

During the financial crisis of 2008, the bankruptcy of Lehman Brothers, the takeover of Bear Stearns by JP Morgan Chase, the bailout of AIG, Fannie Mae and Freddie Mac all highlighted a major problem of OTC derivatives – counterparty risk.



Eurex's Flexible Contracts mitigating counterparty risk for the buy side in OTC options



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Recently, the Greek sovereign debt crisis, contagion fears and European banks' exposure to Southern Europe, as evidenced by the soaring CDS rates to insure Eurozone financials, have reinforced the problems of counterparty risk in OTC derivatives. Both the G20 and the European Commission in its statements after the Lehman collapse have recognized the benefits of central clearing over bilateral risk management arrangements to mitigate counterparty risk in OTC derivatives.

This policy goal was highlighted most prominently in the G20 Leaders' Statement from September 2009: "All standardized OTC derivative contracts should be [...] cleared through central counterparties by end-2012 at the latest" and reinforced by the European Commission in its October 2009 Communication on ensuring efficient, safe and sound derivatives markets: "The Commission has identified CCP-clearing as the main tool to manage counterparty risks". Legislation has subsequently been introduced in the US making the central clearing of OTC derivatives mandatory with EU regulators in Brussels following a similar legislative path.

Benefits of central counterparty cleared Flexible Options

Flexible Options trading was introduced at Eurex in November 2005 for all equity and equity index options and was extended to options on fixed

income futures in November 2006, giving the buy side the benefit and flexibility of customized OTC options with the efficiency and safety of standardized clearing and settlement processes and the mitigation of counterparty risk with a central counterparty (CCP).

The novation of bilaterally agreed options via Eurex's Flexible Contracts offering has significant benefits for the buy side:

- **Margin offset**
- **Competitive pricing**
- **Reduction in capital requirement**
- **Independent daily mark-to-market**
- **Multilateral netting**
- **Processing efficiency**
- **Mitigation of counterparty risk**

Key parameters of Eurex Flexible Options

Trading Flexible Options through Eurex's Flexible Contracts facility allows institutional investors the OTC trading in options on more than 340 individual equities², equity indexes^{3,4}, exchange traded funds (ETFs)⁵, fixed income futures⁶, gold, silver and money market options. Options using the Flexible Contracts facility can be customized by the following parameters:

- **Exercise price** – the selected exercise price can be defined above the highest exercise price of the corresponding regular options series or may be the lowest exercise price of an option which is available in the Eurex® system or an intermediate price. The maximum exercise price for Flexible Options is 2.5 times the highest available standard exercise price in the respective product.
- **Expiration date** – the expiration date can be any exchange day starting from the next business day until the longest currently active standard expiration date of the relevant standard listed product.
- **Exercise style** – American or European exercise can be selected.
- **Settlement type** – the settlement type of Flexible Options is either cash or physical delivery⁷.

The minimum trading size for Flexible Options is identical to the OTC block trade size for exchange traded Eurex options products, for example, 250 contracts is the minimum size for

equity options and 1,000 contracts for EURO STOXX 50® Index Options⁸.

Bringing OTC options to Europe's leading CCP – flexibility & fungibility for the buy side

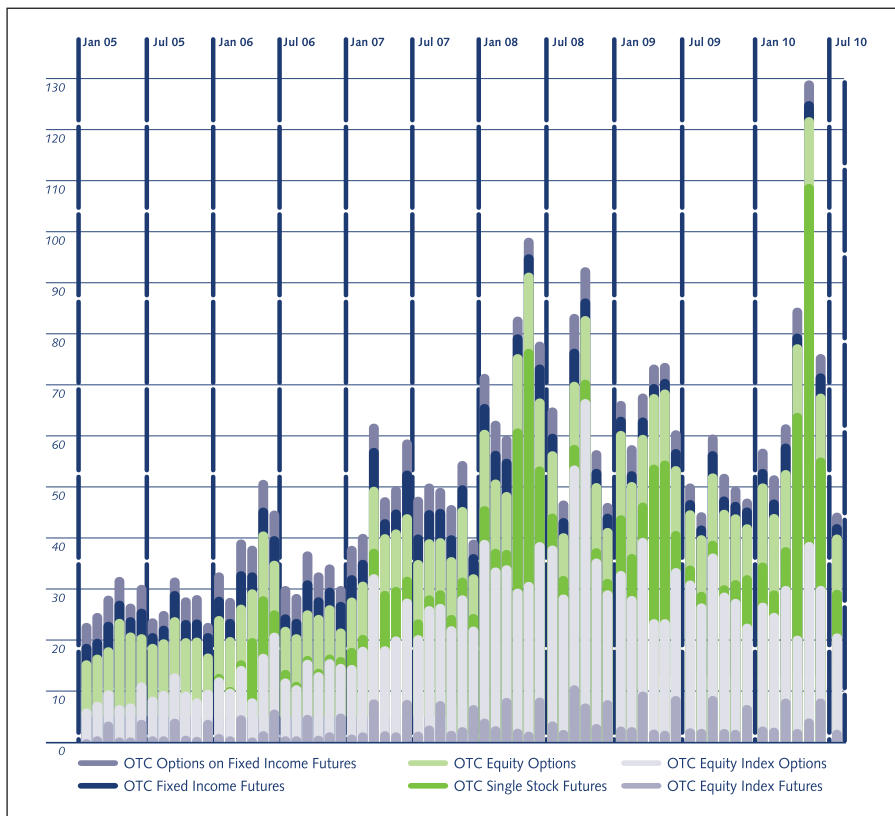
Eurex's Flexible Contracts facility gives the buy side total flexibility and fungibility in OTC traded options with the added benefit of mitigated counterparty risk:

- Open a Flexible Options position with one counterparty and close-out, either partially or completely, with another counterparty giving the buy side the ability to take the best possible price in the OTC transaction.
- Establish Flexible Options as an exchange 'look-a-like' contract i.e. contract specifications identical to those of a listed contract and close-out, partially or completely, the position with a standardized exchange-traded contract through the Eurex order book.

Trading example

A portfolio manager wants to initiate a position in EURO STOXX 50® 2,800 puts European-style for expiration December 31, 2010. The portfolio manager obtains five quotes and takes the most competitive quote from Bank A. The fund manager requests to Bank A the trade to be entered via Eurex's Flexible Contracts facility and cleared via Eurex Clearing. Bank A enters the trade details into the Eurex OTC Flexible Contracts Entry window. Bank A can either be the fund managers' clearer or the flexible trade can be given up to another clearer. Bank A has an equal and offsetting position with Eurex Clearing. Two months later, the fund manager decides to partially liquidate his position in EURO STOXX 50® 2,800 puts for December 31, 2010 expiry and obtains five quotes with Bank B being the most competitive quote. Bank B inputs the trade details into Eurex's OTC Flexible Contracts Entry window and gives up one side of the transaction to the fund managers' clearer. The fund managers' clearer uses the 'Set to Close' functionality to partially close out the position. Bank B also has an equal and offsetting position with Eurex Clearing.

The buy side can also establish option positions using the Flexible Contracts facility that



Overview: Eurex's Off-Exchange Volume January 2005 - July 2010

mirror future order book contracts that are not yet listed. Once the respective order book contract series is listed, the Flexible Option positions can be novated to regular order book contracts which then are fully fungible and can be netted with corresponding positions with listed order book contracts⁹. This applies to all Eurex products being offered as Flexible Option contracts¹⁰.

Portfolio margining & efficient collateral management

Further benefits accrue to the buy side from a much more efficient use of collateral with Eurex exchange traded derivative positions and bilaterally agreed Flexible Options both being centrally cleared at Eurex Clearing. Risk-based Margining (RBM)¹¹ is the name used for Eurex Clearing's proprietary risk margining methodology. RBM is a generic methodology enabling accurate measures across distinct asset classes. Under RBM, instruments are 'bucketed' into 'margin classes' based on the same underlying instruments. For example, all DAX® Options, together with DAX® Futures comprise the DAX® margin class. Similarly, there is a separate class for every other type of equity index and interest rate futures. In the case of equity options, all contracts with the same underlying security are grouped together; for example BMW Flexible Options and BMW listed options. If two or more margin classes whose underlying instruments are correlated with respect to their risk structure and the two are economically linked, then a 'margin group' can be created, enabling cross margining between the two groups. The result for the buy side to this cross margining of margin classes is a much more

efficient and lower use of collateral for funding a portfolio of listed derivatives and Flexible Options centrally cleared than would be the case with the exchange-traded and OTC-traded instruments taken into isolation. Eurex Clearing also offers asset management firms a wide range of collateral – over 20,000 securities – to meet their margin requirements¹².

Why Eurex Clearing?

- Eurex Clearing is one of the leading clearing houses in the novation of off-exchange derivatives transactions to central clearing;
- Since January 2005, more than 3.3bn off-

exchange traded derivatives contracts have been cleared through Eurex Clearing.

- May 2010 saw a record volume of over 129.1m off-exchange traded derivatives contracts novated to Eurex Clearing.
- Eurex Clearing is the only CCP globally that currently performs real-time risk monitoring for derivatives positions throughout the day. With the launch of Eurex Release 13.0 in November 2010, members are given access to a new pre-trade risk management service to define individual risk limits for themselves and their associated trading members (NCMs).
- Highest payment and collateral standards through overnight margin payments in central bank money with collateral pool complying with European Central Bank requirements as accepted for central bank credit facilities with liquidation haircuts.

Conclusion

The collapse of Lehman in 2008 highlighted the problem of counterparty risk in OTC derivatives. The recent sovereign debt problems and contagion fears in Southern Europe have reinforced these concerns. Eurex's Flexible Contracts facility meets the needs of the buy side by introducing flexibility and fungibility in OTC options with the mitigation of counterparty risk by enabling asset managers to trade options on a bilateral basis and then novate the transactions to a central counterparty. Moreover, Eurex's Flexible Contracts facility allows the buy side to take the most competitive price in an OTC options transaction that it has been quoted, in the knowledge that the transaction is being centrally cleared through Eurex Clearing. Asset managers have the added flexibility of being able to open an OTC transaction with one counterparty and closing the transaction with a different counterparty because of central clearing – even opening an OTC transaction as an 'exchange look-a-like' contract and closing the transaction as a listed transaction through the Eurex order book.

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1 See 'Centrally Cleared Derivatives – Mitigating Counterparty Risk for Institutional Investors', Eurex, March 2009, for an explanation and outline of how a clearing house manages risk through its 'lines of defence'. See www.eurexclearing.com > Documents > Publications.

2 See http://www.eurexchange.com/trading/products/EQU/OPT/products_en.html for list of individual companies covered.

3 See http://www.eurexchange.com/trading/wholesale/flexible_options_en.html for equity indexes.

4 It has been calculated that over 70% of OTC traded equity options are 'exchange look-a-like' contracts.

5 Flexible options facility available to all ETF options late September 2010.

6 Options on Euro-Bund, Euro-Bobl and Euro-Schatz Futures are tradable for Flexible Options.

7 Settlement for flexible index options is for cash settlement only.

8 See www.eurexchange.com/trading/wholesale/block_trades_en.html for the complete list of block trade limits.

9 A new Flexible Contracts position cannot be established as an exchange contract if there is already an identical listed contract available to trade in the order book. Flexible positions that mirror a Eurex order book position can be transferred to an order book position during the entire product lifecycle.

10 If only a partial transfer to a listed order contract is required, then a trade separation must be performed for the respective position, size, etc. in the OTC Flexible Contracts Entry Window before novation.

11 See 'Risk Based Margining' brochure at www.eurexclearing.com/download/risk/rbm_final_en.pdf.

12 See www.eurexclearing.com/risk/parameters_en.html for a list of acceptable collateral at Eurex Clearing.

Bibliography & Suggested Further Reading

'Centrally Cleared Derivatives – Mitigating Counterparty Risk for Institutional Investors', Eurex, March 2009.

Leaders' Statement, Pittsburgh G20 Meeting, September 2009.

Eurex Circular 015/10 March 18, 2010 – Annex B – Eurex products approved by the CFTC in the USA for Flexible Options.

For a complete overview of Eurex trade entry functionalities please visit http://www.eurexchange.com/trading/wholesale_en.html