



London
Stock Exchange

London Stock Exchange Derivatives Market

CORPORATE ACTIONS POLICY

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PART 1 GENERAL

1.1 Introduction

1.1.1 This corporate actions policy document provides information relating to adjustments on Future and Option Contracts Registered on London Stock Exchange Derivatives Market (“LSEDM”) resulting from corporate action events.

1.1.2 This policy document should be read in conjunction with the London Stock Exchange Derivatives Market Rulebook and Contract Specifications available on the London Stock Exchange website.

1.2 Definitions

1.2.1 Unless the contrary intention appears, the following terms used in this policy document shall have the meanings given below:

“**Adjustment coefficient (K)**” means the ratio of the Theoretical Ex-Price to the Cum Price;

“**Corporate Action**” means extraordinary dividend distributions, splits or reverse splits, DR ratio changes, bonus issue, rights issue, de-mergers, conversion of Underlying Instruments and any other Corporate Event entailing the detachment of rights from an Underlying, mergers, takeovers or other corporate actions that might lead to delisting of an Underlying;

“**Corporate Event**” means any event that brings material change to an Underlying and results in an adjustment;

“**Cum Price**” means the last price of the Underlying on the day before the Ex-Day. If the last price is not available or the London Stock Exchange Derivatives Market considers that the liquidity in the trading of such Underlying is not sufficient, then the Cum price corresponds to its volume weighted average price (“VWAP”) for the relevant period. However, under special circumstances a different type of price may be set by taking into account any other objective element which is available. The London Stock Exchange Derivatives Market will communicate the type of the price used in the calculation of the Adjustment coefficient (K) before the Ex-Day.

“**Contract size**” means the number of Underlying Instruments of each Derivative Contract;

“**Daily Settlement Price**” means the settlement price calculated by London Stock Exchange Derivatives Market;

“**Depository Receipt**” (DR) means a Global Depository Receipt which is listed or traded on the IOB and which corresponds to a share, shares or to a percentage of a share of the Company in question that is publicly traded;

“**Ex-Day**” means the first day on which a specific Stock or DR can be purchased without participating in the Corporate Action or dividend;

“**Exercise Settlement Price**” means the price of the Underlying (the Spot Price) against which an Option Contract is Exercised;

“**Exercise Price**” means the strike price of Option Contracts traded on London Stock Exchange Derivatives Market;

“**Future Contract**” means a Contract that confers an obligation to trade the Underlying at a pre-defined price on a pre-defined date in the future;

“**Gross Dividend**” means the amount of a dividend paid by the Depository Bank or the Issuer prior to deductions of any tax (e.g. Withholding Tax) or any DR Bank fees;

“International Order Book” (“IOB”) means a market of the London Stock Exchange which allows amongst others secondary market trading in Depositary Receipts (DR);

“London time” means Greenwich Mean Time (GMT) with adherence to British Summer Time (BST). BST begins on the last Sunday of March and ends on the last Sunday of October, during which time clocks are advanced from GMT by one hour (GMT +01:00). Save where this policy states expressly to the contrary, all references to time in the policy are references to London time;

“Market Notice” means an announcement published on the London Stock Exchange Derivatives Market Website; and emailed to relevant recipients’ containing important and relevant market updates;

“Net Dividend” means the amount of dividend that is physically paid by the Depository Bank or the Issuer after deductions of any tax (e.g. Withholding Tax) or any DR Bank fees;

“Option Contract” means a Contract that confers the right but not the obligation to trade the Underlying at a pre-defined price on a pre-defined date in the future;

“Oslo Børs” means Oslo Børs ASA owned by Oslo Børs VPS Holding ASA;

“Record Date” means the date established by an Issuer by which a shareholder must officially own Shares in order to be entitled to a Dividend or other such distribution;

“Stock”/ “Shares” means a type of security representing ownership in a corporation;

“Theoretical Ex-price” means the theoretical price of the Underlying after the Corporate Action, which is used to determine the adjustments to be made;

“Theoretical Fair Value (TFV)” means the theoretical settlement price calculated by London Stock Exchange Derivatives Market and used to close and cash settle Option and Future Contracts;

“Trading Day” means a day other than a Saturday or a Sunday or other holiday on which banks in the Underlying market of a specific Derivative Contract are generally open for business as published in London Stock Exchange Derivatives Market trading calendar on its website at www.lseg.com;

“Underlying”/ “Underlying Instrument” mean index, commodity, stock, share or any other Underlying on which a Derivative Contract is based. Also refers to a Stock on which a DR is issued by a Depository Bank;

“VWAP” means Volume Weighted Average Price. The following rules apply:

- (i) The VWAP is calculated by London Stock Exchange Derivatives Market and shall be the total turnover in traded currency of the Underlying, divided by the number of Underlying Instruments bought and sold during the applicable time period.
- (ii) The VWAP shall be determined by reference to all electronically matched trades automatically executed on the Primary market which the Underlying trades, ignoring any off-order book transactions.
- (iii) The time period applied for the purposes of determining the VWAP for an Underlying instrument shall normally be the entire Trading Day where applicable prior to the Ex-Day.
- (iv) The time period may be extended to cover a greater number of trading days where, in London Stock Exchange Derivatives Market’s discretion, it is necessary in order to provide a more equitable average calculation. If the VWAP is calculated on the Trading Day prior to the Ex-Day, extension of the time period shall only cover Trading Days prior to the Ex-Day. If the VWAP is calculated on the Ex-Day, extension of the time period shall only cover Trading Days following the Ex-Day.
- (v) If there is no transaction in the Underlying instrument in question during the said time period, the VWAP shall instead be calculated on the closing bid prices for the same period.

“Withholding Tax” means the tax deductible on a dividend.

1.3 Financial Equivalence Principle

- 1.3.1 Adjustments of Future, Option and Dividend Future Contracts are based on the principle of financial equivalence of the value of the Future, Option and Dividend Future Contracts before and after the Corporate Action.

1.4 Adjustments on Future and Option Contracts

Adjustments might entail:

- 1.4.1 The adjustment of the Exercise Price of an Option Contract or of the Daily Settlement Price of a Future or Dividend Future Contract. The Contract Size may also be adjusted using the Adjustment coefficient method. As a result, the original Contract Size will be recalculated and will be communicated to the market in due time via a Market Notice.
- 1.4.2 The replacement of the Underlying of Option, Future or Dividend Future Contracts with another Underlying on the basis of a determined ratio (Replacement method);
- 1.4.3 The calculation of Theoretical Fair Value (*TFV*) of Option or Future Contracts.

1.5 Rounding

- 1.5.1 The Exercise Price of Option Contracts or the Daily Settlement Price of Future and Dividend Future Contracts adjusted by means of the Adjustment coefficient (*K*) are rounded to 4 decimals, while the Contract Sizes are rounded to the nearest integer.
- 1.5.2 The Adjustment coefficient (*K*) is rounded to 6 decimals.
- 1.5.3 When rounding, numbers from 0 to 4 shall be rounded down and numbers from 5 to 9 shall be rounded up. Under special circumstances an alternate policy might be applied, in this case communication to the market will be provided in due time via Market Notice.

1.6 Modification of instrument identification codes (ISIN)

- 1.6.1 New instrument identification codes (ISIN) are assigned to adjusted Option, Future and Dividend Future Contracts. Codes are assigned with the presence of additional letters on the end of a series code to indicate a Corporate Action has occurred on the Underlying Instrument

Corporate action number	Identifier
1 st	X
2 nd	Y
3 rd	Z
4 th	Q
5 th	R
6 th	S
7 th	G
8 th	U
9 th	V

1.7 Contracts to be adjusted

- 1.7.1 Derivative Contracts with open interest on the Ex-Day are subject to adjustment. Derivative Contracts with no open interest are deleted from the trading system. More specifically, Option Contracts are deleted only if both calls and puts with same Exercise Price and maturity have no open interest.

1.8 Creation of new series on Ex-Day

- 1.8.1 Option, Future and Dividend Future series available for trading starting from the Ex-Day are generated on the basis of the adjusted reference price.

1.9 Adjustment effective day

- 1.9.1 The adjustments are effective on the first Trading Day on which the Corporate Action is effective.
- 1.9.2 Under special circumstances it may be appropriate to suspend the Derivative Contracts on the Ex-Day and to adjust their terms on the following Trading Day.

1.10 Adjustment details

- 1.10.1 Details of adjustments will be published as soon as sufficient information has been made available by the Issuer or Depository Bank in conjunction with the Issuer to an extent that London Stock Exchange Derivatives Market has sufficient certainty that an adjustment of Derivative Contracts will take effect.
- 1.10.2 The adjustment details of Option, Future or Dividend Future Contracts are published by means of London Stock Exchange Derivatives Market Notices through email to subscribers and updated on the London Stock Exchange website. New notices will be published as more information is released by the Issuer or Depository Bank in conjunction with the Issuer.
- 1.10.3 London Stock Exchange Derivatives Market will endeavour to follow the procedures set out in this Policy Document. In certain situations this may not be possible or appropriate; if this is the case London Stock Exchange Derivatives Market will reserve the right to determine the appropriate action.

PART 2 ADJUSTMENT METHODOLOGY

Here below the adjustment methodology for the following Corporate Actions:

- Bonus issue;
- Splits, reverse splits and DR ratio changes;
- Rights issue;
- Demergers;
- Conversion of Underlying Instruments;
- Extraordinary dividends;
- Ordinary dividends, for Dividend Neutral Stock Futures contracts only;
- Mergers;
- Takeovers and Partial Public Tender Offers;
- Delisting.

2.1 Bonus Issue

Where the Issuer or Depository Bank in conjunction with the Issuer carries out a Bonus Issue pursuant to which Underlying Instruments are freely assigned to shareholders, the Adjustment coefficient method is used to amend the Exercise Price of Option Contracts, and the Daily Settlement Prices of Futures and their Contract sizes with effect from the Ex-Day.

The Adjustment coefficient (K) used to amend the Derivative Contracts is calculated as follows:

$$K = \frac{O}{O + N}$$

O = number of Underlying Instruments before the Corporate Action

N = number of freely assigned Underlying Instruments after the Corporate Action

The Exercise Prices of Option Contracts and the Daily Settlement Prices of Future Contracts are amended by means of the Adjustment coefficient (K) as follows:

$$E_{ex} = E_{cum} \times K$$

E_{ex} = adjusted Exercise Price of Option Contracts or adjusted Daily Settlement Price of a Future Contract

E_{cum} = Exercise Price of Options before the Corporate Action or Daily Settlement Price of a Future Contract

Option and Future Contract sizes (A_{ex}) are amended by means of the Adjustment coefficient (K) as follows:

$$A_{ex} = \frac{Contract_Size}{K}$$

A_{ex} = number of Underlying Instruments after the adjustment (adjusted Contract size)

2.2 Splits, reverse splits and DR ratio changes

Where the Issuer carries out a split or a reverse split or the Depository Bank carries out a DR ratio change, the Adjustment coefficient method is used to amend the Exercise Price of Option Contracts, the Daily Settlement Prices of Futures and their Contract sizes with effect from the Ex-Day.

The Adjustment coefficient (K) used to amend the Derivative Contracts is calculated as follows:

$$K = \frac{O}{N}$$

O = number of Underlying Instruments before the Corporate Action

N = number of Underlying Instruments after the Corporate Action

The Exercise Prices of Option Contracts and the Daily Settlement Price of Future Contracts are amended by means of the Adjustment coefficient (K) as follows:

$$E_{ex} = E_{cum} \times K$$

E_{ex} = adjusted Exercise Price of Option Contract or adjusted Daily Settlement price of a Future Contract

E_{cum} = Exercise Price of Option Contracts before the Corporate Action or Daily Settlement Price of a Future Contract

Option and Future Contract sizes (A_{ex}) are amended by means of the Adjustment coefficient (K) as follows:

$$A_{ex} = \frac{Contract_Size}{K}$$

A_{ex} = number of Underlying Instruments after the adjustment (adjusted Contract size)

2.3 Rights Issue

In the case the Issuer or Depository Bank in conjunction with the Issuer carries out a rights issue, pursuant to which existing shareholders are entitled to pre-emptive rights to subscribe new Underlying Instruments the related Derivative Contracts have to be amended. In this case the Adjustment coefficient method is used to adjust the Exercise Prices of Option Contracts, and the Daily Settlement Price of a Future Contract and their Contract sizes with effect from the Ex-Day.

The Adjustment coefficient (K) used to amend the Derivative Contracts is calculated as follows:

$$K = \frac{P_{ex}}{P_{cum}}$$

P_{ex} = theoretical price *ex-right* of the Underlying Instruments

P_{cum} = price *cum-right* of the Underlying Instruments

The specific characteristics of a pre-emptive offer must be taken into consideration to determine the theoretical price *ex-right*. A capital increase may be carried out by issuing a combination of Underlyings in whatever proportion or may entail the subscription of new Underlyings with different dividend entitlements. Please refer to the Appendix for examples of the theoretical price *ex-right* calculation.

The Exercise Prices of Option Contracts and the Daily Settlement Price of Future Contracts are amended by means of the Adjustment coefficient (K) as follows:

$$E_{ex} = E_{cum} \times K$$

E_{ex} = adjusted Exercise Price of Option Contracts or adjusted Daily Settlement Price of a Future Contract

E_{cum} = Exercise Price of Option Contracts before the Corporate Action or Daily Settlement price of a Future Contract

Option and Future Contract sizes (A_{ex}) are amended by means of the Adjustment coefficient (K) as follows:

$$A_{ex} = \frac{Contract_Size}{K}$$

A_{ex} = number of Underlying Instruments after the adjustment (adjusted Contract size)

2.4 De-mergers

Where a Company approves a de-merger either the Replacement method or the Adjustment coefficient method can be used to adjust Derivative Contracts with effect from the Ex-Day. The choice is made by taking into consideration the characteristics of the de-merger, such as the size of the de-merged firm and the liquidity of both the de-merged and parent companies.

Replacement method:

The Underlying Instruments of Option or Future Contracts are replaced with a basket composed of the Underlying of both the parent and the de-merged firms on the basis of the de-merger ratio. The Exercise Price on Options or the Daily Settlement Price of Future Contracts does not change.

The adjusted Contract Sizes (A_{ex}) of Option or Future Contracts is equal to the sum of the number of Underlying Instruments of the parent Company ($Contract_Size_a$) and of the de-merged Company ($Contract_Size_b$):

$$A_{ex} = Contract_Size_a + Contract_Size_b$$

Adjustment coefficient method:

The Adjustment coefficient (K) used to amend the Derivative Contracts is calculated as follows:

$$K = \frac{P_{ex}}{P_{cum}}$$

P_{ex} = theoretical price of the Underlying Instrument ex de-merger

P_{cum} = Cum Price of the Underlying Instrument

The valuation of the de-merged firm ($V_{de-merged}$) and the de-merger ratio (DeMe) are taken into account when determining the theoretical price Ex de-merger:

$$P_{ex} = P_{cum} - DeMe * V_{de-merged}$$

The Exercise Price of Option Contracts and the Daily Settlement Price of Future Contracts are amended by means of the Adjustment coefficient (K) as follows:

$$E_{ex} = E_{cum} \times K$$

E_{ex} = adjusted Exercise Price of Option Contracts or adjusted Daily Settlement price of a Future Contract.

E_{cum} = Exercise Price of Option Contracts before the Corporate Action or Daily Settlement price of a Future Contract

Option and Future contract sizes (A_{ex}) are amended by means of the Adjustment coefficient (K) as follows:

$$A_{ex} = \frac{Contract_Size}{K}$$

A_{ex} = number of Underlying Instruments after the adjustment (adjusted Contract size)

2.5 Conversion of Underlying Instruments

Where the Issuer or Depository Bank in conjunction with the Issuer provides for the conversion of a category of Underlying Instruments into another, which is sufficiently liquid for Option and Future Contracts traded on London Stock Exchange Derivatives Market, the old Option and Future Contracts are replaced by Option and Future Contracts in the new Underlying on the Ex-Day. Consequently, the Derivative Contracts terms, namely the Exercise Price of Option Contracts, the Daily Settlement Price of Future Contracts and their Contract sizes, are modified by the Adjustment Coefficient (K) based on the conversion ratio with effect from the Ex-Day.

The Adjustment coefficient (K) used to amend the Derivative Contracts is calculated as follows:

$$K = \frac{O}{N}$$

O = number of Underlying Instruments to be converted

N = number of Underlying Instruments offered

The Exercise Price of Option Contracts and the Daily Settlement Prices of Future Contracts are amended by means of the Adjustment coefficient (K) as follows:

$$E_{ex} = E_{cum} \times K$$

E_{ex} = adjusted Exercise Price of Option Contracts or adjusted Daily Settlement Price of Future Contracts

E_{cum} = Exercise Price of Option Contracts before the Corporate Action or Daily Settlement Price of a Future Contract

Option and Future Contract sizes (A_{ex}) are amended by means of the Adjustment coefficient (K) as follows:

$$A_{ex} = \frac{\text{Contract_Size}}{K}$$

A_{ex} = number of Underlying Instruments after the adjustment (adjusted Contract size)

If the Underlying Instruments offered are not sufficiently liquid and are not deemed suitable by London Stock Exchange Derivatives Market for Option and Future Contracts traded on London Stock Exchange Derivatives Market, all the contracts open on the Ex-Day are closed and cash settled (refer to Appendix 2 Calculation of the Theoretical Fair Value).

2.6 Extraordinary dividends

Where the Issuer or Depository Bank in conjunction with the Issuer decides and announces a dividend deemed to be extraordinary, the Derivative Contract terms, namely the Exercise Price of Option Contracts, the Daily Settlement Price of a Future Contract and their Contract sizes, are modified by the Adjustment coefficient (K) with effect from the Ex-Day.

Both cash and scrip dividends will be deemed to be extraordinary if the Company classifies them as such. The dividends not classified as such by the Company will be considered by London Stock Exchange Derivatives Market as being extraordinary if they are of any additional nature with respect to the Company's normal dividend policy.

The Adjustment coefficient (K) used to amend the Derivative Contracts is calculated as follows:

$$K = \frac{P_{cum} - D_{ord} - D_{ext}}{P_{cum} - D_{ord}}$$

P_{cum} = Cum Price

D_{ord} = amount of the ordinary dividend

D_{ext} = amount of the extraordinary dividend

The Exercise Prices of Option Contracts and the Daily Settlement Prices of Future Contracts are amended by means of the Adjustment coefficient (K) as follows:

$$E_{ex} = E_{cum} \times K$$

E_{ex} = adjusted Exercise Price of Option Contracts or adjusted Daily Settlement Price of a Future Contract

E_{cum} = Exercise Price of Option Contracts before the Corporate Action or Daily Settlement Price of Future Contracts

Option and Future Contract sizes (A_{ex}) are amended by means of the Adjustment coefficient (K) as follows:

$$A_{ex} = \frac{Contract_Size}{K}$$

A_{ex} = number of Underlying Instruments after the adjustment (adjusted Contract size)

2.7 Dividends adjustment in case of Dividend Neutral Stock Futures contracts only

In the case of cash, stock or scrip dividends, both ordinary and extraordinary, Dividend Neutral Stock Futures contracts will be adjusted (both lot size and settlement price will be adjusted using the adjustment coefficient (K)).

The Adjustment coefficient (K) used to amend the Dividend Neutral Stock Futures contracts is calculated as follows:

$$K = \frac{P_{cum} - D_{ord} - D_{ext}}{P_{cum}}$$

P_{cum} = Cum Price

D_{ord} = amount of the ordinary dividend

D_{ext} = amount of the extraordinary dividend

The Daily Settlement Prices of Dividend Neutral Stock Futures Contracts are amended by means of the Adjustment coefficient (K) as follows:

$$E_{ex} = E_{cum} \times K$$

E_{ex} = Adjusted Daily Settlement Price of a Dividend Neutral Stock Futures Contract

E_{cum} = Daily Settlement Price of Dividend Neutral Stock Futures Contract

Contract sizes (A_{ex}) are amended by means of the Adjustment coefficient (K) as follows:

$$A_{ex} = \frac{Contract_Size}{K}$$

A_{ex} = number of Underlying Instruments after the adjustment (adjusted Contract size)

2.8 Mergers

Where a Company approves a merger whereby it is merged with another Company, if the Underlying Instruments of the merging Company are sufficiently liquid and suitable for Option and Future Contracts traded on London Stock Exchange Derivatives Market, the old Underlying Instruments of Option or Future Contracts are replaced with the new Underlying Instruments of the merged Company on the *Ex-Day* and consequently, the Derivative Contracts terms are modified by the Adjustment coefficient (K) which is based on the merger ratio.

The Adjustment coefficient (K) used to amend the Derivative Contracts is calculated as follows:

$$K = \frac{O}{N}$$

O = number of Underlying Instruments of the old pre-merger Company

N = number of Underlying Instruments of the merged Company

The Exercise Prices of Option Contracts and the Daily Settlement Price of Future Contracts are amended by means of the Adjustment coefficient (K) as follows:

$$E_{ex} = E_{cum} \times K$$

E_{ex} = adjusted Exercise Price of Options or adjusted Daily Settlement Price of a Future Contract

E_{cum} = Exercise Price of Options before the Corporate Action or Daily Settlement Price of Futures

Option and Future Contract sizes (A_{ex}) are amended by means of the Adjustment coefficient (K) as follows:

$$A_{ex} = \frac{Contract_Size}{K}$$

A_{ex} = number of Underlying Instruments after the adjustment (adjusted Contract size)

If the new Underlying Instruments of the merged Company are not sufficiently liquid and suitable for Option and Future Contracts traded on London Stock Exchange Derivatives Market, all the Contracts open on the *Ex-Day* are closed and cash settled (refer to Appendix 2 Calculation of the Theoretical Fair Value).

2.9 Takeovers and Partial Public Tender Offers

Where a Company is subject to a takeover, adjustments of Derivative Contracts may imply the replacement of the Underlying Instruments with the Underlying Instruments of the new Company offered, or the application of the Theoretical Fair Value (*TFV*).

These adjustments take effect only at the end of the offer period, given the offer results.

The following adjustments might be applied:

- in the case of exchange offers, if the Underlying Instruments offered in exchange are sufficiently liquid and suitable for Option and Future Contracts traded on London Stock Exchange Derivatives Market, then the Underlying of Derivative Contracts might be replaced with the Underlying Instruments offered (adjustments are similar to those in the case of mergers, refer to 2.8)
- in the case of tender or exchange offers which include a cash component, if the cash is less than 2/3 of the total offer consideration¹ and the Underlying Instruments offered in exchange are sufficiently liquid and suitable for Option and Future Contracts traded on London Stock Exchange Derivatives Market, then the Underlying of Derivative Contracts might be replaced with the Underlying Instruments offered (adjustments are similar to those in the case of mergers, refer to 2.8)
- in any case, if the acquiring Company announces holding of at least 90% of the Underlying Instruments or voting rights of the acquired Company and whenever the replacement of the Underlying Instruments is not possible, the Theoretical Fair Value (TFV) method, meaning the closure and cash settlement of all open positions, is applied (refer to Appendix 2 Calculation of the Theoretical Fair Value).

In case of a Partial Public Tender Offer² where the liquidity is not significantly reduced, if the last price of the shares is less than the Tender Offer price on the last day on which such Underlying Instrument purchased on the market can be tendered, the Exercise Price of Option Contracts, the Daily Settlement Price of Future Contracts and their Contract sizes, will be modified by the Adjustment Coefficient (*K*).

The Adjustment coefficient (*K*) used to amend the Derivative Contracts is calculated as follows:

$$K = \frac{P_{ex}}{P_{cum}}$$

P_{cum} = last price of the Underlying Instruments the last day on which such Underlying Instrument purchased on the market can be tendered.

P_{ex} = theoretical price of the Underlying Instrument ex Partial Public Tender Offer;

The theoretical price ex Partial Public Tender Offer is calculated taking into account the tender offer price (tender offer price) and the maximum percentage of shares to be purchased (% of shares to be purchased), according to the following formula:

$$P_{ex} = \frac{P_{cum} - (\% \text{ of } _ \text{ shares } _ \text{ to } _ \text{ be } _ \text{ purchased}) * (\text{tender } _ \text{ offer } _ \text{ price})}{1 - (\% \text{ of } _ \text{ shares } _ \text{ to } _ \text{ be } _ \text{ purchased})}$$

¹ The total consideration of the offer is determined on the prices of the Underlying Instruments offered in exchange effective on the day before the announcement date.

² As a general rule, derivatives contracts are not adjusted in case of buyback. However, if the buyback is at premium with respect to the prevailing market price and all shareholders have equal opportunity to participate to the buyback, it will be considered as a case of Public Partial Tender Offer and managed accordingly.

The Exercise Prices of Option Contracts and the Daily Settlement Prices of Future Contracts are amended by means of the Adjustment coefficient (K) as follows:

$$E_{ex} = E_{cum} \times K$$

E_{ex} = adjusted Exercise Price of Option Contracts or adjusted Daily Settlement Price of a Future Contract

E_{cum} = Exercise Price of Option Contracts before the Corporate Action or Daily Settlement Price of Future Contracts

Option and Future Contract sizes (A_{ex}) are amended by means of the Adjustment coefficient (K) as follows:

$$A_{ex} = \frac{Contract_Size}{K}$$

A_{ex} = number of Underlying Instruments after the adjustment (adjusted Contract size)

2.10 **Delisting**

Whenever a Company, whose financial instruments constitute the Underlying of Derivative Contracts, is being delisted as a consequence of liquidation or bankruptcy, Option and Future Contracts are closed and cash settled at their intrinsic value.

In the case of delisting for reasons other than liquidation or bankruptcy, Option and Future Contracts are closed and cash settled at their TFV (refer to Appendix 2 Calculation of the Theoretical Fair Value).

PART 3 TREATMENT OF CORPORATE ACTIONS DERIVATIVES BASED ON NORWEGIAN STOCKS

- 3.1.1 London Stock Exchange Derivatives Market provides a combined market in Norwegian Stock Contracts in conjunction with Oslo Børs. These arrangements are governed by a co-operation agreement entered into by London Stock Exchange Derivatives Market with Oslo Børs.
- 3.1.2 London Stock Exchange Derivatives Market applies Oslo Børs Rules and their adjustments for the treatment of Corporate Actions as described in their Derivatives Rules, General Rules for Stock Derivative Contracts with Primary Listing on Oslo Børs found [here](#).

PART 4 EXCEPTIONS TO THE TREATMENT OF CORPORATE ACTIONS FOR DERIVATIVES

4.1.1 Guidelines for the treatment of Corporate Actions for Derivatives traded on London Stock Exchange Derivatives Market are outlined depending on the specific Corporate Event of the affected Company.

4.1.2 London Stock Exchange Derivatives Market will endeavour to follow the procedures set out in this Policy Document. In certain situations this may not be possible or appropriate; if this is the case London Stock Exchange Derivatives Market will reserve the right to determine the appropriate action. The following adjustments might be applied:

In the case a Corporate Event entailing a distribution announced after the Ex-Day, trading in the affected Contracts will be suspended immediately and their terms adjusted with effect from the next Trading Day;

In the case of a Corporate Event entailing a distribution but without declaration of the amount of such distribution, then:

- if the Corporate Event is announced after the Ex-Day, trading in affected Contracts will be suspended immediately and their terms adjusted with effect from the Trading Day following the announcement day. The relevant Contracts will be adjusted on the basis of the difference between the VWAP of the Underlying on the day before the announcement day and the VWAP on the announcement day following the announcement being made. However, to assess the dividend amount the Corporate Actions Working Group's consensus on the estimated dividend may also be considered;
- if the Corporate Event is announced before the Ex-Day, trading in affected Contracts will be suspended on the Ex-Day and their terms adjusted with effect from the following Trading Day. The relevant Contracts will be adjusted on the basis of the difference between the VWAP of the Underlying on the day before the Ex-Day and VWAP on the Ex-Day. However, to assess the dividend amount the Corporate Actions Working Group's consensus on the estimated dividend may also be considered;
- In order to assess the appropriate dividend amount to be adjusted in case of distribution without declaration of the amount the London Stock Exchange Derivatives Market has set up a Corporate Actions Working Group (CAWG). The Group includes selected experts representing the most active firms on the London Stock Exchange Derivatives Market. The Group's role is to provide independent estimates of the dividend to be adjusted. Please note that the Group is purely set up for information purposes and that the final decision will be made at London Stock Exchange Derivatives Market's discretion.

PART 5 APPENDIX

5.1 Delisting Calculation of the theoretical price ex-right in the most common cases of capital increase with pre-emptive rights

Here follow the methods for the calculation of the Theoretical Ex-price in the most common cases of pre-emptive offers.

Pre-emptive offer with the issue of (N) new Underlying Instruments with regular dividend entitlement for every (O) old Underlying Instruments held at the subscription price P_s

The price ex-right is calculated as follows:

$$\begin{cases} P_{ex} = P_{cum} - V_{right} \\ V_{right} = \text{MAX} [(P_{ex} - P_s) * \frac{N}{O}; 0] \end{cases}$$

where:

P_{ex} = theoretical price ex-right of the Underlying Instruments;

P_{cum} = price cum-right of the Underlying Instruments;

V_{right} = theoretical value of the right;

P_s = price at which the Underlying Instruments can be subscribed.

If the value of the right (V_{right}) is positive, then:

$$P_{ex} = \left(\frac{(P_{cum} * O) + (P_s * N)}{O + N} \right)$$

Pre-emptive offer with the issue of new (N) Underlying Instruments with no dividend entitlement (i.e. the new Underlying Instruments are not entitled to receive the dividends (D) paid during the current year) for every old (O) Underlying Instruments held at the subscription price P_s

The price ex-right is calculated as follows:

$$\begin{cases} P_{ex} = P_{cum} - V_{right} \\ V_{right} = \text{MAX} [(P_{ex} - P_s - D) * \frac{N}{O}; 0] \end{cases}$$

where:

P_{ex} = theoretical price ex-right of the Underlying Instruments;

P_{cum} = price cum-right of the Underlying Instruments;

V_{right} = theoretical value of the right;

P_s = price at which the Underlying Instruments can be subscribed.

if the value of the right (V_{right}) is positive, then:

$$P_{ex} = \left(\frac{(P_{cum} * O) + (P_s + D) * N}{O + N} \right)$$

5.2 Calculation of the Theoretical Fair Value (TFV)

The Theoretical Fair Value (*TFV*) is calculated as follows:

- using the Cox-Ross-Rubinstein binomial model (CRR) with 100 steps for Options
- using the cash and carry arbitrage model for Futures³

The following inputs are considered when applying the TFV calculation models:

- Underlying:** corresponds to the tender offer price or, in the case of mergers or exchange offers, to the value of the Underlying Instruments offered determined on the basis of the market conditions the day before the closure and cash settlement of Option or Future Contracts. In case of exceptional circumstances, where the use of the closing price is not possible or appropriate, London Stock Exchange Derivatives Market reserves the right to use the VWAP or a different price by taking into account any other objective element which is available. London Stock Exchange Derivatives Market will communicate the type of the price used.
- Volatility:** equals to the arithmetic average of the volatilities implied in the Daily Settlement Prices of Option Contracts calculated over the ten days before the offer announcement date⁴ or before the delisting date in case of delisting. In the case of abnormal situations, linear interpolation techniques might be used.
- Dividends⁵:** those estimated over the residual life of the contract and used to calculate the Daily Settlement Price on the day before the closure and cash settlement of Option or Future Contracts. The solar calendar (30/365) is used in order to define the residual life of the Contracts.
- Interest rate:** based on the applicable curve as of the day before the closure and cash settlement of Option or Future Contracts and consistent with the residual life of the contract.

³ As defined by the following formula: $F = (S - \sum_{i=1}^n D_i e^{-\rho_{ai} t_{di}}) e^{\rho_s t_x}$

where:

S = underlying spot price

D= gross dividend

ρ = interest rate

t = time to expiry

⁴ In the case of an offer, the announcement date is the day on which the financial terms of the Corporate Action are communicated to the market. In the case of modifications of the offer terms or of the launch of competing counter-offers, the implied volatilities calculated at the time of the announcement of the first offer are used in the calculation of the *TFV*. The announcement date in the case of a merger is the day on which the financial terms of the Corporate Action are communicated to the market.

⁵ In case of Dividend Neutral Stock Futures, dividends will not be included in the calculation of TFV as they will be adjusted for under this Corporate Action Policy (please refer to paragraph 2.7 of this document).

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