Automated Securities Lending Programme
Product Guide
Automated Securities Lending Programme

Clearstream Banking AG, Frankfurt

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Foreword

This guide (the “Product Guide” January 2018) describes the Clearstream Banking Frankfurt (CBF) Automated Securities Lending Programme, a lending service as defined in the Special Conditions for Securities Lending of Clearstream Banking AG, Frankfurt and in the Supplementary Conditions to the Special Conditions for Securities Lending of Clearstream Banking AG, Frankfurt.

The Special Conditions for Securities Lending of Clearstream Banking AG, Frankfurt together with the Supplementary Conditions to the Special Conditions for Securities Lending of Clearstream Banking AG, Frankfurt are governing documents for the use of the Automated Securities Lending Programme and prevail over this Product Guide. The agreement is governed exclusively by German law, which means that it benefits from clear, efficient and protective laws on securities and pledges.

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The daily administration of the Automated Securities Lending Programme is handled by a dedicated team in Frankfurt as follows:

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1. All times are Central European Time (CET) unless otherwise mentioned.
Content

Foreword ................................................................................................................. 1-i

1. Overview ............................................................................................................. 1-1

1.1 Benefits and features......................................................................................... 1-1
1.1.1 For lenders and borrowers ............................................................................. 1-1
1.1.2 For lenders .................................................................................................... 1-1
1.1.3 For borrowers ............................................................................................... 1-2
1.2 Role of Clearstream Banking Frankfurt ............................................................... 1-2
1.3 Legal documentation required for participation .................................................. 1-2
1.3.1 For lenders and borrowers ............................................................................. 1-2
1.3.2 For borrowers ............................................................................................... 1-2

2. System setup of the Automated Securities Lending Programme ......................... 2-1

2.1 CASCADE ......................................................................................................... 2-1
2.2 LMS .................................................................................................................. 2-1
2.3 Creation ............................................................................................................ 2-2
2.4 CmaX ............................................................................................................... 2-2
2.5 Xemac ............................................................................................................. 2-2
2.5.1 Collateral source CASCADE ..................................................................... 2-2
2.5.2 Collateral source Creation ......................................................................... 2-2
2.6 RTGS .............................................................................................................. 2-2

3. Standard settlement procedures for transactions in the German market ............... 3-1

4. Opening a Loan ................................................................................................... 4-1

4.1 Initiating an automatic loan ............................................................................... 4-1
4.2 Sourcing an automatic lender through CBF ....................................................... 4-1
4.2.1 Automatic lender ......................................................................................... 4-1
4.2.2 Case-by-Case lender ................................................................................... 4-1
4.3 Opening an automatic loan in LMS .................................................................. 4-2
4.4 Settlement of a loan in the Automated Securities Lending Programme .............. 4-3

5. Closing a loan ....................................................................................................... 5-1

5.1 Automatic return .............................................................................................. 5-1
5.2 Recall by the lender ......................................................................................... 5-2

6. Collateralisation of a loan .................................................................................... 6-1

6.1 Collateralisation using Cash .............................................................................. 6-1
6.2 Collateralisation with securities using the CBF pledge account ......................... 6-1
6.3 Collateralisation with securities using Xemac .................................................... 6-1
6.4 Collateralisation with Creation/CmaX ............................................................... 6-2
6.5 Collateral maintenance ..................................................................................... 6-2
12.11 Lender Cancellation ................................................................. 12-2
12.12 Trade Confirmation Storno ..................................................... 12-2

13. Disclosure of counterparties ...................................................... 13-1
   13.1 Disclosure of counterparties in CASCADE ............................... 13-1
   13.2 Disclosure of counterparties in LMS ...................................... 13-1
   13.3 Disclosure of counterparties on TARGET2 .............................. 13-1

   14.1 Corporate action processing fee ........................................... 14-1
   14.2 Overdue return transfer fee ............................................... 14-1
   14.3 Calculation of fee for Automated Securities Lending and Borrowing Service (ASL) ............................. 14-1

Glossary ....................................................................................... 15-1
References .................................................................................... A-1
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1. Overview

The Automated Securities Lending Programme of CBF bridges the gaps that would otherwise cause settlement to fail.

As Central Securities Depository (CSD) for the German market, CBF is ideally placed to provide an efficient lending of last resort for participants trading equities and bonds in the German market.

With a diverse range of customers, CBF’s Automated Securities Lending Programme provides a first class lending service.

The following figure shows a simplified model of the programme identifying the key elements and participants.

1.1 Benefits and features

1.1.1 For lenders and borrowers

- Automatic securities administration reduces overhead costs for both lenders and borrowers. The Automated Securities Lending Programme is fully automated and CBF manages all operational and administrative processes, including the management of collateral;
- Flexibility and freedom as CBF enables customers to be an automated borrower/lender and/or a Case by Case borrower/lender for all types of loans.

1.1.2 For lenders

- Portfolio yield is increased;
- Custody fees are waived on lent positions;
- Lenders are entitled to income proceeds via compensation payments.
1.1.3 For borrowers

- Secures reputation as settlement counterparty;
- No intervention necessary for cases of settlement fails; fully automatic loan opening, administration and redelivery once sufficient securities are available on the customer account again;
- Prevents failure allowing better cash management. Borrowers are now able to settle trades that would otherwise fail, providing the cash from the trade on the expected settlement date;
- Offers multiple collateralisation methods, enabling international participants to benefit from the use of borrowed securities and the provision of collateral as readily as in their domestic activities;
- Access to a large and diverse pool of lendable securities as just one contract has to be signed to access all lenders.

1.2 Role of Clearstream Banking Frankfurt

CBF fulfils a facilitating role in the programme, as follows:

- Acts as collateral trustee during the loan to both, lender and the borrower;
- Undertakes administrative functions, thus saving overhead costs for lenders of arranging the loans of the securities themselves;
- Provides a secure environment;
- Marks securities to market daily;
- Manages collateral haircuts to be applied on a daily basis;
- Offers multiple ways to mobilise collateral, making use of borrowed securities and provision of collateral for international in the same way as for domestic participants;
- For loan management and pricing activities the CBF application LMS is dependent on master data and price data provisioning from external sources.

1.3 Legal documentation required for participation

1.3.1 For lenders and borrowers

- General Terms and Conditions for the opening of any CBF account;
- Securities Lending and Borrowing Rules of Clearstream Banking Frankfurt;
- Know Your Customer (KYC) and Anti Money Laundering (AML) to be checked for compliance with CBF standards.

1.3.2 For borrowers

- Side Letter for the Automated Securities Lending Programme;
- If required: Application documents for the collateral management system (Xemac) or Triparty Collateral Management Service (CmaX).

1. If not already a CBF customer.
2. System setup of the Automated Securities Lending Programme

In general, two systems are involved in providing an Automated Securities Lending Programme of CBF, in Germany:

- **Central Application for Settlement, Clearing and Depository Expansion (CASCADE);**
- **Lending Management System (LMS).**

The use of three further systems called Creation [international settlement platform], Xemac and CmaX [Xemac and CmaX for collateralisation purposes] is optional but allows international customers access to German domestic securities.

As a supplementary system, TARGET2 is used to effect cash transfers between counterparties for example, cash collateralisation, compensation payments etc.

### 2.1 CASCADE

CASCADE is the settlement system of CBF. For the settlement of securities held in Collective Safe Custody (CSC), each customer of CBF has an account in CASCADE. This account is identified based on a four-digit customer specific account number and a three-digit sub-account number. The main account number for each customer is always the four-digit customer specific account number plus the sub-account number 000 (nnnn000).

Sub-account numbers are used to give customers the possibility to separate different types of businesses. Some sub-account numbers are reserved for special CBF functions. Some reserved sub-accounts are automatically opened for each customer when opening a standard CBF account.

Conceptual example:
The sub-accounts 510 for the Automatic Securities Lending Programme and 550 for the management of collateral are automatically opened with the opening of a standard CBF account but can only be used once application forms for securities lending or Xemac are provided by the customer (see section 2 of the CBF Customer Handbook). A third type of account is the so-called 680 pledge account. This account is a special account, held in the name of CBF acting as collateral trustee.

For further information please refer to [Collateralisation of a loan](#) on page 6-1.

Transfers between CASCADE accounts are effected through different transaction types; for example:

- 11 open a loan;
- 12 close a loan.

On the standard CBF SWIFT reporting (MT536 Clearing & Settlement Statement, MT54x Settlement Confirmation) these transaction types and LMS loan trade numbers are shown.

### 2.2 LMS

LMS is the system that manages all securities lending transactions. It communicates with the CASCADE platform on settlement date (S). In LMS, operation types correspond to different types of transactions in CASCADE. Operation types in LMS consist of two two-character parts:

- The first two-character part always indicates the underlying service type. Possible operation types are, for example,
2.3 Creation

Creation is the settlement system of Clearstream Banking Luxembourg (CBL). Securities to be provided to collateralise loans opened in the Automated Securities Lending Programme (if customers choose to collateralise via a CmaX-Xemac link), are sourced from the main account.

2.4 CmaX

CmaX (Triparty Collateral Management Service) is the collateral management system operated by CBL and primarily used by customers to collateralise transactions related to CBL products. Today, CmaX is linked to Xemac for pooling and mobilising collateral for use beyond CBL for different purposes (for example, Eurex Clearing, GC Pooling and securities lending).

2.5 Xemac

Xemac is the collateral management system operated by CBF. In Xemac, customers can pool their assets from two possible collateral sources [CASCADE or Creation] via one common platform in order to manage their collateral for different purposes (for example, Eurex Clearing, GC Pooling and securities lending).

2.5.1 Collateral source CASCADE

In order to pool assets held in CASCADE, customers must transfer their respective assets in Xemac to their CASCADE sub-account reserved for collateral management [550]. The collateral can then be allocated to different counterparties identified by four-digit codes.

2.5.2 Collateral source Creation

The customer may collateralise its loan with assets held in Creation via a CmaX-Xemac link. Securities held in Creation are booked from the main account to the reservation account to make them available for collateralisation purposes in CmaX and, hence, in Xemac via the CmaX-Xemac link. Securities on the reservation account are then blocked for further use by CmaX and marked in Xemac as available for collateralisation purposes.

2.6 RTGS

Customers can provide cash as collateral by providing a debit authorisation for Clearstream operations. EUR in central bank money is debited from the borrower’s RTGS account and credited in CBF applications for collateralisation of ASL loan exposures.
3. Standard settlement procedures for transactions in the German market

All CSC securities\(^1\) issued by CBF as Issuer CSD are settled via CASCADE on the T2S platform. The following transaction classes in bonds or equities against payment are subject to the Automated Securities Lending Programme:

- Over-the-counter (OTC) transactions;
- Stock exchange transactions;
- Clearing transactions for Eurex Clearing AG (CCP);
- Deliveries out of exercised options.

Delivery instructions (Delivery free of payments, DvP, Delivery without payment) are processed during daytime continuously in Realtime Settlement (RTS) mode.

For example, the earliest settlement for a securities transaction to be settled on settlement date S can be processed in the morning of S via RTS.

For further information on the CBF business day and RTS settlement, please refer to CASCADE Handbook Part 1.

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\(^1\) Securities held in Collective Safe Custody (CSC).
4. Opening a Loan

CBF acts automatically for the customer’s settlement accounts. Subject to sufficient collateralisation and the need and possibility to establish a loan, automatic loans are set up without any further intervention on the customer side. The separation of automatic lending business for the lender is guaranteed through a separate sub-account for the automatic lender (510).

If a lending demand cannot be fully or partially met by automatic lenders, CBF will try to determine a Case-by-Case lender to cover the lending demand fully or partially. CBF will source a suitable lender based on its pool of Case-by-Case lenders. A guarantee for fulfilling all lending demands resulting from settlement fails cannot be granted.

4.1 Initiating an automatic loan

CBF determines the borrowing requirements of a participant in the Automatic Securities Lending Programme automatically during the day based on matched, unblocked, and pending deliveries against payment that failed due to a lack of securities (OTC and stock exchange transactions). Optional for the customer is to also incorporate settlement fails due to a lack of cash on the recipients side in the determination of the borrowing need. The borrowing need is determined on a daily basis, taking into account all depository holdings of the participant in CASCADE (main account holdings, collateral account holdings on 680 pledge account).

The target of the Automated Securities Lending Programme is to prevent settlement failures until the afternoon of each settlement day.

4.2 Sourcing an automatic lender through CBF

The sourcing of automatic lenders is done automatically by CBF’s lending system LMS. Internally, without interaction necessary by the customer, LMS will create loan opening suggestions for the automatic borrower.

To minimise borrowing costs for automatic borrowers, CBF always tries to set up securities loans with a single automatic lender first. Manual intervention by CBF will only take place if a loan cannot be set up with a single automatic lender only. In these cases, CBF will try to arrange a loan with a single Case-by-Case lender. In cases where a single lender is not sufficient to fulfil the entire borrowing need, multiple loans are opened. If the entire borrowing need cannot be covered by either an automatic, a Case-by-Case lender or a combination of the two, no loan will be opened.

4.2.1 Automatic lender

Securities that are held by an automatic lender on its 510 automatic securities lending sub-account are visible to CBF and can be lent automatically without prior consultation with the lender. If a sufficient amount of securities is available on the 510 automatic securities lending sub-account of the respective lender, a loan suggestion between the automatic borrower and the respective automatic lender is registered in CBF’s lending system LMS.

4.2.2 Case-by-Case lender

In case the lending demand cannot be fully or partially met by automatic lenders, CBF will try to determine a Case-by-Case lender to cover the lending demand fully or partially. CBF will source a suitable lender based on its pool of Case-by-Case lenders.
4.3 Opening an automatic loan in LMS

For an automatic loan opening, LMS creates the necessary transactions automatically on the CBF side based on the PoA/side letter granted by the automatic borrowing participants. Depending on what type of lender is involved in the transaction (for example, Automatic lender or Case-by-Case lender), it is booked against the respective customers’ [sub-] accounts in CASCADE.

<table>
<thead>
<tr>
<th>Operation type</th>
<th>Automatic Lender</th>
<th>Case by Case Lender</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lender Account</td>
<td>xxxx/510</td>
<td>xxxx/yyy</td>
</tr>
</tbody>
</table>

This means that if an automatic lender is used in the transaction, the lender account targeted is xxxx/510. If there is a Case-by-Case lender involved in the transaction, dedicated lender accounts (including sub-accounts) can be used.

For the automatic borrower, no further intervention is necessary. Borrowing and Lending rates are fixed according to the Fee schedule of the Automated Securities Lending Programme. The target settlement time is 16:00 on the same day.

Minimum lot sizes for the opening of loans have to fulfil the requirements of the settlement platform. In addition, CBF sets the size to 50 units for equities.

The transaction will settle only if the collateralisation of the automatic loan is ensured. Settlement of the collateral must be performed before the settlement processing of the loan opening. If it was not possible to guarantee sufficient collateralisation, the automatic loan will not open.

<table>
<thead>
<tr>
<th>Timing</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flexible start after NTS</td>
<td>All transactions and all instruction types can settle. If NTS is not finished by 03:00, this T2S RTS period is skipped.</td>
</tr>
<tr>
<td>03:00 – 05:00</td>
<td>T2S period for maintenance purposes No settlement or booking activity</td>
</tr>
<tr>
<td>05:00</td>
<td>All transaction and all instruction types can settle</td>
</tr>
<tr>
<td>10:00 – 10:15</td>
<td>First partial settlement window</td>
</tr>
<tr>
<td>12:00 – 12:15</td>
<td>Second partial settlement window</td>
</tr>
<tr>
<td>14:00 – 14:15</td>
<td>Third partial settlement window</td>
</tr>
<tr>
<td>15:45 – 16:00</td>
<td>Fourth partial settlement window</td>
</tr>
<tr>
<td>16:00</td>
<td>Deadline for transactions against payment</td>
</tr>
<tr>
<td>17:40</td>
<td>Bilaterally Agreed Treasury Management (BATM): Extended deadline for transactions against payment.</td>
</tr>
<tr>
<td>18:00</td>
<td>Deadline for FoP transactions.</td>
</tr>
</tbody>
</table>

**Figure 4.2** Overview of the T2S real-time settlement

For more information about the collateralisation process, please see Collateralisation of a loan on page 6-1.
4.4 Settlement of a loan in the Automated Securities Lending Programme

Instructions necessary for the settlement of securities loans are sent to CASCADE by LMS and settle in RTS mode on the T2S platform. Transfer instructions initiated by LMS are always free of payment transactions (FoP) for the settlement of the lent securities, as well as for the settlement of the respective collateral movements.

The source accounts debited for the securities on loan are either the automatic lending accounts or the Case-by-Case lending accounts [510 or for example, 000].
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5. Closing a loan

5.1 Automatic return

The return of a loan in the Automated Securities Lending Programme is processed fully automatically by CBF’s lending system. As a general rule, automatic loans are only returned by using securities that are not required for the respective day’s settlement. This avoids new settlement failure resulting from returns of automatic loans.

Upon opening a loan, LMS will calculate automatic loan closures with a low settlement priority. This happens out of account holdings acquired by the automatic lender during the day provided that for new account holdings no pending DvP deliveries exist. If this allows for a full return of the loan by the automatic lender, the automatic loan is closed and the life cycle of the automatic loan ends.

CBF collects information from CASCADE about the pending deliveries and account holdings of the automatic borrower’s 680 pledge accounts and open loans.

Based on this information, the following takes place while each next step is only taken if all or parts of automatic loans still remain pending:

1. CBF calculates full or partial returns based on account holdings and pending account holdings.
2. If an automatic borrower is over-collateralised, LMS deallocates securities that are pledged as collateral in the 680 pledge accounts if the customer opted for this Auto-Substitution service.
3. If an automatic borrower is not over-collateralised but securities that are pledged as collateral for securities lending in the 680 pledge accounts could be used to close all or parts of a pending automatic loan, CBF tries to manually open additional collateral positions to enable the substitution/deallocation of the required securities. Participants in the Automatic Securities Lending Programme can opt for participation in the Collateral Substitution Service. It is not mandatory.

Manual returns by the borrower are not possible in the Automated Securities Lending Programme.
5.2 Recall by the lender

If the lender cancels an open loan it must respect a certain period of notice. Lender recalls received before 15:00 are processed with recall settlement date T+2, otherwise with recall settlement date T+3. When CBF receives the cancellation by the lender, a lender cancellation report in PDF format will be immediately sent out to the borrower. At the same time, CBF will source a new lender and will propose the opening of a new loan to the borrower as a replacement of the cancelled one.

If the borrower opts for a loan replacement, a new loan with a new lender will be opened (a loan opening process starts again). With the securities received through the new loan, the old loan is returned.

If no new lender can be identified, the loan is closed within LMS and the securities are returned to the lender. If the borrower cannot provide the securities in time, LMS will roll over the loan and CBF will contact the borrower and lender immediately. For the further processing in these cases, please refer to section Late delivery procedures on page 8-1.
6. **Collateralisation of a loan**

In general, loans are always required to be fully collateralised, marked to market on a daily basis. The collateral to be provided is subject to haircuts as described below.

For further details about collateral reporting, please refer to section References on page A-1.

6.1 **Collateralisation using Cash**

Loans resulting from the Automated Securities Lending Programme can be collateralised with Cash in Euro in central bank money via the TARGET2 cash account.

6.2 **Collateralisation with securities using the CBF pledge account**

A borrower can collateralise its loans with securities according to CBF eligibility criteria [see Eligibility Criteria on page 7-1]. All securities collateral is booked on so-called 680 pledge accounts. These 680 pledge accounts are not normal sub-accounts of the customer account but specific pledge accounts held in the name of CBF acting as lending agent. The account numbers of these specific pledge accounts are composed by inserting "680" after the first digit of the customer account number. If, for example, the customer account number is 1234, the pledge account number for this specific customer would be 1680234.

The construction of the 680 pledge accounts allows that the legal beneficiary of the pledge accounts is CBF while the pledged securities remain linked to the original beneficial owner.

6.3 **Collateralisation with securities using Xemac**

A borrower can collateralise its loans via collateral held in and managed via Xemac. In order to pool assets in Xemac, customers must transfer the respective assets into the Xemac pool (CASCADE and Creation). Once pooled on the Xemac platform, the assets can then be managed for different uses by pledging them to different counterparties, identified by four-digit Xemac counterparty codes. To pledge collateral for securities lending purposes within Xemac, the customer must allocate collateral to the Xemac counterparty 8261 (CBF as collateral trustee). For 8261, a dedicated client reference CBF w/WP-Leihe (in English: CBF regarding securities lending) is used to receive collateral to cover exposures resulting from the CBF lending service transactions.

Once pledged to CBF with the correct counterparty client reference, the collateral positions are marked as blocked in Xemac and the related Xemac claim amount is registered in LMS as collateral provided by the borrower in favour of CBF. This collateral value is subject to the Xemac specific haircuts for the respective instruments. In LMS, this collateral value (net after haircut) is shown marked as "Xemac Collateral".

The collateral claim amount in Xemac is updated by LMS on a daily basis to reflect price movements in collateral. In case price movements in collateral result in an under-collateralisation, the customer needs to instruct the allocation of additional collateral for the use of lending services. Further use of pledged and blocked securities by the customer within Xemac is not possible anymore unless the pledged and, hence, blocked securities are substituted by other securities.
As the 550 sub-account is a sub-account of the customers main account the borrower remains the beneficial owner for corporate actions during the collateralisation. CBF only acts as trustee.

6.4 Collateralisation with Creation/CmaX

A borrower can collateralise its loans from holdings in its Creation securities accounts by mobilising collateral from multiple collateral source accounts in Creation.

The auto assign and auto substitution facilities with its Creation source account are offered by the CmaX-Xemac link. Collateral mobilised via the CmaX-Xemac link will be part of the “Xemac Collateral” position in LMS.

If the customer opts for a collateralisation via CmaX directly, this collateral claim amount (net after haircut) is shown as “CmaX Collateral” on reports. Direct collateralisation of CBF lending exposures via CmaX is realised via a CBF-I 6-series triparty collateral pledge account, based on the legal documentation mentioned in the introductory part of this document [see “Foreword” on page i].

6.5 Collateral maintenance

Positions pledged as collateral are reviewed in accordance with fluctuations in market values. While the loan is outstanding, all collateral is marked to market daily, including collateral haircuts and returns.
7. Eligibility Criteria

7.1 Loans

All standard ISINs (for example, shares, bonds) eligible for settlement in CASCADE can be processed via LMS [see LMS on page 2-1]. Subject to the discretion of the CBF board and specific criteria in line with our special conditions for securities lending, a subset of these ISINs can be used for opening loans.

7.2 Collateral

With regard to risk, CBF can unilaterally modify the collateral eligibility criteria from time to time, thus taking into account potential changes to the market conditions. In general, all loans must be pre-collateralised before they can be opened. Criteria such as the instrument type, issue characteristics, issuer country, industry sector, currency denomination and the issuer rating are used to determine whether a security is to be accepted.

Collateralisation can be provided in the following ways:

- Cash;
- CBF pledge account;
- Xemac;
- CmaX.

7.2.1 Cash

A haircut of 5% is applied for the cash value collected from the RTGS account of the borrower.

7.2.2 CBF pledge account

All standard ISINs (for example, shares, bonds) eligible for settlement in CASCADE can be processed via the CBF pledge account. Subject to the discretion of GSF management and provided that certain specific criteria are met, a subset of these ISINs can be used as collateral via 680 pledge accounts.

The following securities are eligible as collateral via the CBF pledge account:
Equities basket [Equities main EU indices):
- DAX 30;
- MDAX;
- Dow Jones Euro STOXX 50 Index;
- Austrian Traded Index (ATX);
- BEL 20 Index;
- Swiss Market Index (SMI);
- IBEX 35 Index;
- OMX Helsinki 25 Index;
- CAC 40 Index;
- Amsterdam Exchanges (AEX) Index;
- PSI 20 Index.

Fixed Income basket
- GC Pooling® ECB Basket;
- GC Pooling® ECB EXTended Basket.

For further information concerning the above-mentioned fixed income baskets, please refer to the Eurex Repo website at www.eurexrepo.com under the GC Pooling section.

Haircuts applied on collateral in the CBF pledge account
Haircuts are defined as an actual deduction from the market value of the securities provided as collateral. This means that the mentioned market value of the collateral securities minus the haircut must result to the value of the loan exposure.

Cash: 5%
Equities: 10%
Fixed Income: In line with the EAD list\(^1\) provided by the European Central Bank (ECB).

Furthermore, for the CBF pledge account, it is possible to set up lender- or borrower-specific haircuts per asset class that would override the above-mentioned standard settings as appropriate. LMS automatically chooses the applicable haircut according to the general, borrower or lender setup in the system.

7.2.3 Xemac
For collateral provided via Xemac, the following securities can be used as collateral.

Via Xemac, it is also possible to pledge securities for collateral that are held in Non Collective Safe Custody (NCSC) in CASCADE; therefore, Xemac extends the scope of eligible collateral beyond ISINs that LMS can handle via 680 accounts.

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1. EAD - Eligible Asset Database. For further reference please visit www.ecb.int/paym/coll/assets/html/list.en.html.
**Eligibility Criteria**

**Equities basket (Equities main EU indices):**
- DAX 30;
- MDAX;
- Dow Jones Euro STOXX 50 Index;
- Austrian Traded Index (ATX);
- BEL 20 Index, Swiss Market Index (SMI);
- IBEX 35 Index;
- OMX Helsinki 25 Index;
- CAC 40 Index;
- Amsterdam EXchanges (AEX) Index;
- PSI 20 Index.

**Fixed Income basket**
- GC Pooling® ECB Basket;
- GC Pooling® ECB EXTended Basket.

For further information concerning the above-mentioned fixed income baskets, please refer to the Eurex Repo website at [www.eurexrepo.com](http://www.eurexrepo.com) under the GC Pooling section.

**Haircuts applied on Xemac collateral**
Haircuts are applied as set up in the Xemac system.
- Equities: 10%
- Fixed Income: In line with the EAD list provided by the ECB

### 7.2.4 Triparty Collateral Management Service (CmaX)
If CmaX is used for collateralisation via the CmaX-Xemac link, the same eligibility criteria as for Xemac collateral apply.

If CmaX is used for collateralisation directly, without the involvement of Xemac, securities fulfilling the ASLplus criteria are eligible as collateral, as well as EGCPX securities.

For further information, please refer to the Triparty Collateral Management Service (CmaX) - Product Guide, reference given in References on page A-1.

**Haircuts applied on CmaX collateral**
Haircuts are applied as follows:
- For collateralisation via the CmaX-Xemac link: as set up in the Xemac system; and
- For collateralisation directly via CmaX: according to CmaX criteria.
8. Late delivery procedures

8.1 Late delivery by the lender

In the case of late delivery of securities for a loan, the borrower is entitled to demand that the lender pay to the borrower for the period of delay. This amount is the difference between the remuneration (including any other related expenses incurred) for conclusion and arrangement of a substitute loan and the remuneration (including any other related expenses incurred) that the borrower would have had to pay if the delivery had been made on time (substitute loan costs).

8.2 Late redelivery by the borrower

In the case of late redelivery of securities on a loan, the lender is entitled to claim an amount from the borrower to cover the substitute loan costs incurred by the lender. This amount is at least the lending remuneration calculated for the period from recall transfer date (inclusive) until the day of actual recall transfer of the lent securities (exclusive).

Alternatively, the lender can – after prior announcement and extension of the deadline by a minimum of one settlement day – refuse the return transfer of the lent securities and can instruct CBF to buy-in, on the account of the borrower, a corresponding quantity of securities of the same type and quality on settlement date following the date of expiry of the extended period and to transfer these securities to the lender. If this buy-in is not possible, then CBF will credit the cash equivalent of the securities to the TARGET2 account of the lender and debit such equivalent plus a remuneration according to the then valid service price schedule to the TARGET2 account of the borrower. Decisive for a calculation of the equivalent is the price quoted on the Frankfurt Stock Exchange, another German stock exchange, or the respective reference price of a stock price information system acknowledged by the market (market price) on the return transfer entitlement date.

If a cash equivalent is booked to the borrower’s TARGET2 account and the borrower does not cover its TARGET2 account with the respective amount, the securities pledged or assigned as collateral will be realised by CBF on the settlement date following expiry of an advance notice period of two settlement days (following written notification to the borrower).
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9. **Criticality of corporate actions**

Certain corporate actions are seen as business critical by CBF. In these terms, a differentiation is observed between loan critical and collateral critical corporate actions as shown in the following table.

<table>
<thead>
<tr>
<th>Description</th>
<th>Loan Critical</th>
<th>Collateral Critical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest payment</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Dividend payment</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Maturity date</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Maturity partial</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Rights issue</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Conversion</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Redenomination</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Split series</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Distribution</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Distribution compensation</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Maturity profit-sharing rights</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Maturity certificates</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Maturity liquidation</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Funds income</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Other income</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Participation rights income</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Partial call up to poolfactor</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Redemption in securities</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**Note:** For critical corporate actions, CBF does have the right to terminate the loan on an extra-ordinary basis.
9.1 Loan critical corporate actions and impact on loans to be opened

If a loan critical corporate action is scheduled for an ISIN, the automatic suggestion of new loans in this ISIN by LMS is suppressed for a customer definable period of days before the entitlement date of the corporate action. The standard setup is a five day period.

9.2 Loan critical corporate actions and impact on already open loans

In general, corporate actions for ISINs for which loans are already open are displayed on the positions report up to twelve business days before its entitlement date (subject to availability of the corporate action information in CBF’s custody systems KADI/WSSI).

If a corporate action in a specific ISIN for which a loan is already open is a critical one, no automatic processing is foreseen. Nevertheless the participants should recall or return their loans respectively.

9.3 Collateral critical corporate actions and impact on positions available as collateral

If a critical corporate action date is pending for a specific security, the corresponding inventory will not be available for opening new collateral positions.

9.4 Collateral critical corporate actions and impact on already pledged collateral positions

During the day, collateral positions are checked for critical corporate actions scheduled for the following business day. When this is the case, the respective collateral position is automatically returned in its entirety. The return will also take place if future date trade operations are entered for this collateral position. These will be cancelled and a full return will be entered.
10. Custody events and corporate actions

In the following, the treatment of different corporate actions in the Automated Securities Lending Programme is described. The TARGET2 accounts linked to the respective CBF account are used to perform cash transfers due to cash settled corporate actions.

Please note that the holding of securities in collateral accounts (680 pledge account or 550) is tax-neutral for the borrower in relation to the coupon or dividend payments.

10.1 Cash income distributions for equities (dividends)

Entitlements to cash income distributions resulting from equities on loan need to be claimed by the lender. After the lender has announced a dividend claim concerning a security under loan to CBF and the correctness of the dividend claim is validated, CBF will debit the borrower’s cash account and credit the lender’s cash account with the respective amount.

For further information about the calculation of the amounts claimed, please refer to Tax treatment on page 11-1.

10.2 Cash income distributions for bonds

CBF will debit the borrowers cash account and credit the lenders cash account with the interest payments calculated based on the coupon and the nominal with the respective amount.

For further information on the calculation of the amounts claimed, please refer to Tax treatment on page 11-1.

10.3 Non-income corporate actions

Non-income corporate actions are processed differently, as shown below.

10.3.1 Reduction of nominal
The amount of the equity capital will remain unchanged but the emission ratio of the shares will change and also the price in relation to the reduction of the nominal.

CBF will change the nominal amounts along with the new price.

10.3.2 Capital increase without issuance of subscription rights
If a capital increase without transferable subscription rights takes place, the loan amount (nominal) will be changed by CBF in proportion to the capital increase.

10.3.3 Capital increase with issuance of transferable subscription rights
If a capital increase with transferable subscription rights takes place, a strategic loan is opened in the respective ISIN with an amount of subscription rights calculated based on the split ratio and the value of each subscription right either calculated from the prior ex-date closing price and the strike price of the new shares or taken out of WSS. This new loan will be assigned a new trade number, different to the one of the original loan which was subject to the corporate action.
The borrower must return the subscription rights to the lender, at the latest after three days to ensure ability to trade the subscription rights for the lender.

10.3.4 Mandatory conversion
In a mandatory conversion, the current ISIN will cease to exist. To reflect this, a return in the old ISIN and an opening in the new ISIN will be performed.

10.3.5 Voluntary conversion
Unless the lender instructs CBF to tender the position, no action will be taken.
11. Tax treatment

11.1 Introduction

With the opening of a securities loan, a transfer of title of the securities underlying the loan is made from the lender to the borrower. Nevertheless, the lender still remains entitled to receive any cash compensation resulting from corporate actions impacting the underlying loan securities. To reimburse the lender for its entitlement, the borrower pays a so-called compensation payment to the lender. This compensation payment is to bring the lender back to the position he would have had if he had held the securities on loan on his own accounts at the time the corporate action was processed (as defined the Securities Lending and Borrowing Rules of Clearstream Banking AG, Frankfurt section 13). This has tax implications, as explained below.

Tax principal based on account holdings

With the opening of a loan, the securities subject to the loan are transferred from the lender account to the borrower account. Hence, the beneficial ownership of the securities lent goes to the borrower. From this it follows that the tax status of the lender no longer applies, either to the securities themselves, or to the cash proceeds resulting from those securities. During the period of a loan, the tax status of the borrower applies to the securities on loan.

Tax treatment based on nature of cash proceeds

The nature of cash proceeds determines the tax to be applied, as follows:

- **Cash proceeds from coupon payments on bonds**
  Cash proceeds from coupon payments on bonds are interest income and are not subject to a withholding tax in Germany. They are subject to the individual corporate tax level of the entity holding the respective bonds on its accounts.

- **Cash proceeds from dividend payments on equities**
  Cash proceeds from dividend payments on equities are dividend income. Dividend incomes are subject to a withholding tax, namely a withholding tax on capital in Germany, plus the so-called solidarity surcharge. These taxes are deducted from the gross dividend payment at source because CBF only pays out dividends net to the respective beneficial owners cash accounts (based on the accounts where the securities are held).

- **Cash proceeds from compensation payments made by the borrower to the lender**
  Cash proceeds from compensation payments made by the borrower to the lender are treated as other income and are not subject to a withholding tax in Germany. Hence, they are like coupon payments subject to the individual corporate tax level of the entity receiving the respective compensation payment.

11.2 Cash distributions for securities on loan

This section describes the processing of different corporate actions in the Automatic Securities Lending Programme. The TARGET2 account linked to the respective CBF account is used to effect cash transfers due to cash settled corporate actions.

**Note:** Holdings of securities in collateral accounts [-550] are tax-neutral for the borrower in relation to coupon or dividend payments.
### 11.3 Cash distributions for securities on loan

#### 11.3.1 Equity dividend payments

In general, the borrower needs to put the lender to a position as if the lender would have held the securities on loan on his own accounts at the time an equity dividend was paid. This is done through a compensation payment. Furthermore, on the lender side, the compensation payment is subject to its individual corporate tax level. Hence, the amount due to pay by the borrower is based on two variables:

- The net dividend the lender would have received if it had held the securities on loan on his own accounts; and
- The corporate tax level subject to the compensation payment to be received by the borrower:

\[
\text{comp. percentage} = \frac{\text{as if net dividend payment on lender side}}{(1 - \text{lender individual corporate tax level})} = \frac{(1 - \text{tax at source - solidarity surch.})}{(1 - \text{lender individual corporate tax level})}
\]

For example, as soon as the individual corporate tax level on the lender side is higher than the dividend tax level on the lender side, the borrower would need to compensate the lender with a compensation payment bigger than 100% of the actual dividend payment, irrespective of what amount the borrower received as net dividend.

In practice, as the lender’s corporate tax level is not known to the borrower, the lender will claim an absolute amount due as compensation payment from the borrower to CBF. For further information, please see [Criticality of corporate actions](#) on page 9-1.

#### 11.3.2 Bond coupon payments

Bond coupon payments are not subject to a withholding tax and hence the borrower, as beneficial owner of the securities, will receive 100% of the coupon payments subject to the loan.

In terms of compensation, the same is valid as for equity dividend payments:

The borrower must put the lender in the position as if the lender would have held the securities on loan on the lender's own accounts at the time a bond coupon was paid.

As the coupon payments on bonds and the compensation payments made by the borrower to the lender are subject to the same tax on the lender side, the amount due to pay by the borrower is 100% of the coupon payment. With that, the lender is in the targeted position.

### 11.4 Cash distributions for securities as collateral

Securities provided as collateral by the borrower are only pledged (no transfer of title), no matter whether equities or bonds.

Due to the setup in CBF, the pledging accounts, irrespective of whether collateral is provided in CASCADE (680 pledge accounts) directly or via Xemac (550 sub-accounts) are directly linked to the original owners. Hence, while pledged, the tax status of the original owner, the borrower, still applies to the securities.
12. PDF or CSV reporting provided by CBF

Reports are distributed manually by CBF, in the desired format (PDF or CSV) to authorised addresses of customers at the end of each business day.

For further information about individual reports, please refer to Electronic reports in securities lending, which is available on the Clearstream website www.clearstream.com under Key Documents / CSD / Global Securities Financing.

12.1 Settlement confirmation

The settlement confirmation reporting gives lenders and borrowers an overview over all the securities loans that have settled on the date the report was issued, separated by the product type the securities loans were concluded in. The trade date is also displayed on the report, either being the same as the settlement date (same day securities loans) or being in the past.

12.2 Positions

This report gives the customers an overview over all their activities: currently active loans, when they were agreed and when they were settled for the opening, as well as closings, when they were agreed and when they are planned for settlement.

12.3 Trade confirmation (opening and return)

The trade confirmation reporting gives lenders and borrowers an overview over all the securities loans that have been agreed on the date the report was issued, separated by the product type the securities loans were concluded in. The intended settlement date is also displayed on the report, either being the same as the trade date (same day securities loans) or being in the future.

12.4 Pledged collateral and collateral movement

All borrowers can receive the "Pledged Collateral" report, which displays all pledged securities, mark to-market information, exposures and collateral values.

The "Collateral Movement" report is distributed to show changes in collateral positions.

12.5 Collateral lender and collateral borrower

Lenders can receive the "Collateral Lender" report, borrowers the "Collateral Borrower" report. This report displays the securities received (lender) or pledged (borrower) as collateral, grouped by counterparty. The actual counterparty is displayed in coded format.
12.6 External Collateral Lender

Displays a breakdown of collateral positions pooled in Xemac and pledged to CBF in its fiduciary role for the respective counterparty. Breakdown is a mathematical pro rata allocation of collateral posted to CBF as collateral taker. Allocation follows the overall LMS principle.

12.7 Monthly tax information

The “Monthly Tax Information” reporting is sent once a month to lenders as well as borrowers. It shows information about who their counterparty was, in securities lending transactions, for the purposes of tax reporting.

12.8 Monthly fee

The “Monthly fee” report is sent once a month to lenders as well as borrowers. It shows the securities lending fees to be received or paid due to securities lending activity during the respective month.

12.9 Trade Opening

The “Trade Opening” report contains information concerning opened securities loans, separated per single transaction, for the borrower and the lender.

12.10 Return

The “Return” report contains information concerning closed securities loans, separated per single transaction, for the borrower and the lender.

12.11 Lender Cancellation

If the lender recalls, the “Lender Cancellation” report is sent to both, the lenders [as receipt confirmation] and the borrowers [as notification].

12.12 Trade Confirmation Storno

If either loan openings and/or returns are cancelled, the “Trade Confirmation Storno” report is sent before settlement of the opening/the return.
13. Disclosure of counterparties

13.1 Disclosure of counterparties in CASCADE

On the CASCADE level, the actual counterparties of a loan are not disclosed. If automatic bookings are generated by the Lending system, the value “****” is displayed as counterparty in CASCADE.

13.2 Disclosure of counterparties in LMS

In LMS, the disclosure of counterparties is managed via the so called “Disclosure Key”. The customer can choose whether it wants to see its counterparties’ disclosure keys on its own reporting or not. As a standard, borrowers as well as lenders are set up in LMS as seeing their counterparties’ disclosure keys. That way, borrowers and lenders will be able to see who the counterparty is of the loan via standard LMS reporting, like the “Settlement Confirmation”. Customers can opt not to see their counterparties’ disclosure keys.

13.3 Disclosure of counterparties on TARGET2

On the TARGET2 level, the following detail is displayed:

- For cash debits and credits performed by CBF [corporate action processing, billing]: CBF account number 7518 as counterparty.
- For securities movements, the T2S SAC linked to CBF account 7945 is displayed.
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14. Billing in Automated Securities Lending Programme

14.1 Corporate action processing fee

For the processing of corporate actions of ISINs under loan, the borrower is charged EUR 25.00 per loan position.

14.2 Overdue return transfer fee

If a borrower does not return its securities in time as obliged by the General Terms and Conditions underlying its loan transactions, the borrower is charged a penalty fee of EUR 1,000.00 per late return.

14.3 Calculation of fee for Automated Securities Lending and Borrowing Service (ASL)

All loans that are closed during the month are taken into consideration for monthly billing until day of closing. However, all loans that are still pending at month end are pro-rata billed until end of month.

Customers are credited on a monthly basis in EUR on the fifth calendar day of the month following the billed month. If the fifth falls on a non-business day, CBF bills on the next business day.

The fees within the Automated Securities Lending Programme are fixed for borrowers as well as for lenders. Borrowers pay 150 basis points (bps); lenders receive a compensation of 75 bps. All loans are subject to minimum fees; as follows:

- EUR 20.00 for loans of German equities held in Collective Safe Custody (CSC);
- EUR 30.00 for loans of ETFs and Non-German equities held in CSC.

The value of the loan is determined at the opening of the loan and, unless otherwise specified, remains constant throughout its duration. The lending and borrowing fees also remain constant unless the loan is fixed at a new level by CBF.

The calculations are as follows (for German equities held in CSC):

Borrower fee:

\[
Borrower \ fee = \min\left(20, Loan \ value \times \frac{Number \ of \ days \ loan \ open}{360} \times Borrowing \ rate\right)
\]

Lender compensation:

\[
Lender \ compensation = Loan \ value \times \left(\frac{Number \ of \ days \ open}{360} \times Lending \ rate\right)
\]
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**Glossary**

**Basis point**
One hundredth of 1% (= 0.01%)

**Borrower**
A person that has applied, met specific requirements, and received a loan from a lender

**Business Day**
CBF business days in line with the Public Holiday Regulation for CASCADE

**CASCADE**
Central Application for Settlement, Clearing and Depository Expansion. Central settlement platform for securities transactions with all the necessary functionalities for entering, processing and settling instructions. In addition, CASCADE shows the customers’ holdings that are kept in collective safe custody with CBF, and the custody services in relation to these holdings.

**CmaX**
CmaX is the collateral management system linked to the Creation settlement engine at CBL.

**Creation**
CBL’s central settlement platform for clearing and settlement, custody and reporting that CBF uses for the settlement of transactions in NCSC securities.

**FOP**
Free of payment

**Lender**
A CBF customer who has made securities available for loans or has lent out securities

**Lender Substitution**
The process in which a lender is replaced with another lender, in order to free the original lender allowing the original lender to settle a trade, or to return the securities to the account

**Settlement**
The process whereby securities (and corresponding funds, if any) are delivered (and credited) simultaneously to the accounts involved

**Xemac**
Xemac is a comprehensive collateral management service for securities transactions.
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References

General Terms and Conditions Clearstream Banking Frankfurt
Clearstream website www.clearstream.com under Key Documents / CSD / General Terms and Conditions

Securities Lending and Borrowing Rules of Clearstream Banking AG, Frankfurt
Clearstream website www.clearstream.com under Key Documents / CSD / General Terms and Conditions

Xemac Special Conditions for Collateral Management
Clearstream website www.clearstream.com under Key Documents / CSD / General Terms and Conditions

Xemac Registration Form
Clearstream website www.clearstream.com under Products and Services / Global Securities Financing / Global Liquidity Hub CSD services / Triparty collateral services [Xemac] / Xemac registration and legal documentation

Domestic Fee Schedule Clearstream Banking Frankfurt
Clearstream website www.clearstream.com under Key Documents / CSD / Fee schedule

Triparty Collateral Management Service (CmaX) - Product Guide
Clearstream website www.clearstream.com under Products and Services / Global Securities Financing / Global Liquidity Hub ICSD services / Triparty collateral services [CmaX] / CmaX product description

Electronic Reports in Securities Lending
Clearstream website www.clearstream.com under Products and Services Global Securities Financing Global Liquidity Hub CSD services Securities lending and borrowing Automated Securities Lending (ASL) / ASL CSD product description
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