

EurexOTC Clear Service

U.S. Clearing Model (LSOC) for Swap Clearing

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1. U.S. Clearing Model (LSOC) for Swap Clearing

Eurex Clearing, one of the globally leading CCPs, is extending its offering by launching a framework for swaps client business of U.S. Clearing Members.

Eurex Clearing is one of the leading central counterparties globally – assuring the safety and integrity of markets while providing innovation in risk management, clearing technology and client asset protection. Eurex Clearing provides fully automated, straight-through post-trade services for derivatives, equities, bonds and secured funding & financing, as well as industry-leading risk management technologies.

Eurex Clearing is incorporated in Germany and licensed as a credit institution under supervision of the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin), pursuant to the Banking Act (Gesetz für das Kreditwesen). Eurex Clearing is authorized as a Central Counterparty (CCP) under the European Market Infrastructure Regulation (EMIR)¹ on 10 April 2014. The authorization as EMIR compliant CCP also recognizes Eurex Clearing as a qualifying CCP (QCCP) under Basel III / CRD IV.

The CFTC granted Eurex Clearing the Status of a Derivatives Clearing Organization („DCO“) for the clearing of Over-the-Counter traded Interest Rate Swaps („OTC IRS“) in February 2016. Eurex Clearing offers a refined LSOC style (Legally Segregated Operationally Commingled) client-clearing framework in compliance with CFTC regulation Part 22.

This document describes the two LSOC variants Eurex Clearing supports, i.e. “LSOC without Excess” and “LSOC with Excess”. The latter requires Futures Commission Merchants (FCMs) to provide the clearinghouse with a collateral value allocation = report (CVR) in relation to its clients (FCM Clients).

1.1. LSOC core principles in the light of client asset protection

The primary goal of LSOC is to minimize an FCM Client’s “fellow customer risk” i.e. the risk that customers of an FCM could sustain losses if other customer(s) of such an FCM become insolvent. The rules covered in Part 22 of CFTC regulations (“LSOC rules”) restrict DCOs and FCMs from utilizing the assets of one FCM Client to meet the obligations of another FCM Client. This ensures compliance with regulation §22.15, “Treatment of Cleared Swaps Customer Collateral on an Individual Basis” that reads that the collateral of one customer cannot be used to “margin, guarantee, or secure the Cleared Swaps . . . of any other Cleared Swaps Customer.”

LSOC differs from the traditional European omnibus models because the value of collateral associated with every individual swap clearing FCM Client is legally segregated and protected, but collateral related to all swap clearing FCM Clients is operationally commingled in one account. The value of assets assigned to one FCM Client can never be utilized to meet the obligations of another FCM Client.

1) Regulation (EU) No 648/2012 of the European Parliament and of the Council of 4 July 2012 on OTC derivatives, central counterparties and trade repositories.

2. General principles

Irrespective of whether the FCM opts for “LSOC with excess” or “LSOC without excess” certain general principles apply to the overall swaps client-clearing framework.

2.1. A clearing model for U.S. FCMs and their clients

The LSOC model is offered to CMs registered as FCMs with the CFTC and members of the National Futures Association (NFA). An applicant must have available net adjusted capital that corresponds to an amount of at least EUR 30mn. In the following, those FCMs are referred to as “FCM CMs”.

LSOC clients of the FCM CM can be either U.S. persons or clients of the FCM located in other jurisdictions. In the following, those clients are referred to as “FCM Clients”.

2.2. Agency model client clearing

The LSOC model is legally structured as a U.S agency clearing model. FCM CM will act in its capacity as an agent (for purposes of CFTC Regulation 39.12 (b) (6)) on behalf and for an account of the FCM Client when clearing the FCM Client’s transactions. FCM CMs are fully responsible to Eurex Clearing for performance of transactions. At the same time, the FCM Client is obligated to the FCM CM to make all payments, including margin payments related to the relevant transactions.

FCM Clients have no rights against Eurex Clearing, and Eurex Clearing has no liability to FCM Clients in respect of FCM Client transactions. In effect, the FCM CM is the sole contractual counterparty to Eurex Clearing, and Eurex Clearing treats the FCM CM as a principal, in respect of FCM Client transactions the FCM CM clears through Eurex Clearing. This special form of agency supports the enforceability of an FCM CM's closeout netting rights vis-a-vis a defaulting FCM Client.

Consequently, there will only be a bilateral agreement between Eurex Clearing and the FCM CM, but no triparty agreement between the two parties and the FCM Client required.

Furthermore, the FCM CM contributes to the Default Fund of Eurex Clearing in relation to its FCM Client business², and legally takes over the bidding obligation in relation to a third party CM's default.

2.3. U.S. customer swaps will be directly routed to Eurex Clearing

Regarding the OTC IRS transaction flow, LSOC builds on the proven EurexOTC Clear Service (see figure 1). Upon execution at an approved and connected Swap Execution Facility (SEF) / Approved Trade Source (ATS) between the FCM Client and its counterparty, the transaction is automatically sent to Eurex Clearing comprising unique identifiers of the relevant counterparties (e.g. “Markitwire BIC”). Each unique identifier is assigned to a FCM CM's transaction account at Eurex Clearing. Consequently,

2) EUR 5mn minimum contribution or a dynamic contribution based on 7% of the average initial margin requirement over the last 30 and 250 days across all asset classes and clearing licenses with Eurex Clearing.

transactions are routed to the FCM CM and booked to a position account related to the FCM Client.

In line with Eurex Clearing's 10-Second-Rule processing (i.e. acceptance or rejection within 10 seconds of time), a risk check including margin collateral availability is conducted. If the check is positive, the transaction is novated and booked into the dedicated transaction account of the FCM Client at Eurex Clearing.

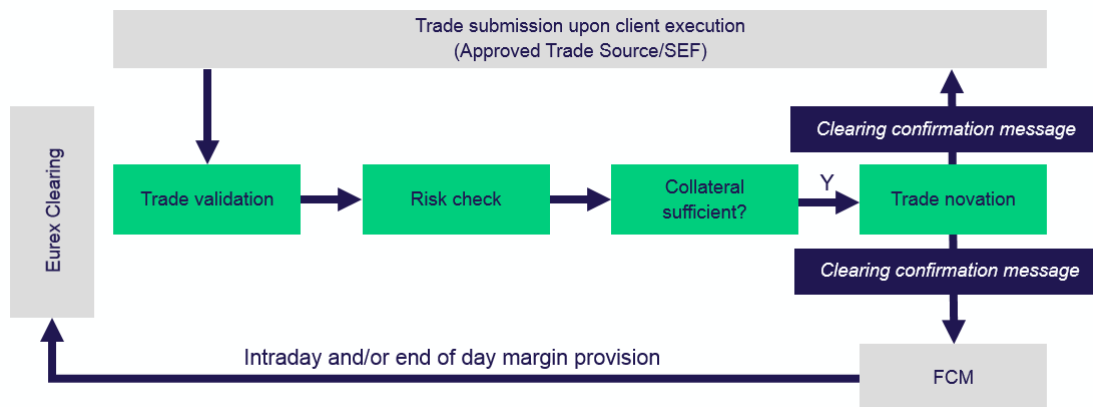


Figure 1: OTC IRS transaction flow

By relying on this process, transaction segregation at the Eurex Clearing level is secured for each FCM Client, at any time. One transaction account is set up per FCM Client in Eurex Clearing's internal books and records.

The bunched order functionality is also available for LSOC members.

For detailed information related to the processing of the swap trades please refer to the OTC IRS Procedures Manual or Eurex Clearing's website.

EurexOTC Clear Service Procedures Manual is available under the following path:
Member Section > Technology > EurexOTC Clear > OTC Release > Overview & Functionality > EurexOTC Clear Service Procedures Manual

2.4. Physical segregation of Part 22 customer collateral is provided throughout the entire clearing lifecycle

Margin collateral delivered to cover margin requirements related to FCM Client positions is assigned based on the value related to each FCM Client at the Eurex Clearing level, following the LSOC logic. This is described in more detail in sections "LSOC without Excess" and "LSOC with Excess".

In addition, Eurex Clearing, as well as the FCM CM, is required to maintain at least one separate dedicated FCM Client account at each permitted depository (according to CFTC Rule 22.4) involved in the flow of Initial Margin (IM). This applies to cash and securities collateral. Each permitted depository is required to sign a 22.5 acknowledgement letter in relation to the relevant accounts holding customer funds.

2.5. Eurex Clearing's will leverage existing collateral infrastructure in an LSOC compliant way

Clearstream Banking Frankfurt (CBF) serves as Central Securities Depository (CSD) to pledge U.S. Treasuries and other eligible securities collateral.

Securities collateral is held in a pledged account at CBF. The account is titled as being customer securities of the FCM CM for the benefit of its FCM Clients. Relevant CBF accounts are clearly labelled to ensure collateral is held in a manner compliant with CFTC rules.

Securities accounts are subject to a German-law securities pledge. The FCM CM provides collateral to its pledged collateral account in favor of Eurex Clearing via SWIFT message or using CBF's GUI. Deposits are credited automatically, shortly after the FCM CM posts the transfer in the collateral management system (near-time transfer) and the eligibility check has passed. With the establishment of a pledge, all securities present or in the future booked to the pledged securities account are, and will be, pledged in favor of Eurex Clearing.

An up-to-date eligible securities list is publicly available on Eurex Clearing's homepage (General Parameters):

[.https://www.eurex.com/clearing-en/services/risk-parameters](https://www.eurex.com/clearing-en/services/risk-parameters)

Note: Initially, only securities from the United States, Germany, France, Canada, United Kingdom, and Japan are accepted as eligible securities from FCM CMs and their customers.

In terms of cash collateral, for the settlement of clearing related payments, the following are supported:

- EUR and USD are accepted as cash collateral currency for Initial Margin payments (product independent) to cover intraday margin calls.
- Overnight margin calls take place only in the Clearing Member's nominated clearing currency which is EUR.
- Variation Margin and other product related payments settle in the underlying product currency. This can be EUR, USD, GBP, CHF, DKK, JPY, NOK, and SEK. In line with CFTC interpretation letter 17-51, published on 12 October 2017, Eurex Clearing will determine Variation Margin payments under the LSOC model to be settlement payments ("settled-to-market approach").

For the fulfilment of clearing related cash payments in EUR, USD, GBP, CHF, DKK, JPY, NOK, and SEK, one of Eurex Clearing's approved Settlement Banks must be used.

2.6. Return of collateral

Any collateral recorded as client Unallocated Excess³ can be withdrawn intraday. Instructions must be entered in the clearing GUI and approved by Eurex Clearing. End of day, Unallocated Excess cash collateral is returned automatically, providing there is enough cash available.

3) As defined in the Chapter "LSOC without Excess".

Automated return of securities collateral is not available, neither intraday nor end of day. If the FCM CM wishes to recall securities collateral, a specific ISIN shall be identified by the FCM CM and an instruction entered in the clearing GUI. For any cash recall, after the end of day processing, instructions must be provided in line with the cut-off times related to the relevant bank.⁴ Any release of collateral has to be verified and approved by Eurex Clearing.

2.7. Default Management

The LSOC model is aligned with the existing default management process (DMP) for the OTC IRS / Fixed Income Liquidation Group. The DMP for the LSOC model splits into two types of Termination Events, which may occur with respect to the FCM CM, i.e. 1. Non-insolvency Termination Event and 2. Insolvency Termination Event.

2.7.1. Non-Insolvency Termination Event

In event of a (non-insolvency) Termination Event with respect to an FCM CM, Eurex Clearing conducts its regular DMP with respect to proprietary and FCM Client transactions. Eurex Clearing will notify the respective regulatory authorities immediately of the decision to terminate the FCM CM.

All proprietary transactions are liquidated in line with the standard procedures and a difference claim is calculated.

With respect to FCM Client positions, the porting period is announced. At the end of the porting period, FCM Client positions and collateral are either ported (in case a replacement clearer was found in due time) or liquidated, applying existing DMP rules.

2.7.2. Insolvency Termination Event

Handling of proprietary business of the FCM CM does not change. The only difference is the termination occurs automatically, i.e. a termination notice by Eurex Clearing is not required.

With respect to FCM Client transactions, Eurex Clearing facilitates porting in cooperation with the Bankruptcy Trustee. The Bankruptcy Trustee must approve the porting of client positions and collateral. The FCM Client can elect a replacement FCM CM, but the final decision is still with the Bankruptcy Trustee. The Bankruptcy Trustee has the right to determine the replacement FCM CM by itself. It is the Bankruptcy Trustee's responsibility to inform the CCP of the replacement CM and determine the collateral to port with the respective FCM Client.

Eurex Clearing is always entitled to exercise its termination right, irrespective of any porting intentions of the FCM Clients of the insolvent FCM CM and irrespective of any intentions of the Bankruptcy Trustee. In such case, FCM Client Transactions are terminated and a difference claim calculated for each of the terminated clients.

Conflicts with the relevant insolvency law may occur. In particular, U.S. Bankruptcy Code states, in Section 766, that the Bankruptcy Trustee shall distribute customer property to all customers of a defaulted FCM CM on the basis and to the extent of customers' allowed net equity claims, and the CFTC's Part 190 rules specify that the amount of customer estate property to be transferred with a customer's account should not exceed

4) More details regarding the cut-off times of the cash collateral are available here: <https://www.eurex.com/clearing-en/services/collateral-management/cash-collateral/cut-off-times>

the portion of the customer estate that the customer is entitled to receive. Thus, the Bankruptcy Trustee may require that less than the entire FCM Client margin be ported in order for the Trustee to comply with pro rata loss-sharing provisions.

Eurex Clearing will support FCM Clients in the porting process to the extent possible in case of an FCM CM default, both insolvency and non-insolvency Termination Events. Chances for porting are highly dependent on the amount of collateral assigned to a particular client in relation to its exposure. In times of market distress, the probability of having a collateral shortfall for FCM Clients increases. Thus, FCM Clients that hold excess collateral with Eurex Clearing not only have additional collateral protected at the CCP level, but also a better chance of finding a replacement clearer in due time.

It is worth noting that under both LSOC “With Excess” and “Without Excess” it is highly beneficial for the FCM Clients to establish relationships with back-up CMs to enable a smooth porting process.

2.8. Default Waterfall

Eurex Clearing integrated the LSOC model into its segmented Default Waterfall structure. FCM Client collateral is utilized in line with the LSOC segregation logic and there are no changes to the handling of proprietary collateral. Additional information on the different LSOC specific pool segments can be found in the following two chapters.

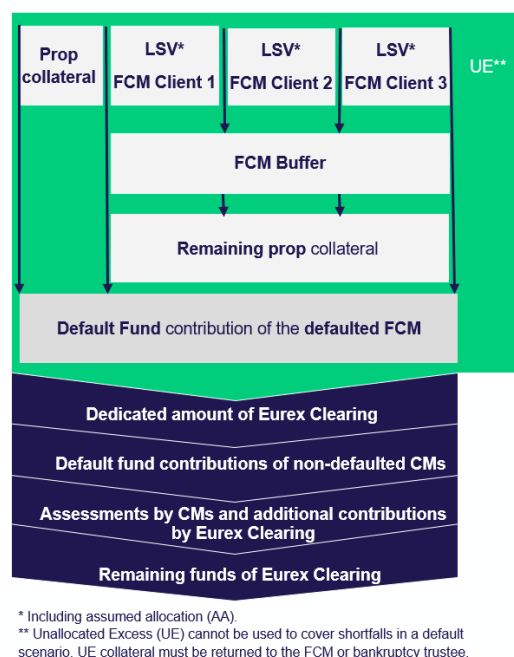


Figure 2: Default Waterfall

Any shortfalls arising from a client portfolio liquidation, in case of an FCM CM default, is covered by the following:

- **FCM Client margin collateral:** Collateral of each FCM Client is only used to cover losses from the respective FCM Client’s positions. In case of LSOC “Without Excess”, the LSV of each FCM Client represents the portion of collateral that can be utilised. For the “With Excess” model, Eurex Clearing will either utilise the LSV

received in the last CVR report, or, if no CVR report was received in due time, the portion of collateral assigned through assumed allocation (AA).

- **FCM Buffer margin collateral:** The FCM Buffer is an additional cushion Eurex Clearing can use to cover overall liquidation losses concerning FCM Client closeout on a pro-rata basis.
- **Unallocated Excess (UE) margin collateral:** UE cannot be used by Eurex Clearing to cover shortfalls in a default scenario. UE collateral must be returned to the Bankruptcy Trustee of the FCM CM.
- **Margin collateral of the proprietary account:** Proprietary margin collateral (including any excess above the margin requirement) can be used to cover any remaining FCM Client shortfalls.
- **Default Fund contribution** of the defaulted FCM CM is used in full to cover any remaining shortages, both client and proprietary, on a pro-rata basis.
- Afterwards, the normal default waterfall, with **Eurex Clearing's own contribution to the Default Fund**, non-defaulters **Default Fund contributions**, etc. applies.

3. LSOC without Excess

“LSOC without Excess” is a basic version of Eurex Clearing’s LSOC offering. However, upon request, an FCM CM can opt for the “LSOC with Excess” framework. All provisions below apply to both models, unless otherwise explicitly stated.

3.1. Determining the LSV

Determining the so-called Legally Segregated Value (LSV) of collateral, in relation to each FCM Client, is considered the centerpiece of LSOC. LSV represents the relevant portion of the LSOC collateral pool allocated to an FCM Client. However, it is not required to assign specific assets to any FCM Client. LSVs are displayed in clearing currency (EUR), based on post haircut values.

Under “LSOC Without Excess” the value of FCM Client collateral is equal to an FCM Client’s initial margin requirement (IM) in accordance with regulation §22.15, and determined by Eurex Clearing as a result of the end of day processing, i.e. $LSV = IM$.

The figure below displays an overview of the LSOC set-up.

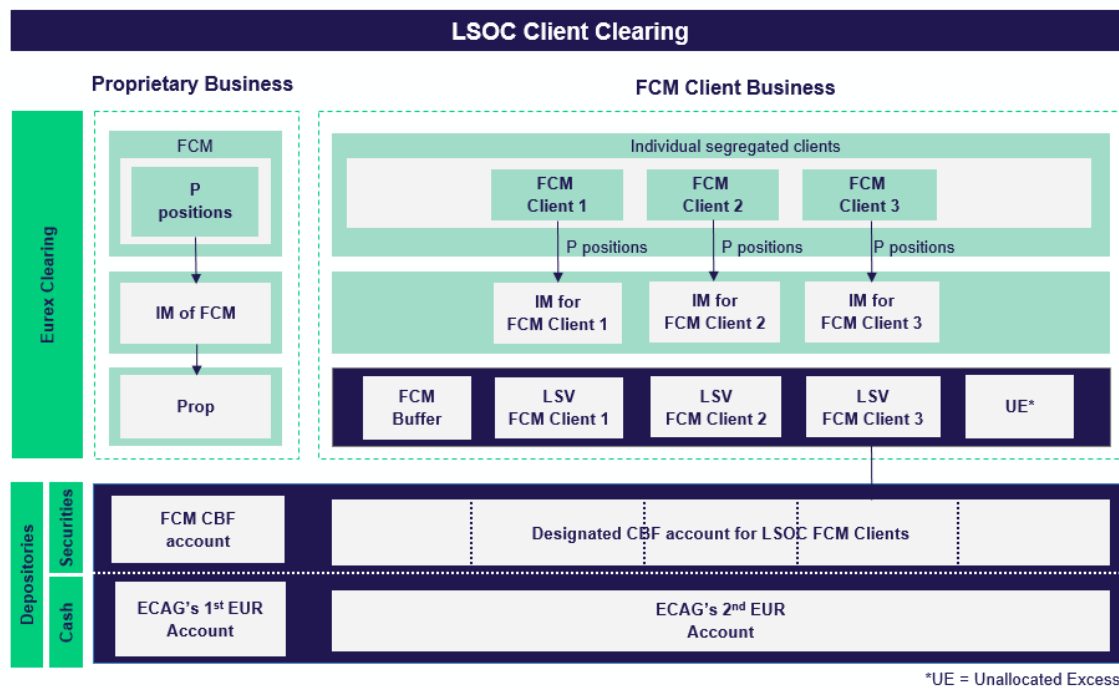


Figure 3: Account set-up and segregation in "LSOC without Excess"

Each morning, when the FCM CM meets its margin call with Eurex Clearing, Eurex Clearing assumes that the collateral value covering the IM of each FCM Client should be assigned to that FCM Client. Consequently, the margin call is performed on a gross basis, i.e. per FCM Client⁵.

However, it is not ruled out that the FCM CM is funding a margin call with its own funds. Under LSOC, the FCM CM is not allowed to meet the IM requirement of any FCM Client with collateral of another FCM Client. All collateral utilized to meet the overnight margin call cycle is treated as belonging to the FCM Client. Fulfilled IM requirements of each FCM Client at the start of the day thus determines the LSV of each FCM Client.⁶

Overall, LSVs are considered as a collateral value sub-account for each FCM Client within the omnibus collateral pool. Eurex Clearing reports the balance to the FCM CM every 10 minutes.

At the end of the day, Eurex Clearing compares values of all individual LSVs with related Initial Margin requirements. The FCM Buffer (further discussed below) is considered and transferred to cover shortfalls accordingly. If the value of the FCM Buffer is not sufficient, a margin call is issued for the aggregated value of shortfalls of all LSVs that are lower than their IM.

In turn, all LSVs that exceed their IM are adjusted so that LSV = IM, and all excess transferred to the Unallocated Excess⁷ pool.

5) Eurex Clearing requires anticipated changes in the Variation Margin (which are paid in the overnight processing) to be collateralized intraday. For ease of explanation these are assumed to be included in IM in the below description.

6) The collateral requirement applicable to an FCM Client or group of FCM Clients may be increased at any time by Eurex Clearing based on an evaluation of the credit risk posed by such FCM Client or group of FCM Clients.

7) Please refer to the further sections for the role of the FCM Buffer and Unallocated Excess

Once the margin call is met, Eurex Clearing sets all LSVs equal to every FCM Client's margin requirement, i.e. $LSV = IM$. Variation Margin owed to the FCM is credited to its account. The value of all Unallocated Excess is automatically returned to the FCM CM, providing there is enough collateral available in the form of cash.

The debit instructions are sent at 9:00 CET; except for VM payments in DKK, JPY, NOK, SEK.

For the relevant cut-off times please refer to section 3.8 below.

As described in the general principles, Eurex Clearing provides for transaction segregation in its internal books and records for each FCM Client. Consequently, a gross margin requirement is automatically calculated for each FCM Client. Segregated transaction accounts, and thus, the gross margin requirements of all FCM Clients, are assigned to one, dedicated, omnibus collateral pool, covering only LSOC transactions.

3.2. The role of the FCM Buffer

In addition to the LSV, and as depicted in Figure 3, an additional sub-account is established within the LSOC structure. This sub-account is the "FCM Buffer". The FCM Buffer accommodates additional collateral related to the LSOC pool in accordance with CFTC regulation § 22.13. This additional collateral is used to cover exposure of any FCM Client assigned to the respective LSOC pool due to trade registration and intraday portfolio shifts.

In case the FCM CM defaults, the FCM Buffer can be used to cover the FCM Clients' losses beyond their LSVs. Funds posted as FCM Buffer are commingled with FCM Clients funds in the LSOC omnibus collateral pool and on the FCM CM's dedicated accounts at the permitted depositories. The LSOC report displays the FCM Buffer as a separate sub-account, as stated above. This is required to reflect the FCM CM's residual interest in the FCM Buffer collateral.

The FCM CM determines the value of collateral they wish to post as buffer collateral. There is no automated replenishment of the FCM Buffer triggered by Eurex Clearing.

Before issuing intraday margin calls, Eurex Clearing takes into account the value of the FCM Buffer and all relevant shortfalls. In this context, FCM CMs always have a chance to avoid margin calls by providing additional collateral within a "grace period" of approximately 30 minutes. Only once a margin call is issued, the shortfalls of all affected LSVs are addressed. Once the call is settled, LSVs are adjusted accordingly.

Note: Under the "Without Excess" model, the value of the FCM Buffer is considered and transferred to the relevant LSVs when calculating the end of day margin call. All excess collateral delivered outside of a margin call is booked to the FCM Buffer.

3.3. The role of the Unallocated Excess

An additional sub-account, "Unallocated Excess" (UE), is available to hold any excess that cannot be clearly assigned to any FCM Client. Funds in the UE pool cannot be used to margin, guarantee or secure any FCM Client.

UE cannot be utilized by Eurex Clearing to cover shortfalls in a default scenario. Instead, UE collateral must be returned to the Bankruptcy Trustee. The reason is, if funds are in

the UE sub-pool, Eurex Clearing is not permitted to make any assumptions to whom this portion of collateral belongs. This is in line with Eurex Clearing's obligation under CFTC regulation §22.15 not to use the collateral of one customer to "margin, guarantee, or secure" any other customer.

UE is automatically returned to the FCM CM following the overnight margin call settlement, providing enough collateral in form of cash is available, unless explicitly requested by the FCM CM to be returned intraday. It can also be transferred to the FCM Buffer via the Clearing GUI.

3.4. How changes in an FCM Client's margin requirement impact the LSV during the day

Once an overnight margin call is met by the FCM CM, Eurex Clearing assumes that the LSV of each FCM Client equals the IM of the respective FCM Client.

In case the IM of an FCM Client increases intraday, margin collateral of the FCM Buffer may cover the respective shortfall. If this is the case, the LSVs are not adjusted, but the respective portion of the FCM Buffer is encumbered. Under "LSOC without Excess", if an intraday margin call is met (= settled), Eurex Clearing updates the values of the LSVs accordingly (LSV = IM).

In "LSOC without Excess", the value of LSV excess collateral will be moved to UE during the overnight run and automatically paid back to the FCM CM⁸. This only takes place after the aggregated sum of IM shortfalls is called and received.

There will be no automated return of excess collateral intraday. Therefore, in case the FCM CM meets the overnight margin call, the day always starts with the assumption IM = LSV in relation to each FCM Client.

3.5. LSV is based on post-haircut values

All collateral delivered to Eurex Clearing is valued on a post-haircut basis, regardless of whether it is delivered for a margin call or provided as excess collateral. Therefore, the value segregated under LSOC, for each FCM Client, is based on post-haircut values.

3.6. VM will be segregated beyond CFTC requirements

CFTC regulation 22 does not require VM to receive the protections granted under LSOC before it is paid to an FCM CM's LSOC account. However, Eurex Clearing will establish a greater level of protection for such payments. In case an FCM CM defaults, the outstanding VM payments, in relation to non-defaulting FCM Clients is clearly assigned to the relevant FCM Clients that share a specific LSOC pool.

3.7. VM settlement takes place separately from IM settlement

Each day, VM settlement is handled separately from the IM settlement in order to avoid the usage of VM gains of one FCM Client covering IM shortfalls of another FCM Client. Therefore, IM shortfalls are always called and collateralized before VM settlement is

8) Providing there is enough cash collateral available.

triggered. However, VM payments are netted across all clients of an LSOC collateral pool in a non-default situation.

The end of day sequence is as follows:

1. Eurex Clearing calls the aggregated sum of all LSV shortfalls.
2. Eurex Clearing initiates a net VM payment for the LSOC pool.
3. Eurex Clearing swipes excess cash collateral out (via UE sub-pool).

3.8. Margin call and margin settlement timelines in the LSOC model

Eurex Clearing applies its real-time intraday risk-monitoring framework, allowing for event driven margin calls at any point in time during the business day.

Eurex Clearing closes at 22:30 CET. Any overnight margin shortfalls are auto debited the following morning.

Auto-debits will be instructed by Eurex Clearing on T+1 or T+2 (where T refers to novation date). The respective bank accounts must be funded by the FCM CMs by a certain time depending on the currency according to the table below:

T+1	T+2
EUR, USD: 09:00 CET CHF, GBP: 09:00 CET	JPY: 08:00 CET DKK, NOK, SEK: 10:00 CET

Figure 4: Timeline of Fulfilling Debit Instruction for Respective Currencies

After the debit instructions are confirmed by respective banks, cash credits will be instructed around the time in the table below:

T+1	T+2
EUR, USD: 10:00 CET JPY: 15:30 CET GBP: 10:00 CET CHF: 09:10 CET	DKK, NOK, SEK: 10:10 CET

Figure 5: Timeline of Credit Instruction for Respective Currencies

4. LSOC with Excess

In the event that the FCM CM wants to provide excess collateral for its FCM Clients, the FCM CM is required by CFTC regulation Part 22 to report to Eurex Clearing the value of collateral belonging to each FCM Client. This model variant is referred to as “LSOC with Excess”.

“LSOC with Excess” represents an additional feature of the LSOC framework described in the chapter “LSOC without Excess” outlined above. Hence, in the following section, only those aspects of the framework that are different from an FCM CM that supports “LSOC with Excess” are discussed.

Under “LSOC with Excess”, LSVs and the FCM Buffer are provided by the FCM CM using a Collateral Value Report (CVR).

4.1. The role of the Collateral Value Report

The FCM CM assigns a collateral value, which is set at the LSV level, to each individual FCM Client by providing a CVR to Eurex Clearing. Assignment needs to be performed at least once a day. The CVR lists a single EUR or USD value for each individual FCM Client and the FCM Buffer. Since the clearing currency is initially in EUR, the CVR values listed in USD are converted to EUR. The applied FX rates are available via Eurex Clearing’s Common Report Engine.

The CVR is based on post-haircut values, in line with overall LSOC model requirements.

Eurex Clearing runs multiple checks to ensure accuracy of the CVR file.

- The total value must not be greater than the post-haircut value of all FCM Client collateral recorded in the books and records of Eurex Clearing at that time. Eurex Clearing determines the post-haircut value it assigns to the FCM CM’s Clients for the entire amount of collateral provided for an LSOC pool. It is up to the FCM CM to allocate that value to its FCM Clients. If the FCM CM allocates more collateral to the FCM Clients than it has actually provided to Eurex Clearing, the report is rejected.
- Any excess collateral, above the provided LSVs and FCM Buffer, are assigned to Unallocated Excess.
- In the event there is a shortfall for certain FCM Clients, i.e. margin requirement > LSV, the shortfall will count against the intraday margin call buffer, as defined by Eurex Clearing. Tolerance levels for the CVR checks are similar to the intraday margin call threshold. This handling ensures Eurex Clearing accepts the file and no immediate margin call is issued.
- If updated LSV values lead to a margin call because of erroneous distribution of collateral, such a CVR is rejected.
- Eurex Clearing does not unilaterally decrease any LSVs.

FCM CMs receive feedback messages stating the outcome of CVR processing.

FCMs can provide an updated CVR to Eurex Clearing at any point in time within Eurex Clearing’s business hours, and as many times as they wish, throughout the day. In case the FCM CM supports the “LSOC With Excess” model, it is required to provide collateral values for all FCM Clients, independent of whether excess collateral is posted for single FCM Clients or not.

FCMs can also update values of LSVs and FCM Buffer using upload functionality in the Eurex Clearing GUI.

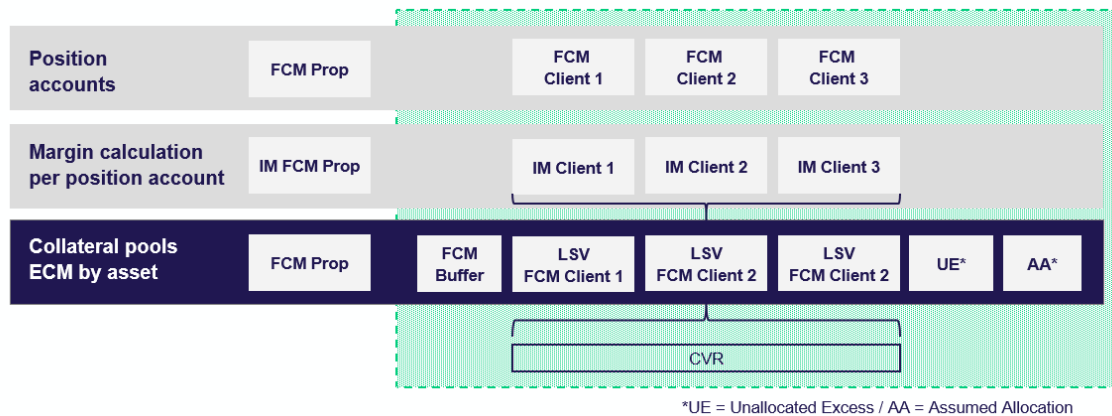


Figure 6: Account setup and segregation in "LSOC with Excess"

4.2. Collateral movements under "LSOC with Excess"

When an FCM CM wants to increase the value of collateral held with Eurex Clearing for one or more individual FCM Clients or its FCM Buffer, the FCM CM can deliver additional collateral. Eurex Clearing immediately treats the additional collateral value as UE until it receives a new CVR from the FCM CM specifying the distribution of the value across its FCM Clients and FCM Buffer. This ensures compliance with CFTC regulation §22.15.

In case Eurex Clearing receives collateral related to a margin call, but no new CVR is available, Eurex Clearing will deploy a so called "assumed allocation" (AA) per FCM Client.

Once the FCM CM delivers a CVR with new allocations, Eurex Clearing takes those account values and, providing the checks described above are passed, a feedback message is sent upon update of the LSVs and FCM Buffer.

Collateral recorded as AA is available to Eurex Clearing in the event of an FCM CM's default. Even though an updated CVR has not been provided by the FCM CM. Any surplus, not required to cover losses related to these particular FCM Clients' positions, is returned to the Bankruptcy Trustee.

FCM CMs may withdraw collateral from the UE sub-pool at any time. However, FCM CMs are not able to withdraw excess from the FCM Buffer or an FCM Client's LSV without first reducing the respective values via new CVR.

End of day, Eurex Clearing calculates collateral values related to the LSOC pool to ensure it does not deteriorate due to price and / or FX rate movements. Eurex Clearing also checks that it still matches LSVs and FCM Buffer. The check compares the balance of physical collateral (cash, securities) with the values of the LSVs and FCM Buffer, as provided with the CVR file, and the value of AA and UE. The latter is calculated by Eurex Clearing. The outcome is a debit instruction ("Cash Collateral Call"). Any increase in the value of physical collateral is credited to UE and returned to the FCM CM.

Eurex Clearing reviews each FCM Client's LSV, as determined by the last CVR, and compares it to the FCM Client's current Initial Margin requirement. Eurex Clearing then calculates the sum of all under-margined FCM Clients, i.e. $IM > LSV$, and issues a margin call. Collateral received with the margin call will be treated as belonging to the specific FCM Client(s) that generated the call. Prior to receipt of the CVR, Eurex Clearing will allocate collateral pro rata amongst under-margined FCM Clients using AA.

Variation Margin paid by the FCM is debited accordingly.

Debit instructions are sent at 9:00 CET and have to be fulfilled no later than 10:00 CET. Once debit instructions are settled, the credit instructions are released (at 10:00 CET). For the relevant cut-off times of the product currencies please refer to section 3.8 above.

Variation Margin owed to FCM Clients is credited to the FCM CM's cash account.

The value of UE is automatically returned to FCM CMs, providing there is enough cash collateral available.

Other credit instructions are Cash Collateral Call and return of the USD holdings, as explained above.

A new CVR file provided by FCM CMs, for the current value date, determines the values of all individual LSVs and FCM Buffer. Eurex Clearing records any remaining value as UE.