

# THE FAIR VALUE METHOD AND RE-DESIGNATION EXPLAINED

## EQUITY DERIVATIVES

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### What happens to my derivatives when the underlying shares are subject to a takeover bid?

When a company makes a takeover offer for another company, the takeover offer will usually be in shares, in cash, or a combination of both.

#### Re-designation of the derivatives when the offer is in shares

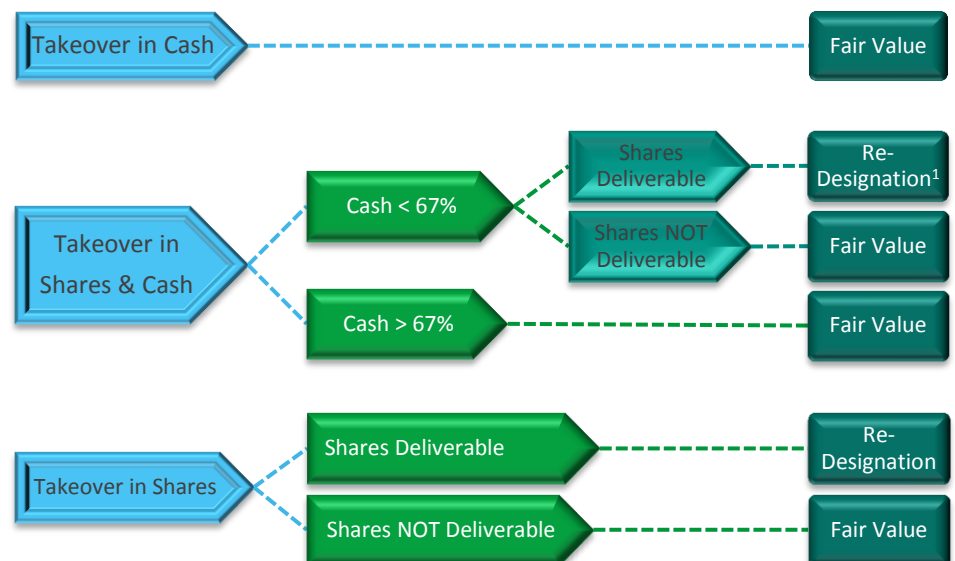
When company B makes a takeover offer for company A, solely in shares. The derivatives are re-designated as derivatives based on the shares of company B, using the exchange ratio of the bid. Re-designation can only take place if the shares of the offering company B are deliverable in the domestic market.

#### De-listing of derivatives and settlement at Fair Value when the offer is in cash

When company X receives a takeover offer from company Y, solely in cash. The derivatives listed on company X cannot be continued. As soon as the offer becomes effective, the derivatives will be de-listed. The derivatives are then settled in cash, using the Fair Value method. This method preserves, besides the intrinsic value, also the remaining time value.

#### Other situations

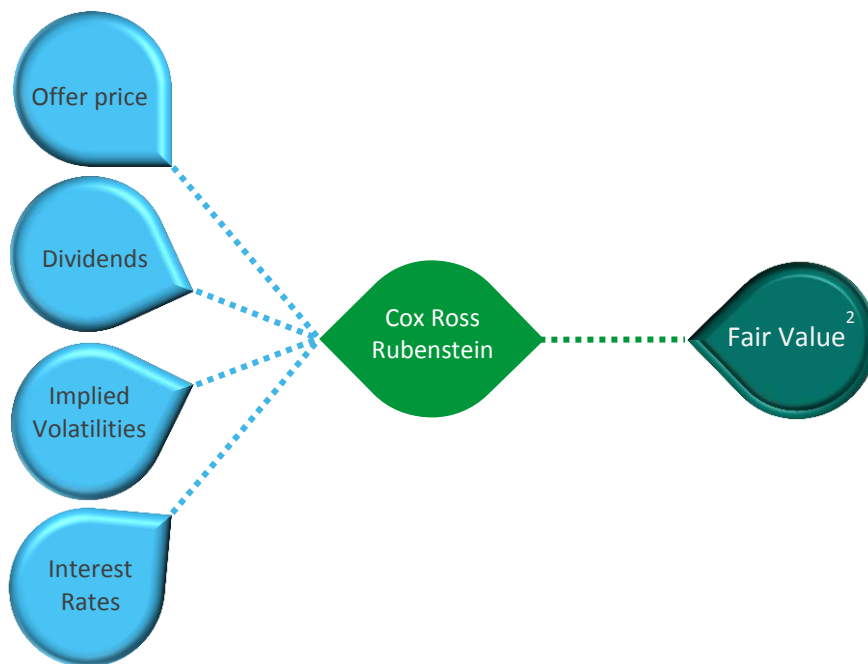
The Fair Value method is also used when the cash component represents more than 67% of the total consideration of the offer, and when the takeover offer is in shares which are not deliverable in the domestic market.



## Fair value method explained

Fair values are calculated using the Cox Ross Rubenstein option valuation model. The necessary inputs to calculate fair values using this model are:

- The price of the takeover offer
- Dividend forecast by an independent provider, i.e. "Markit Dividends"
- Implied volatilities for each option series, determined on the basis of the daily closing prices of these series, 10 days prior to the announcement of the offer.
- Interest rate (i.e. Euribor/LIBOR, the applicable rate for the remaining life time of the option)



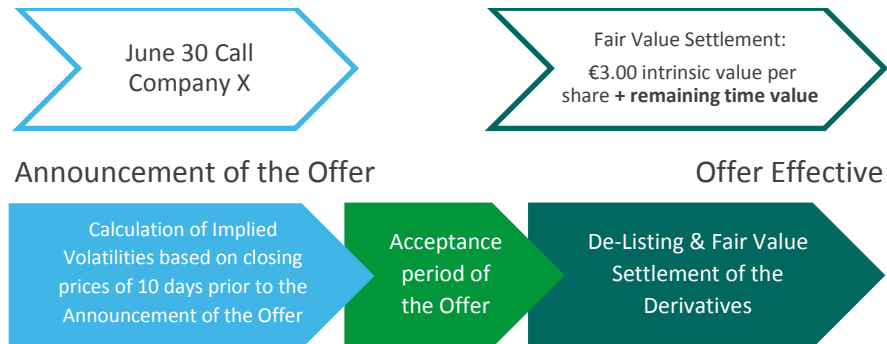
## Re-designation example

Company B takes over company A, whereby shareholders receive two shares in company B for each share in company A. The derivatives listed on company A are re-designated and will continue to trade with the company B shares as underlying value. The original lot size is multiplied by two<sup>3</sup> and the exercise prices of the options are divided by two.



### Fair value example

When company Y takes over company X, whereby shareholders receive €33.00 for each share held in company X. The derivatives will be de-listed and settled at Fair Value, using the implied volatilities that are based on the closing prices of these series 10 days prior to the announcement of the offer.



### Further information:

<https://derivatives.euronext.com/en/trading/corporate-actions>

- <sup>1</sup> Please note that the Ratio Method is used to replace the cash element with shares.
- <sup>2</sup> Fair Values are calculated for each series and take into account strike price, remaining lifetime and the option style (European or American) and type (call or put).
- <sup>3</sup> In the case that the adjusted lot size is a multiple of the standard lot size, positions shall be multiplied rather than the lot size adjusted. In the example, the adjusted lot size of 200 will lead to a multiplication of positions by two, whereby the lot size remains 100.

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