Currency Options:

new dimensions to exchange-based e-trading

Francis Maguire

As the volume in electronic trading in exchange-traded currency options continues to rise, Frances Maguire looks at the changing landscape and what the exchanges are doing to attract new customers and win volume from the OTC market.

The drive to trade currency options electronically has created an arms race amongst the exchanges where cutting-edge technology is being brought to the asset class for the first time in a bid to build liquidity and incentivise new entrants.

Last year, the New York Board of Trade, which trades currency futures and options in New York and Dublin, began looking for an electronic platform and ended 2006 by agreeing to a full acquisition by InterContentinental Exchange (ICE). The futures contracts migrated onto the ICE electronic trading platform in November 2007 and it has yet to be decided when, and if, currency options will follow the same route.

ICE, an electronic energy-trading marketplace, is well versed in successfully bringing the exchange clearing model to markets that had previously traded over-the-counter (OTC) so it will be interesting to see if they take up the mantle with FX options as the exchanges chip away at the OTC market for market share.

Craig LeVeille, head of FX options at CME Group, says volume in FX options has steadily switched from the trading floor to the exchange's electronic trading platform, CME Globex. Electronic volume now accounts for just less than 60% of total volume traded in FX options. In December 2006 when CME listed the majority of its FX options on CME Globex, only about 15% of FX options were traded electronically. CME FX options on futures experienced one of its strongest months ever in November. Overall options averaged $3.5 billion a day in notional value, based on average daily volume of 24,336 contracts, up 51 percent from November 2006 average notional. Electronic options averaged $2.0 billion a day in notional value, up an impressive 642 percent from last November's average. The average of 14,374 options traded a day in November represents a new monthly record and a 54 percent increase in volume over November 2006. Overall FX volume for November was $83.6 billion in notional terms.

Boosted demand

LeVeille says that short-term factors such as volatility and the uncertainty created by credit events tend to boost the demand for options, and the exchange environment provides the benefits of security and transparency, which are well suited for times of uncertainty, particularly when credit concerns are high. Longer-term, the underlying growth in options, and FX in general, is really down to the fact that foreign exchange has been accepted as its own asset class.The proportional increase in the dealing segment between financial institutions has risen substantially, in the recent BIS figures. This reflects that hedge funds and asset managers are focussing on foreign exchange and FX options as an asset class as a means to generating alpha and increasing portfolio yields.

"This is really good news for the exchange as these customers highly value the transparency, the security and the anonymity of the exchange," he says.

In FX options, the OTC market accounts for 98% of total volumes traded globally, but LeVeille believes FX options will follow the same pattern as FX futures versus OTC spot and forwards. "We are starting to attract more customers from the OTC market. The basic benefits of trading on the exchange centre on the security of a central counterparty. It gives complete transparency, offers financial safeguards not found in the OTC market and virtually eliminates counterparty risk. CME Clearing monitors intra-day and marks to market twice daily, using publicly traded rates, every customer's position. These are attractive characteristics when increasingly, the high volatility events are created by credit concerns." He adds that there has also been cross-over of multi-asset players as equity participants come into FX, as part of the growing acceptance of FX as an asset class, where historically, asset managers focussed primarily on equities and fixed income.

LeVeille believes it is the environment that is driving volume on exchange, as much as having the right products. However, the exchange shop window is continuously being extended and filled as the exchange tries to move

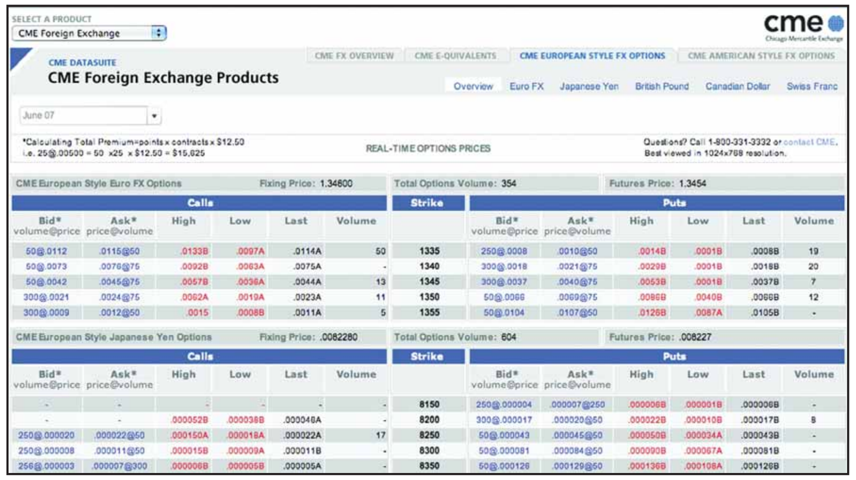
its product line closer to the OTC market. "In some ways, the two worlds are converging as a lot of the platforms in the OTC market are trying to move closer to the exchange model," says LeVeille.

Volatility

Recently, CME announced plans to launch a volatility quoted options product in the first quarter of 2008. Not strictly a new product, this is a new methodology for quoting CME's existing FX options, which borrows from the OTC market. "In the OTC market, implied volatility is the primary measure that traders use to value options, relative to the underlying. Quoting in volatility terms is a delta-neutral convention, which basically removes the delta risk from a transaction. The OTC market realised they can trade the optionality component of FX options more efficiently by trading on a volatility basis and just agreeing to exchange the hedge with thecounterparty, and that has allowed the FX options market to grow substantially over-the-counter." At least 70% of the OTC market uses this convention to trade vanilla options.

CME has reduced trading fees for market makers providing continuous liquidity in electronic FX options. LeVeille says: "Our basic approach is that it is essential to build liquidity, and then the customers will come to us so we are providing market maker incentives, in terms of reduced fees for the provision of certain levels of liquidity."

Key to the CME trading platform is that the first person on the price gets the trade – there are no special allocations to liquidity providers. The exchange provides a fair, equal access and level playing field.



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June 07

*Calculating Total Premium=points x contracts x $12.50
i.e. 25@.00500 = 50 x25 x $12.50 = $15,625

REAL-TIME OPTIONS PRICES

Questions? Call 1-800-331-3332 or contact CME.
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CME European Style Euro FX Options | Fixing Price: 1.34600 | Total Options Volume: 354 | Futures Price: 1.3454

Calls: Bid* volume@price	Calls: Ask* price@volume	Calls: High	Calls: Low	Calls: Last	Calls: Volume	Strike	Puts: Bid* volume@price	Puts: Ask* price@volume	Puts: High	Puts: Low	Puts: Last	Puts: Volume
50@.0112	.0115@50	.0133B	.0097A	.0114A	50	1335	250@.0008	.0010@50	.0014B	.0001B	.0008B	19
50@.0073	.0076@75	.0092B	.0063A	.0075A	-	1340	300@.0018	.0021@75	.0029B	.0001B	.0018B	20
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300@.0021	.0024@75	.0062A	.0019A	.0023A	11	1350	50@.0066	.0069@75	.0086B	.0040B	.0066B	12
300@.0009	.0012@50	.0015	.0008B	.0011A	5	1355	50@.0104	.0107@50	.0126B	.0087A	.0105B	-

CME European Style Japanese Yen Options | Fixing Price: .0082280 | Total Options Volume: 604 | Futures Price: .008227

Calls: Bid* volume@price	Calls: Ask* price@volume	Calls: High	Calls: Low	Calls: Last	Calls: Volume	Strike	Puts: Bid* volume@price	Puts: Ask* price@volume	Puts: High	Puts: Low	Puts: Last	Puts: Volume
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-	-	.000052B	.000038B	.000046A	-	8200	300@.000017	.000020@50	.000022B	.000010B	.000017B	8
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256@.000003	.000007@300	.000006B	.000005B	.000005A	-	8350	50@.000126	.000129@50	.000136B	.000108A	.000126B	-

Almost all of CME's 31 options products, in 19 different currencies, are now listed on CME Globex. As in the OTC market, liquidity is the greatest in the major currency pairs. Features on the CME Globex platform include a Request For Quote (RFQ) function to post strikes and currencies to the whole market to get special attention to a particular order.

The User Defined Spreads (UDS) functionality enables customers to put together multiple products within one package so they can build their own structures with up to 40 different instruments and get a price from market makers.

Once market makers see these quote requests their automated trading machine pick up on them and begin auto-quoting them. "This helps the exchange manage bandwidth usage which, from an electronic trading standpoint, is one of the biggest challenges," says LeVeille. "Ultimately the UDS functionality will be very helpful in enabling the exchange to bring more complex instruments to the electronic platform."

The biggest advantage the OTC market has over the exchanges is the customisation, and the CME is looking at ways to making its products more flexible as corporates need suitable instruments for accounting purposes. The primary model of the exchange is based around lower-margin, commoditised products for high-volume, efficient distribution whereas the OTC market is suited to one-off sophisticated transactions. LeVeille believes the two markets can successfully exist side-by-side.

He adds that even the interbank dealers now want to access the CME Globex platform as it is a way for them to internalise CME's liquidity and find natural offsets to the vanilla flows at the bottom end of their distribution channel. "This also means they can efficiently offset the vanilla risk of their higher margin, more exotic trades. We are now seeing the big banks internalise our differentiated liquidity pool and we certainly believe that we can co-exist. "We will never replace the function the large banks are providing in the creation and distribution of structured solutions and high-end exotic products," says LeVeille.

Attracting new players

Kris Monaco, director of new product development at the International Securities Exchange (ISE), says the exchange is focused on bringing in new players that will convince OTC participants to trade exchange-listed FX products.
He believes the increase in trading volume is being driven by technology, which is enabling broader participation from both buy-side and sell-side as well as individual investors and quantitatively-driven trading firms, which are now using the same trading techniques from the equities market, using turnkey solutions so they can start trading quickly and leverage existing infrastructure, distribution networks and trading tools. "There has been a proliferation of new FX venues that are either white-labelled by banks or independently run, which provide quick and easy access to a large range of participants," he says.

Product proliferation

The second factor adding to increased volume is product proliferation. As a result of the increased number of trading venues there is now a greater range of interesting new trading tools and exotic FX products that bring more opportunities for trading and improved risk management. For example, some ECN-like venues are offering trades that are very highly margined, as well as exotic options such as one-touch and binary options. Also, there are new types of products on the exchanges, such as the currency trusts launched on the New York Stock Exchange that allow an asset class to be repackaged into a securities instrument that can be traded through the same distribution networks as stocks.

Overseeing the markets at ISE

Says Monaco: "This has really opened the market up to investors and this is why we are seeing increased volumes in FX overall. The new security and security-like instruments are providing more hedging opportunities for risk management and to make markets in FX."

He says that one of the main reasons ISE decided to offer FX products was because US online securities brokers did not offer FX products and a lot of their customers wanted to trade FX and were forced to open accounts at trading venues that had little operating history. Brokers lost business because they did not want to connect to the unregulated trading venues, as they did not have the same infrastructure to provide safeguards to their investors. "The standardised FX option on ISE gives brokers an FX product that trades the same way as equity and index options, with the same protections in place because it is trading on a regulated securities exchange."

He believes one of the main attractions of using exchange traded FX products is that the banks and brokers can leverage existing infrastructures. "Market makers have invested heavily over the years in building complex quoting engines for equities-based instruments and now they can leverage this investment for a new asset class, and a whole new suite of products on the ISE, while investors can access FX products from their equity options accounts, and on a regulated market."

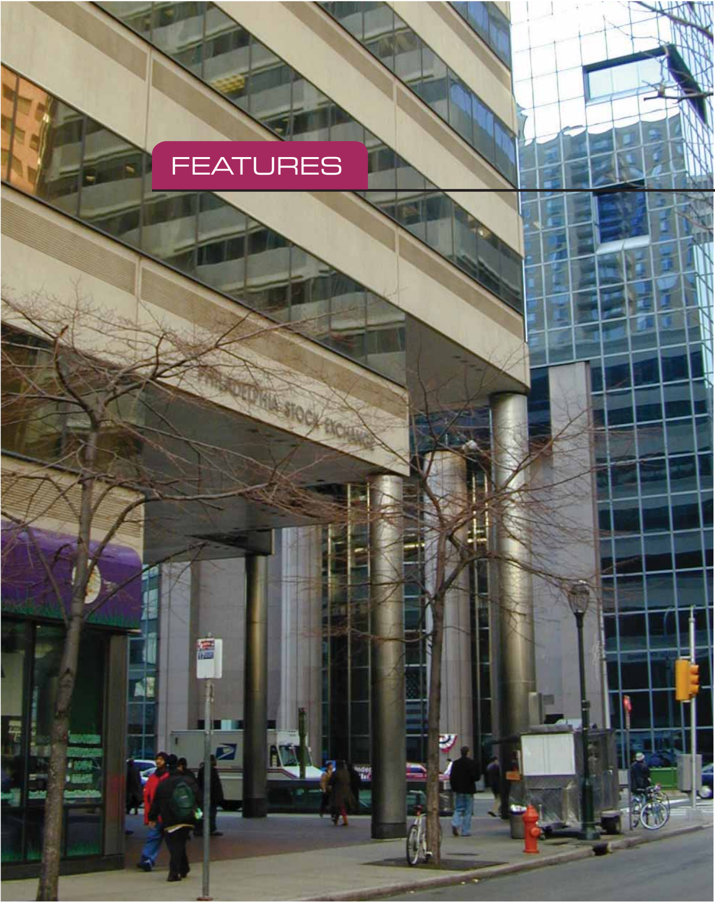
But Monaco says the most apparent benefit of trading exchange-listed products is having real, actionable quotes from multiple dealers, competing with each other on a neutral platform. In the securities market this is something that is taken for granted but in the FX market it is something a lot of FX traders are not used to seeing. He says an FX options trader traditionally phoned round single dealers or went to a one-to-many platform, operated by a single dealer.

New trading functionality

Monaco says that ISE is using its existing options trading technology to deliver new trading functionalities to the FX market. For example, ISE offers spread trading for complex orders, with multiple legs, in a single currency pair, that can be executed in the same way as equity and index options trades. "This is a tremendous break-through for the FX options market. Also, tools for market makers, that are also brokers themselves, are available to offer functionality such as solicitation and preferencing to enable market makers to better service their customers."

Additionally, ISE has introduced a new membership structure specifically for FX in order to attract as many liquidity providers as possible, creating a new class of FX market makers, using the same model as the ISE options marketplace. "We have a two-tiered market maker system with a Primary Market Maker and several Competitive Market Makers. This is a similar approach to that used for our other options products, but we have made it very low cost to enlist as many market makers as possible, including those that are not new to FX but are new to ISE."

Although ISE has only launched options on four currency pairs to date, the exchange has received regulatory approval from the Securities & Exchange



Commission to list 19 US dollar-based currency pairs, and 47 cross-rates. "We have only listed four – the euro, pound, yen and Canadian dollar -- to focus participation on these particular pairs and to ensure we reach a critical mass point before adding more products. We chose to start with these four because they are some of the most actively traded and are able to attract the broadest participation."

Monaco believes FX options will follow the same path as equity options, where it was originally a retail-orientated market. The smaller institutions and retail investors will grow liquidity in the FX options market. The bigger players will only come in when there is proven liquidity.

The market has been conditioned to judge liquidity with open interest, because originally the options market did not have actionable quotes on the screen. Today, Monaco says that the thousands of contracts quoted at the best bid and offer on the options trading screen, alongside the spread, is the true measure of liquidity.

The algorithms that exist today for equity and index options can be used for FX options. "One of the benefits we have over the OTC market is that everything that is building up for the options space overall can be applied today for FX options," says Monaco. He also adds that the exchange will be reviewing capacity in the light of supporting a new asset class. "Overall the securities exchanges have built up an incredible infrastructure and distribution network over the years to support traditional equity options but now it is all going to be leveraged to grow FX."

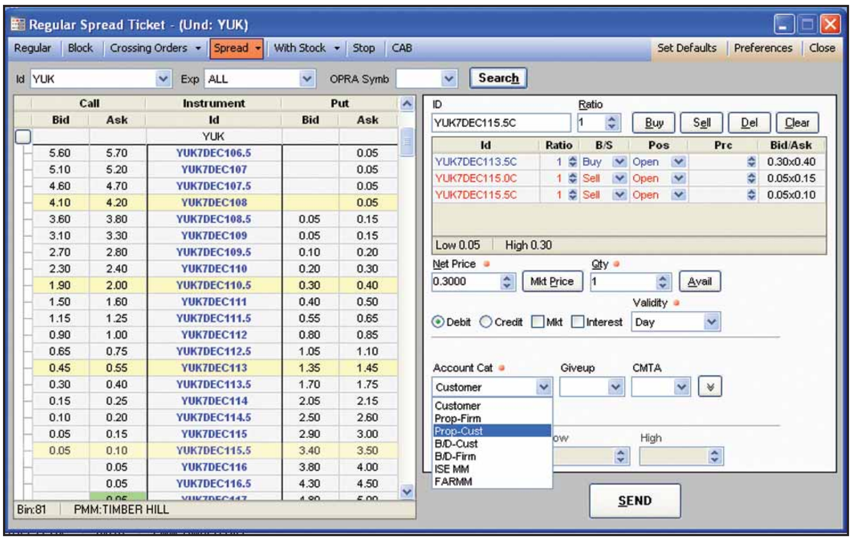
WCO's

US dollar-settled World Currency Options (WCO) traded at the Philadelphia Stock Exchange (PHLX) enable retail investors, currency traders, asset managers and companies to easily implement foreign exchange into their investment strategies.

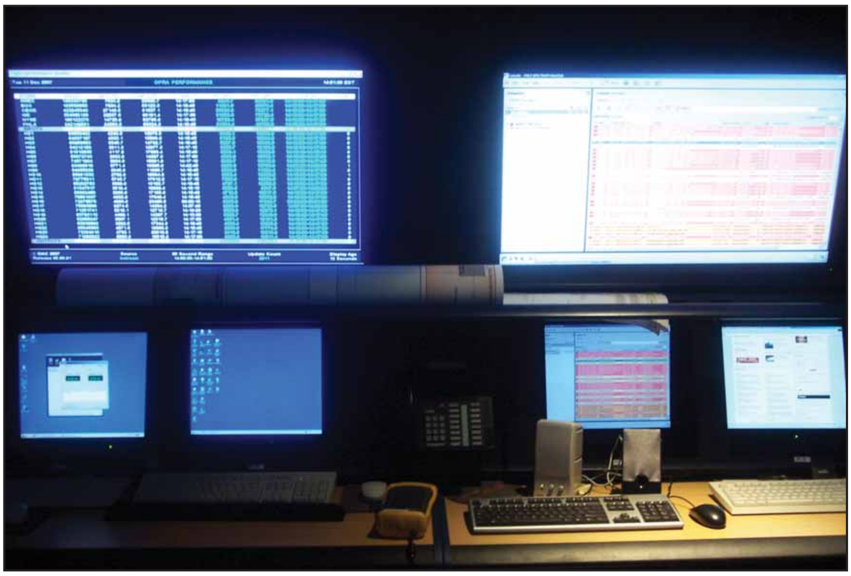
They are quoted in terms of US dollars per unit of the underlying currency and premiums are paid and received in US dollars. Because option premium and settlement are in US dollars, rather than the underlying foreign currency, they settle in the customer's securities account, once broker approved. PHLX World Currency Options are currently available on six of the most heavily traded currencies in the global interbank and futures markets.

Dan Carrigan, vice president, new product development, at the Philadelphia Stock Exchange says that the reason why WCOs are growing at an exponential pace is their trading size and ease of access. Given contract specifications of 10,000 currency units, he believes that WCOs are 'right-sized' for retail investors. Additionally, PHLX claims to have demystified foreign exchange trading for retail investors.

He says: "The realisation that retail investors can participate in foreign exchange trading that has long been missing from their portfolios. Investors can express trading views on the Dow Jones and crude oil, but only since our launch of dollar-



An FX Options order through ISE's front-end, PrecISE Trade®



PHLX XL Options Platform

settled PHLX World Currency Options has the retail investor been able to express a trading view on the direction of the Euro."

He believes the exchange is proving to be a popular marketplace for currency option traders as an alternative to OTC because of the ease of access. Investors with online securities accounts can trade dollar-settled PHLX World Currency Options in the same manner they trade options on equities.

Carrigan adds that PHLX is forging ahead with new technology to attract new users. "The launch of dollar-settled World Currency Options marries 'streaming quote technology' with foreign exchange trading for the first time. Long held as an options industry protocol, streaming quotes is a highly efficient trading-message delivery mechanism that specialists use to make markets. In essence, this is a 180-degree turn from existing futures exchanges that utilise 'order delivery' technology -- streaming quote technology provides exponential message throughput versus order messages." PHLX XL is a fully electronic platform, which matches specialist quotes with customer orders. Specific details include mass quoting capabilities with fully transparent displayed bid / offers disseminated via the Options Price Reporting Authority (OPRA). PHLX offers a competitive fee schedule to add value to customer trading decisions.

The exchange, which is planning to expand the PHLX World Currency Options program to include the "BRIC" currencies of Brazil, Russia, India, and China in 2008, claims to have pioneered foreign exchange options trading in 1982 with the launch of physically deliverable FX options for institutions. In 2007, PHLX pioneered dollar-settled (cash-settled) options with the launch of dollar-settled PHLX World Currency Options. Says Carrigan: " This new product suite brought together retail and institutional traders for the first time, creating a robust market for foreign exchange option price discovery. Accordingly, institutions are already trading options."

PHLX already facilitates algorithmic trading via use of streaming quote technology and offers the necessary means to trade at millisecond speed with trading protections afforded by PHLX XL. "Rapid Fire is a PHLX XL protection feature whereby a specialist controls his risk by setting a control whereby if 'hit' on two or more quotes out of several hundred, the PHLX XL platform will cancel all remaining quotes and allow one second to refresh quotes. This means the specialist will not get run over by a truck if his technology goes haywire," says Carrigan.

There are several electronic trading systems for options in the OTC market. The main brokers – GFI, ICAP, Cantor Fitzgerald and Tullet & Tokyo – which each have a web-based trading outlet, as well as the ICOR offering from Reuters. For the most part they are linked to the voice-broking business to provide hybrid models that offer a limited number of at the money strikes and deltas that can be traded electronically. Ultimately they need to separate this function to be successful in electronic trading as users want total transparency and a level playing field. This cannot be achieved on a hybrid platform as the voice trading can always impact what is being done electronically.

Also, the OTC market is also migrating towards the CCP model, which since the launch of CLS, some brokers have been able to offer. Even in the OTC market there is a debate over whether FX options will ever truly be traded electronically, and certainly a hybrid model still dominates for the bigger deals but it may be that the centrally cleared model of the exchanges, and the anonymity, could tip the balance when it comes to trading vanilla options electronically.