

Post Trade Investor webinar

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L



SEG

Agenda

Post Trade overview

Clearing and market drivers

LSEG Post Trade in detail



Post Trade overview

What is a Central Counterparty and why would you use it?

What does a Central Counterparty (CCP) do?

A CCP stands between the parties in a trade - **buyer to every seller and the seller to every buyer** - guaranteeing the trade in case one party defaults.

To provide this guarantee, the **CCP requires margins from members** (initial margin and variation margin).

If a **member defaults** then the CCP allocates losses in excess of member margins to surviving members.

Margins are invested/stored safely by the CCP and generate income (NTI).

What are the main benefits?

Reduction in counterparty credit risk

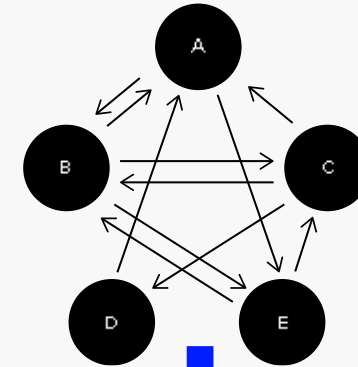
Margin efficiencies

Trading flexibility

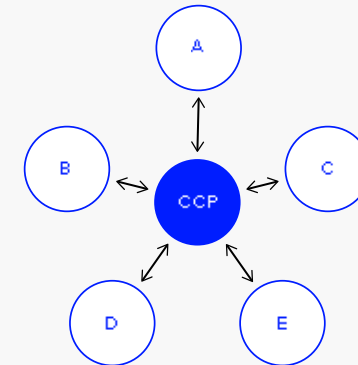
Reduction in operational risk

Balance sheet netting and capital efficiencies

Bilateral



Cleared



LCH – A global clearing house

We offer clearing and trade management services for a diverse range of asset classes

Clearing for:

Interest
rate swaps

Foreign
Exchange

Repos

Credit
default swaps

Equities

Listed
rates

Digital
assets

Other services

Post Trade
Solutions

Regulatory
Reporting

We partner with market participants globally...

62

countries

235

members

5000+

clients

27

currencies
cleared

14

sovereign debt
instruments cleared

...and have a consistent track record of growth

+40%

Collateral
2019-2023

+49%

Trades
registered
2019-2023

10%

Post Trade
income CAGR
2019-2023

We are the markets' partner for post trade and financial resource management

Core Financial Market Infrastructure

Clearing

LCH

- Counterparty risk reduction
- Capital optimisation provided by netting
- Safer & more liquid markets
- Default Management in times of crisis

Reporting

REGULATORY REPORTING¹

- EMIR & MiFiR Regulatory reporting
- Reporting and reconciliation solutions

Highly regulated, systemically important services

Post Trade Solutions (PTS)

Brings together highly complementary post trade services that supports trade processing, margining, settlement, optimisation and risk management

acadia

Default Management
in times of crisis

QUANTILE

Financial resource
optimisation

TradeAgent

Standardised workflow for
uncleared OTC derivatives

SwapAgent

Clearing house for
bilateral derivatives

Less regulated, new and developing services



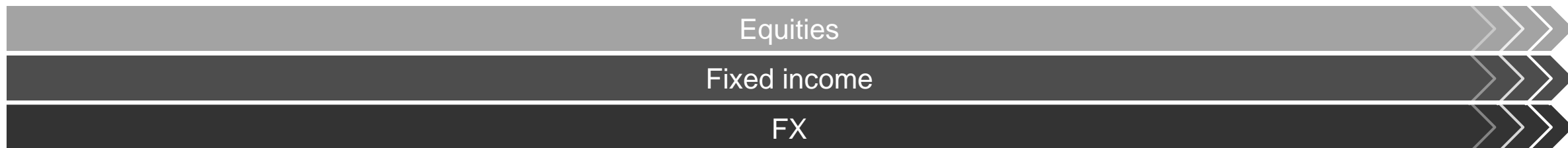
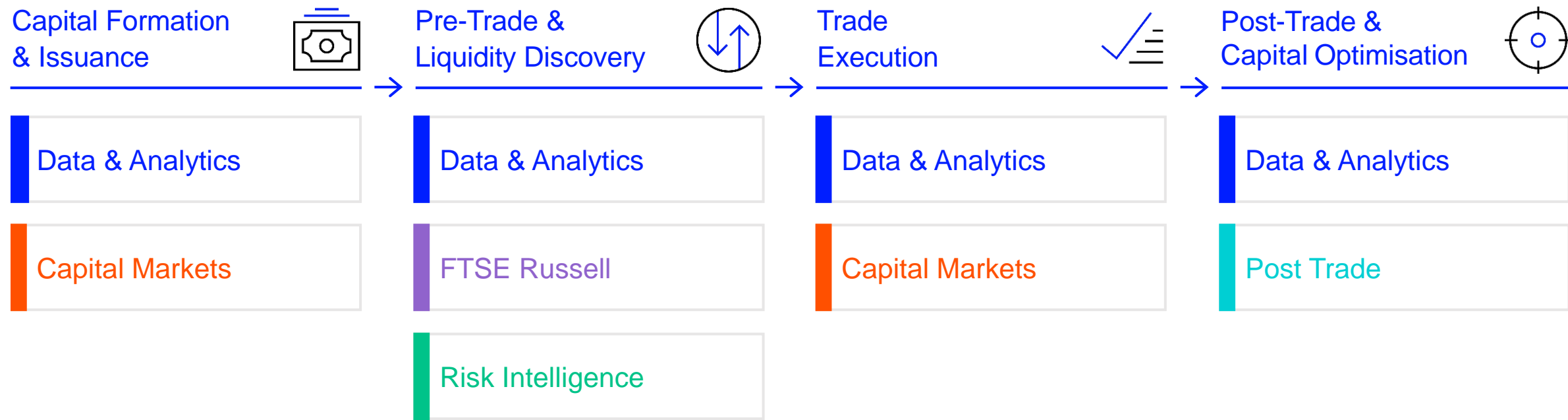
LSEG

(1) Formerly known as Unavista

We operate systemically critical market infrastructure



Post Trade's offering is global and multi-asset class, and we are increasingly collaborating across the Group





Clearing and market drivers

An ever-changing regulatory environment is pushing market participants to seek greater capital efficiency

	2008								2024	
Market events & regulation	Global Financial Crisis • Bear Stearns Collapse • Lehman Bros. Default • MF Global Default	G20 Commitments	Dodd-Frank Reg. Reform	EMIR Reg, Reform	MiFiR/MiFiD	Basel II/III	Uncleared Margin Rules (UMR)	Brexit – Proposed location policy	Global Capital reforms – CEM to SACCR; G-SIB, Leverage Ratio	
Consequences	Mandatory clearing of OTC rates and credit to buy-side and sell-side				~\$715tn OTC notional outstanding ¹	Regulation brings Acadia, Quantile and SwapAgent to market		Increasing balance sheet pressure focuses FIs on collateral optimisation	~\$4.3tn of capital addressable by PTS ²	
Financial implication	Capital efficiency					Counterparty credit risk		Balance sheet efficiency		
Clearing benefit	<ul style="list-style-type: none"> ✓ Multilateral Clearing ✓ Centralised margin posting ✓ Margin optimised 					<ul style="list-style-type: none"> ✓ Multilateral Netting ✓ Lower Requirement 		<ul style="list-style-type: none"> ✓ Multilateral Netting & Compression ✓ Multilateral Netting 		

Stability & resilience – protecting our members while optimising their capital needs

We have a strong track record...

Very strong operational resiliency and service availability

Global scale, access and support focused on clients' operational risk profile

Financial risk management is our core competence

Cyber resilience is a priority

...and a robust default management process

- 1 'Defaulter pays' model: defaulter's margin and Default Funds used prior to the use of other capital
- 2 Clearing service line default funds segregated from other LCH services
- 3 All the defaulters' assets will be utilised across all services first
- 4 LCH will then use its own capital 'skin-in-the-game' before utilising non-defaulting members' capital
- 5 LCH can call for (limited) additional contributions should the funded resources be exhausted
- 6 When all resources exhausted, the loss distribution phase follows, then in extremis by service closure

LCH has never used resources other than those belonging to the defaulting party when dealing with a market event

We are experienced at managing significant market events

2008

**Lehman Brothers Clearing
Member Default**

Continued to clear new business and existing margin cleared transactions for all non-defaulting members during default management period

2020

Covid

LCH cleared markets were subjected to major deleveraging and liquidity stresses - all services continued to operate as normal through this period

2022-23

LIBOR Transition

LCH assumed leading role in transitioning over \$100tn LIBOR-based derivatives transactions to Risk Free Rates for the benefit of our customers and markets

2016

Brexit

Record trade volumes and variation margin calls; margin models reacted proportionally, no ad hoc margin model changes were necessary

2022

Russia invasion of Ukraine

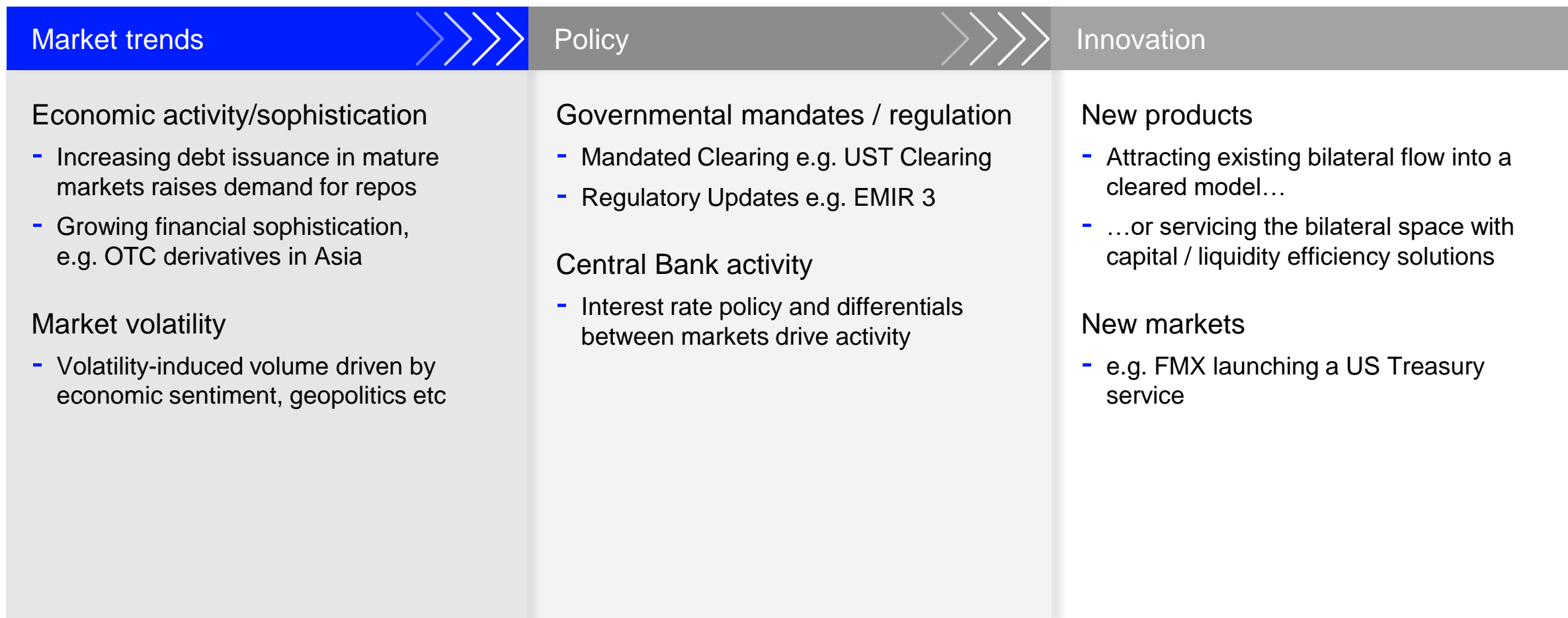
VTB Capital (UK subsidiary of Russian bank) sanctions, default, and severe price volatility managed at no cost to membership

2023

SVB/ US Regional Bank Crisis

Margin models responded to elevated market volatility in a gradual and proportionate way; no ad hoc actions were necessary

Key market drivers



Desire for ever increasing optimisation of scarce resources...

...for which we are constantly investing and adapting to serve



LSEG Post Trade in detail

A differentiated service through deep industry expertise and a partnership model

Deep customer alignment

- Large customer base
- Significant network effects
- Extensive global regulatory competence

Strong governance and commercial model

- User representation
- Independent Boards, regulatory oversight
- High value commercial model, profit share

Value to clients

- Benefits of scale (liquidity & transactional)
- Optimised financial resource consumption
- Management of credit risk
- Reduction of operational complexity and costs

A complete, flexible post trade offering, with proven domain expertise and a commitment to working in partnership with our customers at our very core

We've adapted to meet our customers' evolving needs

2008

2024

While market events were changing the clearing landscape...

Global Financial Crisis

- Bear Stearns Collapse
- Lehman Bros. Default
- MF Global Default

G20 Commitments

Dodd-Frank Reg. Reform

EMIR Reg, Reform

MiFiR/MiFiD

Basel II/III

Uncleared Margin Rules (UMR)

Brexit: Location Policy

Global Capital reforms:
CEM to SACCR; G-SIB,
Leverage Ratio

...LCH has been adapting its strategy to meet the evolving environment

Developed existing clearing services...

SwapClear (1999)

- Client Clearing
- Product Extensions i.e. Inflation/new ccys
- Spider/Portfolio Margining

EquityClear (2001)

- Connectivity into new venues & CSDs

RepoClear (1998)

- Sponsored Clearing
- LTD to SA EU Bond/Repo Migration

Collateral Services

- Manages a direct network of central banks, (I)CSDs, and agent banks

...diversified into new clearing services...

ForexClear (2012)

CDSClear (2012)

Listed Rates

...and developed non-clearing services...

Compression services

SwapAgent (2017) / Acadia
(acquired 100% stake 2023)

SMART/ClearLink

Quantile (acquired 2022)

...whilst exiting legacy services

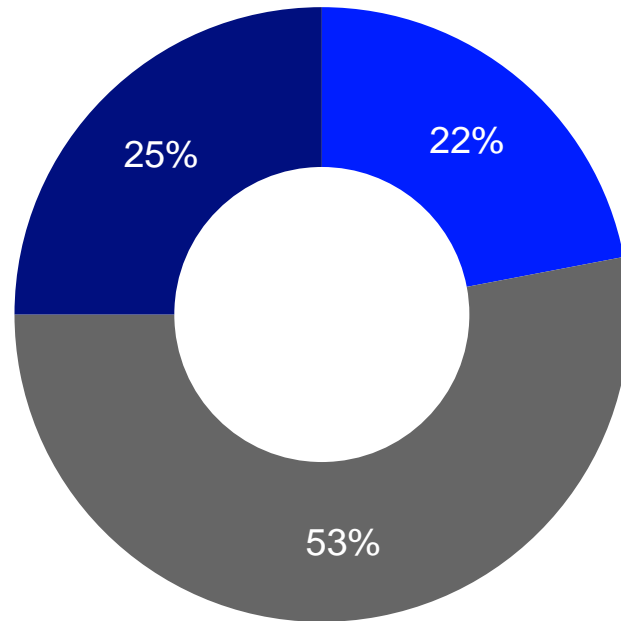
(LME / Nodal / FreightClear)

Our economic model

Revenue

Collateral

- Customers post collateral to cover margins: either cash or non-cash assets
- Fixed handling fee for non-cash collateral
- For cash collateral, we charge a handling fee and we secure the cash in short-term, ultra-low-risk instruments



Recurring

- Members enjoy an “all you can eat” clearing model for the following:
 - Swaps
 - FX
 - CDS
- Fees are fixed and follow a tiered structure, based on expected volume

Transactional

- Clients must clear via a member bank
- They pay a per-transaction fee which is passed to LCH
- For repos and equities, members also pay by transaction

Our cost base

Profit share

- A group of founding members receive a minority share of LCH profits
- This is paid away via cost of sales

Regulatory compliance

- Oversight obligations
- Regulatory change

Product and Risk

Tech and Ops

SwapClear – the global leader in OTC interest rate swaps clearing

Unrivalled liquidity

SwapClear is the largest OTC interest rate swap clearing service by gross notional cleared

Broad product coverage

SwapClear clears 95 percent of all “vanilla” OTC interest rate swap products, in 27 currencies and long-term tenors

A global presence

Provide clearing from the Asian open to the US close, with a presence on three continents

Real-world cost savings

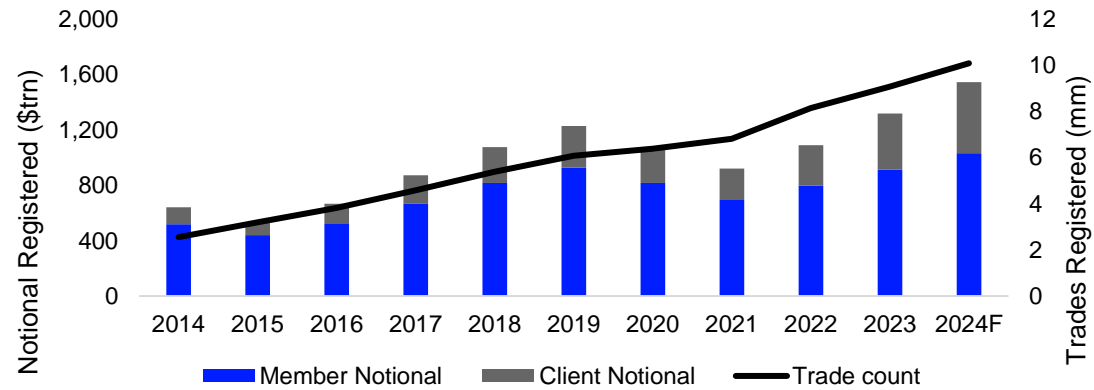
We enable our clients to offset risk, reduce costs and lower collateral requirements

Rigorous risk management

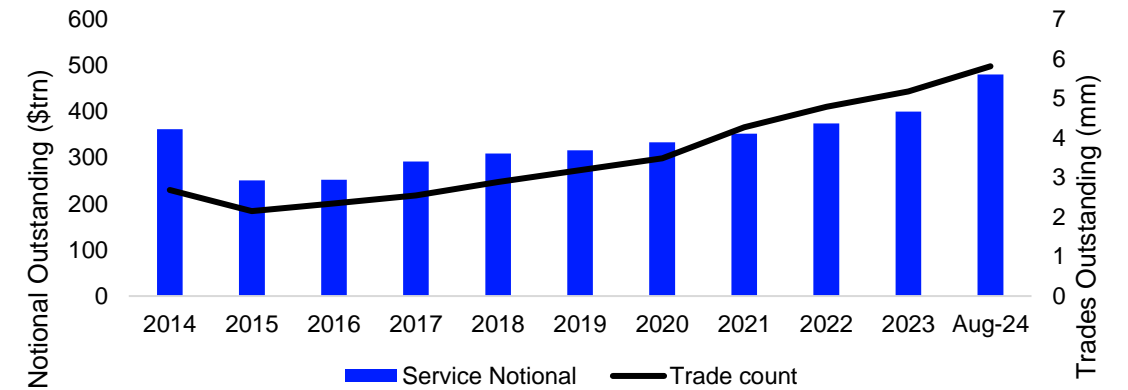
SwapClear is the unquestioned leader in CCP risk management and the derivatives community has adopted many of our risk management standards

SwapClear – consistent growth over the long term

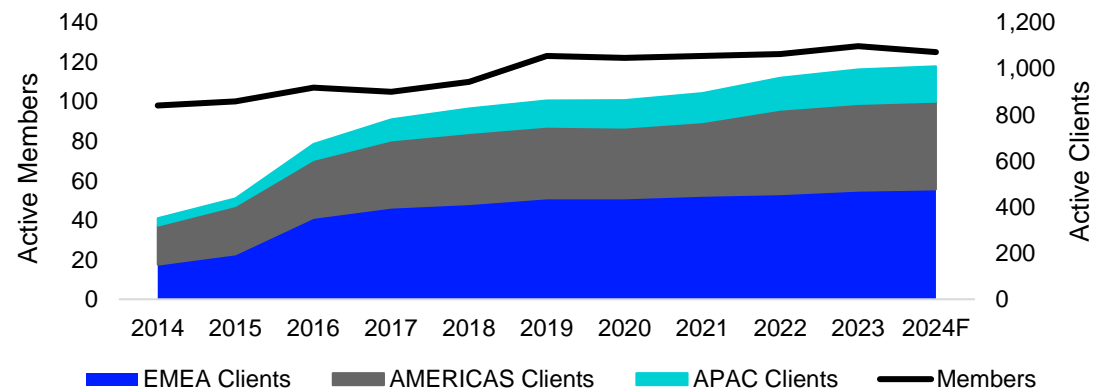
Registered flow by year



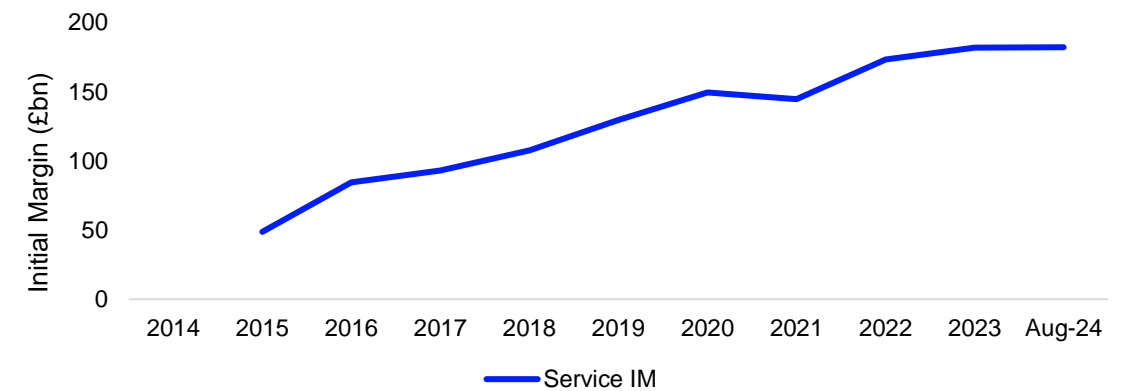
Outstanding volumes at year-end



Participation



Year-end initial margin



ForexClear – a significant market opportunity

Foreign exchange markets are shifting to a cleared environment

- UMR incentivises NDF and options clearing
- SA-CCR is increasing incentives to clear FX trades with term, e.g. forwards and swaps
- ForexClear delivers unmatched capital and operational efficiencies

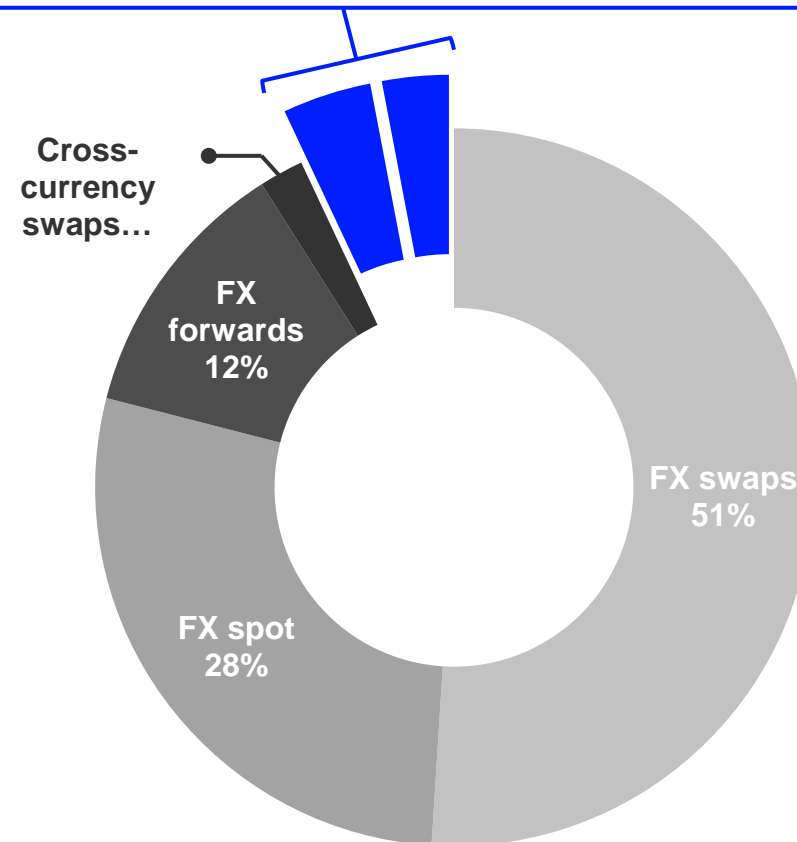
We clear a range of FX products...

- Non-Deliverable Forwards: significant portion of the dealer-to-dealer NDF market now cleared
- FX Options: Q1 2024 was 5th record quarter in a row since Q1 2023
- FX Spot / Forwards

...and offer attractive capital optimisation solutions

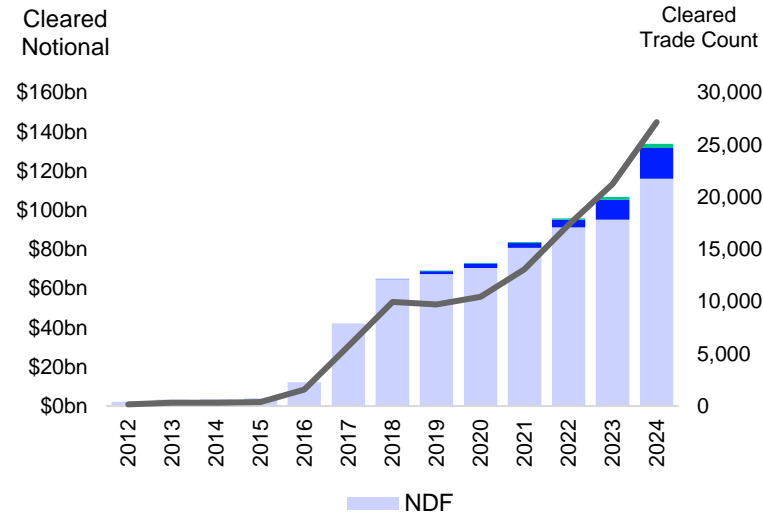
- Multilateral netting: reducing portfolio exposure and margin requirements
- SmartClearing: reducing counterparty RWA capital usage across all counterparties

Currently, only 7% of the FX transactions (NDFs and FX Options) fall under regulation that incentivises clearing. But this is changing...

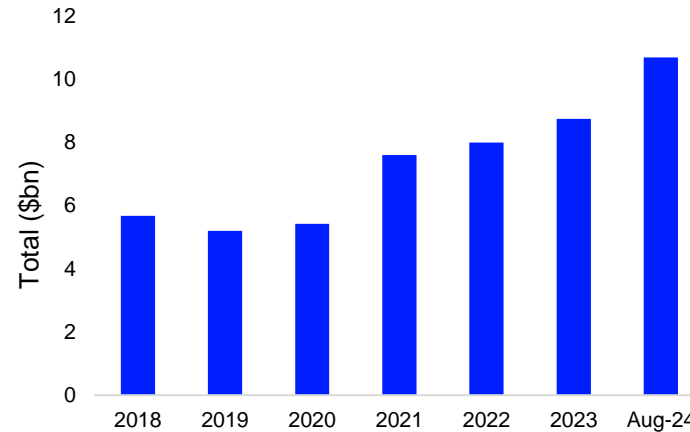


ForexClear – a rapidly-growing business

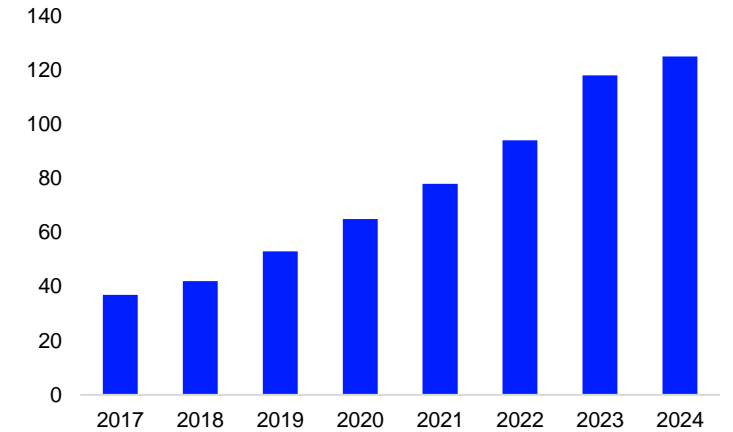
ForexClear cleared ADV



ForexClear initial margin



Total ForexClear participants



~\$164tn Total notional cleared by ForexClear to date (at June 2024)

\$158bn Average Daily Volume cleared by ForexClear (June 2024)

16% Growth in ForexClear revenue (2017 – 2023 CAGR)

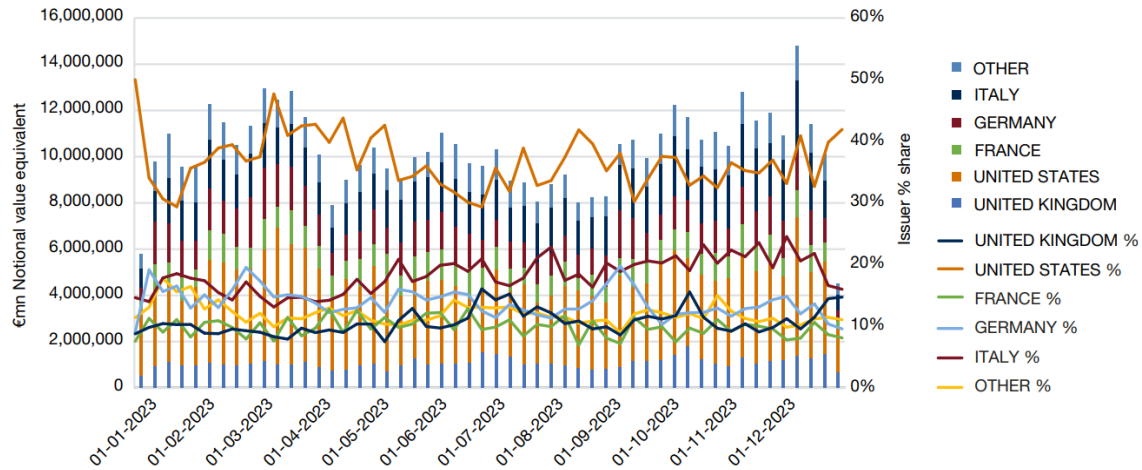
~\$2.2tn Total client cleared by ForexClear to date (as at June 2024)

48% Growth in client volumes (June 2024 v June 2023)

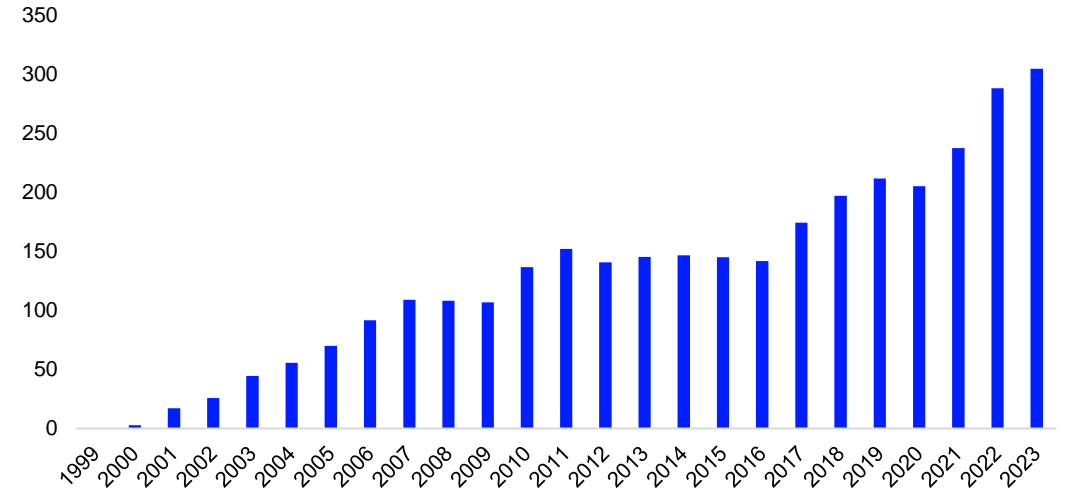
43 Live Entities clearing through 39 Members, 22 Groups (as at June 2024)

RepoClear – the world’s largest liquidity pool

Weekly sovereign bond issuance by issuer¹



Total yearly nominal (€tn)



~€77tn

Nominal Cleared across euro debt and gilts, up 4.1% vs Q1 2024

>€1.2tn

Daily nominal cleared across euro debt and gilts

3.9tn

Cash bond nominal cleared, up 86% vs Q2 2023

3.7m

Trade sides cleared across euro debt and gilts, up 2.4% vs previous record in Q4 2023, daily record set on 11 June 2024 with over 67k trade sides cleared

CDSClear and EquityClear - well-established market positions

CDSClear

OTC Derivatives

LCH SA's global Credit Derivatives clearing

- Strong growth in EU credit clearing; competitor consolidation
- CDSClear handles indices, single names and options
- Growth in the US focused on offering a US FCM client clearing model
- Strong growth across all segments y-o-y

EquityClear

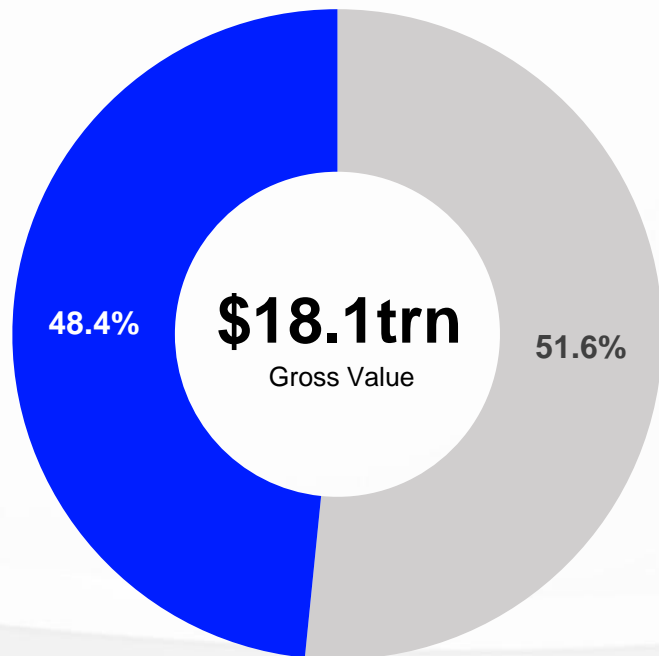
Securities & Reporting

LCH Ltd's pan-European clearing service for equities and ETFs

- Post Euronext exit, equities clearing now focused in LCH Ltd
- 30 Clearing Members, 20 CSDs
- 1.6bn trade side cleared in 2023
- >120 non-clearing participants
- >35 individual market segments

The uncleared segment also represents a significant opportunity

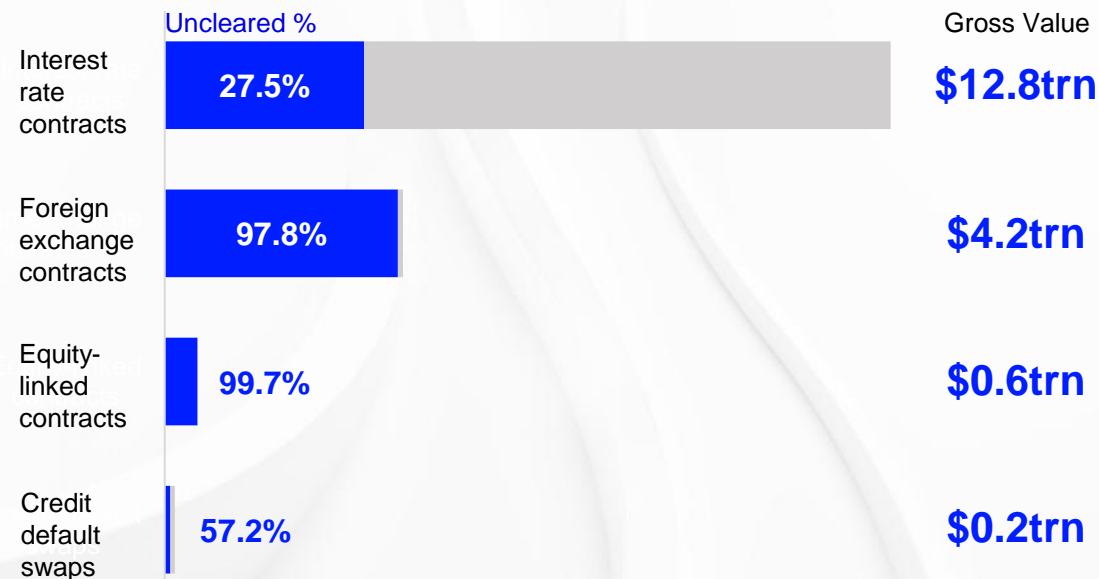
Almost half of OTC derivatives trading remains uncleared



All OTC derivatives contracts

Key ■ Cleared ■ Uncleared

The interest rate OTC derivatives segment is by far the most mature in using CCPs



OTC derivatives contracts by asset class



Post Trade Solutions – removing inefficiencies by addressing industry pain points

Industry tailwinds shaping post trade



Increased regulatory focus is driving up cost which will compel firms to be more efficient



Capability of technology is changing dramatically with long-term industry transformations; institutions with new technologies will be strongly positioned



Cost of driving technological change is increasing and both buy side and sell side are increasingly realising that insourcing of undifferentiated processes is suboptimal in the long term



There is consolidation across capital markets and customers are relying more on established, resilient institutions



The industry tailwinds support further growth of Post Trade Solutions


Tailwinds create opportunities for further client growth and deeper partnerships, leading the industry in adoption of innovative solutions while ensuring resilience

Our vision

These service lines work with existing cleared infrastructure to bring the benefits of clearing to currently uncleared trades and to consolidate processing across cleared and bilateral

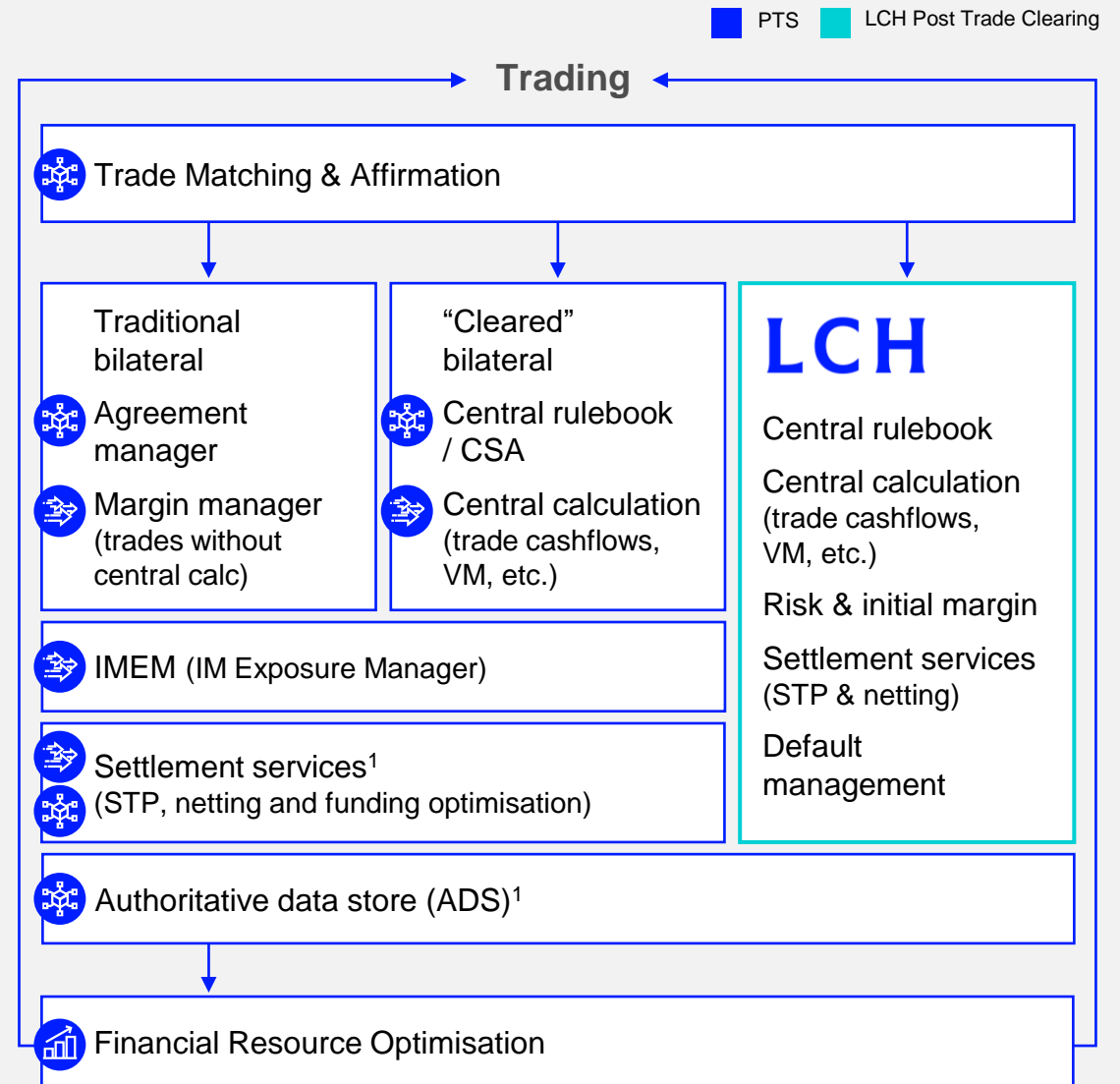
PTS service lines

 Margin & Collateral Workflow

 Centralised Platforms & Data

 Risk & Optimisation

PTS infrastructure



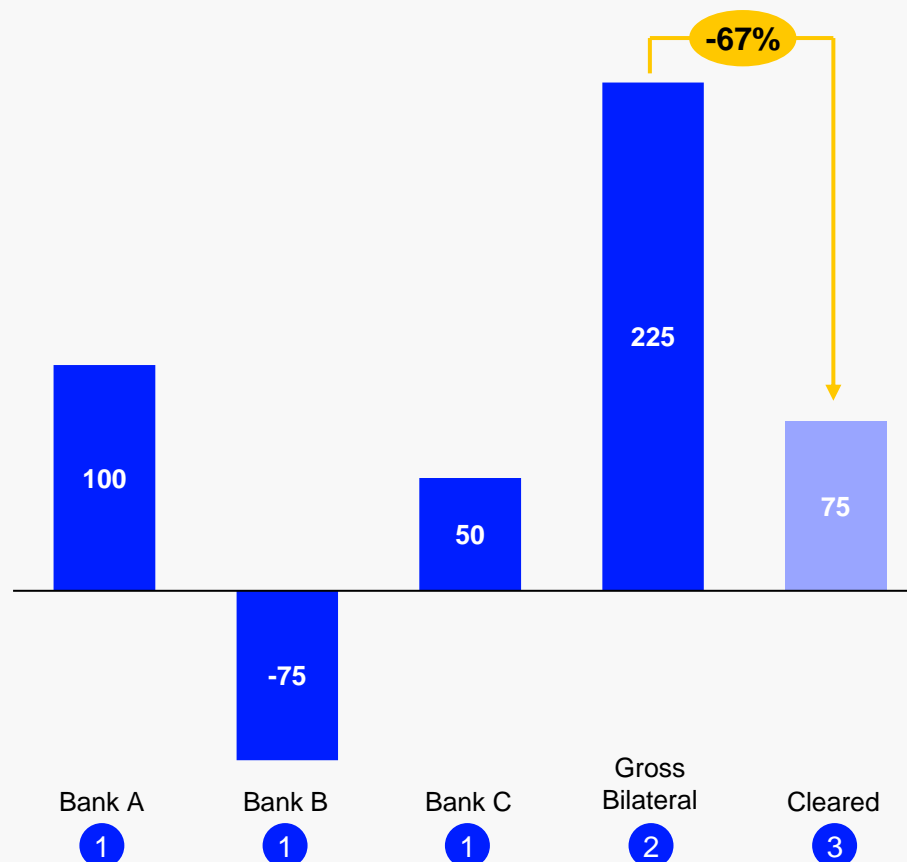
(1) New services

FX Smart Clearing is one example of the many use cases for Post Trade Solutions

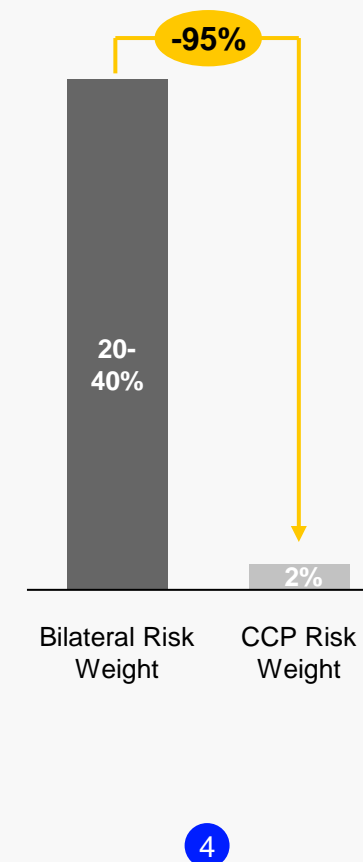
Example FX Smart Clearing workflow:

- 1 A bank has three EURUSD positions - against Bank A, Bank B and Bank C
- 2 For capital calculations under SA-CCR, the gross risk of \$225 (by counterparty and ccy pair) is used as an input into the capital model
- 3 When you submit to clearing - the bank recalculates its capital position as net \$75 - against a single counterparty, with multilateral netting **saving 67% simply by clearing the trades**
- 4 Now the counterparty risk weight is adjusted from ~20-40% to 2% (for a CCP). **The overall result is a > 90% reduction in counterparty RWA capital usage**

Risk Positions Illustrative



Risk Weights Illustrative



Partnering across LSEG

Data & Analytics

Fundamental review of the trading book

LCH trade data used to help banks mitigate new capital requirements under FRTB

Trade surveillance

Regulatory Reporting trade surveillance product utilises World-Check data

Enhancing FTSE Russell products

LCH trade data enhances benchmark pricing and supports launch of new index products

Capital Markets

NDF Matching & ForexClear

Development of a fully cleared Non-Deliverable Forwards (NDF) Matching venue

Quantile & FXall

Optimising risk positions for FX Forwards and Options trades booked through FXall

Customer advocacy

Building strong partnerships

Post Trade's partnership model fosters deep relationships with Group Strategic Accounts

Broadening the opportunity

These strong relationships are leveraged to extend partnerships across the Group

Further growth opportunities

APAC expansion

pursuing business in China, Japan, Korea, India, Singapore, Hong Kong and Taiwan

FMX

delivery of US futures clearing service with FMX

CDS clearing

extending existing EU footprint and expanding customer network into US

Digital asset clearing

launch of crypto derivatives clearing service with GFO-X

In summary



Global multi-asset class franchise; strongly positioned



Deep, expanding partnerships with leading financial institutions



Continuous investment in new products and markets driving sustainable growth



Leveraging capabilities and expertise across the Group



Appendix

Glossary

Back Office		The part of a firm that is responsible for post-trade activities
Bilateral Agreement		The transfer between counterparties to a non-cleared over-the-counter derivatives contract
Clearing		The process of establishing settlement positions and checking that securities and/or cash are available for the settlement of obligations. In derivatives, this is the process for managing the risk of open positions
Clearing House		A central entity through which financial institutions agree to exchange transfer instructions for funds, securities and other asset classes
Clearing Member		Member of a clearing house who contracts directly with the clearing house, either to clear its own trades, its clients' trades and those of non-clearing members (who are participants of trading venues but do not qualify to act as clearing members themselves)
Collateral		An asset used by the collateral provider to secure an obligation to the collateral taker. Collateral is used by a clearing house to protect itself should the clearing member or its client fail
Compression		Reduction of the number of trades in a portfolio by off-setting trades with economically compatible characteristics with the aim of reducing regulatory capital charges and complexity
Counterparty		A party to a trade
Counterparty clearing house (CCP)	CCP	An entity that interposes itself between counterparties to a trade in one or more financial markets, becoming the buyer to every seller and the seller to every buyer, with the aim of ensuring the trades are completed if one or more counterparties default
Credit Default Swap	CDS	A financial derivative that allows an investor to swap or offset credit risk with that of another investor who will reimburse that investor if the borrower defaults
Default		The failure to satisfy an obligation (margin call) in accordance with the rules of the clearing house
Default Fund		A fund composed of assets contributed by a CCP and its members that is used by the CCP to cover losses resulting from default of a CCP's participants
Derivatives		Tradable financial instruments whose value is determined by the value of underlying instruments; this could be equity, an index, a commodity or any other trading instrument
Dodd Frank		US legislation intended to reduce risk in financial services post the 2008 financial crisis
Equity		Ownership interest in a corporation in the form of common or preferred stock listed on a stock exchange or other trading venue
EMIR		European Market Infrastructure Regulation; EU legislation that regulates CCPs, the OTC derivatives market and trade repositories
Fixed Income		An investment that provides a return in the form of fixed periodic payments and the return of the principal upon maturity
Futures Contract		Agreement to buy or sell an asset at a fixed future date at a price agreed today
Futures Clearing Merchant	FCM	An organisation that solicits or accepts orders to buy or sell futures or options contracts and accepts money or other assets from customers in connection with the clearing and settlement of such orders

Glossary

FX Forward		An agreement between two parties to buy or sell currency at a specified price on a predefined expiry date
Initial margin		Returnable deposit paid to the clearing house by the counterparty when entering a cleared market transaction; it is the calculated, worst-case loss on a contract over the close-out period of the position in the event of the counterparty's default
Netting		Off-setting of positions in a CCP to reduce gross risk exposure and transaction costs
Non deliverable forwards	NDF	A foreign exchange forward contract where no physical settlement of the two currencies takes place at maturity
Option		Contract that gives the holder the right – but not an obligation – to buy or sell an asset at a specific price at a defined future date
Over the counter	OTC	Derivatives are negotiated privately between two parties and may be cleared through a clearing house
Repo		Repurchase agreement – the process of borrowing money by combining the sale and subsequent repurchase of an asset
Settlement		Completion of a transaction where the seller transfers an asset and the buyer transfers the cash
Spot FX Contract		The sale or purchase of a foreign currency contract at the current market exchange rate
Standardised approach to counterparty credit risk	SA-CCR	Capital requirement framework under Basel III addressing counterparty risk for derivative trades which considers cleared vs uncleared trades
Uncleared		Transactions that are exchange directly between counterparties without the protection or benefit of a CCP's risk management services
Uncleared Margin Rules	UMR	A set of rules that require the exchange of initial margin between two counterparties to a trade
Variable margin		Periodic payment to the clearing house based on changes in the market value of the underlying asset of a derivative or futures contract

Financial Reporting

OTC Derivatives	Securities & Reporting	Non-cash collateral	Net treasury income
Interest rate swaps	Repos		
Foreign exchange	Equities		
Credit default swaps	Digital assets		
Listed rates	Regulatory Reporting		
Post Trade Solutions			

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