

Hedging Auctions

Eurex Clearing AG



Executive Summary

Hedging is the most critical step in a Default Management Process, where the transfer of market risk happens. In the past, Eurex hedging process relied on the voluntary Clearing Member participation. The changes will enhance the hedging process with **mandatory participants**.

The process enhancements allow:

- To **Formalize** and improve the **selection of hedging counterparties**, to have committed and capable members supporting Eurex portfolio hedging activities. The hedging counterparts will be known, the capabilities will be polled in regular **Liquidity Surveys** and the process will be tested in fire drills.
- To **Ensure** Eurex Clearing's access to broader Liquidity pools. The **accessible liquidity** influences the Liquidity Adjustment component of the Initial Margin. Commitment from a set of liquidity providers allows to account for indirect market access in the calibration of the Liquidity Adjustment.
- Those clearing members who want to benefit from such hedging transactions to **participate** according to **fair** and **adequate incentives**. The participants can benefit economically winning the hedge-trade at their own price, seniorize their default fund tranche and support rebalancing of the CCP in a critical situation.

Hedging Auction Design

A selected list of reliable hedging counterparties, with a balanced and effective incentive system

Objective	Solution
Hedging is executed quickly, efficiently and reliably	Participants are a limited number of large Liquidity Providers with demonstrated capabilities
Selection process is transparent and ensures hedging counterparties are willing and capable to support the portfolio hedging	Liquidity Providers volunteer to be hedging counterparts . Selection of participants based on product activity, risk capacity and support to the Default Management Process (e.g. actively answers liquidity surveys)
No Clearing Member is worse-off by being mandated to participate in two auctions	Auction winner's Default Fund is seniorized. Juniorization for a non-bidder in one auction can be remedied if the participant wins another auction (same liquidation group)
Hedging counterparties are committed: there is no „free lunch“	Juniorization applies in hedging auction for non-bidders
Price tolerance is predictable for the hedging counterparties	Pre-defined formula for evaluating price validity
Price tolerance adapts to market conditions	Price validity based on best bid/ask of the respective auction

1

Participant selection

2

Incentive system

3

Price validity

Auction Format

- Hedging auctions are designed to allow for a quick transfer of material market risk.
- Eurex Clearing plans to integrate the Hedging Auctions into the existing Auction Platform. Currently, Hedging Auctions are run through Bloomberg chat
- Mandatory hedging auctions will be multi-unit with disclosed size, pay-as-you-bid, and two-way pricing.
- All participants in the auction will (generally) have the same minimum requirements, and will be allowed to bid for a larger portion than the requirement.
- The auction participants shall have the ability to show an “all or nothing” price.

An auction participant will know:	An auction participant will <u>not</u> know:
The total size of the portfolio	The direction of the portfolio
The number of auction participants	The identity of the other participants

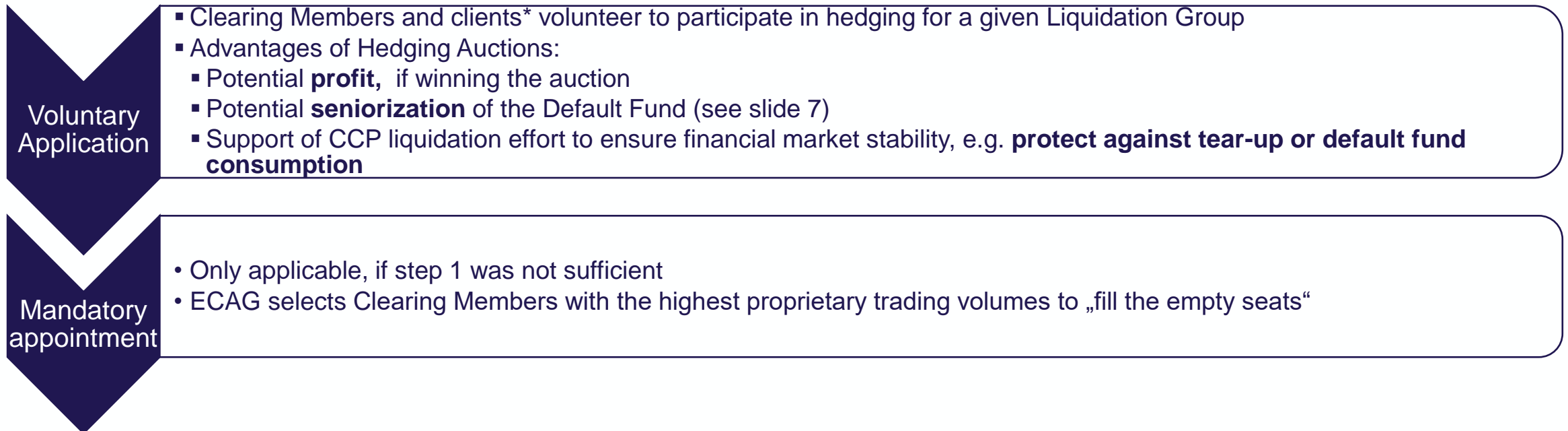
✓ Participants can assess the potential market impact in the pricing

✓ Information leakage and front running are prevented

1 Selection of Participants

ECAG will determine a list of potential Default Management Hedging Auction participants, for each major Liquidation Group. Upon a Termination Event, ECAG will select, with the DMC, the most suited participants for the specific hedging auction.

The method to select the pool of potential candidates, will follow a 2-steps approach:



This approach is already successfully applied –with different parameters- for the selection of DMC members.

How To Opt-In?

Eurex Clearing will not accept or mandate Clearing Members to a Mandatory Hedging Auction, if they are not already opted-in.

If you are a Clearing Member:

Sign the *Hedging Auction Participant Agreement* (part of the Default Management Auction Rule of Eurex Clearing), select the relevant Liquidation Group(s), and send it to DMP_Inbox@eurex.com

If you are a Disclosed Direct Client:

Ask your Clearing Member to sign the *Hedging Auction Participant Agreement* (part of the Default Management Auction Rule of Eurex Clearing), and to select the relevant Liquidation Group(s). Then, either

- Sign the *Hedging Auction Bidding Agent Appointment Form* with your Clearing Member, in this case, the Default Fund of your Clearing Member is subject to potential seniorisation/juniorisation
- Sign the *Special Hedging Auction Bidding Agent Appointment Agreement* with your Clearing Member, in this case, your Clearing Member's Default Fund is not impacted, but you are liable for up to 1 Million € in case you fail to participate in a Mandatory Hedging Auction.

Then, send the Agreements to DMP_Inbox@deutsche-boerse.com

Opting-in for a client: What it entails

If you opted in, you will be asked to answer liquidity surveys under the same conditions as a Clearing Member participant (see slide 11). You may be required to participate in a hedging auction for the products you indicated in the survey.

If you fail to participate:

- *Hedging Auction Bidding Agent:* Your Clearing Member's default fund is liable for your bids (see next slide).
- *Special Hedging Auction Bidding Agent:* Eurex Clearing will have a claim of 1,000,000 € against you, per hedging auction (**Appendix 7 of the [Default Management Auction](#) rules of Eurex Clearing**)
- It is not required to prefund the amount ahead of the auction but will be claimed by Eurex Clearing should you fail to participate in the hedging auction. This amount will be utilized if required in the junior tranche of the default fund. Your Clearing Member's Default Fund is not subject to juniorization. (**3.9.3 of the [Default Management Auction](#) rules of Eurex Clearing**)

If you win (part of) the portfolio:

- Any bid you give during the auction process is binding. If Eurex accepts the bid, you as a Hedging Auction Participant agree to enter into a hedging transaction.
- Immediately after, the details of the hedging are entered via the TES functionality or a trade confirmation platform (e.g. Markitwire).
- Confirming the request will create one cleared transaction between ECAG and your Clearing Member(Broker)
- For you, the process described above is identical to any transaction concluded via TES (Eurex) or other trade confirmation platform
- **Please, consider your risk limits for clearing when answering the liquidity surveys !**
- The Default Fund of your Clearing Member is seniorised, if you act as the *Hedging Auction Bidding Agent*.

2 The Incentive System

There are **three potential outcomes** for a price given by an auction participant:

- The price **wins (part of) the portfolio**
- The price is **valid, but does not win the portfolio**
- The price is **invalid / the participant does not provide a price.**

In the existing liquidation auction framework, ECAG sets artificial incentives only for the negative outcomes: if the price is invalid, the Clearing Member's Default Fund is juniorized.

The introduction of hedging auction shall come hand in hand with an incentive, for both positive (winning the auction) and negative (price is invalid) outcomes. ECAG defines **three states in which the Default Fund of a Clearing Member can be:**

- **Junior** fund
- **Standard** fund
- **Senior** fund

All Default Funds are initially in the standard fund. During the Default Management Process, the following rules apply*:

- **If a Clearing Member provides invalid (or no) prices in any auction**, the Default Fund is juniorized, in proportion to the number of invalid bids
- **If a Clearing Member wins a Mandatory Hedging Auction**, the Default Fund is seniorized in proportion to the number of units won. Seniorized default fund is used last in the lines of defense
- **If a Clearing Member is in the junior fund, but the Clearing Member wins another auction in the same Liquidation Group**, it returns to the standard fund, in proportion to the number of units won
- **A valid, but non-winning price** has no impact

In case ECAG consumed all the defaulted member's resources, and its own dedicated amount, it will first use the junior fund, then the standard fund, and the senior fund only last.

3 Price Validity

- As participation is mandatory in the hedging auction, participants who fail to provide a valid price will face juniorization.

- “Valid” should be pre-defined to offer transparency, predictability and ensure fairness.**

- To define a valid price, a maximum bid-ask spread is determined as follow:

- Maximum bid-ask spread = $\text{Max}(\text{worst winning ask} - \text{worst winning bid}, 0) + \text{distance parameter}$

Evaluation based on bid/ask of the respective portfolio -> **Adapts** the price tolerance to the **market condition**

A **fixed component** given ahead of the auction.

Where:

- Winning ask** is the highest sell price accepted, if auction trades on the ask
- Winning bid** is the lowest buy price accepted, if auction trades on the bid
- Distance parameter** is a fixed number, defined for each auction by ECAG together with the DMC, and is always **above 50% of the Initial Margin Requirement** of the auction unit
- Participants know in advance how to avoid any penalties by knowing the fixed component.

Example (multi-unit)

Distance Parameter: 20 | Mid Market value: 11 | Minimum bid size: 3 | Available Units: 5

Participant	Bid	Ask	Bid Size	Spread	Result (Trade on the bid)	Result (Trade on the ask)
CM 1	10	17	5	7	CM1 wins 5 units CM1 is seniorized	n/a
CM 2	9	14	5	5	n/a	CM2 wins 5 units CM2 is seniorized
CM 3	0	22	3	22	n/a	n/a
CM 4	-10	30	3	40	CM4 is juniorized	CM4 is juniorized

Winning Bid: 5@10 (CM1)

Winning Ask: 5@14 (CM2)

Maximum bid-ask Spread: $\text{Max}(\text{worst winning ask} - \text{worst winning bid}, 0) + \text{distance parameter}$:

$$\text{Max}(14 - 10, 0) + 20 = 4 + 20 = \mathbf{24}$$

- CM1 & 2 have a chance to win the portfolio, and to benefit from seniorization. They are guaranteed no juniorization, as the price they provided was within the Distance Parameter
- CM4 prices are far beyond other bidders -> the Default Fund of CM4 is juniorized
- CM3 priced defensively, but remained within the maximum bid-ask spread -> he will not face penalties

The Liquidity Surveys

Eurex Clearing will run Liquidity Surveys twice a year for the main Liquidation Groups with all the Clearing Members¹ or Clients that have opted in to the Hedging Auction.

Liquidity Surveys are treated confidentially, and include indicative bid-ask spreads for the main hedging instruments in the Liquidation Group

How does Eurex Clearing use the Liquidity Surveys?

- Liquidity Surveys will be used to select the opted-in participants who will be invited in a given auction, based on the hedging portfolio size and composition versus indicated bid-ask & sizes from the participant
- Liquidity Surveys will be used to validate and, if required, recalibrate the Liquidity Adjustment (an Initial Margin component equivalent to a concentration add-on) on key product groups
- Liquidity Surveys will be used as an input to determine the Distance Parameter of the Maximum Bid-Ask Spread for a given Hedging Auction

The Hedging Auction Process

Step 1: Define the hedging portfolio and the hedging strategy

Eurex Clearing's own trading team together with the Default Management Committee defines the hedging portfolio, how the hedge should be split across product groups, and whether a hedging auction is necessary or if independent trades should be performed instead

Step 2: Define the participants and the auction parameter

Using the Liquidity Surveys, the proprietary account trading volumes and the expertise of the DMC, Eurex decides on a shortlist of participants to invite for the auction, on the distance parameter (slide 7) and on the minimum bidding requirements. The portfolio is divided in equal units.

Step 3: Trigger the auction

The selected participants receive in the auction portal or via Bloomberg a portfolio unit, the bidding timeframe, the distance parameter, the minimum bidding requirement, and the total portfolio size. The participant enters a bid and an ask per unit, and the number of unit the bid-ask is valid for. All-or-Nothing bidding is allowed

Step 4: Finalize the auction

Eurex ranks the bids (or asks) from best to worse, and distributes the auction units accordingly (considering the best outcome for the CCP in case of all-or-nothing bids). Winners are informed first, while other participants will be informed after the auction closes. Eurex Clearing will later assess whether a participant is subject to juniorization.

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