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ForexClear – CFEC

June 2025

LSEG POST TRADE

Agenda

1. Introduction to Clearing
2. FX Clearing Volumes
3. Future Developments

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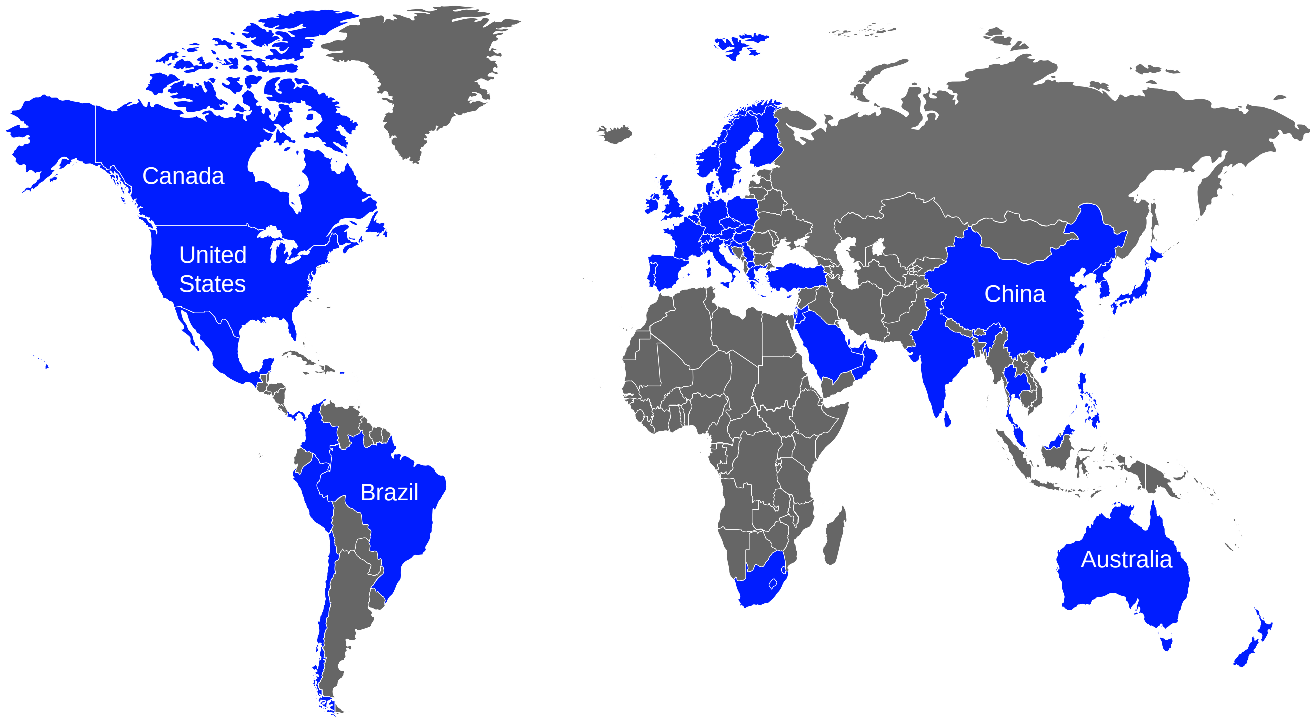
LCH – A Leading Global Clearing House



160+ Members

5000+ Clients

60+ Participating Countries

LCH LTD

UK

Based CCP and regulated by the Bank of England

10 Regulatory status held in other jurisdictions

*

SwapClear
A leader in OTC interest rate clearing.

Listed Rates
Clearing services for listed derivatives.

ForexClear
A leading non-deliverable and deliverable FX clearer.

RepoClear
A leading UK fixed income clearer.

EquityClear
An equity clearing service connected with Europe's executing venues.

LCH SA

FR

Based CCP and regulated by three National Competent Authorities: ACPR, AMF and Banque de France.

6 Regulatory status held in other jurisdictions

CDSClear

RepoClear
A leading Europe fixed income clearer.

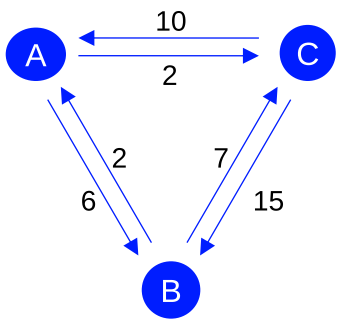
EquityClear
An equity clearing service connected with Europe's executing venues.

CommodityClear
Clearing service for commodity derivatives

3

How Central Counterparty Clearing Works

A, B and C are financial institutions (e.g. dealers) that wish to buy and sell derivatives contracts (e.g. FX NDFs) from each other

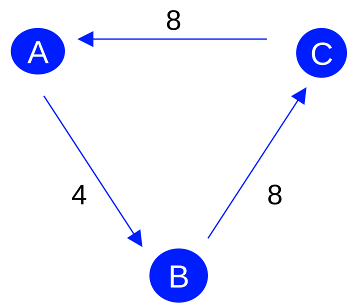


Over-the-counter market

Stage 1

Financial institutions trade bilaterally in the OTC market, which means that they initiate trades directly with each other, and each pair manages payments and risk on its respective contracts.

The numbers in the figure illustrate hypothetical exposure / payments due between dealers. For example, the gross exposure / payment for dealers A and B is 8, while the total between all dealers is 42.

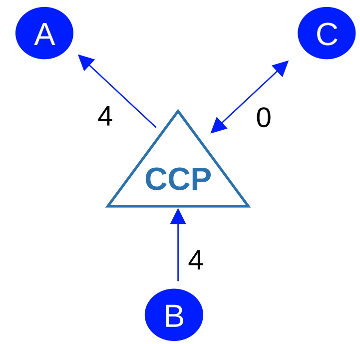


Over-the-counter market
with bilateral netting

Stage 2

If counterparties have exposure / payment netting agreements; this amount can be further reduced between pairs of counterparties.

As a result, the exposure / payment C has is now 16, while the total exposure / payment between all dealers is 20.



Centrally cleared market

Stage 3

By introducing a CCP; dealers A, B and C move their 2 trades to face the CCP instead of each other. Each bilateral contract between dealers is replaced by two mirror-image contracts running though the CCP. The CCP inserts itself between the parties, serving as the counterparty to each.

The CCP is – within the circle of its members – the seller to every buyer and the buyer to every seller.

The CCP steps into the middle of an OTC derivatives trade and creates two new transactions (legal process) known as novation. In doing so, central clearing achieves maximum netting in our example, thus reducing the total risk due between all dealers to 8, creating efficiencies for margin and capital.

Clearing Reduces Capital Under SA-CCR

Clearing reduces capital in multiple ways:

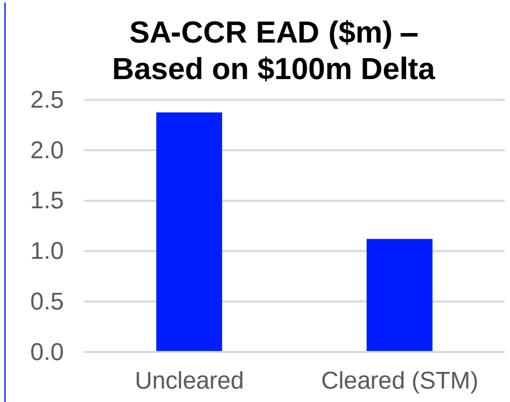
1. **Lower counterparty risk weight** – reduces requirements by ~90% (RWA Only) as CCP is 2% risk weight vs bi-lateral >= 20%
2. **Settled to Market (STM)** – Reduces capital exposures and therefore capital requirements by ~50% (Both LR and RWA)
3. **Multilateral Netting** – Collapsing positions across counterparties to single CCP reduces exposures/increases benefits of netting (Both LR and RWA)

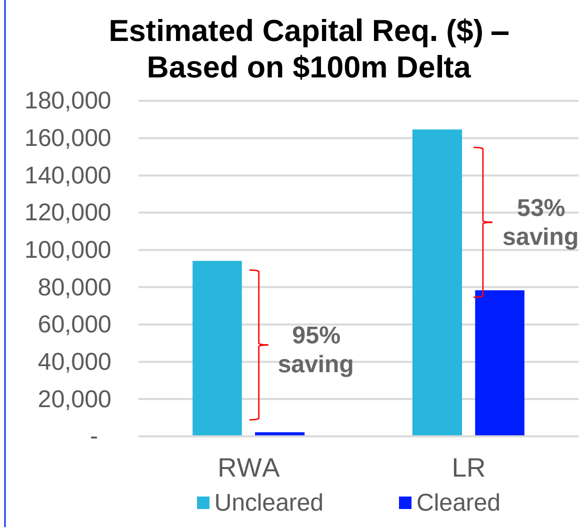
			Bilateral	Cleared
Bank A	Bank B	Bank C	Risk weight 20% = 45	Risk Weight 2% = 1.5
100	-75	50	225	75

Example: Capital based on $100m notional FX Forward

Leverage Ratio	Cleared	Uncleared
Capital - $	78,400	164,640
RoE	12%	12%
Cost of LR - $	**9,400**	**19,760**

RWA	Cleared	Uncleared
Capital - $	2,240	94,080
RoE	12%	12%
Cost of RWA - $	**269**	**11,290**





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FX Market by FX Product – The Opportunity !

		Market ADV[1]	Product % of FX Market[1]	Clearing Mandated	Captured by UMR[2] for Initial Margin	Included in AANA[3]	Capital Regulation	LCH ForexClear Q4 2024 ADV[4]	LCH ForexClear Market Share		Primary Clearing Driver		LCH ForexClear 2025 YTD ADV[7]
									Total Market[4]	Reporting Dealers[5]	Banks	Non-banks	
Now	NDFs	$260bn	3%	N	Y	Y	Y	$128bn	25%	40%	UMR & Capital	UMR (if applicable) + Credit and Collateral Simplification + Operational Efficiency + Cost Reduction	$147bn
Now	FX Options	$300bn	4%	N	Y	Y	Y	$20bn	3%	9%	UMR & Capital		$27bn
Launched	FX Swaps & Outright Forwards	$4,700bn	64%	N	N	Y	Y	$3bn	0%	0%	SA-CCR[6]		$4bn
Future	Spot	$2,100bn	29%	N	N	N	N	$80m	0%	0%	Credit, operational efficiency		$70m
	Total FX Market	**$7,360bn**	**100%**					$150bn	1%	2%			$179bn

1 2022 BIS Triennial Survey - Average Daily Volume in Survey and Share of total market by product excluding XCCY
2 Uncleared Margin Rules
3 Average Aggregated Notional Amount (used for determining UMR thresholds)
4 ForexClear Average Daily Volume cleared in Q4 2024 (double-sided) and ForexClear estimated share of total FX market per 2022 BIS Triennial Survey
5 ForexClear Average Daily Volume cleared in Q4 2024 (double-sided) and ForexClear estimated share of reporting dealer volumes in FX market per 2022 BIS Triennial Survey
6 Standardised Approach for Counterparty Credit Risk
7 ForexClear Average Daily Volume cleared in May 2025 (double-sided) and ForexClear estimated share of reporting dealer volumes in FX market per 2022 BIS Triennial Survey

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LCH ForexClear Summary

Launched in 2012 to offer global currency markets a dedicated service for clearing NDFs

ForexClear offers industry leading clearing and risk management for multiple currency pairs:

- 8 deliverable (Spot, Fwd, Options) pairs AUD, CHF, EUR, GBP, JPY vs. USD and CHF, GBP and JPY vs. EUR
- 25 non-deliverable forward (NDF) pairs
- 9 non-deliverable option (NDO) pairs

Compliant with all applicable law and regulation in each jurisdiction in which we operate

Strong market partnership with 138 global participants; 43 Members entities (including 23 Member Groups) and 95 clients

Operates 24-hour-a-day clearing, 5 days a week with full STP workflow management

Rigorous risk management underpinned by best-in-class models

Recognised as a QCCP and Regulated in Multiple Jurisdictions Globally[1]

AMERICAS

- Commodity Futures Trading Commission (CFTC)
- Autorité des Marchés Financiers (AMF Québec)
- Ontario Securities Commission (OSC)

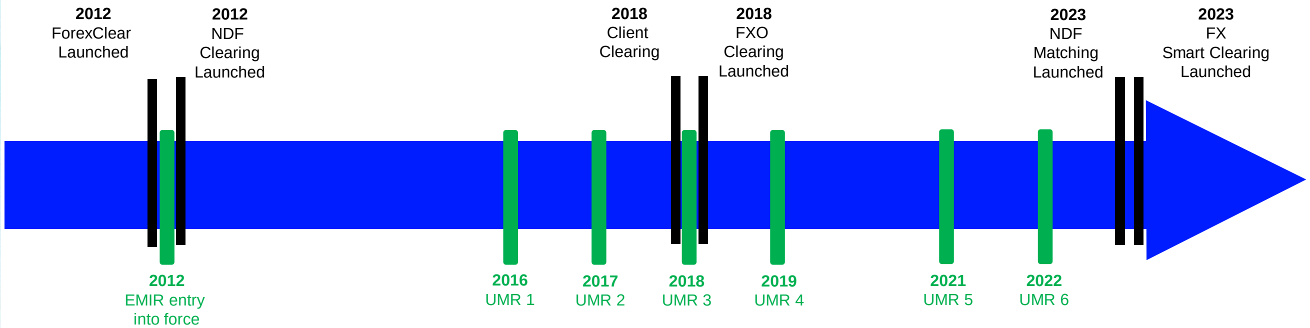
APAC

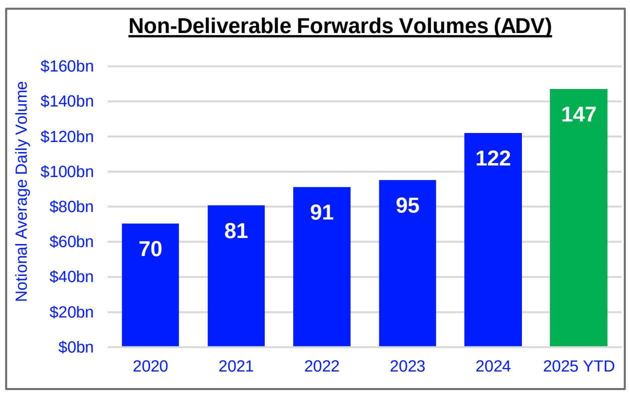
- HK Securities and Futures Commission
- Japanese Financial Services Agency

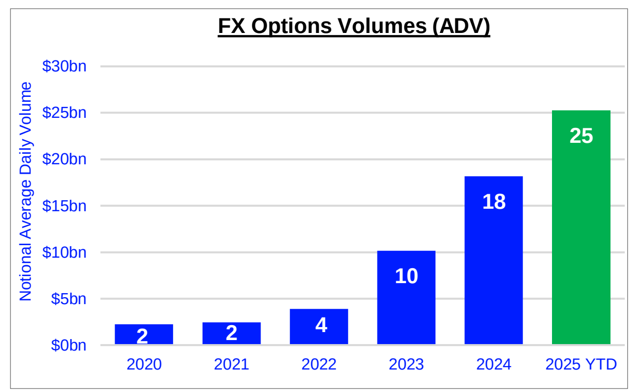
EMEA

- Bank of England (UK)
- ESMA (EU)
- Swiss Financial Market Supervisory Authority (FINMA)

[1]Oversight by other market regulators and central banks in jurisdictions in which business is carried out.







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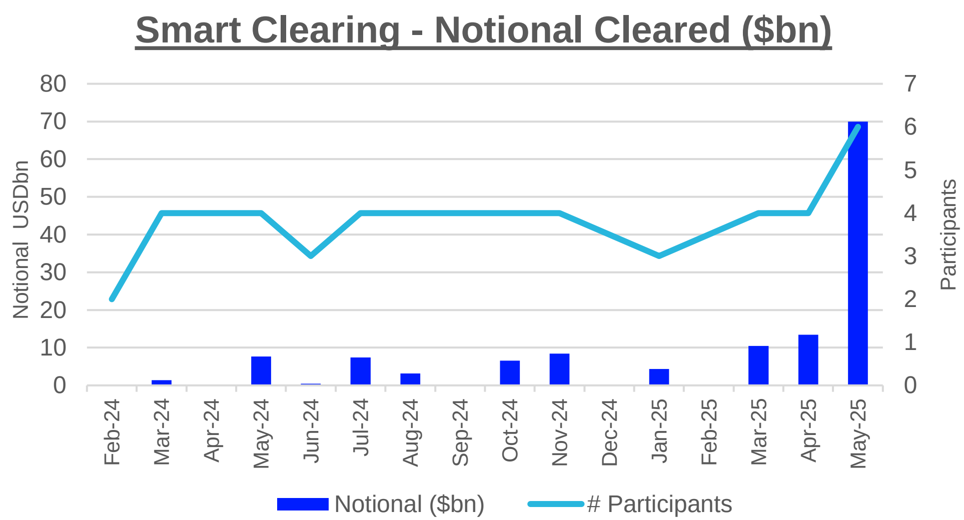
Capital Optimisation & Forwards Clearing Update

- Since introduction of SA-CCR, there has been significant growth in participation in capital optimisation runs, serviced by third-party optimisation vendors.
- Objective of the periodic runs is to manage down counterparty risk, with vendors proposing market-risk neutral packages of FX Forward trades to re-balance risk between counterparts.
- Proposals are agreed as a multi-lateral network and executed in unison.

- Since 2024, ForexClear has been a 'node' in one of the vendor runs – allowing banks to rebalance risk and sweep counterparty exposures to ForexClear.
- Having a large cleared portfolio (benefitting from the margin and capital savings already), allows more risk to be swept to offset the bi-lateral exposures
- 6 banks currently live on the service, with 6+ banks awaiting CLS infrastructure project to complete before participating in the cleared node.



May Smart Clearing Run: $73bn
(500% up on prev. record)

$136bn cleared to date

ForexClear's Global Participants

Current Participants (not exhaustive)

AMERICAS*

- Bank of America
- Citibank
- Goldman Sachs
- JP Morgan
- Morgan Stanley
- Wells Fargo
- Artisan Partners
- Citadel Advisors LLC
- Morgan Stanley IM
- Eaton Vance
- State Street Bank & Trust
- Vanguard

APAC*

- HSBC
- Nomura
- Standard Chartered
- UOB
- CTBC
- DBS Bank
- HDFC Bank
- ICICI Bank
- OCBC
- Keb Hana Bank
- ANZ Bank
- Macquarie
- Aware Super

EMEA*

- Banco Santander
- Barclays
- BBVA
- BNP Paribas
- Commerzbank
- Credit Agricole
- Deutsche Bank
- ING
- Natixis
- NatWest Markets
- Société Générale
- UBS
- Bluebay Asset Management
- Schroders

Prospective Participants (primary focus)

AMERICAS

- Canadian Banks – BMO, CIBC, RBC, Scotiabank, Toronto Dominion
- Latin American Banks - Banco do Brasil, Banco Bradesco
- USA Banks – BoNY, Monex, Northern Trust
- USA Non-Banks – Blackrock, Fidelity, PIMCO, Millenium

APAC

- Australian Banks – CBA, NAB, Westpac
- Chinese Banks – Bank of China (HK), ICBC
- Indian Banks – SBI, Yes bank, Kotak
- Japanese Banks – Mizuho, MUFG, SMBC, SMTB
- Korean Banks – KDB, Kookmin, IBK, Woori.

EMEA

- African Banks – First Rand, Standard Bank
- Continental European Banks – ABN Amro, Bayer LB, Intesa San Paolo, Rabo, Unicredit, ZKB
- Scandinavian Banks – Danske, DNB, Handelsbanken, Nordea, SEB, Swedbank
- Middle Eastern Banks – Bank Hapolim

13x Banks currently actively engaged on CLS Project

***Members (2023 - 2025 joiners) and Selection of publicly named clients**

ForexClear Deliverable Roadmap

2025	2026

CLS Main Session Transition

30 Jun 2025 Go-live

CLS MAIN SESSION TRANSITION

Post-transition, all cleared settlements will occur in the CLS main session ('CLSSettlement')

Funding efficiencies -> greater settlement limits -> greater smart clearing potential

Reduced timelines to onboard to deliverable clearing

CLS Additional Currencies

Q4 2025 Go-live

ADDITIONAL (CLS Eligible) CURRENCIES (Spot / Fwd)

CAD (Fwd only), DKK, ILS*, HKD, HUF*, MXN, NOK, NZD, SEK, SGD, ZAR

Greater diversification of risk

Increased capital savings from FWDs Clearing

**not currently offered in non-deliverable format*

USD/CNH Clearing

Apr 2026 Go-live

USD/CNH Spot, Forwards, FX Options

Reduces capital margin efficiencies due to netting

Further significant bilateral settlement risk netting and mitigation

Increased clearing participation (regional banks)

FXO Currency Expansion

Q4 2026 Go-live

2026+

1. FX Option Currency Expansion
2. CAD Spot + FX Options
3. Tenor Extensions
4. Deliverable Client Clearing
5. XCCY Swaps
6. SwapAgent/ForexClear Inter Connectivity

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Appendix

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FX Market by FX Product and Currency Pair – FX Options

FX Options (incl. NDO)

Currency Pair	Market ADV[1]	% of FXO Market[1]	ForexClear ADV[2]	ForexClear Market Share	
				Total Market[3]	Reporting Dealers[4]
EUR/USD	$61.1bn	20.1%	$16.5bn	13.5%	31.2%
USD/JPY	$52.6bn	17.3%	$4.8bn	4.6%	12.2%
USD/CNH ✓	$49.8bn	16.4%	-	-	-
AUD/USD	$14.5bn	4.8%	$2.2bn	7.6%	18.8%
GBP/USD	$14.2bn	4.7%	$2.8bn	9.9%	24.1%
USD/CAD ✓	$13.5bn	4.4%	-	-	-
USD/BRL	$6.8bn	2.2%	$0.02bn	0.1%	0.4%
EUR/GBP	$6.7bn	2.2%	$0.5bn	3.9%	9.5%
USD/CHF	$6.3bn	2.1%	$2.0bn	15.5%	32.3%
USD/KRW	$5.9bn	1.9%	$0.1bn	0.4%	1.5%
USD/MXN ✓	$5.9bn	1.9%	-	-	-
USD/INR	$4.5bn	1.5%	$0.2bn	1.7%	5.0%
USD/ZAR ✓	$4.1bn	1.4%	-	-	-
USD/SGD ✓	$3.8bn	1.3%	-	-	-
NZD/USD ✓	$3.5bn	1.2%	-	-	-
USD/TWD	$3.4bn	1.1%	$0bn	0%	0%
EUR/JPY	$3.2bn	1.1%	$0.3bn	4.0%	11.3%
EUR/SEK ✓	$2.8bn	0.9%	-	-	-
EUR/NOK ✓	$2.2bn	0.7%	-	-	-
USD/HKD ✓	$2.0bn	0.7%	-	-	-
AUD/JPY	$2.0bn	0.7%	-	-	-
EUR/CHF	$2.0bn	0.7%	$0.4bn	9.5%	20.3%
EUR/CNH	$1.9bn	0.6%	-	-	-
OTHER CURRENCY PAIRS	$31.2bn	10.3%	-	-	-
	$304bn	100.0%	$29bn	4.9%	12.2%

1 *2022 BIS Triennial Survey - Average Daily Volume (single-sided) in Survey and Share of total market by currency*
2 *ForexClear Average Daily Volume cleared 01.04.25 – 30.04.25 (double-sided)*
3 *ForexClear estimated share of total FX market per 2022 BIS Triennial Survey in the given currency pair*
4 *ForexClear estimated share of reporting dealer volumes in FX market per 2022 BIS Triennial Survey in the given currency pair*

✓ - planned live in 2025 - 2026

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FX Market by FX Product and Currency Pair – FX Forwards

Deliverable FX Forwards

Currency Pair	Market ADV[1]	% of FWD Market[1]	ForexClear ADV[2]	ForexClear Market Share: Total Market[3]	ForexClear Market Share: Reporting Dealers[4]
EUR/USD	$192.0bn	21.4%	$2.14bn	0.6%	1.9%
USD/JPY	$122.1bn	13.6%	$0.60bn	0.2%	0.8%
GBP/USD	$86.7bn	9.7%	$0.41bn	0.2%	0.8%
AUD/USD	$47.7bn	5.3%	$0.27bn	0.3%	0.8%
USD/CNH ✓	$45.7bn	5.1%	-	-	-
USD/CAD ✓	$43.5bn	4.9%	-	-	-
USD/CHF	$31.9bn	3.6%	$0.29bn	0.5%	1.2%
USD/HKD ✓	$18.3bn	2.0%	-	-	-
USD/SGD ✓	$16.7bn	1.9%	-	-	-
USD/MXN ✓	$13.3bn	1.5%	-	-	-
EUR/GBP	$13.0bn	1.5%	$0.24bn	0.9%	1.9%
NZD/USD ✓	$12.3bn	1.4%	-	-	-
EUR/JPY	$11.3bn	1.3%	$0.05bn	0.2%	0.4%
USD/INR	$11.0bn	1.2%	-	-	-
USD/KRW	$10.5bn	1.2%	-	-	-
USD/SEK ✓	$9.5bn	1.1%	-	-	-
USD/ZAR ✓	$9.4bn	1.1%	-	-	-
USD/NOK ✓	$8.3bn	0.9%	-	-	-
AUD/JPY	$7.1bn	0.8%	-	-	-
EUR/SEK ✓	$5.3bn	0.6%	-	-	-
EUR/CHF	$4.4bn	0.5%	$0.10bn	1.1%	1.8%
OTHER CURRENCY PAIRS	$177.3bn	19.8%	-	-	-
Total Market	**$897.3bn**	**100%**	**$4.1bn**	**0.2%**	**0.5%**

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✓ - planned live in 2025 - 2026

Non-Deliverable Service Scope

Non-Deliverable Forwards		
Non-deliverable Currencies	EMTA	BRL, CLP, CNY, COP, HKD, IDR, INR, KRW, MYR, PEN, PHP, & TWD – all vs. USD
	Non-EMTA	AUD, CAD, CHF, DKK, EUR, GBP, JPY, MXN, NOK, NZD, SEK, SGD & ZAR – all vs. USD
Tenor Range	Fixing tomorrow to 2 yrs	CAD, CHF, CLP, CNY, COP, DKK, HKD, IDR, INR, KRW, MXN, MYR, NOK, NZD, PEN, PHP, SEK, SGD, TWD & ZAR
	Fixing tomorrow to 5 yrs	AUD, BRL, CHF, EUR, GBP & JPY
Fixing Methodology	EMTA	EMTA standard fixing sources and timing
	Non-EMTA	WM/ Reuters Fixing Rates

Non-Deliverable Options		
NDO Currencies	EMTA	BRL, INR, KRW, TWD – all vs. USD
	Non-EMTA	AUD, CHF, EUR, GBP, JPY – all vs. USD
Tenor Range	Expiry tomorrow to 2 years	
Premium Currency	USD Only	
Cut / Fixing Methodology	EMTA	EMTA standard fixing sources and timing
	Non-EMTA	WM/ Reuters Fixing Rates (4pm)

Deliverable Service Scope (Members only)

FX Options (Plain Vanilla)		
Currency pairs		AUD/USD, USD/CHF, EUR/USD, GBP/USD, USD/JPY (Variation margin in USD) EUR/CHF, EUR/GBP, EUR/JPY (Variation margin in EUR)
Tenor Range		O/N to 2Y
Product spec.	European/American Premium Delivery type Cut	European Spot/Forward Spot delivery Tokyo (3pm), New York (10am)

FX Spot / Forwards		
Currency pairs		AUD/USD, USD/CHF, EUR/USD, GBP/USD, USD/JPY (Variation margin in USD) EUR/CHF, EUR/GBP, EUR/JPY (Variation margin in EUR)
Tenor Range		Spot to 2Y

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