



THE FX REPORT

THE QUARTER CLOSE – Q3 2019

News, Views & Stats



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 **CME Group**



Risk
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2019
Winner

CME
Exchange
of the year



FX-Week
Winner **e-FX**
Awards 2018
e-FX initiative
of the year

Risk
Awards
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innovation
of the year



FX-Week
Winner **e-FX**
Awards 2018
Best e-derivatives
platform

The FX Report: Q3 2019

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EBS

Traiana

CME Group is now home to EBS - for cash market execution, from spot to forwards to NDFs, and Traiana - for seamless FX connectivity.

Trade | Optimize | Analyze – The Full FX Trade Lifecycle

Need To Know: In our Markets

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 expanded our FX futures offering

With quarterly expiries across every contract, and monthly expiries on six pairs, and now, with CME FX Link which connects the OTC FX market with FX futures electronically, for the first time.

We've expanded our listed FX options offering

With wednesday, friday, monthly and quarterly expiries, we are now the largest centralized all-to-all electronic FX options marketplace in the world.

We've expanded our OTC FX clearing offering

With all FX Futures and Options, and all OTC Cleared FX Products, under one guaranty fund – that houses all of CME's listed products.

In the News: Futures

MPI Reduction in EUR/USD & JPY/USD Non-Consecutive Monthly Calendar Spreads: From .5 to .2 –

In response to client feedback, on August 12 there was a reduction in the minimum price increment (MPI) in both EUR/USD & JPY/USD calendar spreads, along with a change to the match algorithm. The new match algorithm is 80% Pro Rata, 20% FIFO split.

This reduction complements the MPI Reduction in GBP/USD Non-Consecutive Monthly Calendar Spreads, from 1 to .5, which went live on April 29.

A full review is available on Page 5.

In the News: Options

New monthly expiries: Five additional monthly listings (Serials) went live on September 18 in six of our major pairs: EUR/USD, JPY/USD, GBP/USD, AUD/USD, CAD/USD and CHF/USD.

Shift to 10 a.m. New York expiration time: All FX Options now expire at 10am NY – to bring our markets in line with OTC convention.

Strike listing change: New quarterly strikes are available in CAD/USD, AUD/USD, EUR/USD and JPY/USD – to provide traders with more choice and more ability to optimize strategies.

Stay up to Date: Subscribe to The FX Report

Follow the performance of all our FX products by subscribing to *The FX Report* for all the news, views and stats happening in our marketplace.

Quarterly, in print and online. Direct to your mailbox. cmegroup.com/fxtrading

All-time Record-breaking Futures Volume

Markets react to the September 12 ECB announcement. All-time record in EUR/USD.

Reaction to the ECB announcement:

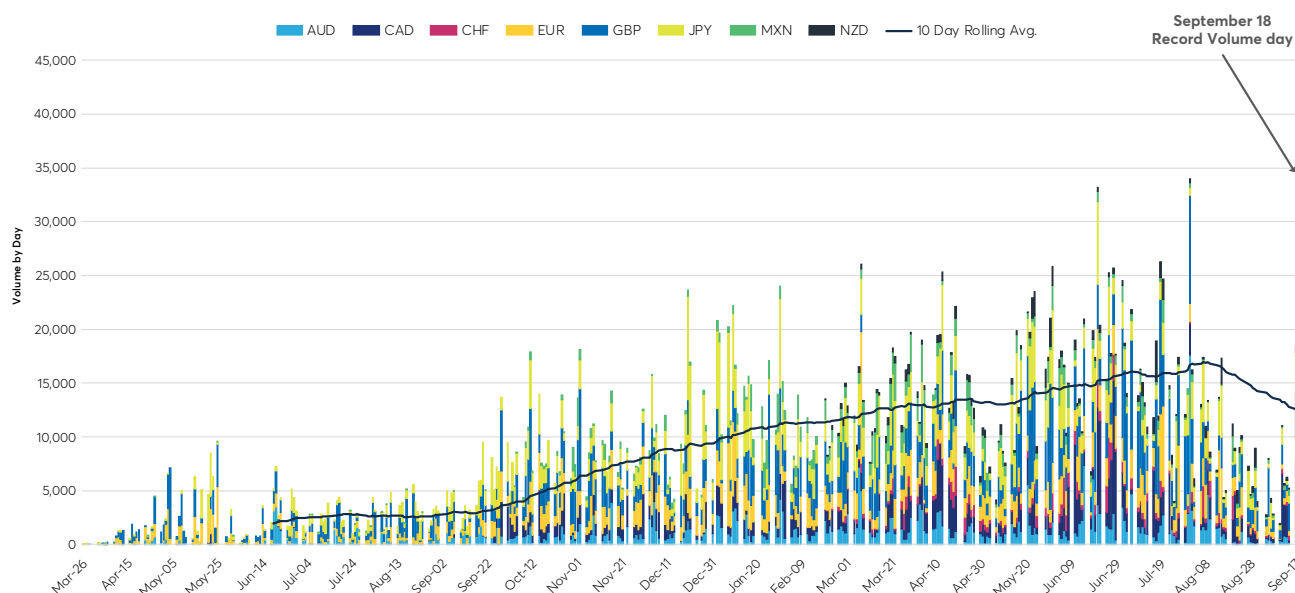
\$256B
Notional Traded

Of that volume:
>\$138B EUR/USD

Record-breaking FX Link Volume – a Proxy for OTC Swaps

\$4.3B notional traded on September 18 in response to ECB and Fed monetary policy decisions, recent repo market stresses, and cross currency basis dynamics.

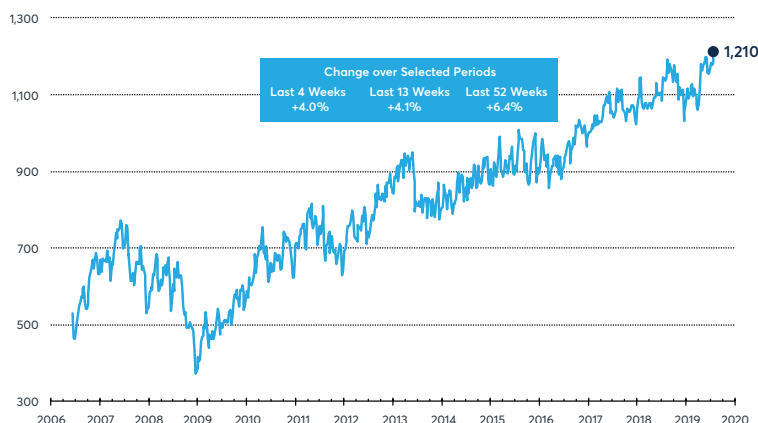
FX LINK - Daily Volume Since Launch, with 60-day Rolling Average



Record-breaking Large Open Interest Holders – a measure of market diversification

In July 30 we reached a new all-time high – of 1,210 (+6.4% YoY). In response to more end-users increasing and holding positions in our markets.

CME Group Foreign Exchange Futures Aggregate Number of Large Open Interest Holders*



Source: CFTC

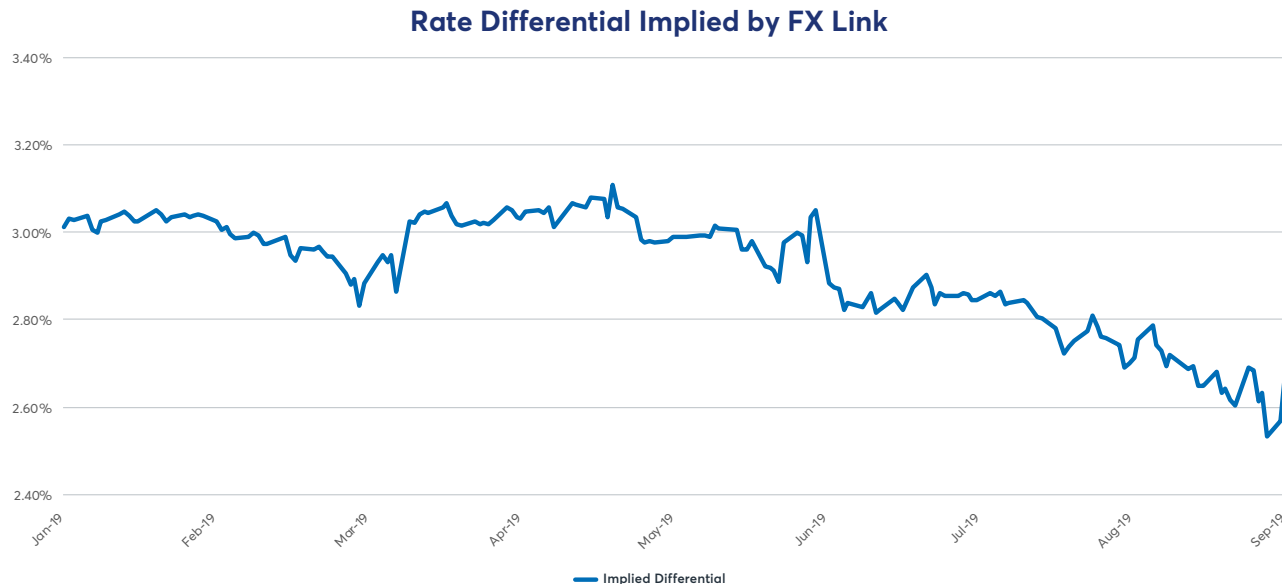
In the News: CME FX Link – Pickup yield and generate positive returns

As has been well documented there are several applications for users trading CME FX Link: the market's first electronically traded spread between OTC FX spot and CME Listed FX Futures. These include a tool to optimize exposures across OTC and Listed FX; as a synthetic swap; and as a means to transfer OTC FX positions into a cleared Listed FX Future.

Another exciting use, and one which is especially relevant in today's markets, is using FX Link as a vehicle to pickup the yield on cross-currency investments. Currently, there are more than \$16 trillion of bonds with negative yields worldwide – most of them European – according to Deutsche Bank Securities*. In this environment, investors can effectively purchase foreign debt and leverage FX Link to convert negative yield to positive yield.

For example, assume in September (9/19/2019) a German 2-year bond yielded approximately -0.71%. Using FX Link to acquire the initial Euros required to purchase the bond while simultaneously establishing a futures position to later convert the Euros back into dollars, an investor can capture a yield pickup of 2.63%. By using FX Link the investor has realized an effective yield of 1.92% (2.63%-0.71%) which is not only positive but greater than the yield of a 2-year US treasury note: approximately 1.74% during the same period.

The graphic below shows the rate differential in EUR/USD, as implied by FX Link, which suggests over the course of 2019 investors could have accessed approximately a 2.55%-3.10% yield pickup trading FX Link.



Source: CME Group

The above graphic depicts the rate differential implied by FX Link. Note: Due to the fixed expiration dates of FX futures contracts, the duration of the quarterly FX Link spread is constantly diminishing, and the yields depicted are not for a fixed duration.

** As referenced in Wall Street Journal on September 8, 2019, 'In Bond Anomaly, Negative Yields Bring Positive Returns'*

OTC Swaps and CME FX Link: Replicate the Risk

An OTC FX swap trade is the most common way to access this yield pickup. CME Group's FX Link replicates this approach, by combining an OTC Spot FX transaction with a CME FX futures position. FX Link is traded via a Central Limit Order Book, offering immediately executable liquidity with full price transparency, something that is not available in the OTC FX swaps market. This liquidity is evidenced by the recent single day record of \$4.2 billion transacted across eight currency pairs.

Additionally, FX Link allows individuals to access the full benefits of the listed futures markets such as multilateral netting, enabling you to net down positions across all counterparties, and use credit and capital more efficiently, providing significant cost savings to many participants trading OTC FX.

FX Futures: Liquid and Cost Efficient

When investors seek to unwind the trade, another feature of futures can provide a distinct advantage. Liquidity in FX futures is typically held in the nearest quarterly contract month – March, June, September or December. This means for a period of around three months liquidity is focused on one value date. Compare with FX swaps – fully closing out a swaps position can mean seeking prices in a “broken date”. FX futures offer visible liquidity and a straightforward means to unwind the trade that is credit and capital efficient. FX Link provides an efficient and transparent mechanism to simultaneously exit the futures position and transfer the Euros back into U.S. dollars at market prices.

Conversely, extending the holding period is also easy to achieve using futures. Futures calendar spreads exhibit huge on-screen liquidity during the main roll period. As seen on page 5, the cost of rolling over FX Futures positions has just got cheaper with recent reductions in minimum price increments. For example, delivering cost savings in the order of 60% for EUR and JPY futures and 50% savings for GBP futures.

See for Yourself:

Read the Greenwich Associates TCA Study on FX Futures to learn about potential cost savings: cmegroup.com/bright-future

To find out more about FX Link, and for more use cases, with all of the information you need to get connected, visit cmegroup.com/fxlink

G10 Futures: In our Markets

**MPI Reduction in EUR/USD & JPY/USD Non-Consecutive Monthly Calendar Spreads:
Delivering more volume, better managed, for better price discovery**



0.2 now quoted at .2 vs. prior .5 MPI, live ahead of Sept 19 quarterly roll



60% cost reduction at top-of-book for larger trade sizes throughout nearly the whole roll with strong book depth



38% increase in EUR/USD ADV vs. last four rolls – over the full two-week roll window

\$14B notional top of book (TOB) on average during RTH

84% of Open Interest was transferred during the roll – 8% ahead of typical pace



25% increase in JPY/USD ADV vs. June roll – and up 5% vs. last four rolls

\$10B notional top of book (TOB) on average during RTH

75% of Open Interest was transferred during the roll – 5% ahead of typical pace

Source: Data collated for summary of Sept 2019 EUR/USD & JPY/USD rolls with reduced MPI. Top-of-book and market depth data are available to download via CME DataMine. See <http://datamine.cmegroup.com> for details.

Three currencies now live in reduced calendar spreads: Realizing execution cost reductions across the curve

GBP/USD | EUR/USD | JPY/USD



Lowering cost of execution:

EUR and JPY top-of-book are now quoted at 0.2 (vs. 0.5 previously) and GBP is quoted at 0.5 (vs. 1.0 previously) nearly the entire roll (>95% of time). This represents a significant cost improvement for end users transacting at the top-of-book, of 60% and 50% respectively.



Improving liquidity:

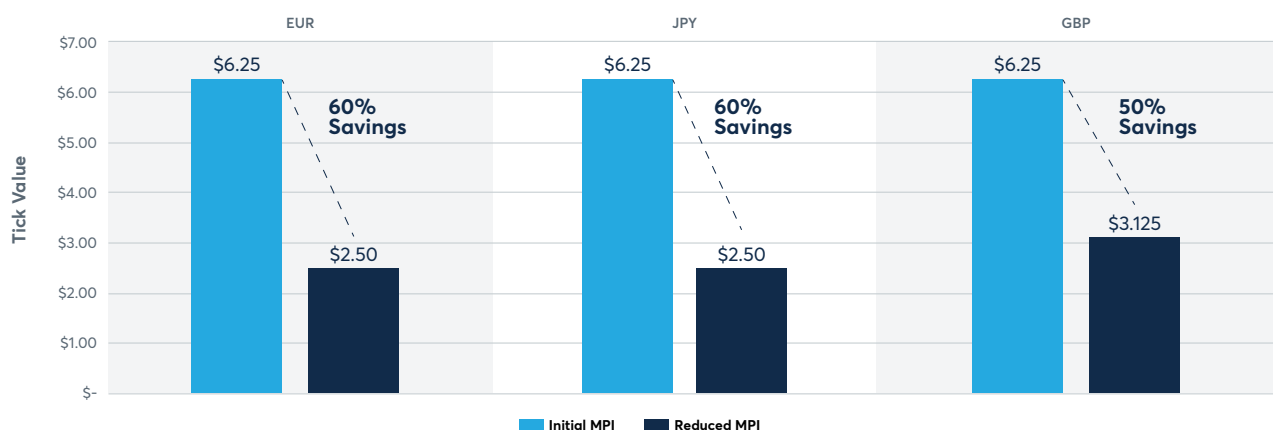
Top-of-book liquidity at the new MPI averages \$14bn in EUR, \$10bn in JPY, and \$11bn in GBP, providing more than sufficient liquidity for participants to execute large size quickly without price slippage.



Creating more access to a transparent electronic marketplace:

Traded via the Central Limit Order Book, our all-to-all FX futures marketplace, offers immediately executable liquidity with full price transparency.

Lower Cost of Execution with CME FX Calendar Spreads



G10 Options: In our Markets

In the News: Large order execution proves capacity of electronic FX options liquidity.

When trading in an anonymous Central Limit Order Book it is often difficult to quantify the full quality of liquidity as participants will never display their full interest continuously, hence there could be much larger size or better prices available instantaneously when a new order shows up. For example, several large trades occurred in recent weeks that highlight the depth and capacity of CME FX options market:

In September, €3.5B of options traded in a single hour, including an €800M deal, then an account purchased \$1.5B of a GBP/USD call option, followed by a \$350M transaction in AUD/USD Calls, all executed on the Central Limit Order Book and benefiting from best execution protocol, made for efficient risk management.

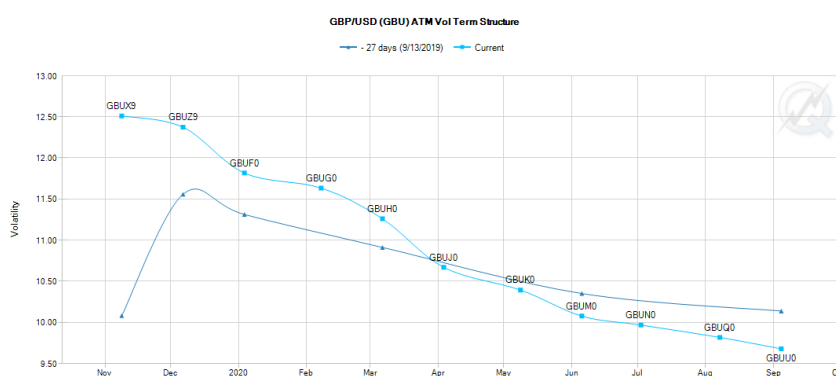
Trade the Long End: New Monthly Expiries Now Live

Five new monthly serials now live in six fx options currencies, over \$1.6B traded in first three weeks since launch

Five new monthly serials have been added to our G10 suite, made for more accurate longer-dated hedging and a more capital efficient solution.

These new listings provide:

- Better spread opportunities along the vol curve
- More granularity for more accurate longer-term hedging
- A means to replicate popular OTC monthly strips hedge strategies or to offset a longer-dated cash position.
- All with the capital efficiencies of listed options along the costly end of the term structure



Trade more than just the long end: Trade 12 monthly option maturities (four Quarterlies and eight Monthly serials), along with the four Weekly Fridays and four Weekly Wednesdays.

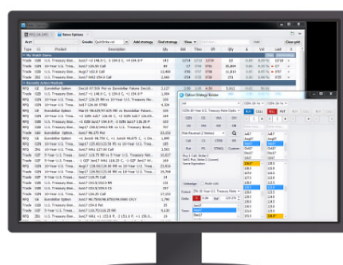
Trade the most capital efficient all-to-all electronic FX options marketplace in the world – on the platform of your choice

Bloomberg | CQG | Fidessa | Refinitiv | CME Direct

Trade and follow market data in real-time on CME Direct, our fast, secure and highly-configurable trading front-end. Strategies, analytics, integrated workflow, real-time excel, chat and mobile. Become a CME Direct user and get access to all of our FX options directly.

Build Strategies

The click-optimized Strategy Builder executes covered, multi-leg strategies and RFQs in CME Globex.



Options Analytics

Access the fully integrated QuikStrike Options Analytics tool to view current and historical volatility.



Considering the Costs: Whichever platform you use, leverage the cost efficiencies available with our FX options – identified by Greenwich Associates TCA Study

Greenwich Associates recently published a paper which states that buy-side firms could achieve significant savings on execution costs, up to 70% on some trades, by shifting some of their trading to listed FX options.

In addition, for those impacted by uncleared margin rules (UMR), funding costs could potentially be reduced by 86%.

Crucially, their total cost analysis (TCA) research also shows that listed FX options can be more cost-efficient alternatives to bilateral trading, independent of the incoming regulations, as the electronification of FX options accelerates and liquidity responds.

TCA potential substantial savings for buy-side participants, range from \$2,000 to \$7,000 per trade of \$50 million notional.

Find out more about the methodology behind this analysis, read the full report at cmegroup.com/fxotca

EM Futures: In our Markets

MXN/USD: More OI

16.3% increase in OI YTD –
228k YTD

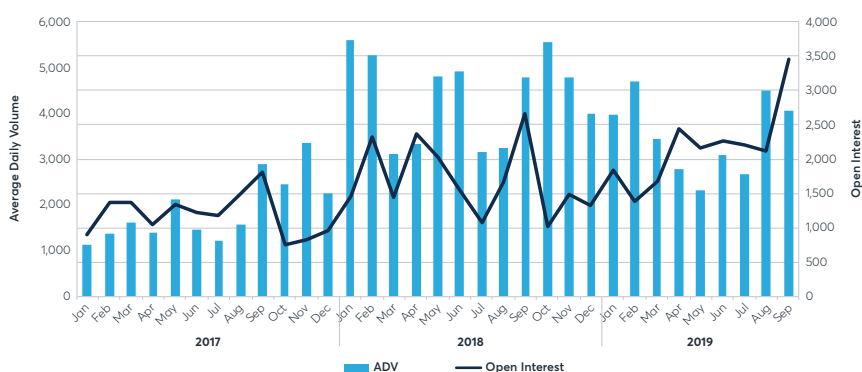
\$1.58B Notional ADV YTD



INR/USD: More volume

22.8% increase in ADV YTD –
2k YTD

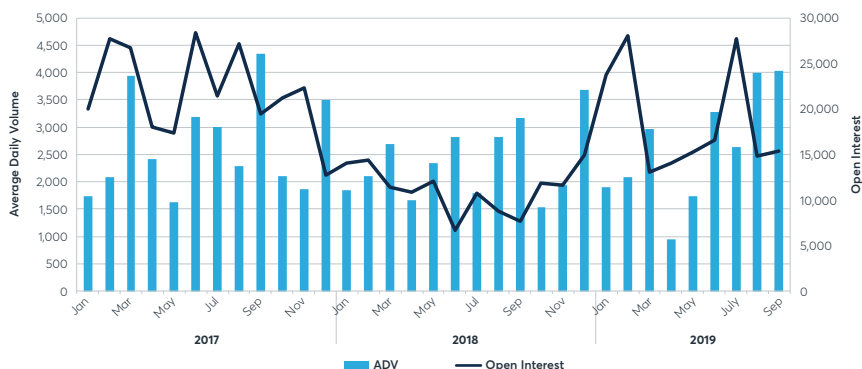
\$248M Notional ADV YTD



ZAR/USD: More participants

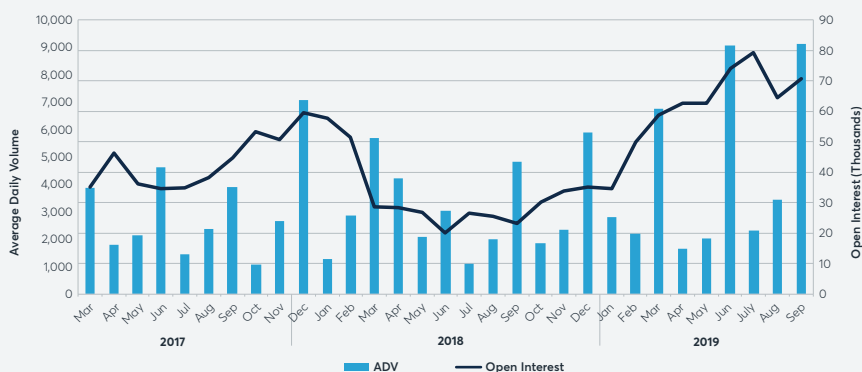
61.1% increase in ADV YTD –
18.5k YTD

\$90M Notional ADV YTD



Focus on RUB/USD

Ruble is rocking and rolling.
New records reached on
September 10, 40% increase
from last record on June 13
reaching \$346M notional



EMFX, Efficiencies: Margin offsets across FX and across commodities

	AUD	BRL	CAD	CNH	INR	JPY	MXN	NZD	RUB	ZAR
BRL	30%	–	–	–	25%	–	30%	–	20%	35%
CNH	35%	–	–	–	30%	45%	–	–	–	–
INR	35%	25%	–	30%	–	–	–	–	–	25%
KRW	45%	–	30%	–	–	25%	–	44%	–	–
MXN	–	30%	30%	–	–	–	–	–	20%	30%
RUB	20%	20%	–	–	–	–	20%	–	–	20%
ZAR	30%	35%	26%	–	25%	–	30%	30%	20%	–

	EUR	NOK	SEK	ENK	BRENT	WTI	GOLD	COPPER
BRL	–	–	–	–	–	–	–	–
CNH	45%	75%	75%	–	–	–	40%	45%
INR	–	–	–	–	–	–	20%	–
KRW	30%	–	–	–	–	–	–	30%
MXN	–	–	–	–	–	–	–	–
RUB	–	30%	–	75%	25%	25%	–	–
ZAR	–	50%	45%	–	–	–	–	–

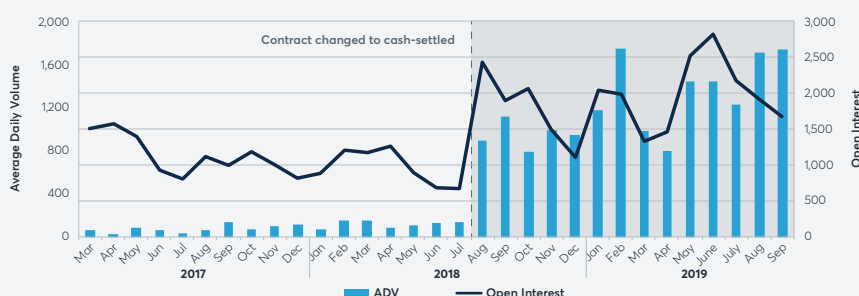
Monitor margin offsets at cmegroup.com/marginoffsets

Get Ready for SGE: 40% offsets with USD/CNH

Significant offsets of up to 40% are available with USD/CNH and New Shanghai Gold Exchange futures – creating access and price discovery to the Chinese gold market, on COMEX.

Focus on USD/CNH

New records reached on September 12 of \$585m notional – with Open Interest peaking on July 1 to 4,280

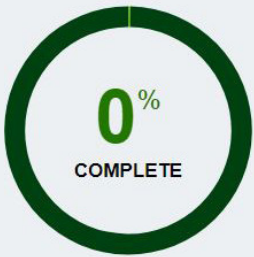


Go Learn: Resources

The CME Institute: FX

Continue learning about the futures and options markets with a variety of courses designed to help you at each stage of your trading journey. Our courses are designed to help you deepen your knowledge and improve your understanding of our markets.

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



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RETURN TO COURSE OVERVIEW

- What is FX
- Understanding FX Quote Conventions
- The Importance of FX Futures Pricing and Basis
- Understanding the FX Delivery & Settlement Process
- How to Manage Risk in FX
- A Look at FX EFP

INTRODUCTION TO FX

Understanding FX Quote Conventions

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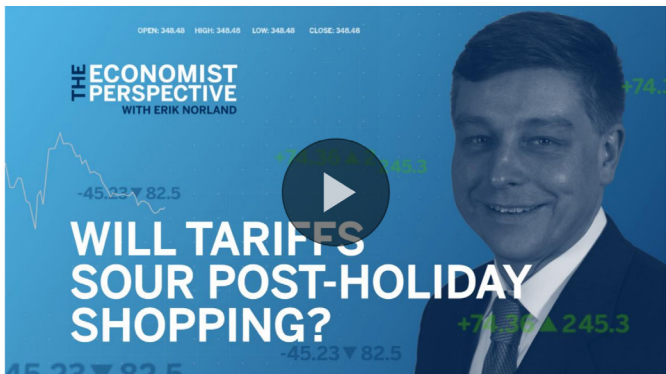


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To access the CME Institute, visit cmegroup.com/fx-quote-conventions

Follow the market with our Economic Research

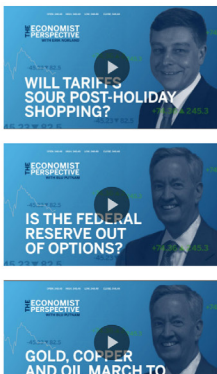
Dive into insights and analysis from our expert economists, Blu Putnam and Erik Norland, covering events and trends driving opportunities in Emerging Markets and beyond. Watch, Read, Listen. Discover.



OPEN: 348.68 HIGH: 348.68 LOW: 348.68 CLOSE: 348.68

THE ECONOMIST PERSPECTIVE
WITH ERIK NORLAND

WILL TARIFFS SOUR POST-HOLIDAY SHOPPING?



THE ECONOMIST PERSPECTIVE
WILL TARIFFS SOUR POST-HOLIDAY SHOPPING?

THE ECONOMIST PERSPECTIVE
IS THE FEDERAL RESERVE OUT OF OPTIONS?

THE ECONOMIST PERSPECTIVE
GOLD, COPPER AND OIL MARCH TO

Get Started with My Portfolio

Create an account on cmegroup.com and register for My Portfolio to keep up with the products you trade throughout the day.

Add products, then use My Portfolio to track trading data, such as high, low, open and volume, on your desktop and iOS device.

Sign up to My Portfolio today at cmegroup.com/myportfolio

See Who Participates in FX Futures Markets

Analyze 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.



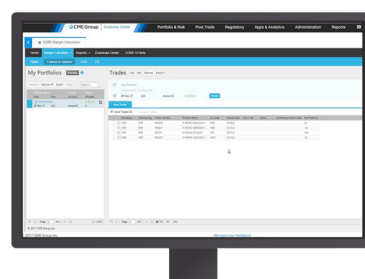
Rolling FX Futures with Pace of the Roll Tool

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 the Roll Tool can help analyse and plan their futures roll. These charts are updated and available on a daily basis during the roll period.



Calculate your margins with CME Core

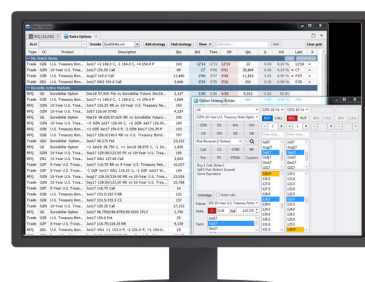
CME CORE is an interactive margin calculator that enables users to calculate and evaluate initial margin requirements for all CME Group products, and execute OTC efficiency analysis through additional analytics.



FX Trading with CME Direct

CME Direct, is 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

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