

FX

FX Options Trader Handbook

Understanding the relationship between CME FX Options on Futures and OTC Options.



As the world's leading and most diverse derivatives marketplace, CME Group (cmegroup.com) is where the world comes to manage risk. CME Group exchanges offer the widest range of global benchmark products across all major asset classes, including futures and options based on interest rates, equity indexes, foreign exchange, energy, agricultural commodities, metals, weather and real estate. CME Group brings buyers and sellers together through its CME Globex electronic trading platform and its trading facilities in New York and Chicago. CME Group also operates CME Clearing, one of the largest central counterparty clearing services in the world, which provides clearing and settlement services for exchange-traded contracts, as well as over-the-counter derivatives transactions through CME ClearPort. These products and services ensure that businesses everywhere can substantially mitigate counterparty credit risk in both listed and over-the-counter derivatives markets.

FX PRODUCTS

Designed for the Rapid Pace of a Global Marketplace.

With \$4.0 trillion traded daily, FX markets represent the largest asset class in the world. CME Group offers the world's largest regulated FX marketplace and one of the top two FX platforms with over \$125 billion in daily liquidity. We offer transparent pricing in a regulated centralized marketplace that provides all participants equal access to 56 futures contracts and 31 options contracts based on 20 major world and emerging market currencies. Trading FX at CME Group gives you effective and efficient investment and risk management opportunities and unprecedented access to a global array of market participants — including banks, hedge funds, proprietary trading firms and active individual traders.

Additionally, we continue to roll out comprehensive and flexible clearing services for OTC FX trades through CME ClearPort — an open-access, platform agnostic, post-execution clearing solution.

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We offer you three unique trading methods.

On CME Globex: Speed, transparency, access and liquidity

With FX options on CME Globex, you have access to the speed, liquidity, flexibility and transparency you need to get the highest possible return. That's why over 70 percent of our FX options average daily volume is traded electronically. Only CME Globex offers:

- » 31 electronic FX options contracts on a single platform accessible around the globe 23 hours a day
- » Major or emerging-market currencies
- » Premium- and volatility-based quoting
- » American- and European-style expiration
- » Free real-time quotes for FX options
- » 1,000 direct connections in more than 90 countries and foreign territories
- » Telecommunication hubs in Amsterdam, Kuala Lumpur, London, Mexico City, Milan, New York, Paris, São Paulo, Seoul and Singapore

On the floor: Access voice trading benefits

From the pits that created the modern derivatives markets, trading FX options on the floor can offer any trader:

- » Quick set up and nearly immediate access to our liquidity (no connection infrastructure or front-end systems required)
- » Use services of a voice broker to maximize the flexibility in execution
- » Facilitate price discovery through interaction with experienced floor traders

Block trades: Private negotiation with security of CME Clearing

Designed to provide traders the benefits of CME Clearing, while maintaining existing bilateral pricing relationships.

- » Retain control and convenience of privately negotiating a trade with a selected eligible counterparty
- » Access the risk management and counterparty credit guarantees of CME Clearing
- » Now at reduced fees: **we've reduced transaction fees 43% — from \$1.75 to \$1.00**

Get started today.

Find out how you can start trading CME FX options today. Contact a CME Group FX team member, or visit cmegroup.com/fxoptions.

CME FX options deliver into a futures contract

One option contract delivers into one futures contract, and correspondingly, each option contract has a notional value equivalent to its underlying future and currency denomination.

Examples:

EUR/USD = €125,000

CAD/USD = C\$100,000

JPY/USD = ¥12,500,000

CHF/USD = SF125,000

GBP/USD = £62,500

AUD/USD = A\$100,000

There are four futures contracts per year (March, June, September and December — called the March Quarterly Cycle) each with a delivery date set on the third Wednesday of the Quarterly month (referred to as the International Money Market or IMM dates by many forwards traders).

Our FX futures contracts are denominated in foreign currency amounts and quoted in USD terms (except for cross-currency pairs). Thus, a CALL option gives the right to BUY the foreign currency and PUT the right to SELL the foreign currency (i.e. JPY/USD option contract: CALL = BUY JPY; PUT = SELL JPY). This is similar to the trader convention in the OTC.

CME FX options have standardized maturities

In the major currency pairs, there are 10 maturities listed at any one time: four Quarterlies, two Serials and four Weeklies.

The four Quarterly option expiration dates are set on the second Friday prior to the third Wednesday of the Quarterly months — two Fridays before the futures delivery date.

This allows exercised options holders at least a week to unwind (trade out of) futures positions if they prefer that to taking delivery.

The two Serial option expiration dates are the first two nearest months that are not a Quarterly month. For example, on April 15th, the nearest Serial will be May, the first Quarterly will be June, and the second nearest Serial will be July. Serial expiration is also on the second Friday before the third Wednesday of the month. It is important to remember that Serial options deliver into the nearest Quarterly futures contract.

The four Weekly option expiration dates are the first four nearest Fridays on the calendar that are not also a Serial or Quarterly expiration.

These contracts are listed on a rolling basis. When one expires, the next fourth nearest Weekly is listed. Thus the label “Weekly” may be a bit confusing as these tend to be listed for approximately one month before expiration.

The end result being that there will be a Friday option expiration for at least the nearest five to six weeks of the calendar, then a slight gap to the next Serial or Quarterly representing approximately a 10-week maturity, with the last Quarterlies representing approximately 3 months, 6 months and 9 to 12 months.

CME FX options come in two styles: European and American

American-style can be early-exercised at the strike price at any time up to the evening prior to expiration day by contacting your clearing house. European-style are exercised only on expiration day. It is important to remember that early exercise of American-style options on futures does NOT carry the major benefits found in options on spot, because taking delivery of a futures contract does not provide immediate access to the higher yielding underlying currency. Theoretically, early exercise should only occur when options are very deep in the money and cost of carry is higher than time value. For most options, the pricing difference between European- and American-style options on futures should be negligible. The main difference is in the timing of the expiration. European-style options expire at 9:00 a.m. Central Time (CT) (10:00 a.m. NY) and American-style expire at 2:00 p.m. CT (3:00 p.m. NY) on the Friday of expiration.

The American-style options are the legacy products at CME, constituting about 85 percent of the volume, primarily because they provide an extra five hours of trading on the Friday expiration days. Many of these cover important economic releases such as "U.S. employment."

When trading on CME Globex, the default description is assumed to be an American-style option but if the option is European-style, it will be clearly stated in the long product description. The product code will also differentiate: American-style will have a six in the code sequence (i.e. **6EU8: 6** = American-style, **E** = EUR/USD, **U** = September, **8** = 2008); while European-style will have an X in the sequence (i.e. **XJZ8: X** = European-style, **J** = JPY/USD, **Z** = December, **8** = 2008).

A full code would look like: 6EU8 P1550 and refer to the American-style, EUR/USD, September 5th expiration, 2008, Put with strike of 1.5500. Notice the strike's decimal and the last digit are both dropped for simplicity sake.

CME FX options expiration procedure

CME FX options on the six major currencies are AUTO-EXERCISED against a daily fixing with no choice to the holder (buyer) of the option.

The daily fixing is computed by CME Group and is based on a 30 second volume weighted average price of trades in the underlying futures occurring on CME Globex immediately preceding the 9:00 a.m. expiry (for European-style) and 2:00 p.m. expiry (for American-style). This daily fixing is published in real time on the CME Group website at:

cmegroup.com/fxfixing-price.

All in-the-money (ITM) options (1 pip or more) will be exercised and all at-the-money (ATM) and out-of-the-money (OTM) options will be abandoned with no recourse.

Premium-quoted product codes

This is just a subset of CME FX Premium-Quoted options.

PREMIUM-QUOTED OPTIONS

Product	Style	Maturity	Product Code
AUD/USD	American	Monthly	6A
		Weekly	6A1 thru 6A5
CAD/USD	American	Monthly	6C
		Weekly	6C1 thru 6C5
	European	Monthly	XD
		Weekly	XD1 thru XD5
CHF/USD	American	Monthly	6S
		Weekly	6S1 thru 6S5
	European	Monthly	XS
		Weekly	XS1 thru XS5
EUR/USD	American	Monthly	6E
		Weekly	6E1 thru 6E5
	European	Monthly	XT
		Weekly	XT1 thru XT5
GBP/USD	American	Monthly	6B
		Weekly	6B1 thru 6B5
	European	Monthly	XB
		Weekly	XB1 thru XB5
JPY/USD	American	Monthly	6J
		Weekly	6J1 thru 6J5
	European	Monthly	XJ
		Weekly	XJ1 thru XJ5

Note: For Weekly contracts, the number one means first week of the month, the number two means second week of the month, etc. So an American-style CHF/USD option that expires on the third Friday in October would have a code of: 6S3V8.

Pricing of premium-quoted CME FX options

One option contract delivers into one futures contract, and correspondingly, each option contract has a notional value equivalent to its underlying future and currency denomination. Examples:

EUR/USD = €125,000

CAD/USD = C\$100,000

JPY/USD = ¥12,500,000

CHF/USD = SF125,000

GBP/USD = £62,500

AUD/USD = A\$100,000

Premium-quotations is the equivalent of a “live” price in the OTC market (the transaction is unhedged). Premiums are quoted in USD points per amount of foreign currency with the minimum tick usually set at \$0.0001 (except in JPY/USD = \$0.000001). The minimum “tick” is for example in EUR/USD = \$0.0001 times the contract size of €125,000 = \$12.50.

On the screen shot shown on the next page, the EUR/USD AUG08 1.5550 Call is quoted on the bid side at a price of 77 for 280 contracts. This means that each contract is bid at a premium value of $\$0.0077 * €125,000 = \962.50 . If a seller were to hit the bid on the full amount, the premium collected would be $280 * 962.50 = \$269,500$. The notional value of the short option position would be $280 * €125,000 = €35,000,000$.

If the option dealer wants to hedge the trade:

In the futures market: Multiply the option delta by the number of option contracts and buy/sell equivalent number of futures contracts. Example above, the delta is approximately 50 percent, the buyer will sell $280 * 0.50 = 140$ futures contracts.

In the OTC spot market: Multiply the option delta by the number of option contracts, then multiply by the notional amount per contract and buy/sell the currency amount. Example above, $50% * 280 * €125,000 = €17,500,000$ and the option buyer would sell €17,500,000 against USD in the spot market.

Note: Hedging in the spot market may be more “practical” for OTC options dealers, but it also creates a forward and a basis risk that must be managed.

CME EOS Trader™ - Z6N98NK:W988P5G - Access Level:View Only

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Euro VOO ATM EURPOO ATM FUTURES JPY VOO ATM CAD VOO ATM JPYPOO ATM CADPOO

EUR Aug

Add Contract Add Contract Symbol Go Customize

Contract	Bid-Size	Bid Price	Ask Price	Ask-Size	Last	Net-Change	Volume	Timestamp
Euro FX AUG08 16000 Call	150	3.0	5.0	101	2 @ 4.0	+1.0	2	13:47:55
Euro FX AUG08 15950 Call	150	4.0	6	100	50 @ 3.0	-1.5	65	13:46:47
Euro FX AUG08 15900 Call	189	6	8	95	1139 @ 8	+2.0	1152	13:48:59
Euro FX AUG08 15850 Call	258	8	11	295	1 @ 13	+4.0	53	13:48:22
Euro FX AUG08 15800 Call	246	12	15	316	75 @ 14	+2.0	230	13:48:23
Euro FX AUG08 15750 Call	246	18	21	322	5 @ 21	+3.0	157	13:48:42
Euro FX AUG08 15700 Call	238	26	29	150	3 @ 28	+2.0	90	13:48:30
Euro FX AUG08 15650 Call	10	39	41	50	2 @ 39	+2.0	539	13:49:10
Euro FX AUG08 15600 Call	182	55	58	150	1 @ 55	+3.0	820	13:49:10
Euro FX AUG08 15550 Call	280	77	80	77	8 @ 73	+2.0	146	13:49:10
Euro FX AUG08 15550 Put	56	72	75	186	2 @ 78	-10	209	13:49:10
Euro FX AUG08 15500 Put	10	50	53	257	1 @ 52	-11	199	13:48:42
Euro FX AUG08 15450 Put	200	33	36	279	47 @ 28	-16	165	13:48:59
Euro FX AUG08 15400 Put	150	21	24	345	3 @ 24	-6	773	13:48:59
Euro FX AUG08 15350 Put	245	12	16	305	37 @ 14	-5	60	13:48:31
Euro FX AUG08 15300 Put	225	7	10	245	1 @ 8	-4.0	7	13:48:24
Euro FX AUG08 15250 Put	225	4.0	7	265	1 @ 3.0	-4.0	5	13:46:47
Euro FX AUG08 15200 Put	225	2.0	4.5	75	2 @ 3.0	-1.5	2	13:49:15
Euro FX AUG08 15150 Put	75	1.0	3.0	1	1 @ 2.5	-0.5	1	13:44:56
Euro FX AUG08 15100 Put	1	1.0	2.0	5	-	-	-	13:25:48
Euro FX AUG08 15050 Put	-	-	2.0	94	-	-	-	13:28:49
Euro FX AUG08 15000 Put	1	0.5	1.5	75	2 @ 1.0	+0.0	2	13:48:26

Above picture of CME EOS Trader is used in pricing examples on the facing page.

Converting CME “tick” price to implied volatility

Some pricing models have preset CME International Monetary Market (IMM) formats. However, most are set with a default American-style profile with a maturity day count set to the Saturday following expiration (giving full time value to the Friday expiration day). While this is perfectly correct theoretically, it creates a slight discrepancy when trying to compare implied volatility (IV) levels with the OTC option expiring on the Friday morning. This day-count can be adjusted by manually changing the days to expiry field or by permanently changing the rule in the default settings for IMM options. This allows an apples-to-apples comparison of IV for the European-style contracts (and with the awareness that the CME American-style contracts provides an extra five hours of trading).

For other models, follow these steps to compare IV pricing with OTC options:

1. Set up pricing system to follow Foreign Currency (FC)/USD convention
2. Input CME option's expiration day (Friday xx) as the maturity date
3. Input CME contract's strike in appropriate FC/USD slot
4. Select American- or European-style (remember its not a big factor in options on futures)
5. Input the CME underlying Futures IMM date (i.e. third Wednesday of Quarterly month) as the option's value date or delivery date
6. Input the correct all-in forward rate for the IMM date (either by having correct spot and swap or by simply inputting the futures price as the forward outright rate). Again, make sure the rate is in FC/USD convention and option price is set to \$pips/FC notional
7. Input CME contract's “tick” price in the \$pips per FC slot
8. Set the premium value date to today's date (same day payment — this is not a big factor)
9. Solve for IV

This IV can be compared to same-delta (not same-strike) OTC options.

Comparison of CME strike to OTC strike for same maturity

In order to match CME options with OTC options with the same maturity dates, one must adjust the strikes (which will also lead to equivalent deltas).

To do this, one needs to approximate what the forward swap difference will be between the spot and the futures contract on the day of expiration. This forward swap difference must then be added or subtracted to the CME strike to provide an OTC equivalent strike. If the futures trades at a discount, add back the swap differential. If it trades at a premium, subtract the swap differential.

Example 1:

Determine OTC strike equivalent for a CME EUR/USD, August 8, 1.5550 Call (delivers into September 17th future).

Assumption: EUR/USD forward swap curve = -0.8 pips/day (-0.00008)

1. On August 8th, spot date will be Aug 12th and CME September IMM date is Sep 17th. The day count between spot and IMM is 36, so swap differential is $36 * (-0.8) = -28.8$ pips (-0.00288)
2. Take CME strike and add back the differential:
 $1.5550 + \sim 0.0029 = 1.5579$

An OTC option for Aug 8th expiry, with a strike of 1.5579 should respond (delta) to spot in a corresponding manner as a CME Aug 8th 1.5550 will respond to its underlying future.

The process requires an extra inversion step for CME contracts quoted inversely to OTC such as, CAD/USD, CHF/USD and JPY/USD.

See Example 2 on next page.

Example 2:

Determine OTC strike equivalent for a JPY/USD, September 5, 9450 Call (actual strike is 0.009450 but quoted without decimals for practical reasons).

Assumption: USD/JPY forward swap curve = -0.6 pips/day (-0.006)

1. On September 5th, spot date will be Sep 9th and Sep IMM date is Sep 17th. The day count between spot and IMM is 8, so swap differential is $8 * (-0.6) = -4.8$ (-0.048)
2. Take CME strike and invert to OTC convention:
 $1/0.009450 = 105.82$
3. Add the differential back to the CME strike:
 $105.82 + .048 =$ approximately 105.87

(This adjustment can be minimal when interest differentials are small and option expiration is close to the IMM date.)

When the strike is adjusted as described above, OTC and CME FX options with same expiration dates provide a strong arbitrage opportunity

(because they behave nearly identically, they should be priced identically). The CME European-style options will have nearly identical expirations (10:00 a.m. NY VWAP vs. 10:00 a.m. NY spot), and thus could be effectively used as offsets. In fact, CME American-style options can also be used as offsets, preferably in a Short OTC – Long CME scenario in which the CME option provides an extra five hours of positive gamma trading after the OTC offset rolls off.

CME trading conventions for FX options spreads

Important default rules for pricing option spreads:

We use the following default format for market consistency in pricing spreads electronically:

1. First listed contract is always BOUGHT; second listed contract is SOLD
2. Vertical spreads: first listed = more-ITM strike; second listed = less-ITM
3. Calendar spreads: first = BACK date; second = FRONT date
4. Risk reversals: first = CALL strike; second = PUT strike

Examples assuming the following EUR/USD option quotes:

Sep08 – P15500 bid/ask = 50/51

Sep08 – P15400 bid/ask = 21/22

Oct08 – P15500 bid/ask = 150/153

Dec08 – P15100 bid/ask = 147/150

Sep08 – C15600 bid/ask = 19/21

Sep08 15500 – 15400 Put vertical:

- » Quoted 28/30 to buy the 15500 and sell the 15400
- » Oct08 15500 – Sep08 15500 Put calendar:
- » Quoted 99/103 to buy the Oct and sell Sep
- » Dec08 15100 – Oct08 15500 Put calendar:
- » Quoted –6/0 to buy the Dec and sell Oct
- » Sep08 C15600 – P15400 Risk reversal:
- » Quoted –3/0 to buy the Call and sell the Put

Note of caution: User-defined spread (UDS) functionality allows you to define unique spreads which may be structured differently, thus it is paramount to check each spread's details to ensure proper quotation.

Pricing of volatility-quoted CME FX options

The volatility-quoted option (VQO) contracts are identical to those quoted in premium terms. In fact, the VQO codes shown in the table on the next page are used only for matching purposes, to differentiate a price quoted in volatility (Vol) from a price quoted in ticks. When a trade occurs (i.e. a match between a bid and an offer) in VQO, the engine will automatically set a futures price (instantaneous mid-price of bid/offer spread in underlying futures contract) and plug all the contract details in a pricing model to determine the option's delta and premium. The engine then returns to each party a regular option ticket with premium and a delta-offsetting futures ticket. The resulting option and futures trade become part of your single outstanding open position in these contracts whether traded in premium or in Vol (only the audit trail could point to the fact that a particular lot traded in Vol). So for risk management purposes, one is ambivalent between VQO and premium-quoted trades.

Things to keep in mind when Pricing/Quoting using VQO functionality:

1. CME Globex uses specific built-in models to convert the volatility traded to premiums and set the delta-hedge, and you need to know how these models differ from yours so you will know what to expect:

- » For American-style options = Adesi/Whaley
- » For European-style options = Black

Refer to Product-Specific Functionality Document – Section 3.0, pg 9 at cmegroup.com/globex/files/Product_Specific_Knowledge_Repository.pdf.

A data sample is also provided so comparisons can be made against results taken from the engine calculations for various time/volatility/interest rate scenarios.

2. The models use a full-day time decay function with Friday expiration day set to equal zero (for both European- and American-styles).

Therefore, the last trading day for a VQO contract is the day prior to the expiration day when day count = one. This makes our volatility quote equivalent to the same maturity OTC volatility level. Time decay does not change throughout the trading day. On expiration day, the contract can only be traded in premium terms.

3. Pricing spreads in VQO are done with a single volatility price input for all legs of the strategy.

This is straight forward for straddles, but more complicated for mix strikes strategies. The only strategies allowed in VQO currently are straddles, strangles and verticals. The OTC trader familiar with dual volatility input (such as 10.00/10.50 – 10.80 choice) must make the adjustment to reflect the desired price with a single volatility bid/ask spread that is applied to both option legs (i.e. 9.50/10.30).

4. Volatility prices are quoted in minimum increments of 0.025 percent.

VOLATILITY-QUOTED OPTIONS

Product	Style	Maturity*	Product Code
AUD/USD	American	Monthly	V6A
		Weekly	VA1 thru VA5
CAD/USD	American	Monthly	V6C
		Weekly	VC1 thru VC5
	European	Monthly	VXC
		Weekly	VCA thru VCE
CHF/USD	American	Monthly	V6S
		Weekly	VS1 thru VS5
	European	Monthly	VXS
		Weekly	VSA thru VSE
EUR/USD	American	Monthly	V6E
		Weekly	VE1 thru VE5
	European	Monthly	VXT
		Weekly	VTA thru VTE
GBP/USD	American	Monthly	V6B
		Weekly	VB1 thru VB5
	European	Monthly	VXJ
		Weekly	VBA thru VBE
JPY/USD	American	Monthly	V6J
		Weekly	VJA thru VJ5
	European	Monthly	VXJ
		Weekly	VJA thru VJE

*Note: For Weekly European-style contracts, the letter A denotes week one, the letter B denotes week two, etc.

2011 Calendar*

Monthly Code	FX Instrument	Expiration	First Listed	Underlying Future
Q1	AUGUST Serial	5-Aug-11	9-May-11	Sep-11
Q1	Aug Week 2	12-Aug-11	5-Jul-11	Sep-11
Q1	Aug Week 3	19-Aug-11	18-Jul-11	Sep-11
Q1	Aug Week 4	26-Aug-11	25-Jul-11	Sep-11
U1	Sep Week 1	2-Sep-11	1-Aug-11	Sep-11
CME Group Holiday		5-Sep-11		
U1	SEPTEMBER Quarterly	9-Sep-11	7-Sep-10	Sep-11
U1	Sep Week 3	16-Sep-11	15-Aug-11	Dec-11
U1	Sep Week 4	23-Sep-11	22-Aug-11	Dec-11
U1	Sep Week 5	30-Sep-11	29-Aug-11	Dec-11
V1	OCTOBER Serial	7-Oct-11	11-Jul-11	Dec-11
V1	Oct Week 2	14-Oct-11	6-Sep-11	Dec-11
V1	Oct Week 3	21-Oct-11	19-Sep-11	Dec-11
V1	Oct Week 4	28-Oct-11	26-Sep-11	Dec-11
X1	NOVEMBER Serial	4-Nov-11	8-Aug-11	Dec-11
X1	Nov Week 2	11-Nov-11	3-Oct-11	Dec-11
X1	Nov Week 3	18-Nov-11	17-Oct-11	Dec-11
CME Group Holiday		24-Nov-11		
X1	Nov Week 4	25-Nov-11	24-Oct-11	Dec-11
Z1	Dec Week 1	2-Dec-11	31-Oct-11	Dec-11
Z1	DECEMBER Quarterly	9-Dec-11	6-Dec-10	Dec-11
Z1	Dec Week 3	16-Dec-11	14-Nov-11	Mar-12
Z1	Dec Week 4	23-Dec-11	21-Nov-11	Mar-12
CME Group Holiday		26-Dec-11		
Z1	Dec Week 5	30-Dec-11	28-Nov-11	Mar-12

* This calendar is only for six major currencies – euro, Japanese yen, Canadian dollar, Swiss franc, British pound and Australian dollar.

2012 Calendar*

Monthly Code	FX Instrument	Expiration	First Listed	Underlying Future
	CME Group Holiday	2-Jan-12		
F2	JANUARY Serial	6-Jan-12	10-Oct-11	Mar-12
F2	Jan Week 2	13-Jan-12	5-Dec-11	Mar-12
	CME Group Holiday	16-Jan-12		
F2	Jan Week 3	20-Jan-12	19-Dec-11	Mar-12
F2	Jan Week 4	27-Jan-12	27-Dec-12	Mar-12
G2	FEBRUARY Serial	3-Feb-12	7-Nov-11	Mar-12
G2	Feb Week 2	10-Feb-12	3-Jan-12	Mar-12
G2	Feb Week 3	17-Feb-09	17-Jan-12	Mar-12
	CME Group Holiday	20-Feb-12		
G2	Feb Week 4	24-Feb-12	23-Jan-12	Mar-12
H2	Mar Week 1	2-Mar-12	30-Jan-12	Mar-12
H2	MARCH Quarterly	9-Mar-12	7-Mar-11	Mar-12
H2	Mar Week 3	16-Mar-12	13-Feb-12	Jun-12
H2	Mar Week 4	23-Mar-12	21-Feb-12	Jun-12
H2	Mar Week 5	30-Mar-12	27-Feb-12	Jun-12
J2	APRIL Serial	5-Apr-12	9-Jan-12	Jun-12
	CME Group Holiday	6-Apr-12		
J2	Apr Week 2	13-Apr-12	5-Mar-12	Jun-12
J2	Apr Week 3	20-Apr-12	19-Mar-12	Jun-12
J2	Apr Week 4	27-Apr-12	26-Mar-12	Jun-12
K2	MAY Serial	4-May-12	6-Feb-12	Jun-12
K2	May Week 2	11-May-12	2-Apr-12	Jun-12
K2	May Week 3	18-May-12	16-Apr-12	Jun-12
K2	May Week 4	25-May-11	23-Apr-12	Jun-12
	CME Group Holiday	28-May-12		
M2	June Week 1	1-Jun-12	30-Apr-12	Jun-12
M2	JUNE Quarterly	8-Jun-12	6-Jun-11	Jun-12
M2	Jun Week 3	15-Jun-12	14-May-12	Sep-12
M2	Jun Week 4	22-Jun-12	21-May-12	Sep-12
M2	Jun Week 5	29-Jun-12	29-May-12	Sep-12

* This calendar is only for six major currencies – euro, Japanese yen, Canadian dollar, Swiss franc, British pound and Australian dollar.

Continued on page 20

2012 Calendar cont*

Monthly Code	FX Instrument	Expiration	First Listed	Underlying Future
CME Group Holiday		4-Jul-12		
N2	JULY Serial	6-Jul-12	9-Apr-12	Sep-12
N2	Jul Week 2	13-Jul-12	4-Jun-12	Sep-12
N2	Jul Week 3	20-Jul-12	18-Jun-12	Sep-12
N2	Jul Week 4	27-Jul-12	25-Jun-12	Sep-12
Q2	AUGUST Serial	3-Aug-12	7-May-12	Sep-12
Q2	Aug Week 2	10-Aug-12	2-Jul-12	Sep-12
Q2	Aug Week 3	17-Aug-12	16-Jul-12	Sep-12
Q2	Aug Week 4	24-Aug-12	23-Jul-12	Sep-12
Q2	Aug Week 5	31-Aug-12	30-Jul-12	Sep-12
CME Group Holiday		3-Sep-12		
U2	SEPTEMBER Quarterly	7-Sep-12	12-Sep-11	Sep-12
U2	Sep Week 2	14-Sep-12	13-Aug-12	Dec-12
U2	Sep Week 3	21-Sep-12	20-Aug-12	Dec-12
U2	Sep Week 4	28-Sep-12	27-Aug-12	Dec-12
V2	OCTOBER Serial	5-Oct-12	9-Jul-12	Dec-12
V2	Oct Week 2	12-Oct-12	4-Sep-12	Dec-12
V2	Oct Week 3	19-Oct-12	17-Sep-12	Dec-12
V2	Oct Week 4	26-Oct-12	24-Sep-12	Dec-12
X2	Nov Week 1	2-Nov-12	1-Oct-12	Dec-12
X2	NOVEMBER Serial	9-Nov-12	6-Aug-12	Dec-12
X2	Nov Week 3	16-Nov-12	15-Oct-12	Dec-12
CME Group Holiday		22-Nov-12		
X2	Nov Week 4	23-Nov-12	22-Oct-12	Dec-12
X2	Nov Week 5	30-Nov-12	29-Oct-12	Dec-12
Z2	DECEMBER Quarterly	7-Dec-12	12-Dec-11	Dec-12
Z2	Dec Week 2	14-Dec-12	5-Nov-12	Mar-12
Z2	Dec Week 3	21-Dec-12	19-Nov-12	Mar-12
CME Group Holiday		25-Dec-12		
Z2	Dec Week 4	28-Dec-12	26-Nov-12	Mar-12

* This calendar is only for six major currencies – euro, Japanese yen, Canadian dollar, Swiss franc, British pound and Australian dollar.

A quick guide to FX options on CME Globex

Contract	Quote Method	Style	Size
AUD/USD	Premium Implied Volatility	A/E	100,000 Australian dollars
BRL/USD	Premium	A	100,000 Brazilian reais
CAD/USD	Premium Implied Volatility	A/E	100,000 Canadian dollars
CHF/USD	Premium Implied Volatility	A/E	125,000 Swiss francs
CZK/EUR	Premium	A	4,000,000 Czech koruna
CZK/USD	Premium	A	4,000,000 Czech koruna
EUR/CHF	Premium	A	125,000 euro
EUR/GBP	Premium	A	125,000 euro
EUR/JPY	Premium	A	125,000 euro
EUR/USD	Premium Implied Volatility	A/E	125,000 euro
GBP/USD	Premium Implied Volatility	A/E	62,500 British pounds
HUF/EUR	Premium	A	30,000,000 Hungarian forint
HUF/USD	Premium	A	30,000,000 Hungarian forint
ILS/USD	Premium	A	1,000,000 Israeli shekelim
JPY/USD	Premium Implied Volatility	A/E	12,500,000 Japanese yen
KRW/USD	Premium	A	125,000,000 Korean won
MXN/USD	Premium	A	500,000 Mexican pesos
NZD/USD	Premium	A	100,000 New Zealand dollars
PLN/EUR	Premium	A	500,000 Polish zloty
PLN/USD	Premium	A	500,000 Polish zloty
RMB/EUR	Premium	A	1,000,000 Chinese renminbi
RMB/JPY	Premium	A	1,000,000 Chinese renminbi
RMB/USD	Premium	A	1,000,000 Chinese renminbi
RUB/USD	Premium	A	2,500,000 Russian rubles

A = American-style options **E** = European-style options

Tick	Expiration(s)	Futures Delivery/ Settlement
\$.0001 per Australian dollar = \$10/contract	4 months in the March quarterly cycle, 2 serial months and 4 weekly	Physical
\$.00005 per Brazilian real = \$5/contract	12 consecutive months and 4 weekly	Cash
\$.0001 per Canadian dollar = \$10/contract	4 months in the March quarterly cycle, 2 serial months and 4 weekly	Physical
\$.0001 per Swiss franc = \$12.50/contract	4 months in the March quarterly cycle, 2 serial months and 4 weekly	Physical
.000002 euro per Czech koruna = €8/contract	4 months in the March quarterly cycle and 2 serial months	Physical
\$.000002 per Czech koruna = \$8/contract	4 months in the March quarterly cycle and 2 serial months	Physical
.0001 Swiss francs per euro = SF12.5/contract	4 months in the March quarterly cycle, 2 serial months and 4 weekly	Physical
.00005 British pounds per euro = £6.25/contract	4 months in the March quarterly cycle, 2 serial months and 4 weekly	Physical
.01 Japanese yen per euro = ¥1,250/contract	4 months in the March quarterly cycle, 2 serial months and 4 weekly	Physical
\$.0001 per euro = \$12.50/contract	4 months in the March quarterly cycle, 2 serial months and 4 weekly	Physical
\$.0001 per British pound = \$6.25/contract	4 months in the March quarterly cycle, 2 serial months and 4 weekly	Physical
.0000002 euro per Hungarian forint = €6/contract	4 months in the March quarterly cycle and 2 serial months	Physical
\$.0000002 per Hungarian forint = \$6/contract	4 months in the March quarterly cycle and 2 serial months	Physical
\$.00001 per Israeli shekel = \$10/contract	4 months in the March quarterly cycle, 2 serial months and 4 weekly	Physical
\$.000001 per Japanese yen = \$12.50/contract	4 months in the March quarterly cycle, 2 serial months and 4 weekly	Physical
\$.0000001 per Korean won = \$12.50/contract	12 consecutive months and 4 weekly	Physical
\$.000025 per Mexican peso = \$12.50/contract	12 consecutive months and 4 weekly	Physical
\$.0001 per New Zealand dollar = \$10/contract	4 months in the March quarterly cycle, 2 serial months and 4 weekly	Physical
.00002 euro per Polish zloty = €10/contract	4 months in the March quarterly cycle and 2 serial months	Physical
\$.00002 per Polish zloty = \$10/contract	4 months in the March quarterly cycle and 2 serial months	Physical
.00001 euro per Chinese renminbi = €10/contract	12 consecutive months and 4 weekly	Cash
.001 Japanese yen per Chinese renminbi = ¥1,000/contract	12 consecutive months and 4 weekly	Cash
\$.00001 per Chinese renminbi = \$10/contract	12 consecutive months and 4 weekly	Cash
\$.00001 per Russian ruble = \$25/contract	4 months in the March quarterly cycle and 4 weekly listed 4 weeks prior to termination	Cash

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Futures trading is not suitable for all investors, and involves the risk of loss. Futures are a leveraged investment, and because only a percentage of a contract's value is required to trade, it is possible to lose more than the amount of money deposited for a futures position. Therefore, traders should only use funds that they can afford to lose without affecting their lifestyles. And only a portion of those funds should be devoted to anyone trade because they cannot expect to profit on every trade. All references to options refer to options on futures.

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