

LONDON NOTICE No. 2745

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DAILY SETTLEMENT PRICES FOR FINANCIAL OPTION CONTRACTS - INTRODUCTION OF FINER GRANULARITY AND CONSEQUENTIAL CHANGES TO THE DAILY SETTLEMENT PRICE GUIDELINES

Executive Summary

This Notice informs members:

- (a) that Financial Option Contracts will be settled to the nearest quarter of a basis point, although the minimum price movement for trading will remain at half a basis point; and
- (b) about the consequential changes to the guidelines used by the Exchange when determining Daily Settlement Prices for Financial Option Contracts.

Note: the minimum price movement for trading, the expiry process and exercise procedures will remain unchanged.

1. Following the introduction of LIFFE CONNECT[®] for Financial Option Contracts in 1998, these products have enjoyed considerable growth in both average daily trading volume and the level of open interest held at the Exchange.
2. The significant levels of open interest emphasise the need for Daily Settlement Prices ("DSPs") calculated by the Exchange to reflect accurately the trading activity that has taken place each day. However, with the large number of Exchange-recognised strategies available for trading, and the highly competitive nature of the market, there have been occasions where the calculation of DSPs would favour one strategy over another when determining the DSPs for a particular strike. This was due to the fact that the Exchange could only determine DSPs at half a basis point increments.
3. This has led to a degree of confusion amongst market participants about the priority that the Exchange places on particular strategies when determining DSPs. Whilst the Exchange sought to alleviate this confusion by publishing, in both December 2002 and 2003, guidelines used by the Exchange when determining DSPs for Financial Option Contracts, there was still concern that issues remained with the settlement process for these products.
4. The Exchange has consulted widely with market participants in order to address the concerns raised and, with effect from **Monday 27 March 2006**, will introduce finer granularity **only** in

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respect of the determination of DSPs for Financial Option Contracts. From this date, the minimum increment for determining DSPs will be a quarter of a basis point.

5. **There will be no change to the minimum price movement for trading, which will remain at half a basis point. Furthermore, the method of calculating the reference price used in the expiry process and the exercise process will remain unchanged.**
6. The change in granularity for DSP purposes will allow the Exchange to reflect more accurately market activity when determining DSPs. In particular, where one or more strategy trades would imply different DSPs when considered individually, the Exchange will now be able to take all relevant strategy activity into account when determining DSPs.
7. Those members who are active in the Financial Options markets may need to make adjustments to their back-office systems to cater for the implementation of finer granularity of DSPs. Technical Guidelines containing details of these changes will shortly be issued by the Exchange to all members.
8. Following consultations with market practitioners, it is considered appropriate to apply the finer granularity when determining DSPs only in respect of the more liquid expiry months. Accordingly, during the first six months - i.e. until the end of September 2006 - the Exchange will seek to limit the application of the finer granularity, referred to in paragraph 4 above, to the first three quarterly expiry months and to serial expiry months. However, the Exchange reserves the right to apply this finer granularity in any expiry month for any Financial Option Contract, if warranted.
9. The Exchange, and market participants, believe that it remains helpful to publish guidelines used by the Exchange when determining DSPs for Financial Option Contracts, and it has been necessary to amend these guidelines pursuant to the change outlined in paragraph 4 above. A copy of the revised guidelines forms the Attachment to this Notice.
10. These guidelines reflect the fact that it is no longer deemed necessary to prioritise Exchange-recognised strategies, as any divergence suggested by market activity in competing strategies will be addressed by the application of finer granularity of DSPs. Furthermore, the Exchange will place greater emphasis on market activity for short-dated expiry months - defined for these purposes as the first three quarterly and two serial expiry months - whilst applying a theoretical value for all other expiry months listed.
11. The Exchange will continue to keep these guidelines under review, and members are invited to provide comment/feedback to the Exchange. A formal review of the updated guidelines will take place six months after implementation.

For further information in relation to this Notice, members should contact:

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**GUIDELINES FOR DETERMINING SETTLEMENT PRICES FOR FINANCIAL OPTION
CONTRACTS**

1. Daily Settlement Prices (“DSPs”) for Financial Option Contracts are determined in accordance with LIFFE CONNECT[®] Trading Procedure 2.3, which states:
 - “2.3.1 The Relevant Euronext Market Undertaking’s** objective when determining settlement prices for Options Contracts is to maintain a consistent pricing relationship between the volatilities of one exercise price and the exercise price(s) nearest to it, whilst taking account of market activity.
 - 2.3.2 The procedures for establishing Daily Settlement Prices are as follows:
 - (a) Market Services will maintain continuous information on market activity, both for each series of each Options Contract and for the underlying Futures Contract or security (as applicable);
 - (b) using this information, implied volatilities will be calculated for each series throughout the Trading Day, which the Relevant Euronext Market Undertaking** will review at regular intervals in light of market activity;
 - (c) in the case of less actively traded Options Contracts, or those where no recent bids or offers exist, the Relevant Euronext Market Undertaking** may contact Members throughout the trading session in order to ascertain whether implied volatilities are reflective of the market view. In the case of more actively traded Options Contracts, Market Services will monitor implied volatilities toward the settlement time to check consistency with market activity throughout the trading session;
 - (d) at the settlement time, the Relevant Euronext Market Undertaking** will calculate settlement prices from implied volatilities. These settlement prices will be displayed on LIFFE CONNECT[®]; and
 - (e) for a minimum period of five minutes following publication of settlement prices, the Relevant Euronext Market Undertaking** may deem it necessary to amend the settlement prices and any appropriate revisions will be displayed accordingly.”
2. Based on these Trading Procedures, the Exchange looks to determine DSPs within the framework described in paragraphs 3 to 10 below. Whilst not exhaustive, the framework outlines the various factors (and the weighting attached to each) which are taken into account during this process.
3. Exchange staff will, throughout the trading day, seek to establish implied volatilities from information supplied via market participants. This information will be prices for relevant at-the-money straddle strategy options. Where market activity in any particular at-the-money straddle strategy would reflect a different implied volatility to that provided via market participants, then market activity will prevail.
4. Based on this calculation of implied volatility, and for the more liquid expiry months - defined as the first three quarterly and two serial expiry months - Exchange staff will then

determine DSPs based upon the trade-weighted average **market value**. Market value will be determined by the trading activity that has occurred preceding the settlement time and will include known best bid/offer pricing that is available to the market. (In the absence of any recent trading activity, trades that have occurred previously may be taken into account.)

5. It must be noted that any trading activity that takes place after the official settlement time will not be taken into consideration.
6. Where there is uncertainty in establishing market value - i.e. a difference in price between two or more trades - then the mid-point will be used as the DSP, rounded to the nearest $\frac{1}{4}$ of a basis point. For example, if the trading activity in the March Euribor 98000 Calls is at prices of 3 and 3.5, then a DSP of 3.25 would be established.
7. There will be no priority given to either outright or any particular strategy transaction over another. Furthermore, no Block Trades will be taken into consideration for these more liquid months.
8. For those expiry months that are listed beyond the first three quarterly months, market value will again be used to determine DSPs. However, in the event that there is no trading activity, nor any bids/offers at the settlement time, then the implied volatilities calculated by Exchange staff will be used to determine theoretical DSPs for these months.
9. These prices may be adjusted with reference to any trading activity that has taken place in these months, including Block Trades.
10. Notwithstanding these Guidelines, it should be noted that LCH.Clearnet Ltd has the right to determine a settlement price at a level for clearing purposes other than that initially established by the Exchange.