

THE CME FX REPORT

QUARTERLY
Q1 2018



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FX Futures

The first-ever financial futures product. Celebrating 45 years.

Need to Know: Q1 2018

All Up: Q1 2018 Trading Volume, Open Interest (OI) & Participants



Q1 ADV FX Futures and Options –

1.1 M contracts

(up 23.60% vs Q1 2017)



Q1 Average OI for FX futures and

options – **2.64 M contracts**

(up 15.40% vs Q1 2017)

Q1 ADV in Notional –

\$116.20 B

(up 35% vs Q1 2017)

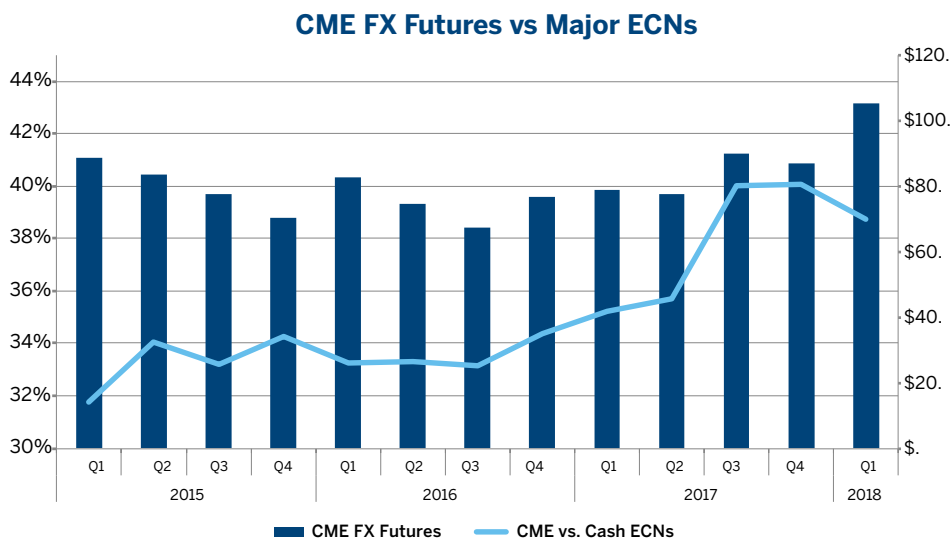


Large Open Interest Holders in FX futures –
all-time high of **1,144 on 30 Jan 2018**



The Result: Notional is Nearing 40% of ECN-Traded FX

CME FX now represents a substantial (and increasing) proportion of the aggregate cash FX traded on major ECNs.



And now we've connected OTC FX and CME FX futures markets

CME FX Link: Liquidity, Linked

Since go-live on March 25, we are consistently seeing new participants trading, liquidity developing, volume increasing and the network of prime brokers expanding.

Need to Know: The CME FX Franchise

We're working to deliver creative solutions to your most important challenges

So you can access the capital and margin efficiencies of our centrally-cleared and transparent market

That's why:

We've evolved our FX futures offering

With monthly expiries on six pairs, now with implied liquidity

We've evolved our listed FX options offering

With new Wednesday Weeklies, Volatility-Quoted Options (VQOs) and Triangulation, we are now the largest electronic FX options marketplace in the world

We've evolved our OTC FX clearing offering

Clear NDFs, G10 NDFs (Cash-settled forwards) and new FX options. All under one Guarantee Fund.

TRADE >

\$116BN
Each day

55 FUTURES
Monthly and Quarterly*

24 OPTIONS
Wednesday and Friday*

150+
Countries connecting

CLEAR >

11
NDFs

26
CSFs

7
CSOs

REPORT >

A choice of trade reporting solutions and STP for certainty and compliance








EFFICIENTLY >

- Increased capital efficiencies
- Reduced execution costs
- Enhanced trading opportunities
- Committed to simplifying how you do business

*Available on selected currency pairs

Offset: New margin offsets across Commodities and FX

<p>LIGHT SWEET CRUDE OIL versus CAD/USD = 30% OFFSET</p>	<p>LIGHT SWEET CRUDE OIL versus RUB/USD = 25% OFFSET</p> 	<p>LIGHT SWEET CRUDE OIL versus NOK/USD = 40% OFFSET</p>	<p>LIGHT SWEET CRUDE OIL versus MXN/USD = 30% OFFSET</p>	<p>BRENT CRUDE OIL versus MXN/USD = 30% OFFSET</p>
<p>NEW GOLD versus INR/USD = 20% OFFSET</p> 	<p>COPPER versus AUD/USD = 40% OFFSET (up from 30%)</p> 	<p>GOLD versus JPY/USD = 60% OFFSET (up from 50%)</p> 	<p>GOLD versus CHF/USD = 40% OFFSET (up from 20%)</p> 	

New In Our Markets: CME FX LINK

Introducing a new FX Globex Spread

We've created a seamless connection between our FX futures and the OTC FX marketplace with one CME Globex spread. Now you can more easily access the liquidity, capital and margin efficiencies of FX futures and better manage your FX exposures.

As the global FX market evolves, so does our offering – we're helping to solve your most important challenges.

Trading, simplified

Traded on CME Globex as the differential between CME FX futures and OTC spot FX, the spreads enable efficient, simultaneous execution of FX futures and OTC spot FX.

OTC FX network, utilised

A central FX Prime Broker will intermediate spot FX transactions resulting from the spread, allowing market participants to efficiently leverage the established OTC FX Prime Brokerage and interbank networks for credit and documentation.

Exposures, optimised

The result – market participants can more efficiently utilise CME FX futures as part of their overall FX trading activity and more efficiently manage credit lines across FX futures and OTC FX.

Find out everything you need to know and more at cmegroup.com/fxlink.

Including:

Volume Tracker

Stay up-to-date on volume, updated daily

Overview Guide

Read all about it, get connected and onboarded

Quotation Guide

Understand quotation and trade pricing

CME Globex Impacts

Understand the functionality

CME Globex 101

Understand CME Globex in less than 10 minutes

Launch Announcement

Read about the market reaction

The Profit&Loss Perspective

Colin Lambert, the Editor at Profit&Loss, describes what the Launch of FX Link could mean to the FX industry

“Today could actually turn out to be a reasonably significant day for the FX industry. The reason I feel it may be significant is down to my long-standing belief that greater automation and efficiency in FX forwards and swaps is the key to long term growth in the broader FX industry, and there is a chance that FX Link may help deliver the regulatory and capital efficiency to help drive that, in an automated environment.”

Read more at cmegroup.com/colinlambert

CME FX Link: Spread Functionality Specifications

Eligible Currencies	AUD/USD, EUR/USD, GBP/USD, USD/CAD*, USD/JPY*, and USD/MXN* (*CCY pairs quoted inversely to futures.)
Quotation	Quoted as the difference between FX futures and equivalent OTC spot notional as represented with both legs in OTC price convention.
Spread Construction	Non-Inverted Pairs: Buyer of spread buys CME FX futures and sells OTC spot. Inverted Pairs: Buyer of spread sells CME FX futures and sells OTC spot.
Matching Algorithm	FIFO
Minimum Order Quantity	EUR/USD, USD/JPY, GBP/USD, USD/CAD, AUD/USD = 5 spreads; USD/MXN = 15 spreads
Trading Venue / Hours	CME Globex: Sunday – Friday, 5:00 p.m. - 4:00 p.m. Chicago Time (CT), with a 60-minute break each day beginning at 5:00 p.m. (4:00 p.m. CT).
Spread Listing Schedule	Spreads vs. front three FX futures expiration months. New spreads added 10 business days prior to the last trade date of an expiring CME FX Futures.

Currency Pair	AUD/USD	EUR/USD	GBP/USD	USD/CAD	USD/JPY	USD/MXN
Spread Minimum Price Increment	0.00001	0.00001	0.00001	0.00001	0.001	0.0005
Spread Notional (per leg)	100,000 AUD	125,000 EUR	62,500 GBP	100,000 CAD	12,500,000 JPY	500,000 MXN

OTC FX Spot Leg Specifications

Currency Pairing	Value Date	Minimum Price Increment*	Spot Notional Per One Spread **
AUD/USD	T+2	0.00001 (0.1 pip)	100,000 AUD
EUR/USD	T+2	0.00001 (0.1 pip)	125,000 EUR
GBP/USD	T+2	0.00001 (0.1 pip)	62,500 GBP
USD/CAD	T+1	0.000001 (0.01 pip)	100,000 CAD
USD/JPY	T+2	0.0001 (0.01 pip)	12,500,000 JPY
USD/MXN	T+2	0.00001 (0.1 pip)	500,000 MXN

Settled Bilaterally via physical delivery on value date

CME FX Future Leg Specifications***

Product Code	Contract Size	Futures Quotation	Tick
6A	100,000 AUD	USD per AUD	.0001 (10.00 USD)
6E	125,000 EUR	USD per EUR	.00005 (6.25 USD)
6B	62,500 GBP	USD per GBP	.0001 (6.25 USD)
6C	100,000 CAD	USD per CAD	.00005 (5.00 USD)
6J	12,500,000 JPY	USD per JPY	.0000005 (6.25 USD)
6M	500,000 MXN	USD per MXN	.00001 (5.00 USD)

Cleared via CME Clearing

* The minimum price increment (MPI) of an OTC Spot FX Transaction is separate and distinct from and is not necessarily a reflection of the MPI of a Spot FX Basis Trade, which the Exchange shall determine.

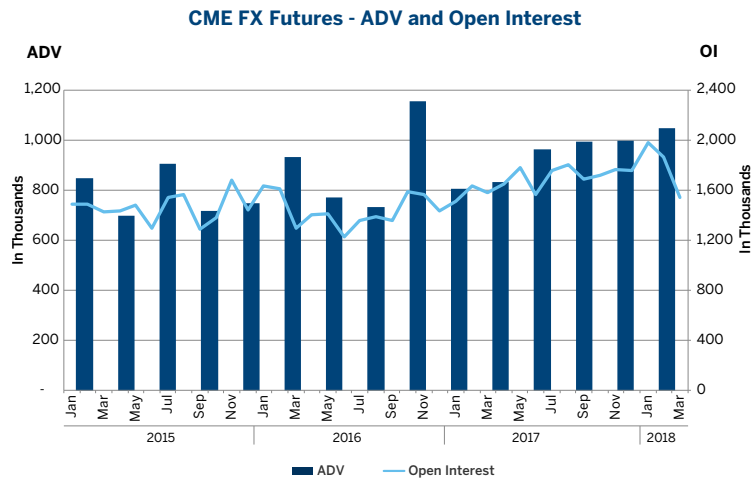
** The OTC Spot Notional per One Spread for the USD/CAD, USD/JPY, and USD/MXN currency pairings shall be defined in terms of the quote, or term, currency of each pairing rather than the base currency since the CME pricing and notional convention for related CME FX futures contracts is inverted from the over-the-counter (OTC) convention

*** Full product specification for existing CME FX futures contracts is available on cmegroup.com/fx and in CME's Rulebook

In Our Markets: Futures

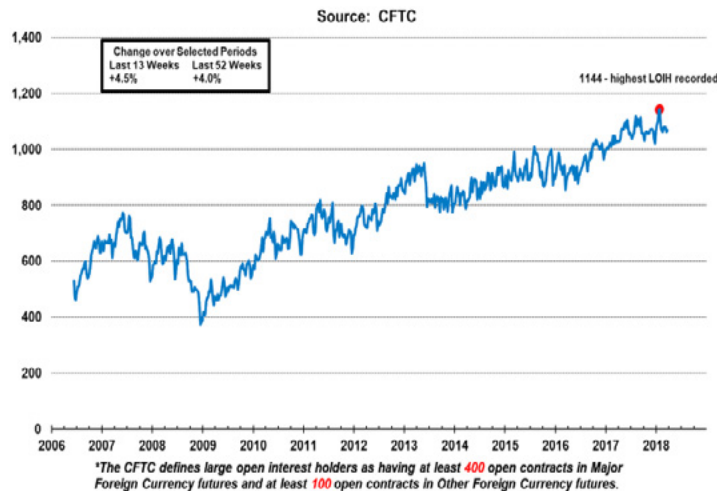
Overall Volume: A new high of \$116 billion notional traded

ADV on CME FX Futures and Options for Q1 2018 reached 1.1 million contracts. In terms of notional, this is equivalent to \$116.20 billion, an increase of 35% vs Q1 2017, with Open Interest in CME FX Futures topping \$240 billion in January 2018.



Large Open Interest Holders: Now at 1,144 participants

Large Open Interest Holders are a measure of participants, collated by the CFTC, holding significant Open Interest in our FX markets. This number hit an all-time high of 1,144 in Q1 2018.



Additional Monthly Expiries: 220 participants along the curve

Available on six currency pairs, monthly expiries deliver greater granularity and access across the curve, and with implied pricing, additional depth in the front months, with 220 participants actively trading. Below is an example of recent liquidity in EUR/USD and GBP/USD monthlies.

CC	Product	Description	+	Qty	Bid	Ofr	Qty
- EUR/USD Future							
6E	EUR/USD Future	May18	+	14	1.22020	1.22030	10
6E	EUR/USD Future	Jun18	+	14	1.22335	1.22340	10
6E	EUR/USD Future	Jul18	+	14	1.22635	1.22645	10
6E	EUR/USD Future	Aug18	+	14	1.22900	1.22910	10
6E	EUR/USD Future	Jun18/May18	+	75	0.00310	0.00311	355
6E	EUR/USD Future	Jul18/Jun18	+	289	0.00300	0.00301	15
6E	EUR/USD Future	Aug18/Jul18	+	3	0.00266	0.00267	17

CC	Product	Description	+	Qty	Bid	Ofr	Qty
- GBP/USD Future							
6B	GBP/USD Future	May18	+	23	1.3987	1.3989	20
6B	GBP/USD Future	Jun18	+	23	1.4008	1.4009	20
6B	GBP/USD Future	Jul18	+	23	1.4029	1.4031	20
6B	GBP/USD Future	Aug18	+	23	1.4047	1.4049	20
6B	GBP/USD Future	Jun18/May18	+	153	0.00207	0.00208	10
6B	GBP/USD Future	Jul18/Jun18	+	179	0.00216	0.00217	88
6B	GBP/USD Future	Aug18/Jul18	+	15	0.00174	0.00175	20

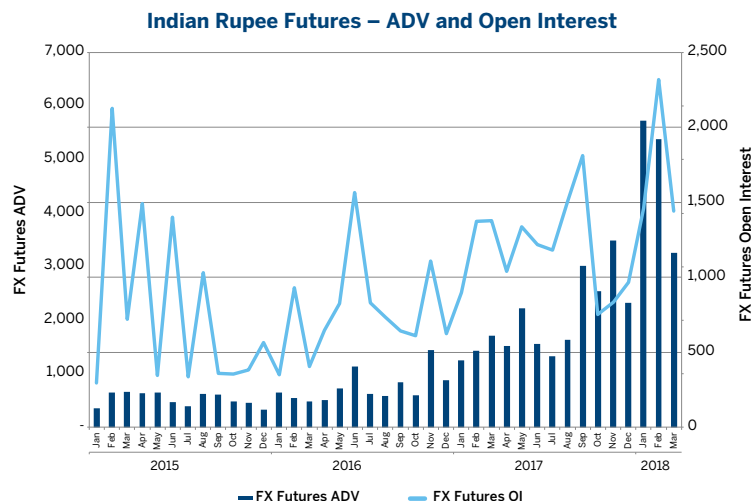
More to Monthlies than their Expiries:

Understand the advantages that CME FX futures offer traditional market practitioners in the OTC FX markets. Find out how you can use CME FX futures to replicate cost-efficient, manageable synthetic exposure for OTC FX spot, forwards, and swaps, and see examples for each.

Find the whitepaper at cmegroup.com/fxmonthlies

Emerging Markets: Volumes Revealing Growth

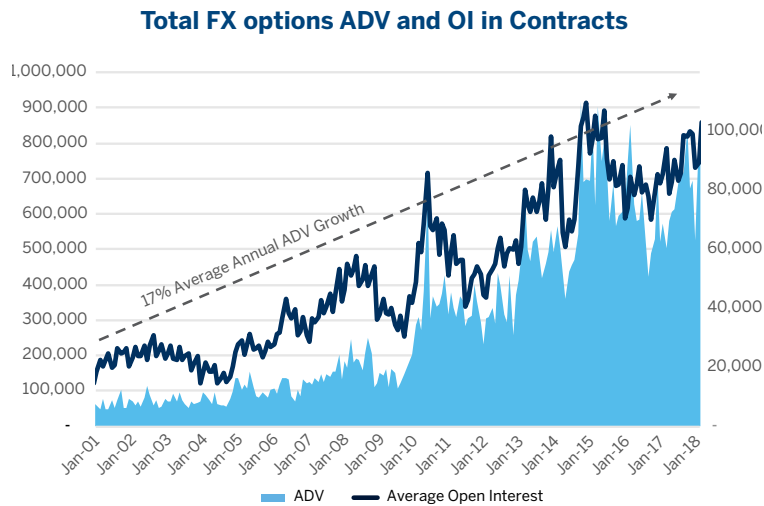
In Q1, volumes increased for the eight most-traded Emerging Markets contracts by 35% vs. 2017 Q1. By the end of the quarter, trading in BRIS Futures (BRL/USD, RUB/USD, INR/USD, ZAR/USD) was up 51% vs. 2017 YTD, with INR/USD leading the way.



In Our Markets: Options

The Largest Electronic FX Marketplace in the World

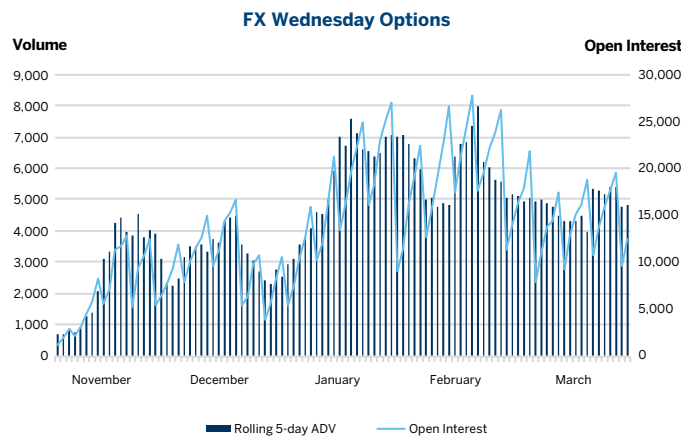
With over \$11bn notional traded on average in Q1 – CME FX Options are now the deepest, most liquid and diverse direct-access, multi-participant destination for risk management – accounting for ~25% of all single dealer and multi dealer electronic volume globally.



Based on FXJSC, FXC & TFEMC 2017 surveys.

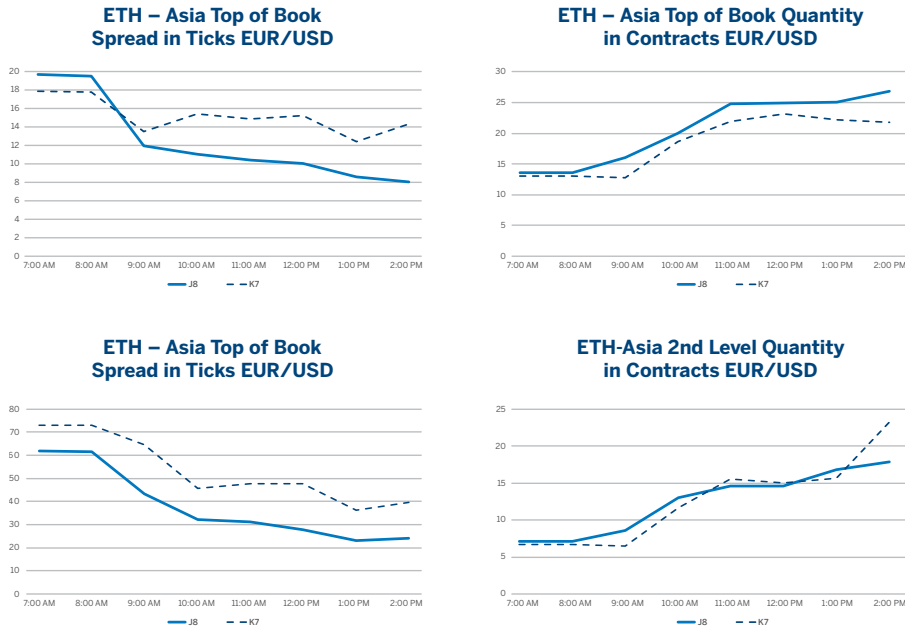
Almost 30 Already: Wednesday FX Options Already Beyond 27K in OI

Wednesday FX options for mid-week events (FOMC, BOC, BOA, BOE, ECB) hit 27,062 in OI on January 30 and by the end of Q1, have reached 5,393 average daily volume.



More Options in More Time Zones: FX Options in Asia

Start trading EUR/USD, JPY/USD, GBP/USD, AUD/USD and CAD/USD options today with significant and actionable liquidity in Asian hours.



VQO GO: Now Available on Bloomberg

Volatility-Quoted Options can now be traded on Bloomberg – along with Premium-Quoted Options.

Bloomberg codes for Volatility-Quoted Options European Style 2pmFix

	AUD/USD	CAD/USD	CHF/USD	EUR/USD	GBP/USD	JPY/USD
Monthlies	VXAA	VXCA	VXSA	VTEA	VXBA	VJPA
Weeklies	VAWA	VCWA	VWSA	VTWA	VWBA	VJWA
Wednesdays	WAYA	WCYA		WEYA	WLYA	WJYA

Bloomberg codes for Premium-Quoted Options European Style 2pmFix

	AUD/USD	CAD/USD	CHF/USD	EUR/USD	GBP/USD	JPY/USD
Monthlies	AUAA	UCDA	SWBA	UEAA	BGAA	JADA
Weeklies	AUWA	UDWA	SWWA	UAWA	BGWA	JAWA
Wednesdays	WABA	WCBA		WEBA	WLBA	WJBA

(no Wednesdays in CHF)

In The News: Greenwich Associates

TCA Report On FX Futures

Greenwich Associates has published a paper assessing the value of viability of FX futures as a proxy to the OTC FX market. The report, "A Bright Future for FX Futures" assesses the economic benefits of using FX futures through a quantitative total cost analysis (TCA) model and by analysing the impact of regulatory change to the FX market.

Greenwich interviewed 41 buy-side institutions and nine major FX sell-side institutions to validate inputs to the quantitative TCA. To read the full TCA report, please visit cmegroup.com/bright-future.

EXCERPT FROM REPORT

"In the face of the growth in FX futures trading, Greenwich Associates set out to examine and assess the potential economic benefits of utilizing futures as an alternative to trading in the OTC markets.

To do so, we employed a proprietary quantitative model to analyze the costs associated with trading FX over-the-counter (OTC) against comparable FX futures. The model calculates the cost of opening, maintaining and closing out a position. To validate key inputs into the model and gather feedback on current demand and pricing, we spoke with FX traders on the buy and sell side.

The results show that FX investors can find significant cost savings (upward of 75% in some cases) by trading futures rather than executing a trade in the OTC markets. For those entities subject to Basel III costs, switching to futures from OTC trades could garner even greater savings.

Pure costs savings are not the only reason to consider FX futures. As sell-side dealers become more selective in the clients that they prioritize, some buy-side traders may find liquidity more difficult to access. Others may find that they are getting de-prioritized and receiving fewer services from particular counterparties. As a result, adding the option to trade in a futures environment could help mitigate the effects of shifting sell-side behavior.

Even with these potential cost savings, a switch to futures might not make sense for some FX market participants that trade only infrequently and at relatively small volumes. And for some investors, there may be lingering skepticism about the available liquidity in an exchange-traded environment, even though recent statistics show that average daily volume (ADV) in FX futures equals or exceeds the volume on a major spot exchange.

The results of our analysis prove that even before considering the potentially punitive effects that regulations have on trading costs, trading FX futures can have clear economic benefits. For that reason, we expect FX futures to continue to gain traction as an alternative to OTC trading.

COST SAVINGS FOR EXECUTING FUTURES VS OTC FX – 60 DAY HOLDING PERIOD

	EUR/USD	EUR/JPY	EUR/CAD	EUR/USD	EUR/JPY	EUR/CAD
\$1 million	(\$153)	(\$168)	(\$130)	77%	76%	64%
\$5 million	(\$646)	(\$588)	(\$255)	52%	52%	24%
\$10 million	(\$1,120)	(\$916)	(\$300)	39%	39%	14%

Assumptions:

Funding rate (all-in rate at which you can obtain funding): 0.3% Holding period: 60

Futures type: Quarterly

Exiting position at end of holding period (close out, roll): Roll

COST SAVINGS FOR EXECUTING FUTURES VS OTC FX – 120 DAY HOLDING PERIOD

	EUR/USD	EUR/JPY	EUR/CAD	EUR/USD	EUR/JPY	EUR/CAD
\$1 million	(\$143)	(\$164)	(\$117)	63%	63%	47%
\$5 million	(\$639)	(\$607)	(\$228)	54%	45%	17%
\$10 million	(\$1,206)	(\$1,053)	(\$348)	47%	37%	12%

Assumptions:

Funding rate (all-in rate at which you can obtain funding): 0.3% Holding period: 120

Futures type: Quarterly

Exiting position at end of holding period (close out, roll): Roll

THE IMPACT OF BASEL III AND OTHER COSTS

For those entities subject to Basel III costs, futures can provide significant cost advantages over OTC FX— with futures, all counterparties face a central counterparty clearing house (CCP) directly.

In the OTC market, when calculating both risk-weighted assets (RWA) and total leverage exposure (TLE), the addition of non-netting counterparties can have a major impact, ratcheting up risk and associated capital requirements exponentially. Within futures, this is not a concern, as participants are facing a single counterparty: the CCP. The CCP model allows for maximal compression with a minimal amount of effort. In an OTC environment, having more than one counterparty generally results in some level of capitalization being necessary, even if risk

is split across counterparties. Furthermore, for those entities subject to G-SIB reporting and associated add-on charges, FX futures are not included in the requisite calculations.

For those constrained specifically by RWA calculations, when facing a qualifying CCP, only a 2% risk weight needs to be applied to QCCP exposures, while in OTC, there is a floor of 20%. Additionally, credit valuation adjustment (CVA) charges do not apply to centrally cleared transactions, allowing participants to reduce their requisite CVA charges by 100% if all FX products were cleared.

THE IMPACT OF BASEL III AND OTHER COSTS

Cost Pressure	Non-Cleared	OTC Cleared/ Futures	Why?
Non-cleared margin rules	↑	↓	Non-cleared margins are higher than for cleared products/futures due to: a) HVAR/SPAN vs. ISDA SIMM b) Lack of central counterparty netting efficiencies
CVA	↑	↓	Regulations do not require CVA on centrally cleared trades
Liquidity coverage ratio	↑	↓	CCP netting efficiencies reduces requirements
Credit lines	↑	↓	Cleared exposures do not consume bilateral credit lines

To read the full TCA report, please visit cmegroup.com/bright-future.

Additional uncleared margin rules (UMR) components are still due to come into force in Europe after MIFID II defines deliverable OTC FX derivatives. There is expected to be a requirement to exchange variation margin on all linear deliverable OTC FX products (outside of spot) once MIFID II releases the classification of deliverable OTC FX products in 2018. This VM change will impact all participants that are captured under the uncleared margin rules and will do so once the definitions are released. There will not be a phase-in approach as there has been on the IM component of UMR. This will be the first time some buy-side institutions will have ever exchanged margin on FX."

Go Learn: Resources

See Who Participates in FX Futures Markets

Analyse information by client segment including dealer, asset manager and leveraged market participant using The Commitments of Traders tool. The tool charts the CFTC's report on market open interest released each Friday afternoon based on positions held during the prior Tuesday.



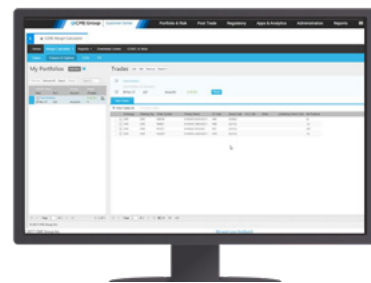
Rolling FX Futures with Pace of the Roll Tool

For open interest holders who prefer to carry positions in FX futures over time, the quarterly roll indicates the optimal liquidity period to roll a futures position forward from the expiring front month futures contract to the deferred month futures contract and therefore analyse and set their futures roll strategy. These charts are updated and available on a daily basis during the roll period.



Calculate your margins with CME Core

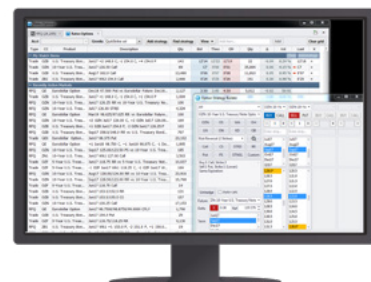
CME CORE is an interactive margin calculator that enables users to calculate and evaluate initial margin requirements for all CME Group products, and execute OTC efficiency analysis through additional analytics.



FX Trading with CME Direct

View or trade CME FX futures with CME Direct, a fast, secure and highly-configurable trading front-end. Benefit from the deep liquidity and transparency of CME Group markets and uncover new trading opportunities.

To trade with CME Direct, you will need a relationship with a clearing FCM so contact your bank if you'd like to get connected.



FX data to help you simulate or back test your strategies

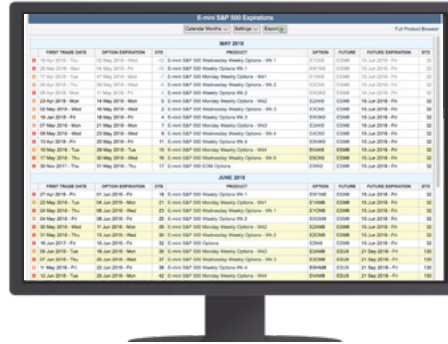
Our new self-service cloud solution allows you to quickly and more efficiently access CME FX historical data in a more integrated and streamlined process, providing you with the data you need almost instantaneously.



To access the full suite, visit: cmegroup.com/fxtools

Event risk, managed: Introducing our new FX Options Expiration Calendar

View and download 12 months of options listing and expiration dates, including yet-to-be-listed weekly expiries.

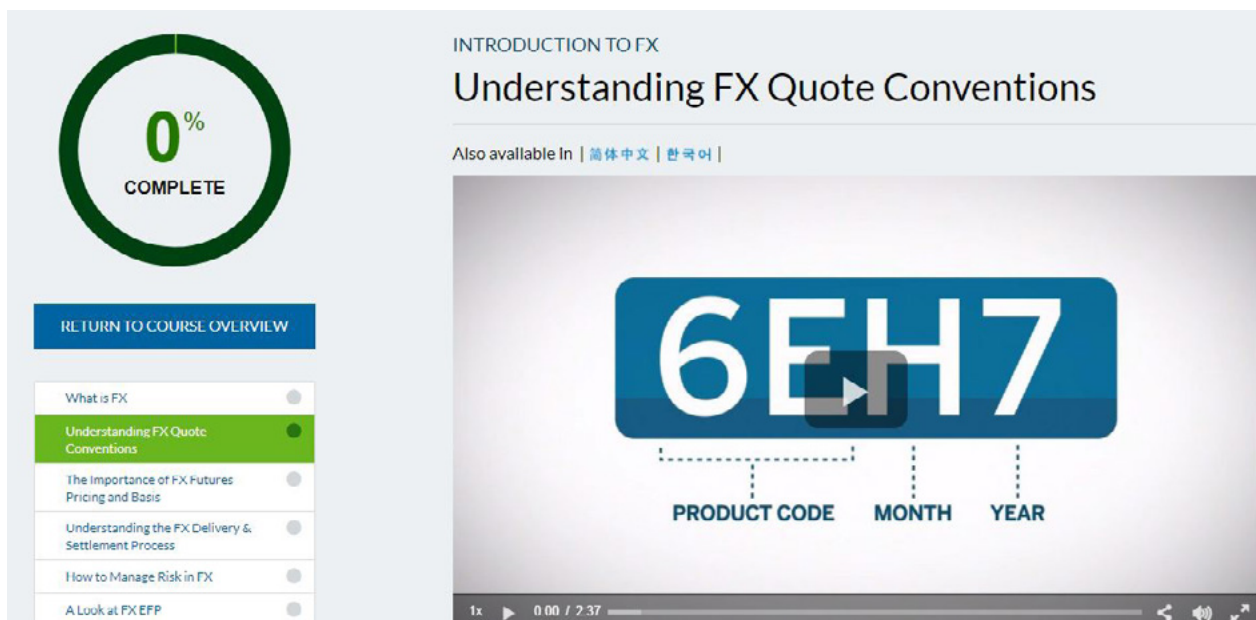


To access the tool, visit: cmegroup.com/options-calendar

The CME Institute: FX

Start learning about the futures and options markets with a variety of courses designed to help you at each stage of your trading journey. Whether you are brand new to the derivatives market, or an experienced trader looking to sharpen specific skills, our courses will help you deepen your knowledge and improve your understanding of our markets.

There are six dedicated courses on FX. Start Watching and Learning today.



To access the CME Institute, visit: cmegroup.com/fx-quote-conventions

Go Further

For more information, please contact:

Paul Houston

Head of FX, London Office
paul.houston@cmegroup.com
+44 203 379 3355

Divay Malhotra

London Office
divay.malhotra@cmegroup.com
+44 20 3379 3796

Ravi Pandit

Singapore Office
ravi.pandit@cmegroup.com
+65 6593 5562

Craig Leveille

Chicago Office
craig.levaille@cmegroup.com
+1 312 454 5301

Matt Gierke

Chicago Office
matthew.gierke@cmegroup.com
+1 312 930 8543

Kevin Mcmillin

Chicago Office
kevin.mcmillin@cmegroup.com
+1 312 930 8264

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CME GROUP HEADQUARTERS

20 South Wacker Drive
Chicago, Illinois 60606
cmegroup.com

CME GROUP GLOBAL OFFICES

Chicago +1 312 930 1000	New York +1 212 299 2000	London +44 20 3379 3700
Singapore +65 6593 5555	Bangalore +91 80 3323 2300	Beijing +86 10 5913 1300
Belfast +44 28 9089 6600	Calgary +1 403 444 6876	Hong Kong +852 2582 2200
Houston +1 713 658 2347	São Paulo +55 11 2787 6279	Seoul +82 2 6336 6700
Sydney +61 8051 3210	Tokyo +81 3 3242 6233	Washington D.C. +1 202 638 3838

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