>
<tr>
<td>NR</td>
<td>NR</td>
<td>NR</td>
<td>NR</td>
</tr>
</tbody>
</table>

**Figure 7-5.** Long- and short-term rating scale comparisons
8. Custody events and corporate actions

This chapter outlines the custody process in place for transactions executed in automatic mode. Collateral Givers who have opted for manual mode processing can manually substitute collateral in anticipation of income or corporate action events on the basis of the corporate actions reference data report and/or the collateral shortage report.

Note: The below process also applies where assets are mobilised through External Sourcing. However, if the account at CBF from where the assets are mobilised has not been set up to benefit from the same asset servicing model as the ICSD (“1CAS”), it will not be possible to provide the service as outlined below. In such cases, CmaX will perform systematic substitutions for each event or corporate action whether taxable or not.

Event handling in CmaX

The handling of custody events and corporate actions that impact securities held in triparty is based on the following considerations:

- Processing each event directly on the collateral account would entail a complex reconciliation and compensation process, which would reduce transparency, especially in the case of taxable events.
- Triggering an auto-substitution in anticipation of each scheduled event impacting a collateral position would limit the available collateral pool unnecessarily, burdening the Collateral Giver with excess funding costs.

The approach taken is to minimise the number of auto-substitutions while at the same time ensuring a transparent compensation process.

Entitlement

Under a transfer of title contract, upon initiation of a transaction, it is assumed that legal and beneficial title to the securities is transferred to the Collateral Receiver during the term of the transaction, in exchange for title to the principal securities or cash or other asset, as the case may be, depending on the type of collateralised agreement.

Due to the nature of a repo or securities lending transaction, involving agreement to repurchase or return equivalent securities upon termination of the transaction, the Collateral Giver retains the risk on the collateral securities and is as such entitled to the corresponding returns.

Clearstream will credit any income payments that arise on collateral securities directly to the collateral account, provided that the securities were held in the account over record date. The proceeds will subsequently be reversed to the Collateral Giver’s source account in the form of an equivalent income payment.

In order to ensure that no deficit will arise on the collateral account as a result of this process, Clearstream will only transfer the income proceeds to the Collateral Giver’s account after a margin call has taken place, if needed, to fully cover the exposure.

Income entitlements and eligibility for participation in corporate action events are determined according to the following principles:

- Collateral Giver entitlement = Eligible held-free position^1 + Delivered collateral

1. Securities held on source account(s) + securities to be received pending settlement - securities to be delivered pending settlement.
Triparty participants will be notified of all upcoming custody events and corporate actions on their held-free positions, as well as on the securities they have delivered or received as collateral, through Clearstream custody reporting via all reporting channels.

For further information about Clearstream custody reporting, please refer to the Xact via SWIFT User Guide on the Clearstream website.

Income payment process

In the event of a non-taxable income payment (coupon or dividend) on a security allocated as collateral, the income proceeds will be credited directly to the collateral account. In a second step, Clearstream will reverse the proceeds to the Collateral Giver, after a margin call has taken place, if necessary, to ensure that a deficit will not arise on the collateral account as a result of the income transfer.

The process is illustrated in Figure 8-1 below.

Collateral securities that are subject to an upcoming taxable income event are automatically substituted back to the Collateral Giver’s source account before the record date; the securities become eligible again after the event is fully executed.¹

For details on the substitution trigger dates per income event, refer to Appendix E.

The substitution will only take place if the Collateral Giver holds sufficient eligible collateral for replacement. If this condition is not met, the income is credited to the collateral account and subsequently transferred to the Collateral Giver, after a margin call has taken place, where needed, to ensure that no deficit will arise on the collateral account. Withholding tax is deducted in accordance with the fiscal status of the account holder and transferred net to the Collateral Giver’s source account. For transfer of title transactions the Collateral Receiver’s fiscal status will apply in all cases, with the exception of the US market, where the Collateral Giver’s fiscal status will apply.

Subject to the principal contractual framework governing the counterparties’ relationship, the Collateral Giver may be entitled to receive gross income payments on collateral securities. Any obligations to this effect will be handled bilaterally by the counterparties, outside the triparty environment.

¹. Substitutions will not take place for taxable coupon payments on Italian securities.
Redemption process

Securities subject to final or early redemption or redemption in shares are substituted from the collateral account, before the redemption date, in exchange for eligible replacement collateral.

If the substitution fails, the securities will be redeemed on the collateral account and the resulting cash will be credited to this account. The cash will only be transferred to the Collateral Giver’s account after a margin call has taken place. This will ensure that any deficit arising on the collateral account due to the redemption has been fully covered before the cash proceeds are withdrawn.

The same process applies to events with a pool factor of zero.
Corporate actions

CmaX will trigger automatic substitutions in anticipation of corporate actions on collateral securities “x” business days before the event start date and the securities will remain ineligible for a predefined number of days. The securities become eligible once more for collateral allocation on the event end date (plus an offset period of “y” business days, depending on the event type). The ineligibility periods per event type are summarised in Appendix E.

Figure 8-2 illustrates the timeline for auto-substitutions triggered for corporate actions.

![Figure 8-2: Eligibility periods for corporate actions](image-url)

- **Period 1**: Securities are eligible for allocation.
- **Period 2**: Securities become ineligible when the substitution trigger date is reached.
- **Period 3**: One business day before the event start date, an urgent auto-substitution is processed if the position is still on the collateral account.
- **Period 4**: Securities remain ineligible for allocation until after the end date of the CA event.
- **Period 5**: Securities become eligible again after the event is fully executed.

In the case of corporate actions that are voluntary or mandatory with choice, an instruction sent by the Collateral Giver exercising participation in the event will trigger a collateral substitution if the customer has insufficient holdings on the instructed account to fully process the instruction.

In return for eligible replacement collateral, CmaX will trigger an auto-substitution, delivering the necessary quantity of securities back to the Collateral Giver’s account in order to fully process the instruction.

If the Collateral Giver does not hold sufficient eligible replacement collateral, the corporate action will be processed on the collateral account. Any resulting credit of cash and/or securities on the collateral account is subsequently reversed to the Collateral Giver.

**Note:** Securities proceeds accruing to the collateral account are only reversed to the Collateral Giver’s source account if this does not result in a deficit on the collateral account.

Bypass Automatic Substitution due to Corporate Actions

The Collateral Giver and Collateral Receiver may select to disapply ineligibility periods and automatic substitutions for all eligible securities as described herein by matching instruction to CBL. When selecting this option, securities will be eligible for auto allocation without reference to any upcoming corporate action. Collateral held on the Collateral Account will neither be substituted due to an upcoming corporate action nor will the Collateral Giver and/or Collateral Receiver receive any report indicating that Collateral will be allocated over the record date. For the avoidance of doubt, the provisions of Article 15 and 20 CMSA remain applicable.

Unless the Collateral Account has been exempted from withholding tax, withholding taxes may apply.
Withholding tax

To ensure optimal treatment of withholding taxes on collateral accounts, the collateral account owner must provide the required tax exemption forms.

For further information regarding the tax certification process, please contact the Clearstream Banking Tax Help Desk as follows:

<table>
<thead>
<tr>
<th></th>
<th>Luxembourg</th>
<th>Frankfurt</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Email:</strong></td>
<td><a href="mailto:tax@clearstream.com">tax@clearstream.com</a></td>
<td><a href="mailto:tax@clearstream.com">tax@clearstream.com</a></td>
</tr>
<tr>
<td><strong>Telephone:</strong></td>
<td>+352-243-32835</td>
<td>+49-(0) 69-2 11-1 3821</td>
</tr>
<tr>
<td><strong>Fax:</strong></td>
<td>+352-243-632835</td>
<td>+49-(0) 69-2 11-61 3821</td>
</tr>
</tbody>
</table>

1. The collateral account owner is: for transfer of title structures, the Collateral Receiver; for pledge structures, the Collateral Giver.
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9. Connectivity and customer reporting

For a comprehensive overview of instruction and reporting capabilities across the range of connectivity solutions, please refer to the CmaX Connectivity Guide, available on the Clearstream website.

Connectivity

Through Clearstream’s communications media, customers have real-time access to enhanced information, instruction input, transaction and position reporting, with a choice of connection via web browser, file transfer and the SWIFT network:

- **CreationOnline:** A secure, web-browser based connectivity solution that enables customers to input all collateral management instructions, view the real-time status of instructions and track settlement of collateral positions at security level.

- **Xact Web Portal:** A screen-based, user to application (U2A) connectivity channel based on the latest proven portal technology, whose harmonised security and user management enables streamlined customer access to a range of services.

- **Xact File Transfer:** Clearstream’s portfolio of file transfer connectivity solutions enables customers to automate file delivery and the receipt of report information. Xact File Transfer is available via Clearstream’s Virtual Private Network (VPN), through SWIFT’s File Act service and via the internet on a secure website.

- **Xact via SWIFT:** Enables customers to instruct and receive messages over the SWIFT network.

Instructions

Customers can use CreationOnline, Xact Web Portal, or the industry standard SWIFT message type MT527 [Triparty Collateral Instruction] to notify exposure and collateral activities across all the triparty collateral management services.

The receipt by CBL of a SWIFT MT527 shall, in the absence of an Appendix A duly notified to CBL under the relevant Collateral Management Service Agreement, constitute such notification of Appendix A [in addition to the instruction details included in the SWIFT MT527].

Customers instructing under contracts selected for the Extended Matching Period functionality can benefit from same day settlement if instructions are received via SWIFT (MT527 format), CreationOnline or Xact Web Portal.

Customers can also choose to instruct via free-format SWIFT but such communication will incur an additional fee to capture the operational cost and risk of non-STP communication. For further details please refer to the Clearstream Banking Fee Schedule.

The following collateral management activities are supported via the above communication channels:

- New exposure;
- Margin deficit adjustment; ¹
- Margin excess adjustment; ¹
- Substitution of collateral; ¹

¹. Not applicable to Collateral Givers that have subscribed to the AutoAssign Facility.
- Exposure termination;
- Changing the exposure closing date;
- Changing rate (applicable to TRS or TSLS2 exposures only).

### Reporting

The table in Figure 9-1 below provides an indication of triparty collateral management reports, including their format and availability:

<table>
<thead>
<tr>
<th>Report name</th>
<th>Format</th>
<th>Collateral Givers/ Receivers</th>
<th>Report content</th>
<th>Additional information about reuse</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily Exposure Report</td>
<td>PDF + TXT</td>
<td>CG + CR</td>
<td>Exposure details (including margin deficit/excess and a list of allocated collateral)</td>
<td>Yes</td>
</tr>
<tr>
<td>Daily Exposure Report</td>
<td>TXT</td>
<td>CG + CR</td>
<td>As above, but including indicative Basel II haircuts</td>
<td>Yes</td>
</tr>
<tr>
<td>(Basel II compliant)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Summary Report</td>
<td>PDF</td>
<td>CG + CR</td>
<td>Summary of activity per triparty product; the net exposure and the exposure per counterparty</td>
<td>Yes</td>
</tr>
<tr>
<td>Counterparties Summary Report</td>
<td>TXT</td>
<td>CG + CR</td>
<td>Summary of activity per triparty product, with a detailed list of exposures</td>
<td>No</td>
</tr>
<tr>
<td>Securities Forecast Report</td>
<td>PDF + TXT</td>
<td>CG only</td>
<td>Snapshot indication of potential trading capacity per counterparty</td>
<td>Yes</td>
</tr>
<tr>
<td>Sample Securities Forecast Report</td>
<td>PDF + TXT</td>
<td>CG only</td>
<td>Snapshot indication of potential trading capacity based on a list of securities provided by the Collateral Giver</td>
<td>No</td>
</tr>
<tr>
<td>Extended Securities Forecast Report</td>
<td>PDF + CSV</td>
<td>CG only</td>
<td>Snapshot indication of potential trading capacity per counterparty for the current date and over the following three business days</td>
<td>Yes</td>
</tr>
<tr>
<td>Collateral Shortage Daily Report</td>
<td>PDF + CSV</td>
<td>CG only</td>
<td>Snapshot of fails and deficits on outstanding triparty transactions, as well as the reason for failure</td>
<td>Yes</td>
</tr>
<tr>
<td>Real Time Simulation Report</td>
<td>PDF + CSV</td>
<td>CG only</td>
<td>Simulation of allocations of exposures based on current holdings or external file</td>
<td>Yes</td>
</tr>
<tr>
<td>Extended Simulation Report</td>
<td>PDF + CSV</td>
<td>CG only</td>
<td>Simulation of allocations of exposures based on current holdings or external file with optimisation of existing exposures</td>
<td>Yes</td>
</tr>
</tbody>
</table>
Customers leveraging Extended Matching Period can view the reflection of their collateral management instruction, allocation and holding position based on next day value across all standard reports.

In the context of developing regulatory reporting requirements and in particular the reporting obligations under Regulation (EU) 2015/2365 of the European Parliament and of the Council on transparency of securities financing transactions and of reuse (SFTR), Clearstream customers entering into securities financing transactions may be subject to mandatory reporting to a trade repository (TR). Clearstream customers intending to leverage triparty collateral management reports provided by Clearstream in the context of their regulatory obligations, may request Clearstream to provide the reporting to their third-party service provider of choice.

Customers looking to route their triparty collateral management reports (including Collateral Allocation Report, Collateral Reuse Report, MT569 Triparty Collateral and Exposure Statement) to a third-party service provider shall instruct Clearstream to do so via a specific instruction document developed for SFTR purposes.

CmaXDirect

In addition to the range of standardised customer reports, Collateral Givers can use CmaXDirect, an interactive forecasting tool, to simulate collateral management trades and forecast the resulting collateral positions across all their counterparties. CmaXDirect takes account of concentration limits, dynamic margining, pending deliveries and purchases from the main trading account as well as trades awaiting allocation.

For further details on reporting capabilities across the range of connectivity solutions, please refer to the CmaX Connectivity Guide, available on the Clearstream website.
10. Event of Default

This chapter outlines the steps to be followed in the case of a default of a triparty collateral management participant and the actions taken by Clearstream upon receipt of a default notice by the affected counterparty.

**Note:** The default scenarios addressed below are considered in the context of a standard transfer-of-title agreement governed by the CMSA. For information on the event of default in the context of a different account ownership structure or collateral management service, please contact your Global Securities Financing specialist.

**Notice of default**

In order to launch the event of default process within the Triparty Collateral Management service, the counterparty of the defaulting participant must send a written notice informing Clearstream of the default.

This notice should be sent via written mail, SWIFT MT599 or a fax signed by two authorised representatives. Customers are highly recommended to contact their Global Securities Financing representative by telephone in order to advise them of the upcoming notification. This will ensure that actions by Clearstream are taken in the shortest time frame.

**Event of default - Collateral Giver**

Upon receipt of the default notice from the Collateral Receiver, Clearstream will:

- Take no further action on outstanding collateral management or lending transactions involving the defaulting participant.
- Freeze collateral account(s) and stop all intraday collateral movements as soon as practically possible.
- Inform both participants of such measures.
- If instructed accordingly in the default notice, Clearstream will transfer the collateral from the relevant collateral account(s) to the Collateral Receiver’s main account in Clearstream for further disposal by the participant. Reused collateral will be included in the transfer of collateral and made available again for reuse if the customer’s main account is part of the collateral pool. If the main account is not part of the collateral pool, settlement of the transfer of the reused collateral will be subject to successful substitution.
Event of default - Collateral Receiver

Upon receipt of the default notice from the Collateral Giver, Clearstream will:

- Take no further action on outstanding collateral management or lending transactions involving the defaulting participant.
- Freeze collateral account(s) and stop all intraday collateral movements as soon as practically possible.
- Inform both participants of such measures.
- Request matching instructions from both counterparties, determining whether the Collateral Giver will buy back the collateral securities from the Collateral Receiver or secure ownership of the cash held on his account since the initiation of the repo transaction.

Reuse scenario

In the event that the defaulting party is part of a reuse chain, more than one client may be impacted. The general framework outlined above will be applied, taking into consideration any specificities resulting from the reuse chain.

For further information, please contact your Global Securities Financing specialist.
11. Billing

Collateral management fees

Collateral Givers are charged a monthly servicing fee on the basis of their average daily outstanding volumes. The servicing fee is calculated on a stepping scale based on the market value\(^1\) of total assets held across collateral accounts. Collateral Receivers do not incur servicing fees on collateral securities.

Custody administration and corporate event fees will be charged to the Collateral Giver.

**Note:** The servicing fee for a Collateral Receiver reusing collateral as a Collateral Giver will be calculated as above. The safekeeping fee for re-used collateral will be charged to the first collateral giver in the chain of re-use, that is, the Collateral Giver to whom these assets are proprietary.

External Sourcing fees

Collateral Givers using External Sourcing are charged a monthly servicing fee on the basis of their average daily outstanding volumes mobilised through External Sourcing. The servicing fee is calculated on a fixed fee basis of 0.5bp based on the market value of total assets mobilised through External Sourcing held across collateral accounts.

**Note:** Assets mobilised through External Sourcing from an Collateral Giver account with CBF are not subject to this fee.

Fees reporting

Customers will receive a monthly Statement of Fees, comprising a breakdown of all fees incurred across services, including Global Securities Financing. Upon request, a Detailed Statement of Triparty Collateral Management Services can also be provided, detailing the daily outstanding volume and the respective daily fees.

For further details about billing, please refer to Clearstream Banking’s Fee Schedule, available on the [Clearstream website](#), or contact your Global Securities Financing specialist.

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\(^1\) Plus accrued interest, where applicable,
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Glossary

Accrued interest
Interest that has been earned on a bond but not yet paid. Typically, interest accrues on a daily basis from the previous coupon date [inclusive] to the value date [exclusive]. An investor buying a bond must pay accrued interest to the Collateral Giver.

Agreement
An Agreement represents a relationship between a Collateral Giver and a Collateral Receiver for a given service type with a specific risk profile. The service types are TRS, TLS1, TLS2 and TCMS.

AutoAssign (AA)
Securities to be transferred between a Collateral Giver’s account and a collateral account are selected automatically according to the eligibility criteria set by the Collateral Receiver in Appendix A of the Collateral Management Service Agreement for Collateral Receivers.

CASCADE
The settlement platform of Clearstream Banking Frankfurt (CBF).

Cash book transfer
Internal realignment of cash between two Clearstream accounts.

CBF
Clearstream Banking Frankfurt.

Central account
CBL customer account used to centralise cash and securities from the triparty collateral management activity.

Clearstream Banking account
An account opened in Clearstream Banking Luxembourg (CBL).

CmaXDirect
An interactive forecasting tool for simulating collateral management trades and forecasting the resulting collateral positions across all counterparties, taking account of concentration limits, dynamic margining, pending deliveries and purchases from the main trading account as well as trades awaiting allocation.

CmaX
Collateral management eXchange - the collateral management system of Clearstream Banking Luxembourg (CBL).

Collateral account
An account opened in CBL on behalf of the Collateral Receiver [in the case of transfers of title] or on behalf of the Collateral Giver [in the case of pledges]. Collateral accounts are used solely for collateral management transactions.

Collateral Giver
The party to a transaction that provides collateral securities and/or cash to the Collateral Receiver in exchange for securities and/or cash.

Collateral Receiver
The party to a transaction that lends securities and/or cash to the Collateral Giver in exchange for an amount of securities and/or cash that is held and monitored on the collateral account.
Correspondent Central Bank (CCB)
The local central bank acting on behalf of the Home Central Bank in terms of processing the cross-border liquidity request of the counterparty.

CreationOnline
A web-browser based, integrated workstation connectivity solution running in a secure Virtual Private Network (VPN) environment or over the internet. CreationOnline customers can perform and manage activities in areas such as reporting, custody, securities, cash and tax. The Message Exchange facility enables customers to send free-format collateral management notifications to CBL as well as the MT527 Triparty Collateral Instruction for TRS.

Note: Customers can have “read-only” access to their collateral accounts and still benefit from all the functionality described above.

DVP
Delivery against payment. Simultaneous exchange of securities against cash between accounts.

Eligibility check
An eligibility check is carried out on the proposed collateral securities, including verification that the Collateral Giver complies with the Collateral Receiver’s criteria for eligible securities, and confirmation that the assets notified for use in the transaction are eligible for settlement in Clearstream Banking.

End of day
20:35 CET. End of day reports incorporate the final activity for a particular value date. Any activity after end of day is considered for the next value date.

Exposure
A trade between a Collateral Giver and a Collateral Receiver to be covered by collateral. Exposure details are, for example, an opening date, a principal or a closing date. “Exposure” is a synonym of “trade”, “agreement” or “transaction”. An exposure can be the result of a repo trade, a securities loan, a cash loan or any other contractual obligation resulting in the delivery of collateral.

External Sourcing
A service offered by CBL, allowing a customer acting as Collateral Giver to link accounts with partnering CSD’s or custodian with CmaX allowing to automatically mobilise and use the assets held in these accounts for collateral management transactions.

FOP
Free of payment. Delivery or receipt of securities between accounts with no cash movement.

Home Central Bank (HCB)
The central bank of the country in which the counterparty requesting domestic liquidity through Eurosystem monetary policy operations is based.

Mandatory Settlement Period
Period running from 21:30 on settlement date -1 until 16:10 SD for against payment instructions in all currencies other than USD, CAD, MXN; until 18:10 SD for against payment instructions in USD, CAD, MXN.

Margin
Also referred to as haircut, the difference between the market value of the collateral and the purchase price paid at the start of a repo. Haircuts are applied, to account for credit and liquidity risks that may impact the value of the collateral allocated during the lifecycle of a transaction or during an event of default and collateral liquidation. Whereas a haircut is expressed as a percentage deduction from the market value of collateral (for example, 5%), a margin is the market value of collateral expressed as a percentage of the purchase price (for example, 105%).

Mark-to-market
The daily valuation of securities held in the collateral accounts and loan securities for TSLS1 and TSLS2.
MT527
The Triparty Collateral Instruction SWIFT message type used by counterparties to an exposure to notify the Triparty Agent [CBL] of various actions to be taken on a collateral management transaction, including deal initiations. This message type feeds automatically and straight through [STP] into CmaX.

MT558
The Triparty Collateral Status and Processing Advice, available in real-time, that reports those collateral transactions whose processing, matching, allegations, allocation or settlement status has changed.

MT599
The free-format SWIFT message type used by counterparties to a collateral management transaction to notify the Triparty Agent [CBL] of various actions to be taken on a collateral management transaction, including deal initiations.

National Central Bank (NCB)
The central bank of an EU Member State.

Notification
Formal notification and triparty collateral instruction to Clearstream Banking of various details relating to a triparty collateral management transaction.

Open exposure
An exposure with no definite term. The Collateral Giver and the Collateral Receiver must agree to and notify Clearstream Banking of the termination date.

Own Account
A CBL customer account from which any assets can be used as collateral for triparty collateral management activity. An Own Account can be used as a source account but may not hold any “reused” securities.

Reservation account
A dedicated account in Creation, holding collateral available for use via Xemac (for example, for Euro GC Pooling or pledge to the Deutsche Bundesbank).

Securities lending
A securities lending agreement is one whereby a Collateral Receiver lends securities to a Collateral Giver at an agreed rate.

Segregation account
A dedicated account in Creation, holding collateral received via Euro GC Pooling trades.

SFOP
Substitution Free of Payment. Substitution of collateral between accounts free of payment, where replacement collateral transferred to the collateral account settles prior to the release of collateral being substituted by transfer to the Collateral Giver’s account.

Start of day
21:30 CET on settlement date -1. Start of day reports include updated mark-to-market data on all outstanding collateral management transactions.

Substitution
The process by which a Collateral Giver can replace securities allocated to collateral accounts with other eligible securities against a cash countervalue.

Sufficiency check
A check carried out on the proposed incoming securities to calculate the nominal amounts of securities required against the exposure. This calculation is based on market prices received from a number of data feeds. The valuation includes the accrued interest to date and the margin requirements agreed between the two counterparties to the transaction.
**Value date**
The date on which securities are transferred between the Collateral Receiver and the Collateral Giver.

**Xact File Transfer**
Clearstream’s portfolio of file transfer connectivity solutions that enable customers to automate the file delivery of instructions and the receipt of report information. Xact File Transfer is available via Clearstream’s Virtual Private Network (VPN), through SWIFT’s File Act service and via the internet on a secure website.

**Xemac**
EXchange electronic management of collateral - the collateral management system of CBF.
Appendix A. Deadlines

The tables below provide details of the life-cycle deadlines that apply to securities held in custody in the CBL ICSD system. For deadlines specific to External Sourcing, please contact your GSF Sales and Relationship representative [see "Client services" on page i].

Note: All the deadlines indicated below apply to notifications sent via STP communication channels. All notifications sent via non-STP communication channels should be sent two hours in advance of these deadlines. All times are Central European Time (CET).

Triparty Repo Service (TRS)

Deadlines for deal initiation, exposure increase/decrease and set close date notifications by eligible transaction currency

<table>
<thead>
<tr>
<th>Transaction currency</th>
<th>Same-day (SD)</th>
<th>Transaction currency</th>
<th>Same-day (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>USD, CAD, MXN</td>
<td>19:00</td>
<td>18:00</td>
<td>DKK</td>
</tr>
<tr>
<td>UUY</td>
<td>17:30</td>
<td>16:30</td>
<td>CZK</td>
</tr>
<tr>
<td>GBP</td>
<td>17:00</td>
<td>16:00</td>
<td>ZAR</td>
</tr>
<tr>
<td>EUR</td>
<td>15:30</td>
<td>14:30</td>
<td>HKD</td>
</tr>
<tr>
<td>HUF</td>
<td>15:00</td>
<td>14:00</td>
<td>SGD</td>
</tr>
<tr>
<td>CHF</td>
<td>14:45</td>
<td>13:45</td>
<td>MYR</td>
</tr>
<tr>
<td>SEK</td>
<td>14:00</td>
<td>13:00</td>
<td>AUD</td>
</tr>
<tr>
<td>ILS, NOK</td>
<td>13:30</td>
<td>12:30</td>
<td>JPY</td>
</tr>
<tr>
<td>CNY</td>
<td>13:00</td>
<td>12:00</td>
<td>NZD</td>
</tr>
<tr>
<td>RON</td>
<td>12:30</td>
<td>11:30</td>
<td>XAU</td>
</tr>
</tbody>
</table>

Note: For all trades to be settled during the overnight processing for next-day value (SD+1), please submit all notifications by 19:00 on SD.

For trades in XAU settling for next-day value (SD+1), please submit all notifications by 14:00 (AutoAssign) and 12:00 (manual) on SD and note that the earliest possible value date for withdrawal of cash is in these cases is SD+2.

Deadlines for other notifications

<table>
<thead>
<tr>
<th>Notification type</th>
<th>Same-day (SD)</th>
<th>Next-day (SD+1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deficit/excess adjustment</td>
<td>N/A</td>
<td>18:00</td>
</tr>
<tr>
<td>Substitution</td>
<td>N/A</td>
<td>18:00</td>
</tr>
<tr>
<td>Fee /Rate Change</td>
<td>19:00</td>
<td>18:00</td>
</tr>
<tr>
<td>Flexible interest payment</td>
<td>19:00</td>
<td>18:00</td>
</tr>
<tr>
<td>External valuation file</td>
<td>18:00</td>
<td>18:00</td>
</tr>
</tbody>
</table>

Note: For the above operations the relevant cash and securities deadlines are always respected on top of the triparty instruction deadlines.
Euroclear accounts

To source collateral from a Euroclear account, please instruct one hour before the relevant Bridge deadline.

Triparty Securities Lending (TSLS) and Triparty Collateral Management Service (TCMS)

Deadlines for exposure initiation and exposure increase/decrease notifications

<table>
<thead>
<tr>
<th>Notification type</th>
<th>Same-day (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AutoAssign</td>
</tr>
<tr>
<td>Initiation</td>
<td>19:00</td>
</tr>
<tr>
<td>Increase of exposure</td>
<td>19:00</td>
</tr>
<tr>
<td>Decrease of exposure</td>
<td>19:00</td>
</tr>
</tbody>
</table>

**Note:** For all trades to be settled during the overnight processing for next day value (SD+1), please submit all notifications by 19:00 on SD.

Deadlines for other notifications

<table>
<thead>
<tr>
<th>Notification type</th>
<th>Same-day (SD)</th>
<th>Next-day (SD+1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deficit/excess adjustment</td>
<td>N/A</td>
<td>18:00</td>
</tr>
<tr>
<td>Substitution</td>
<td>N/A</td>
<td>18:00</td>
</tr>
<tr>
<td>Fee/Rate Change</td>
<td>19:00</td>
<td>18:00</td>
</tr>
<tr>
<td>Loan/exposure termination</td>
<td>19:00</td>
<td>18:00</td>
</tr>
<tr>
<td>Set close date (for open loans/exposures)</td>
<td>19:00</td>
<td>18:00</td>
</tr>
<tr>
<td>External valuation file</td>
<td>18:00</td>
<td>18:00</td>
</tr>
</tbody>
</table>

**Note:** For all trades to be settled during the overnight processing for next day value (SD+1), please submit all notifications by 19:00 on SD. For the above operations the relevant cash and securities deadlines are always respected on top of the triparty instruction deadlines.
**Timelines for Extended Matching Period**

This service is available for TCMS service, and for contracts where extended matching is allowed processing of same day collateral management instructions will be as follows (all times CET):

<table>
<thead>
<tr>
<th>Input media</th>
<th>Before 19:45</th>
<th>After 19:45 before COD¹</th>
<th>At COD</th>
<th>After COD before 23:30</th>
<th>23:30 and after</th>
</tr>
</thead>
<tbody>
<tr>
<td>SWIFT/CreationOnline</td>
<td>Processed normally</td>
<td>Recycled to next day and deferred to after COD</td>
<td>Unmatched same day instructions recycled to next day</td>
<td>New instructions with same day value automatically recycled to next day</td>
<td>Recycled instructions that remain unmatched are cancelled. Same day instructions received are rejected</td>
</tr>
<tr>
<td>Xact Web Portal</td>
<td>Processed normally</td>
<td>Input of same day instructions allowed</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

¹. The Clearstream Change of Day (COD) occurs at approximately 20:45 (CET). Therefore, if either counterparty to the contract send a same day instruction that matches after the Clearstream COD, it will be for the next day value.

**Euroclear accounts**

To source collateral from a Euroclear account, please instruct one hour before the relevant Bridge deadline.

**GC Pooling notifications**

**Euro funding deadline**

<table>
<thead>
<tr>
<th>Contract type</th>
<th>Cash funding deadline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overnight repo opening - Front leg</td>
<td>30 minutes after trade conclusion</td>
</tr>
<tr>
<td>All other contract types - Front and term legs</td>
<td>09:45 on settlement day</td>
</tr>
</tbody>
</table>

**USD funding deadline**

<table>
<thead>
<tr>
<th>Contract type</th>
<th>Cash funding deadline</th>
</tr>
</thead>
<tbody>
<tr>
<td>All contract types (non-overnight repo) - Front and term legs</td>
<td>15:00 on settlement day</td>
</tr>
<tr>
<td>Overnight repo (front leg)</td>
<td>30 minutes after the trade conclusion</td>
</tr>
<tr>
<td></td>
<td>(15.00 at the earliest)</td>
</tr>
</tbody>
</table>

**GBP/CHF funding deadline**

<table>
<thead>
<tr>
<th>Contract type</th>
<th>Cash funding deadline</th>
</tr>
</thead>
<tbody>
<tr>
<td>All contract types (non-overnight repo) - Front and term legs</td>
<td>11:30 on settlement day</td>
</tr>
<tr>
<td>Overnight repo (front leg)</td>
<td>30 minutes after the trade conclusion</td>
</tr>
</tbody>
</table>
Notification deadlines for collateral pledge to central banks

For same-day (SD) collateral allocation:

<table>
<thead>
<tr>
<th>Notification type</th>
<th>Federal Reserve Bank</th>
<th>Deutsche Bundesbank</th>
<th>Banque centrale du Luxembourg</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AutoAssign</td>
<td>Manual</td>
<td></td>
</tr>
<tr>
<td>Initiation</td>
<td>19:00</td>
<td>17:00</td>
<td>17:00</td>
</tr>
<tr>
<td>Increase of exposure</td>
<td>19:00</td>
<td>17:00</td>
<td>17:00</td>
</tr>
<tr>
<td>Decrease of exposure</td>
<td>19:00</td>
<td>17:00</td>
<td>17:00</td>
</tr>
</tbody>
</table>

Exclusion of specific ISINs

Amendments by the Collateral Giver to basket references in Appendix A of the Collateral Management Service Agreement (CMSA) by notification to Clearstream Banking of an Appendix B consisting of the exclusion of specific ISINs from the basket reference shall be implemented by Clearstream Banking at the latest on the third business day following the receipt of the notification by Clearstream Banking. A corresponding notification by the Collateral Receiver is not necessary.
Appendix B. Sample Default Notice for CMSA users

(To be completed under customer’s letterhead)

By Fax to: +352-243-38262
By SWIFT to: CEDELULL
Attn: Collateral Management Desk

Date: ___________________

Subject: Default Notice

Dear Sirs,

Reference is made to our Collateral Management Service Agreement for

☐ Collateral Givers [CMSA] signed ________________ OR ☐ Collateral Receivers [CMSA] signed ________________

Pursuant to Article 18.1 of the CMSA, we hereby notify Clearstream Banking, S.A. ("Clearstream") of an Event of Default of ____________________________ (counterparty name).

We request Clearstream to take no further actions in relation to any triparty collateral management services for Collateral Account(s): ________________________________________________________________

We request Clearstream to proceed, subject to, and under the conditions of the CMSA, with the transfer of Collateral deposited on such Collateral Account(s) to our Clearstream account _____________________________

Yours faithfully

Authorised Signature Authorised Signature

Name Name

Title Title
Appendix C. July 2020

Sample Objection Notice for Collateral Receivers

(To be completed under customer’s letterhead)

By Fax to: +352-243-38262
By SWIFT to: CEDELULL
Attn: Collateral Management Desk

Date: ___________________

Subject: Objection Notice

Dear Sirs,

Reference is made to our Collateral Management Service Agreement for Collateral Receivers [CMSA] signed on ______________ and your notice of ______________, received by us on ______________ [reasonable evidence of time of receipt to be provided to Clearstream] indicating that Clearstream Banking S.A. (Clearstream) has received from ______________, acting as Collateral Giver, a default notice with respect to us in relation to Collateral Account[s] ______________.

Pursuant to Article 18.1 (b) of the CMSA, we hereby object to such notice and request Clearstream to continue to operate the above Collateral Account[s] as if no event of default notice had been received.

Yours faithfully

Authorised Signature

Name

Title

Authorised Signature

Name

Title
This page has intentionally been left blank.
Appendix D. July 2020

Clearstream Standardised Baskets

This Appendix, as amended from time to time, details the standard basket references applicable and in force. The basket references mentioned in Appendices A and B of the CMSA are deemed to refer to the details of this Appendix C. The electronic version of Appendix C as published on CBL’s internet site in English Clearstream Standardised Baskets shall be at any time the legally binding version of Appendix C.
This page has intentionally been left blank.
### Appendix E. Custody substitution deadlines

<table>
<thead>
<tr>
<th>Description</th>
<th>SWIFT Indicator</th>
<th>Mandatory Event</th>
<th>With choice</th>
<th>Substitution start date</th>
<th>Substitution end date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automatic dividend reinvestment</td>
<td>DRIP</td>
<td>Y</td>
<td>N</td>
<td>Record date -2</td>
<td>Payment date +1</td>
</tr>
<tr>
<td>Bonus</td>
<td>EXRI</td>
<td>Y/N</td>
<td>N</td>
<td>CBL event deadline -2</td>
<td>CBL event deadline +2</td>
</tr>
<tr>
<td>Bonus (automatic)</td>
<td>BONU</td>
<td>Y</td>
<td>N</td>
<td>Record date -2</td>
<td>Payment date +1</td>
</tr>
<tr>
<td>Capitalisation/partial redemption by pool factor</td>
<td>CERT/PRED</td>
<td>Y</td>
<td>N</td>
<td>Record date -2</td>
<td>Payment date +1</td>
</tr>
<tr>
<td>Certification of beneficial ownership [U.S.A.]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Choice dividend</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Choice dividend rights distribution</td>
<td>RCONP</td>
<td>Y</td>
<td>Y</td>
<td>Record date -2</td>
<td>Payment date +1</td>
</tr>
<tr>
<td>Conversion option</td>
<td>CONV</td>
<td>N</td>
<td>Y</td>
<td>Record date -2</td>
<td>CBL event deadline +2</td>
</tr>
<tr>
<td>Currency option on interest payment</td>
<td>INTR</td>
<td>Y</td>
<td>Y</td>
<td>CBL event deadline -2</td>
<td>CBL event deadline +1</td>
</tr>
<tr>
<td>Currency option on redemption</td>
<td>REDM</td>
<td>Y</td>
<td>Y</td>
<td>CBL event deadline -2</td>
<td>CBL event deadline +1</td>
</tr>
<tr>
<td>Demerger/spin-off</td>
<td>SOFF</td>
<td>Y</td>
<td>N</td>
<td>Record date -2</td>
<td>Payment date +1</td>
</tr>
<tr>
<td>Dividend</td>
<td>CAPE/SEP</td>
<td>Y</td>
<td>Y</td>
<td>Record date -3</td>
<td>Record date</td>
</tr>
<tr>
<td>Dividend reinvestment</td>
<td>DRIP</td>
<td>N</td>
<td>N</td>
<td>CBL event deadline -2</td>
<td>CBL event deadline +2</td>
</tr>
<tr>
<td>Disclosure</td>
<td>DSCL</td>
<td>Y</td>
<td>N</td>
<td>Record date -3</td>
<td>Record date</td>
</tr>
<tr>
<td>Early redemption</td>
<td>MCAL</td>
<td>Y</td>
<td>N</td>
<td>Expiration date -2</td>
<td>Expiration date</td>
</tr>
<tr>
<td>Exchange offer</td>
<td>EXOF</td>
<td>N</td>
<td>Y/N</td>
<td>CBL event deadline -2</td>
<td>CBL event deadline +2</td>
</tr>
<tr>
<td>Exchange option</td>
<td>CONV</td>
<td>N</td>
<td>Y/N</td>
<td>CBL event deadline -2</td>
<td>CBL event deadline +1</td>
</tr>
<tr>
<td>Final redemption</td>
<td>REDM</td>
<td>Y</td>
<td>N</td>
<td>Expiration date -2</td>
<td>Expiration date</td>
</tr>
<tr>
<td>General event</td>
<td>DSCL/OTHR</td>
<td>Y/N</td>
<td>Y/N</td>
<td>CBL event deadline -2</td>
<td>CBL event deadline +2</td>
</tr>
<tr>
<td>Instalment call [partial payment]</td>
<td>PPMT</td>
<td>Y</td>
<td>N</td>
<td>Payment date -3</td>
<td>Payment date +1</td>
</tr>
<tr>
<td>Interest amount determination option</td>
<td>SMPG/IAOP</td>
<td>N</td>
<td>N</td>
<td>CBL event deadline -2</td>
<td>CBL event deadline +1</td>
</tr>
<tr>
<td>Interest payment</td>
<td>INTR</td>
<td>Y</td>
<td>N</td>
<td>Record date -2</td>
<td>Record date +1</td>
</tr>
<tr>
<td>Interest range determination option</td>
<td>SMPG/IRGP</td>
<td>N</td>
<td>N</td>
<td>CBL event deadline -2</td>
<td>CBL event deadline +1</td>
</tr>
<tr>
<td>Description</td>
<td>SWIFT Indicator</td>
<td>Mandatory Event</td>
<td>With choice</td>
<td>Substitution start date</td>
<td>Substitution end date</td>
</tr>
<tr>
<td>--------------------------------------------------</td>
<td>-----------------</td>
<td>-----------------</td>
<td>-------------</td>
<td>-------------------------</td>
<td>-----------------------</td>
</tr>
<tr>
<td>Liquidation</td>
<td>LIQU/REDM</td>
<td>Y N</td>
<td>Assignment date</td>
<td>Payment date +1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Y N</td>
<td>Record date -2</td>
<td>Record date +1</td>
<td></td>
</tr>
<tr>
<td>Meeting</td>
<td>MEET/XMET</td>
<td>N N</td>
<td>Market deadline -2</td>
<td>Meeting date +1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CMET</td>
<td>N N</td>
<td>CBL event deadline -2</td>
<td>CBL event deadline +2</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>N N</td>
<td>CBL event deadline -2</td>
<td>Meeting date +1</td>
<td></td>
</tr>
<tr>
<td>Merger</td>
<td>MRGR</td>
<td>Y N</td>
<td>Expiration date -3</td>
<td>Expiration date +1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Merger date -3</td>
<td>Merger date +1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Y Y</td>
<td>CBL event deadline -2</td>
<td>Expiration date +1</td>
<td></td>
</tr>
<tr>
<td>Other event</td>
<td>OTHR</td>
<td>Y N</td>
<td>Record date -2</td>
<td>Record date +1</td>
<td></td>
</tr>
<tr>
<td>Pari-Passu</td>
<td>PARI</td>
<td>Y N</td>
<td>Expiration date -3</td>
<td>Expiration date +1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>CBL event deadline -2</td>
<td>Exchange date +1</td>
<td></td>
</tr>
<tr>
<td>Partial redemption</td>
<td>DRAW/PCAL</td>
<td>Y N</td>
<td>Payment date -3</td>
<td>Payment date +1</td>
<td></td>
</tr>
<tr>
<td>Redemption at the holder’s option</td>
<td>BPUT</td>
<td>N N</td>
<td>CBL event deadline -2</td>
<td>CBL event deadline +2</td>
<td></td>
</tr>
<tr>
<td>Redemption in shares</td>
<td>REDM</td>
<td>Y Y</td>
<td>CBL event deadline -2</td>
<td>Expiration date</td>
<td></td>
</tr>
<tr>
<td>Remarketing</td>
<td>REMK</td>
<td>N N</td>
<td>CBL event deadline -2</td>
<td>CBL event deadline +1</td>
<td></td>
</tr>
<tr>
<td>Repurchase offer</td>
<td>BIDS/DTCH</td>
<td>N N</td>
<td>CBL event deadline -2</td>
<td>CBL event deadline +2</td>
<td></td>
</tr>
<tr>
<td>Reverse stock split</td>
<td>SPLR</td>
<td>Y N</td>
<td>Record date -2</td>
<td>Payment date +1</td>
<td></td>
</tr>
<tr>
<td>Rights distribution</td>
<td>RHDI</td>
<td>Y N</td>
<td>Record date -2</td>
<td>Payment date +1</td>
<td></td>
</tr>
<tr>
<td>Solicitation of a holder’s consent</td>
<td>CONS</td>
<td>N Y</td>
<td>Record date -3</td>
<td>Record date</td>
<td></td>
</tr>
<tr>
<td>Stock dividend</td>
<td>DVSE/PINK</td>
<td>Y N</td>
<td>Record date -2</td>
<td>Payment date +1</td>
<td></td>
</tr>
<tr>
<td>Stock split</td>
<td>SPLF</td>
<td>Y N</td>
<td>Record date -2</td>
<td>Payment date +1</td>
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<tr>
<td>Subscription offer</td>
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<td>CBL event deadline +2</td>
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<td>Subscription rights distribution</td>
<td>RHDI</td>
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<tr>
<td>Tender offer/purchase offer</td>
<td>TEND/NOOF</td>
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<tr>
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<td></td>
<td>Y N</td>
<td>Expiration date -2</td>
<td>Expiration date +1</td>
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</tr>
<tr>
<td>Warrant exercise (general)</td>
<td>EXWA</td>
<td>Y N</td>
<td>Assignment date</td>
<td>Actual maturity date +1</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>N N</td>
<td>CBL event deadline -2</td>
<td>Actual maturity date +1</td>
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Appendix F. Eligible markets for securities

### Bonds

<table>
<thead>
<tr>
<th>Country</th>
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</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>France</td>
<td>Luxembourg</td>
<td>Singapore</td>
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<tr>
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<td>Germany</td>
<td>Malaysia</td>
<td>Slovak Republic</td>
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<td>Malta</td>
<td>Slovenia</td>
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<td>Ireland</td>
<td>Norway</td>
<td>Switzerland</td>
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<td>Cyprus</td>
<td>Israel (Maturity &gt; 13 months)</td>
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<td>Italy</td>
<td>Poland (Government bonds)</td>
<td>Turkey</td>
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<td>Japan</td>
<td>Portugal</td>
<td>United Kingdom</td>
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<tr>
<td>Dubai (NASDAQ Dubai)</td>
<td>Latvia</td>
<td>Romania</td>
<td>U.S.A.</td>
</tr>
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### Equities

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<tr>
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<td>United Kingdom</td>
</tr>
<tr>
<td>Dubai (NASDAQ Dubai)</td>
<td>Israel</td>
<td>Norway</td>
<td>U.S.A.</td>
</tr>
</tbody>
</table>

1. Only government bonds.
2. A holding restriction is in place on national beneficial ownership.
3. Only Hong Kong bonds, Chinese bonds accessible via the Bond Connect scheme are not eligible.
4. UK equities are only eligible in triparty between counterparties with accounts either under the 1.5% or the 0.5% SDRT regime.
5. Excluded until further notice.
6. Only Hong Kong shares (H-shares); China A-shares accessible via the Stock Connect scheme are not eligible.