



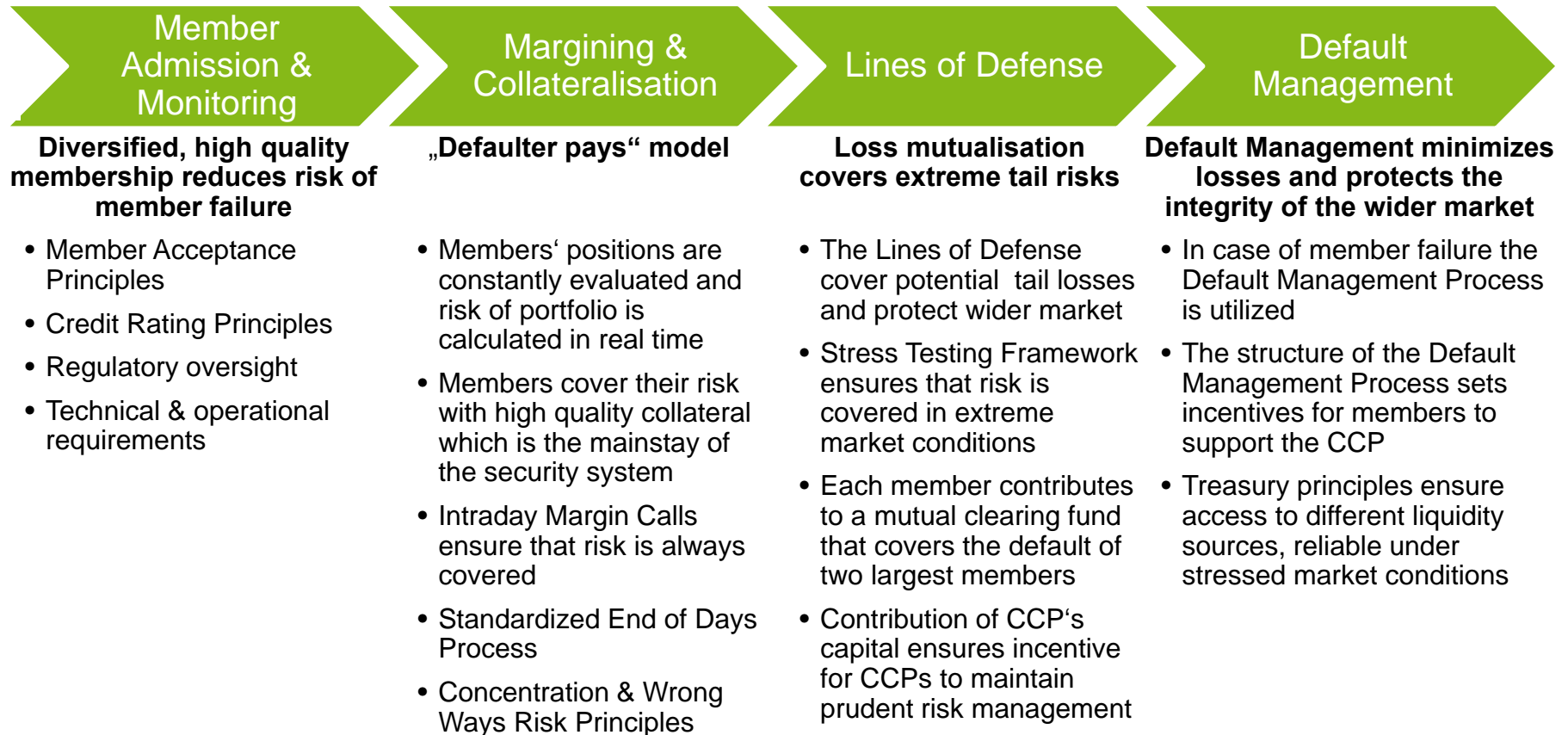
Eurex Clearing's Risk Management Framework

ECB - Money Market Contact Group

Frankfurt
Tuesday, 3 September 2013

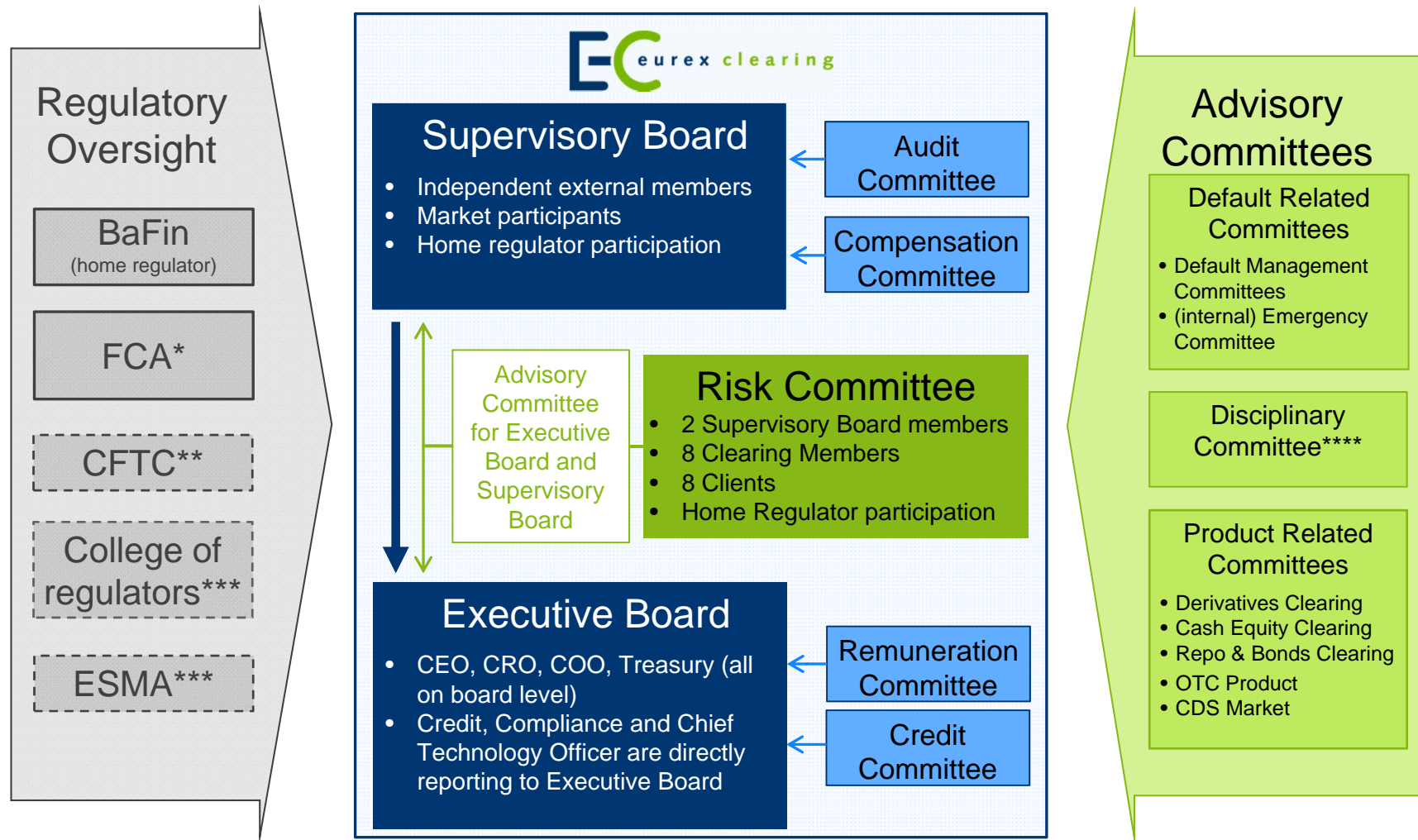
César Matos

Eurex Clearing's Risk Management Framework mitigates CCP specific risks



All components of the framework have been adapted and enhanced to be EMIR compliant and will be continuously improved to stay industry benchmark in CCP risk management

Eurex Clearing has a Strong Governance Framework



* Eurex Clearing is „Recognised Overseas Clearinghouse“. This status will be obsolete once Eurex Clearing is reauthorized under EMIR
 ** Application to become „Derivatives Clearing Organization“
 *** Application to become EMIR compliance CCP
 **** Committee planned

Member acceptance principles ensure diversified and high quality membership (1/2)

- **Legal Requirements**

The applicant

- is licensed by the local authority to provide credit to customers in relation to products cleared and to receive collateral in the form of cash or securities and
- is under surveillance of a responsible local authority according to standards equivalent to the applicable regulatory standards of the EU
- needs to sign the Clearing Conditions

- **Contribution to the Clearing Funds**

- The Clearing Fund contribution can be submitted in the form of collateral in securities and/or cash.
- Clearing Fund contribution is linked to the risk exposure or at least the minimum contribution amount.

Asset Class	Dynamic Component	Minimum in EUR mn (GCM / CM)	Minimum in EUR mn (DCM)
Standard Clearing Fund	2% of Total Margin Requirement*	5.0	1.0
Credit Clearing Fund		50.0	n.a.

* this measure will be changed to a percentage of Initial Margin (i.e. Additional Margin + Future Spread Margin for RBM).

Member acceptance principles ensure diversified and high quality membership (2/2)

- **Minimum Requirement**

Asset Class	Dynamic Component	Minimum in EUR mn (GCM)	Minimum in EUR mn (DCM)
Equities	20% of Additional Margin [+Futures Spread Margin]	15	3.75
Bonds		30	7.5
Exchange traded derivatives		50	12.5
Energy/ Emissions		50	12.5
Interest Rate Derivatives		30	n.a.
Repo		200	50
Securities Lending		200	50
Credit Default Derivatives	25% of Total Margin	1,000	n.a.

Unless specified otherwise, the liable equity capital required for multiple clearing licenses is the sum of the requirement for each clearing license. When calculating the minimum liable equity requirement for equity markets, Xetra, XIM, ISE, or for Eurex Exchange and EEX, the minimum liable equity capital requirements are not added. The maximum relevant requirement applies. For example, a GCM license for Xetra and XIM requires liable equity capital of EUR15mn.

- **Dynamic Component:**

- Capital requirements are scaled to represent the risk of the individual Clearing Member.
- Clearing Members are monitored regularly and must fulfill liable equity capital requirements at all times.

Types of Margin

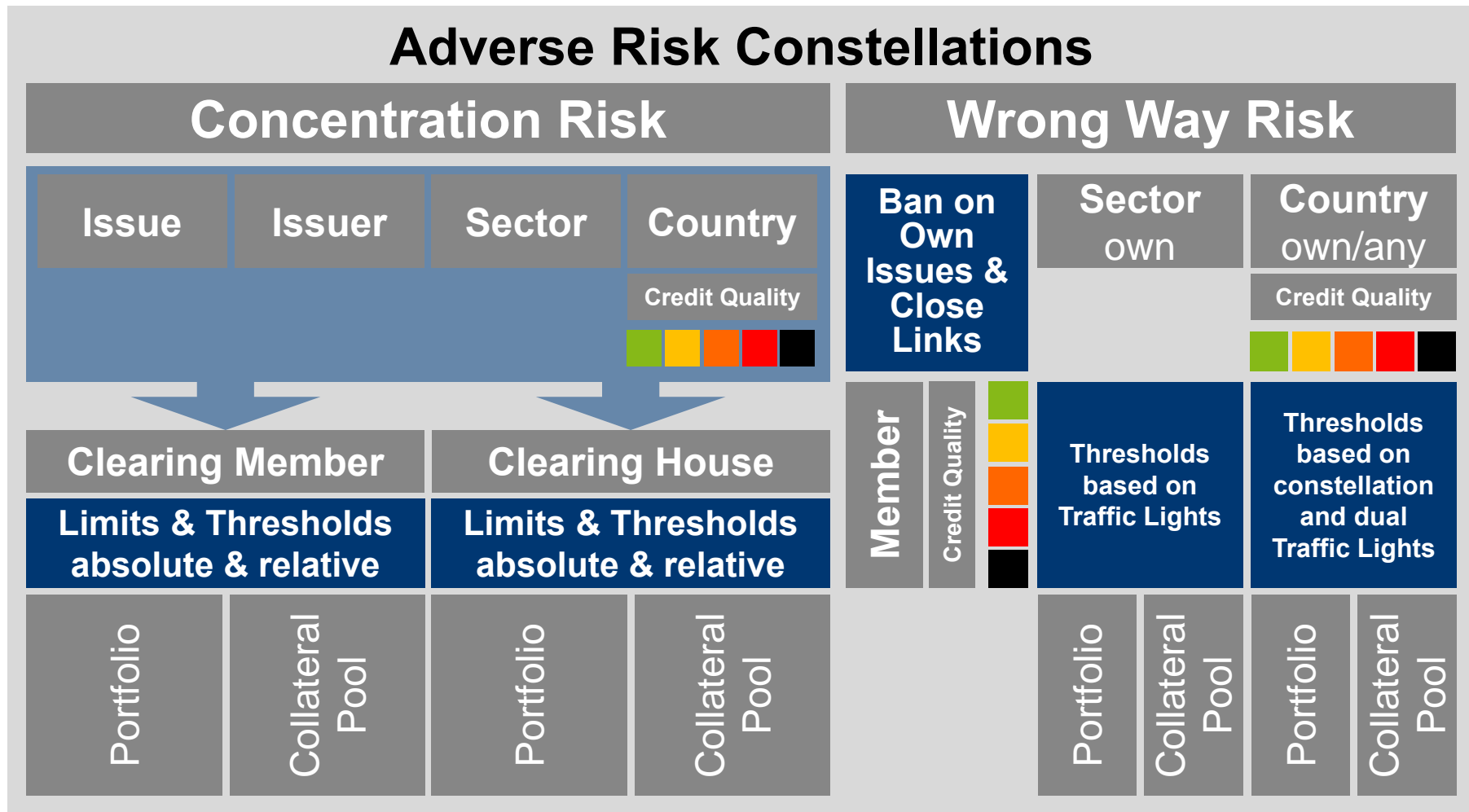
	Timeframe: yesterday to today		Timeframe: today to tomorrow	
	Premium Margin	Variation Margin	Additional Margin	Future Spread Margin
Equity-/Index options	X		X	
Futures		X	X	X
Options on Futures		X	X	
	Current Liquidating Margin			
Bonds/Repos	X		X	
Equities	X		X	
Cash	X			
	Unrealized P&L	Realized P&L	Potential loss	

Calculated based on
 (a) ECB-Haircuts for GC Pooling
 → plus potential Supplementary Margin
 (b) Margin Parameters for Single Repos

Additional Remark:
 During the Intraday Margin Calculation GC Pooling is re-evaluated every 20 minutes throughout the day

Concentration & Wrong Way Risk principles

Overview



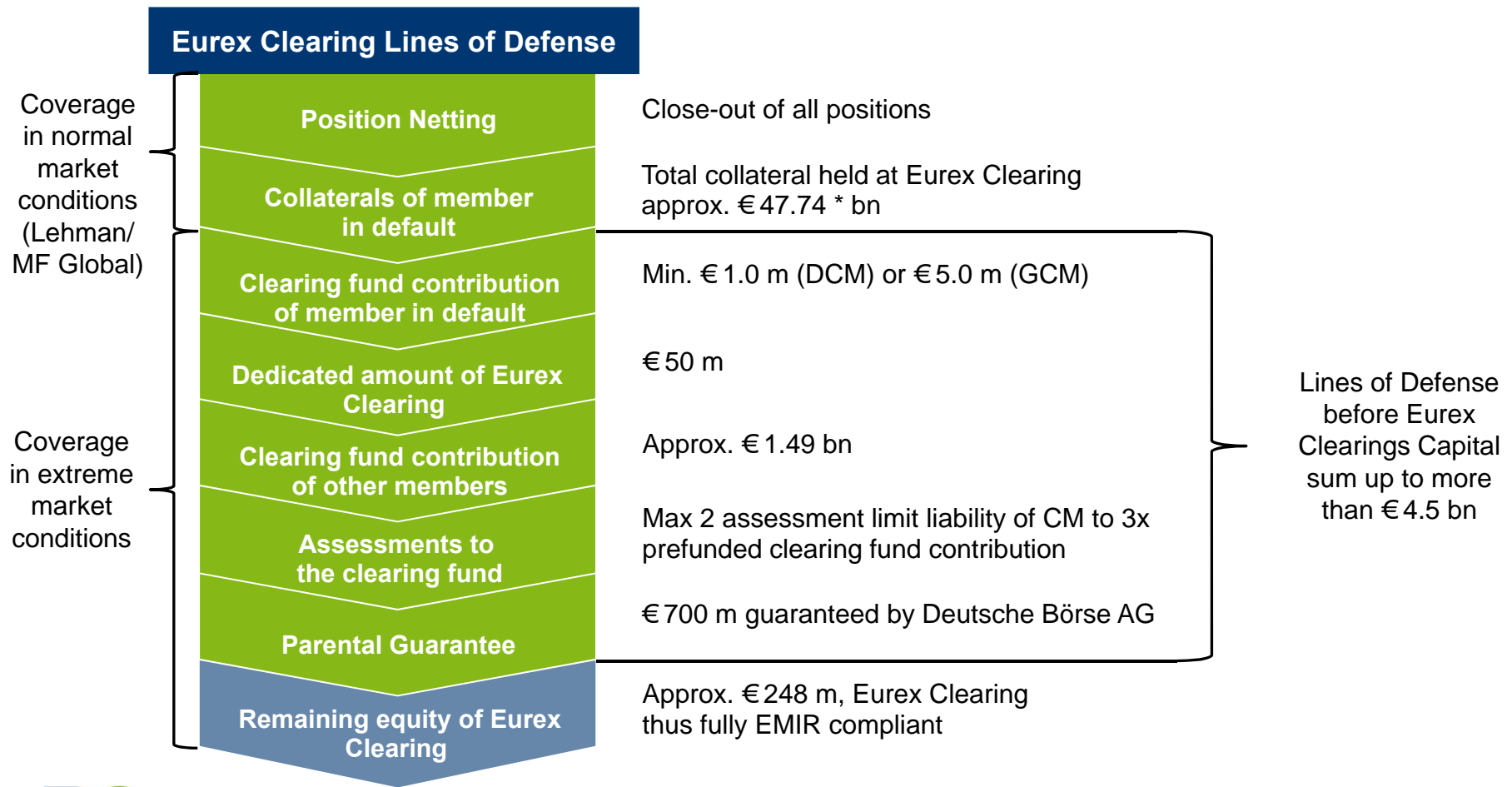
Margin Collateral: Only secure, liquid and accessible collateral is accepted

	EUR, DEM	CHF	USD, GBP, DKK, NOK, SEK, AUD, CAD, JPY
Fixed Income Securities	<ul style="list-style-type: none"> Category 1 of the ESCB, Issuer ≠ Clearer Exchange listed (except Bublis) Admissible portion of issued capital: 25% 	<ul style="list-style-type: none"> SNB Repo eligible Issuer ≠ Clearer Exchange listing Admissible portion of issued capital: 25% 	<ul style="list-style-type: none"> Government bonds Exchange listed Admissible portion of issued capital: 25%
	Min Haircut 3.2% - 23,3%	Min Haircut 3.2% -14.1%	Min Haircut 3.2%
Equities	<ul style="list-style-type: none"> DAX, Euro Stoxx 50, Issuer ≠ Clearer Admissible portion of free float: 5% Max. 30% of required daily collateral 	<ul style="list-style-type: none"> SMI Issuer ≠ Clearer Admissible portion of free float: 5% Max. 30% of required daily collateral 	
	Min Haircut 20%	Min Haircut 20%	
Precious Metals	<ul style="list-style-type: none"> As announced by Eurex Clearing Max. 30% of required daily collateral 		
	Min Haircut 15%		
Cash	Eligible currencies for Cash Collateral are EUR, CHF, GBP and USD		

Collateral haircuts are reviewed on a regular basis and adjusted if required

Lines of defense waterfall ensures loss coverage in normal and extreme market conditions

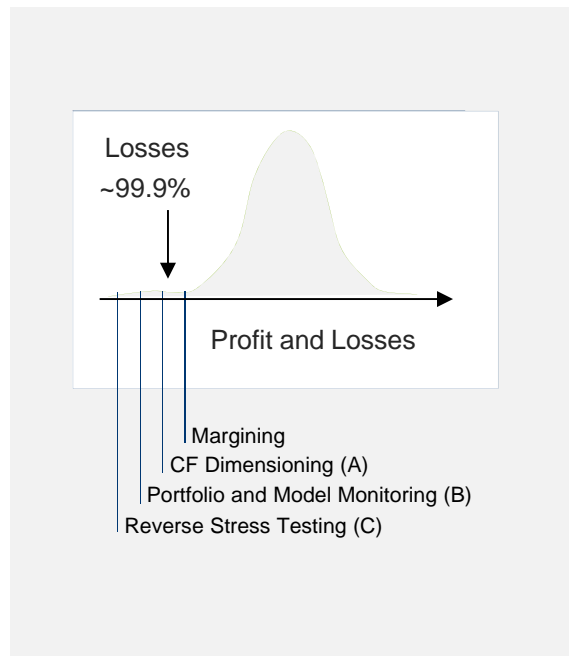
Eurex Clearing's lines of defense are crisis proven – default fund has never been employed.



Stress Testing

General Stress Testing Principles

Eurex Clearing as the central counterparty has to fulfil its obligations to clearing members, both in day to day business and under extreme market conditions. While day to day risks are aimed to be covered by margins, additional losses due to extreme but plausible market conditions should be covered by the Clearing Fund. Moreover, portfolio and risk model monitoring give a broader analysis basis and reverse stress testing assesses the overall vulnerability of the clearinghouse.



A. Clearing Fund Dimensioning (Core Stress Testing)

The Clearing Fund dimensioning assumes the default of two largest CMs with extreme but plausible market stress. The aggregation of stress losses reflects the setting of two clearing member defaults and conservative portability assumptions due to segregation.

B. Portfolio and Model Monitoring

Portfolio and model risk monitoring Stress Testing gives additional information about the risks inherent in portfolios beyond the Initial Margin confidence level. Further sources of risk and model risks are identified (i.e. by further scenarios, stressing liquidity, feedback effects, varying the model parameters).

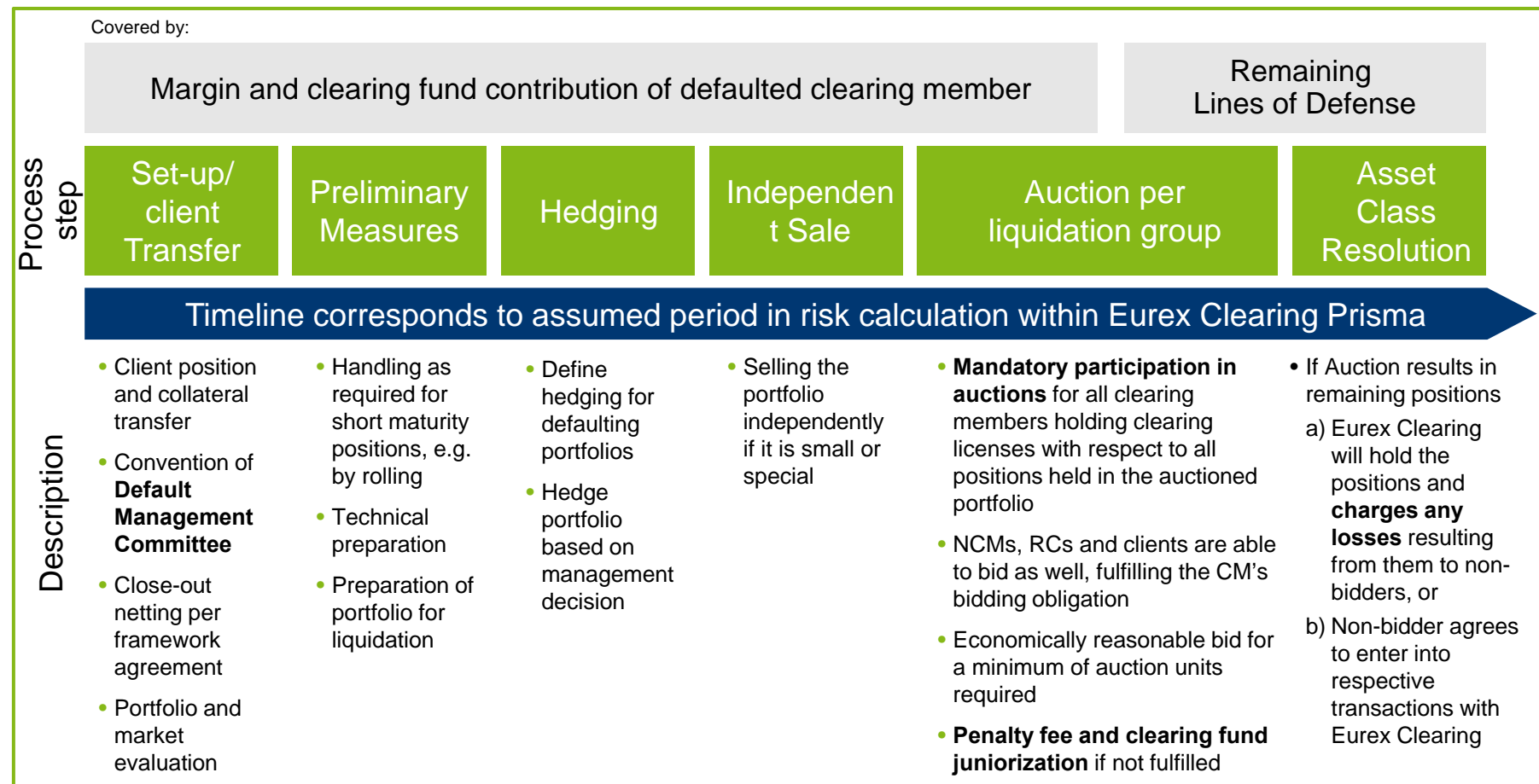
C. Reverse Stress Testing

The vulnerability of Eurex Clearing is assessed by Reverse Stress Testing which determines scenarios that would exceed Eurex Clearing's financial resources (i.e. how many defaults need to happen or how extreme market stress should be to have critical impact on Eurex Clearing).

Appendix

The new Default Management Process reflects best practice and complies with market expectations and regulatory guidelines

Overview of future Default Management Process framework



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