DEFINITIONS AND TERMS SUPPLEMENT

Equity Matrix: Index Vol Swap 1

This Definitions and Terms Supplement is published by ISDA and forms part of the Equity Matrix of the type referenced above, together with the General Terms Confirmation for such Equity Matrix. References herein to "Equity Matrix" shall refer to the specific Equity Matrix referenced above without regard to other Equity Matrices published by ISDA.

The purpose of this Definitions and Terms Supplement is to (a) provide definitions and (b) set forth additional operative terms, for ED Transactions entered into between parties incorporating it by reference through a Matrix Support Agreement.

In addition to the terms set forth in this Definitions and Terms Supplement, each ED Transaction subject to the terms of this Equity Matrix shall also be subject to the terms of the Matrix Support Agreement, the General Terms Confirmation, the Relationship Supplement and the Transaction Supplement, each as referenced by such ED Transaction.

Any capitalized term not otherwise defined herein shall have the meaning assigned to such term in the Matrix Support Agreement.

OPERATIVE PROVISIONS¹

WHEREAS, the general terms of the related ED Transaction are specified in the related General Terms Confirmation;

WHEREAS, certain basic additional terms and procedures apply to the ED Transaction beyond those so specified in the General Terms Confirmation; and

WHEREAS, the parties to the ED Transaction wish to include logic specifying the manner in which terms are to be determined, and specifying the underlying assumptions for an ED Transaction;

NOW THEREFORE, and further to the terms set forth in the General Terms Confirmation, the following operative provisions shall also apply:

Article I. Pricing.

Section 1.1 *Determining Prices.* Each price in relation to a Pricing Date shall be determined pursuant to the specified Pricing Election.

Section 1.2 *Applying PDEs.* If a Pricing Disruption Event occurs, the specified Pricing Disruption Consequence shall apply. If another Pricing Election applies as a result of that consequence, then that alternate Pricing Election shall apply on the relevant Pricing Date and the Calculation Agent shall separately determine whether any Pricing Disruption Event has occurred in relation to such alternate Pricing Election, as though it had been originally specified. If a Pricing Disruption Event has occurred in respect of such alternate Pricing Election, however, then the specified Substitute Pricing Disruption Consequence shall apply, instead of the consequence that would have applied in respect of the original Pricing Election on the relevant Pricing Date. For example, if, for a given Pricing Date:

- (i) ETC Cancellation is specified as a Pricing Disruption Event,
- (ii) the Pricing Disruption Consequence for an ETC Cancellation on that date is to apply an alternate Pricing Election of Index Close Pricing (Official),
- (iii) the Substitute Pricing Disruption Consequence in this instance is Limited Pricing Postponement,

¹ The operative provisions are the basic logic and assumptions underlying the trade. Some are included in the General Terms Confirmation at the start of a section, but all are relevant to the transaction.

- (iv) the Pricing Disruption Consequence for Index Close Pricing (Official) on that date is Pre-Disruption Pricing,
- (v) the Pricing Disruption Events applicable for Index Close Pricing (Official) on that date are Trading Disruption and Index Sponsor Disruption, and
- (vi) an ETC Cancellation occurs,

then:

- (i) Index Close Pricing (Official) shall initially apply as the consequence of the occurrence of the ETC Cancellation,
- (ii) the Calculation Agent shall then deem that Index Close Pricing (Official) was the originally specified Pricing Election and then determine whether a Trading Disruption or Index Sponsor Disruption has occurred in respect of Index Close Pricing (Official), and
- (iii) if one of those events has occurred, because Limited Pricing Postponement is the Substitute Pricing Disruption Consequence, the Calculation Agent shall apply Limited Pricing Postponement to determine the relevant price instead of Pre-Disruption Pricing, which is the consequence that would have applied had Index Close Pricing (Official) been the actually specified Pricing Election.

Section 1.3 *Hierarchy of Pricing Disruption Consequences.* If more than one Pricing Disruption Consequence may be applied due to the occurrence of multiple Pricing Disruption Events, then the Calculation Agent shall determine the applicable Pricing Disruption Consequence.

Section 1.4 *Determining Index Composition.* The Calculation Agent shall determine the level of the Index, the percentage contribution of its components, the free-float factor, the official index divisor, and any other determination relating to the composition of the Index, in accordance with the method used by the Index Sponsor last in effect prior to the date such determination is made.

Section 1.5 *Disrupted Component Contributions (Bloomberg).* The contribution of any Disrupted Component to the value of the Index shall be determined as of the Prior Day Index Publication Time using the value published by Bloomberg Financial Markets (or, if Bloomberg Financial Markets ceases to publish such percentage contributions, a replacement acceptable to the Calculation Agent); provided that if Bloomberg Financial Markets (or its replacement or successor) does not publish such a percentage contribution, the relevant percentage contribution will be determined by the Calculation Agent based on the Calculation Agent's good faith estimate of the level of the Index, the methodology for determining the level of the Index, and the price for each Disrupted Component on such component's relevant exchange, as of the Prior Day Index Publication Time.

Section 1.6 *Price Corrections.* If any price or level published by a Price Provider that is used for any determination made under an ED Transaction is subsequently corrected and the correction is published by that Price Provider on or prior to the Correction Cut-off Date, either party may notify the other party of that correction and the Calculation Agent shall determine the amount that is payable or deliverable as a result of that correction and shall adjust the terms of that ED Transaction to account for that correction.

Article II. Dates.

Section 2.1 *Determining Dates and Days.* If an ED Date is scheduled to fall on a day that is not an Eligible Day for such ED Date, then such ED Date shall be adjusted in accordance with the applicable Eligible Day Adjustment Methodology.

Section 2.2 *Ignore Scheduling Changes.* When used in relation to an event, each reference to the 'scheduled' occurrence of such event shall be construed by reference to the schedule applicable to such event as of the Trade Date. If a change of schedule in relation to such event occurs after the Trade Date, such change shall be disregarded for the purposes of the ED Transaction.

Section 2.3 *References to Times.* References to times shall be construed as follows:

- (i) all references to times shall be to local times in the location specified or that is relevant to that time (such as the location of an exchange or clearance system where reference is made to it being open or closed, the city where a notice is to be delivered or the relevant place where action is required to be taken);
- (ii) any reference to a specific time in two or more places (such as a closing time for more than one exchange or a specified time for two cities) shall be construed as a reference to two or more separate times where those places are not in the same time zone; and
- (iii) references requiring events to occur or continue at the same type of time or during the same type of time period in different places or contexts shall be treated as satisfied if those events occur or continue at the time or during the time period related to the relevant place or context (e.g. an exchange fails to open at its scheduled opening time), but those events need not occur at or during a time or time period that is not related to the relevant place or context (e.g. that exchange need not fail to open at the scheduled opening time for a different exchange).

Article III. Entities.

Section 3.1 *Calculation Agent Determinations.* In addition to any other tasks that the Calculation Agent is required to perform, it shall (unless otherwise specified):

- (i) determine whether any day meets the requirements for any specific Type of Day or ED Date;
- (ii) determine each price and make each calculation and determination necessary in relation to such price; and
- (iii) determine any settlement amounts or adjustments.

Section 3.2 *Consistent Determinations.* In relation to an ED Transaction under which the Calculation Agent is required to make an initial binary (i.e. yes/no) determination as to whether an event or circumstance has occurred or exists and the Calculation Agent is acting as sole Calculation Agent, it shall make that determination in a manner that is consistent with its determination made in relation to all other transactions of the same type that do not have materially different terms from that ED Transaction for which it is the sole calculation agent and, if that event or circumstance relates to Hedge Positions, those other types of transactions shall also have substantially similar hedge positions. If, following the initial determination, the parties to any such other transaction dispute the determination made or agree to a different result or a different result is imposed by a court, arbitrator or otherwise, this shall not affect the validity of the Calculation Agent's determination for the purposes of the ED Transaction. The Calculation Agent shall not be required to disclose the identity of any other counterparty in order to establish that it has made a determination in a consistent manner.

Section 3.3 *General Obligations.* In relation to an ED Transaction, whenever any person (including a Calculation Agent or a Hedging Party) is required under that ED Transaction to act or to exercise judgment in any way, it will do so in good faith and in a commercially reasonable manner; provided that a party may act in its sole discretion and shall not be required to act or to exercise judgment in a commercially reasonable manner in relation to:

- (i) that party's decision to exercise or not to exercise one or more options;
- (ii) that party's decision to exercise or not to exercise its right to designate an optional early termination date (howsoever defined); and
- (iii) any action which is specified to be in that party's sole discretion.

Section 3.4 *Material Inputs for Determinations*. The Calculation Agent shall provide reasonable details of the material inputs utilized by the Calculation Agent in making determinations or adjustments in relation to the ED Transaction promptly upon request (but shall not be required to provide the derivation thereof or any proprietary models or other confidential information). A failure by the Calculation Agent to provide that information shall not affect the validity of the related determinations or adjustments.

Section 3.5 *Obligations in relation to a Third Party Calculation Agent.* If the Calculation Agent is not one of the parties to the ED Transaction or an affiliate of one of the parties:

- (i) whenever a party is obliged to give notice or otherwise provide information to the Calculation Agent, it shall also give that notice or other information to the other party;
- (ii) whenever a party is obliged to give notice or otherwise provide information to the other party, it shall also give that notice or other information to the Calculation Agent;
- (iii) whenever a person that is not a party is obliged to provide any information to each of the parties, it shall also give that information to the Calculation Agent; and
- (iv) whenever the parties have the right to submit information to another person, the Calculation Agent shall also have such a right, provided it gives copies of all information so submitted to the parties.

Failure to provide any notice or other information in accordance with this section shall not affect the validity or effectiveness of the provision of any notice or other information.

Neither party shall have any liability to the other should any third party fail fully to perform a role in accordance with this section. Nothing in this section shall be interpreted as implying that either party is providing the other with any guarantee or assurance of performance in relation to any such third party.

Article IV. Extraordinary Events.

Section 4.1 *Occurrence of Extraordinary Events.* The occurrence of an Extraordinary Event shall trigger the related EE Consequence as follows:

- (i) if "Automatically Triggered" is specified as an EE Trigger Feature, then the EE Consequence shall be triggered immediately upon the occurrence of such Extraordinary Event (and for the avoidance of doubt, there shall be no EE Electing Party);
- (ii) if "Electively Triggered" is specified as an EE Trigger Feature, then upon or following the occurrence of such Extraordinary Event, an EE Electing Party may trigger the EE Consequence by delivering an effective EE Notice to the other party stating that it elects to trigger that EE Consequence and the date on which that consequence shall apply. Upon such date stated in that EE Notice, the EE Consequence shall be triggered accordingly; provided that:
 - (a) if "EE Continuation" is specified as an EE Notice Feature, then that EE Notice shall be effective only if delivered while that Extraordinary Event is continuing;
 - (b) (I) the date stated in that EE Notice on which that consequence shall apply and be triggered shall be at least the Minimum EE Notice Period after the effective date of that EE Notice or (II) at that EE Electing Party's election and if that EE Notice is delivered as soon as reasonably practicable following the occurrence of that Extraordinary Event becoming known to that EE Electing Party, such shorter period than the Minimum EE Notice Period as may be required for that EE Electing Party not to be adversely affected or further adversely affected by the occurrence of that Extraordinary Event; and
 - (c) the date specified in that EE Notice on which that consequence shall apply shall not be earlier than the effective date of the EE Notice.

Section 4.2 *Cancellation Amount Notice and Payment.* The CancelAmt Determining Party shall promptly give notice to the parties of any Cancellation Amount payable in a Cancellation Amount Notice. Any Cancellation Amount will be payable on the Settlement Currency Business Day immediately following the effective date of the Cancellation Amount Notice. If there is a Cash Settlement Disruption on that date, then the payment date shall be postponed until the first day on which no Cash Settlement Disruption is continuing.

Section 4.3 *Disruption Event Hierarchy.* If any Pricing Disruption Event or Settlement Disruption Event also constitutes an Extraordinary Event, the consequence of that Extraordinary Event shall apply, and the consequences of such Pricing Disruption Event or Settlement Disruption Event shall not apply.

Section 4.4 *EE Hierarchy (Elective Event Priority).* Where more than one consequence may be applied at any given time due to the occurrence of one or more Extraordinary Events, the Calculation Agent shall determine

the order in which such consequences are to apply, provided that the Calculation Agent shall give precedence to the consequences of Electively Triggered events over the consequences of Automatically Triggered events.

Article V. Settlements.

Section 5.1 *Payment Or Delivery Obligations*. Each party shall pay or deliver each EO Cash Settlement Amount specified in relation to it to the other party on the related EO Settlement Date.

Section 5.2 *Occurrence of a Settlement Disruption Event.* If a Settlement Disruption Event occurs or is continuing on an EO Settlement Date, the Settlement Disruption Consequence specified shall apply.

Section 5.3 *Payments and Deliveries.* All payments due from one party to the other shall be made by bank transfer of freely available funds to the account specified by the recipient, and all deliveries shall be made through the principal domestic clearance system customarily used for settling trades in the relevant asset to be delivered.

Section 5.4 *Rounding*. The Calculation Agent shall determine the methodology for rounding any values.

Article VI. Notice.

Section 6.1 *Effectiveness of Notices.* A notice shall not be effective unless:

- (i) it contains sufficient detail and information reasonably required for the recipient to identify:
 - (a) the ED Transaction to which the notice relates;
 - (b) the subject matter of the notice; and
 - (c) any decision, determination, election, event, exercise or notification of information the sender is seeking to make, provide or trigger by such notice, and
- (ii) it satisfies the requirements of any Notice Delivery Requirement applicable to it.

The time at which a notice shall be effective is:

- (i) if in written form and delivered:
 - (a) in person or by courier, then on the date it is delivered;
 - (b) by certified or registered mail (airmail, if overseas) or the equivalent (return receipt requested), then on the date it is delivered;
 - (c) by electronic messaging system (other than fax or email), then on the date and at the time it is received; or
 - (d) by fax or email, then on the date and at the time it is delivered; or
- (ii) if in oral form, then on the date and at the time of the related conversation.

If that delivery or receipt occurs on a day that is not a Notice Day, or after the Notice Cut-off Time, then the notice will be deemed delivered and effective on the first following Notice Day. If there is no following Notice Day, then the notice shall be ineffective.

Article VII. General Agreements and Representations.

Section 7.1 *Basic Interpretations*.

- (i) Headings shall be ignored in construing this contract.
- (ii) Use of the singular shall include the plural and vice versa.
- (iii) The terms 'written' and 'in writing' include documentation that is in electronic form even if there is no hard copy of it.

- (iv) The term 'person' includes any individual, firm, company, government, state or agency of a state or any association, trust, joint venture, consortium or partnership (whether or not having separate legal personality).
- (v) References to actions performed by a person shall include actions performed by any agent, appointee, delegate or fiduciary acting on behalf of that person.
- (vi) The term 'oral' means any instantaneous oral communication, including in person, by telephone and by voice-over-internet-protocol (VoIP), but excluding one way communications, voicemail and other similar recorded messaging systems.
- (vii) The term 'company' includes any company, corporation or any body corporate, wherever incorporated.
- (viii) The term 'including' means 'including without limitation and for the avoidance of doubt', and 'includes' shall be construed accordingly.

Section 7.2 *Calculation Agent Not Fiduciary or Advisor*. Each party agrees that the Calculation Agent is not acting as a fiduciary or as an advisor to that party in relation to its duties as Calculation Agent in connection with the ED Transaction.

Section 7.3 *Adjustments for Euro Adoption.* If an Underlier originally quoted, listed or dealt as of the Trade Date in a currency of a member state of the European Union that has not adopted the single currency in accordance with the Treaty establishing the European Community, as amended, is at any time after the Trade Date quoted, listed or dealt exclusively in euros on a relevant exchange or, if there is no relevant exchange, the principal market on which that Underlier is traded, then the Calculation Agent shall adjust any variable relevant to the terms of the ED Transaction appropriate to preserve the economic effect of the ED Transaction. The Calculation Agent shall make any conversion necessary for the purposes of any such adjustment as of the relevant time at an appropriate midmarket spot rate of exchange for the relevant currencies. No adjustments under this section will affect the currency denomination of any payment obligation arising out of the ED Transaction.

Section 7.4 *Additional Acknowledgments*. Each party acknowledges that:

- (i) neither the other party nor its Affiliates or agents provides investment, tax, accounting, legal or other advice in relation to the ED Transaction;
- (ii) it has been given the opportunity to obtain information from the other party concerning the terms and conditions of the ED Transaction necessary in order for it to evaluate the merits and risks of the ED Transaction. Notwithstanding the previous sentence, it and its advisors are not relying on any communication (written or oral and including, without limitation, opinions of third party advisors) of the other party or its Affiliates or agents as:
 - (a) legal, regulatory, tax, business, investments, financial, accounting or other advice;
 - (b) a recommendation to enter into the ED Transaction; or
 - (c) an assurance or guarantee as to the expected results of the ED Transaction,

it being understood that information and explanations related to the terms and conditions of the ED Transaction are made incidental to the other party's business and shall not be considered:

- (x) legal, regulatory, tax, business, investments, financial, accounting or other advice;
- (y) a recommendation to enter into the ED Transaction; or
- (z) an assurance or guarantee as to the expected results of the ED Transaction.

Any such communication should not be the basis on which the recipient has entered into the ED Transaction, and should be independently confirmed by the recipient and its advisors prior to entering into the ED Transaction; and

(iii) the other party and/or its Affiliates or agents may have banking or other commercial relationships with the issuer of the Underliers and may engage in trading activities in any Underlier (including such trading as the party and/or its Affiliates or agents deem appropriate in their sole discretion to hedge their market

risk on the ED Transaction and other transactions relating to any such Underlier between each party and/or its Affiliates or agents and the other party or with third parties), and that such trading may affect the price of the Underlier and consequently the amounts payable or deliverable under the ED Transaction. Such trading may be effected at any time.

Section 7.5 *Agreements and Acknowledgments Regarding Hedging Activities*. Unless agreed to the contrary expressly and in writing and notwithstanding any communication that each party (or its affiliates or agents) may have had with the other party, each party agrees and acknowledges that:

(i) when entering into, or continuing to maintain, that ED Transaction, neither party is relying on:

(a) the manner or method in which the other party or any of its affiliates may effect a close-out or establishment of Hedge Positions;

(b) any communication, whether written or oral, between the parties or any of their respective affiliates or agents in relation to any Hedging Activities of the other party or any of its affiliates or agents; or

(c) any representation, warranty or statement being made by the other party or any of its affiliates or agents as to whether, when, how or in what manner or method that party or any of its affiliates or agents may engage in any Hedging Activities;

- (ii) each party and its affiliates or agents may, but are not obliged to, hedge any ED Transaction on a dynamic, static or portfolio basis, by holding a position in the securities, derivatives contracts, baskets or indices referenced by or underlying that ED Transaction or in any other securities, derivatives contracts, baskets or indices or by entering into any Hedge Position;
- (iii) any Hedge Position established by either party or any of its affiliates or agents is a trading position and activity of that party or its affiliate or agents;
- (iv) each party or its affiliate or agents is not holding the Hedge Positions, if any, or engaging in the Hedging Activities, if any, on behalf or for the account of or as agent or fiduciary for the other party, and the other party will not have any direct economic or other interest in, or beneficial ownership of, any such Hedge Positions or Hedging Activities; and
- (v) the decision to engage in Hedging Activities, if any, is in the sole discretion of each party, and each party and its affiliates or agents may commence or, once commenced, suspend or cease any such Hedging Activities at any time as it may solely determine.

Section 7.6 Index Disclaimer Representation. Each party agrees and acknowledges that the ED Transaction is not sponsored, endorsed, sold, or promoted by the Index or the Index Sponsor and no Index Sponsor makes any representation whatsoever, whether express or implied, either as to the results to be obtained from the use of the Index and/or the levels at which the Index stands at any particular time on any particular date or otherwise. No Index or Index Sponsor shall be liable (whether in negligence or otherwise) to any person for any error in the Index and the Index Sponsor is under no obligation to advise any person of any error therein. No Index Sponsor is making any representation whatsoever, whether express or implied, as to the advisability of purchasing or assuming any risk in connection with entering into the ED Transaction. Neither party shall have any liability to the other party for any act or failure to act by the Index Sponsor in connection with the calculation, adjustment or maintenance of the Index. Except as disclosed prior to the Trade Date, neither party nor its Affiliates has any affiliation with or control over the Index or Index Sponsor or any control over the computation, composition or dissemination of the Index. Although the Calculation Agent will obtain information concerning the Index from publicly available sources it believes reliable, it will not independently verify this information. Accordingly, no representation, warranty or undertaking (express or implied) is made and no responsibility is accepted by either party, its Affiliates or the Calculation Agent as to the accuracy, completeness and timeliness of information concerning the Index.

Section 7.7 *Non-Reliance Representation*. Unless agreed to the contrary expressly and in writing and notwithstanding any communication that each party (or its affiliates or agents) may have had with the other party, each party represents to the other party that:

(i) it is entering into the ED Transaction as a principal (and not as an agent or in any other capacity);

- (ii) neither the other party nor any of its affiliates or agents are acting as a fiduciary or as an advisor for it;
- (iii) it is not relying upon any representations except those expressly set forth in the Relevant ISDA Master Agreement (including the related confirmations between them);
- (iv) it has consulted with its own legal, regulatory, tax, business, investments, financial, and accounting advisors to the extent that it has deemed necessary, and it has made its own investments, hedging, and trading decisions based upon its own judgment and upon any advice from those advisors as it has deemed necessary and not upon any view expressed by the other party or any of its affiliates or agents; and
- (v) it is entering into the ED Transaction with a full understanding of the terms, conditions and risks of the ED Transaction and it is capable of and willing to assume those risks.

DEFINITIONS²

Show/Hide Term IDs

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The definitions provided by this Definitions and Terms Supplement relates are as follows:

1. **"1 Hour Pre-Close Or Submission Deadline**" means one hour prior to the earlier of (i) the Close (Regular Hours) and (ii) the submission deadline for orders to be entered into that Pricing Disruption Exchange system for execution at the Pricing Time for the relevant Pricing Election.

2. "**5 Minutes Pre-Close**" means the time period starting 5 minutes before the Close (Regular Hours) and ending at the Close (Regular Hours).

3. "2006 Definitions" means the ISDA 2006 Definitions as published by ISDA.

4. "**2011 Definitions**" means these 2011 ISDA Equity Derivatives Definitions as published, amended or supplemented by ISDA from time to time, using the most recent version published as of the calendar day immediately prior to the Trade Date of the ED Transaction.

5. "**ABS**" means absolute value, and ABS(X) means the absolute value of X, where X is a placeholder for a number.

6. "**Aggregate PDE**" means that during the Open To Close, prices for Index Components are disrupted by events that would qualify as Pricing Disruption Events if they affected a sufficient percentage of Index Components, and when aggregated across multiple Index Components, are equal to or greater than 20% of the level of the Index as of the Prior Day Index Publication Time.

If multiple events affect the same Index Component, it shall count as only one disrupted Index Component.

For the avoidance of doubt, if the relevant percentage is 22% and the applicable Pricing Disruption Events are Trading Disruption and Exchange Disruption, and prices for 11% of Index Components are disrupted by events that would constitute a Trading Disruption (were they to affect 22% of the components), and prices for 12% of Index Components are disrupted by events that would constitute a Trading Disruption (were they to affect 22% of the components), this shall constitute an Aggregate PDE.

7. "**Agreed Price**" means the price in relation to the relevant Pricing Date shall be as specified in the Transaction Supplement.

8. "Calculation Agent" means the person specified in the Relationship Supplement.

9. "Calculation Agent Determination" means the Calculation Agent shall make any determinations or calculations required by the related term or methodology.

10. "Calculation Agent Determination (Index Rules Pre-Disruption)" means the Calculation Agent shall make any determinations or calculations required by the related term or methodology, in accordance with the formula for and method of calculating the Index last in effect prior to the occurrence of the related disruption.

11. **"Calculated VolCapAmt**" means the Volatility Cap Amount equals the Volatility Cap Factor times the Volatility Strike Price.

² The definitions section is a reference with the meanings for all defined terms. It's not meant to be read straight through, but as a reference to flip to when undefined terms come up. Many are expandable in the General Terms Confirmation, but this is a complete list, all the way down to the lowest level.

³ Click to display or hide the parentheticals at the ends of certain definitions. Each parenthetical shows the unique Term ID from the 2011 definitions used to identify the applicable definition for this transaction type. These are not relevant to an individual contract, but are useful to an advanced user comparing this transaction type to others.

12. "CancelAmt Determining Party" means the Calculation Agent.

13. **"Cancellation Amount**" means the amount in the Settlement Currency determined by the CancelAmt Determining Party using the following formula:

amount = NPV(EOAmt_EstFRV).

14. **"Cancellation Amount Notice**" means a notice of the Cancellation Amount, delivered in accordance with the terms specified.

15. "**Cancellation and Payment**" means the ED Transaction will terminate and the Calculation Agent shall determine the Cancellation Amount using commercially reasonable procedures to produce a commercially reasonable result.

16. **"Cancellation Effective Date**" means the date on which the ED Transaction is terminated.

17. **"Cash Settlement Day**" means a day on which commercial banks are open for business (including dealings in foreign exchange and foreign currency deposits) in the principal financial center for the Settlement Currency.

18. **"Cash Settlement Disruption**" means the occurrence of an event (other than a currency exchange rate related disruption) beyond the control of the parties as a result of which commercial banks in the principal financial center for a currency in which an EO Cash Settlement Amount is denominated cannot settle payments in that currency.

19. **"Change in Law"** shall occur if, as a result of a Change in Law Event occurring on or after the Trade Date, an Illegality Event Determining Party determines that it has become or, within the next 30 calendar days (but on or prior to the Final EE Cut-off Date), it will become illegal for a Hedging Party to hold, acquire, establish, re-establish, maintain, unwind or dispose of one or more Hedge Positions.

20. "Change in Law Event" means

- (i) the adoption of, or any change in, any relevant law or regulation (including any tax law) or
- (ii) the promulgation of, or any change in the interpretation by any court, tribunal, government or regulatory authority with competent jurisdiction of, any relevant law or regulation (including any action taken by a taxing authority).

21. "Close (**Regular Hours**)" means, in relation to an exchange or clearance system, the regular closing time of that exchange or clearance system (without regard to any after hours trading or settlement).

22. "**Component Security Exchange**" means, with respect to each Index Component, the exchange or quotation system on which that Index Component is principally traded.

23. "Confirmation" has the same meaning as in the Relevant ISDA Master Agreement.

24. "**Correction Cut-off Date**" means the date one Settlement Cycle after the original publication of the relevant price.

25. "Currency Business Day (SettleCcy)" means a day on which commercial banks are open for business (including dealings in foreign exchange and foreign currency deposits) in the principal financial center for the Settlement Currency.

26. "**Date of the Relevant ISDA Master Agreement**" means, in relation to the Relevant ISDA Master Agreement, the date specified in the Relationship Supplement.

27. "Disrupted Component" means an Index Component affected by a Pricing Disruption Event.

28. "**DN**" means the number of Interim Observation Dates that have occurred prior to the Cancellation Effective Date.

29. "Early Closure" means the closure of a Securities Or Listed Contract Exchange on which:

- (i) one or more Index Components constituting in aggregate a percentage equal to or greater than 20% of the level of the Index as of the Prior Day Index Publication Time is traded; or
- (ii) any Futures (Listed Contract Exchange) is traded,

prior to the scheduled closing time of that Securities Or Listed Contract Exchange, unless that earlier closing time is announced by that Securities Or Listed Contract Exchange prior to 1 Hour Pre-Close Or Submission Deadline.

- 30. "Early Closure Cut-off Period" means 1 hour.
- 31. "Early Closure Cut-off Time" means Close (Regular Hours).

32. "**EBD And IPD**" means a day that is both a scheduled Exchange Business Day and a scheduled Index Publication Day.

33. **"Economic Equivalent Adjustment**" means the Calculation Agent shall adjust any variables relevant to the settlement terms of the ED Transaction to preserve for each party the economic equivalent of any payments (assuming satisfaction of each applicable condition precedent) that would have been required had the event triggering this consequence not occurred.

- 34. **"ED Date**" means each of the following:
 - (i) Correction Cut-off Date;
 - (ii) EE Cut-off Date;
 - (iii) EO Settlement Date;
 - (iv) Equity Valuation Date;
 - (v) Final EE Cut-off Date;
 - (vi) Interim Observation Date;
 - (vii) Observation Period End Date;
 - (viii) Observation Period Start Date;
 - (ix) Pricing Date; and
 - (x) Trade Date.

35. **"ED Price"** means each of the following:

(i) Observation Price.

36. **"ED Transaction**" means any transaction whose contractual terms, as documented (whether in paper or electronic form), incorporate by reference any or all of the definitions and provisions of the 2011 Definitions. An ED Transaction will be a Transaction for the purposes of the Relevant ISDA Master Agreement.

- 37. "ED Transaction Type" means Index Vol Swap 1.
- 38. "EE Consequence" means each of the following:
 - (i) Cancellation and Payment;
 - (ii) Listed Contract Adjustment; and
 - (iii) Economic Equivalent Adjustment.
- 39. "EE Cut-off Date" means the Equity Valuation Date.
- 40. "EE Electing Party" means Either Party.

41. "**EE Notice**" means an irrevocable notice in relation to an Extraordinary Event. The notice must be in writing, and must be delivered in person, by standard mail, by courier, by certified or recorded delivery, by fax, by email or by other electronic messaging system.

42. "Either Party" means either Party A or Party B.

43. "Eligible Day" means, in relation to an ED Date, the type of day specified in the General Terms Confirmation.

44. "Eligible Day Adjustment Methodology" means the methodology specified in the General Terms Confirmation.

45. "EOAmt_EstFRV" means the EO Cash Settlement Amount, calculated using EstFRV instead of FRV.

46. **"EO Cash Settlement Amount**" means the amount of cash determined pursuant to the EO Methodology specified in the General Terms Confirmation.

47. "EO Methodology" means the methodology specified in the General Terms Confirmation.

- 48. "EO Party" means the Volatility Swap Payer.
- 49. "EO Settlement Date" means the date falling one Settlement Cycle after the Equity Valuation Date.
- 50. "Equity Valuation Date" means the date specified in the Transaction Supplement.
- 51. "EstFRV" means the amount determined by the Calculation Agent as follows:⁴

$$\operatorname{EstFRV} = 100 \times \sqrt{\frac{\left[252 \times \sum_{t=1}^{DN} \left(Ln \frac{OP_t}{OP_{t-1}}\right)^2\right] + \left[(NDIP - DN) \times \left(RVIND1^2\right)\right]}{NDIP}}$$

EstFRV shall be determined in the same manner as FRV.

52. **"ETC Cancellation**" means that trading in an Exchange-traded Contract never commences or is permanently discontinued before the relevant Pricing Date.

53. **"Exchange Business Day**" means a day on which the Primary Futures Exchange is open for trading at any time during its regular trading session.

54. **"Exchange Disruption**" means any event (other than an Early Closure) that disrupts or impairs the ability of market participants in general to effect transactions in, or obtain market values for:

- (i) any Index Components constituting in aggregate a percentage equal to or greater than 20% of the level of the Index as of the Prior Day Index Publication Time; or
- (ii) any Futures (Listed Contract Exchange),

in each case, on a related Securities Or Listed Contract Exchange during the 5 Minutes Pre-Close.

- 55. "Exchange-traded Contract" means the contract specified in the Transaction Supplement.
- 56. "Extraordinary Event" means each of the following:

⁴ This term is stored in the database as plain text, without the graphic.

 $EstFRV = 100 \times \sqrt{(((252 \times \Sigma(t=1 \text{ to } DN)((Ln(OP_t/OP_t-1))^2)) + ((NDIP - DN) \times (RVIND1^2))) / NDIP)}$

- (i) Index Modification;
- (ii) Index Cancellation;
- (iii) Change in Law;
- (iv) Transaction Illegality; and
- (v) Listed Contract Modification.
- 57. "Failure to Open" means a related Securities Or Listed Contract Exchange on which:
 - (i) one or more Index Components constituting in aggregate a percentage equal to or greater than 20% of the level of the Index as of the Prior Day Index Publication Time is traded; or
 - (ii) any Futures (Listed Contract Exchange) is traded,

fails to open for trading at any time during its regular trading session (which may be determined by reference to different times in relation to different Securities Or Listed Contract Exchanges).

58. **"Following Day Adjustment**" means the relevant Type of Date will be adjusted to fall on the first following day that is an Eligible Day.

59. **"FRV**" means an amount determined by the Calculation Agent in accordance with the following formula: ⁵

$$FRV = 100 \times \sqrt{\frac{252 \times \sum_{t=1}^{\text{NDIP}} \left(\text{Ln } \frac{\text{OP}_{t}}{\text{OP}_{t-1}} \right)^{2}}{\text{NDIP}}}$$

For the avoidance of doubt,

- (i) FRV shall be calculated by reference to Observation Prices determined over a series of dates, where each of the dates in such series is assigned a sequential number from 0 through the number specified as NDIP. For the first date in the series, t equals 0; for the second date, t equals 1, and so on, until for the final date, t equals NDIP. The summation shall be performed in relation to each t from 1 through NDIP. However, this summation shall take into account Observation Prices obtained on each date numbered 0 through NDIP;
- (ii) an Observation Price, OP_t, shall be obtained for each date t pursuant to the terms provided for OP_t;
- (iii) where t equals 0, t shall refer to the scheduled Observation Period Start Date;
- (iv) where t equals NDIP, t shall refer to the Equity Valuation Date;
- (v) where t equals 1, t shall refer to the first scheduled Interim Observation Date, where t equals 2, t shall refer to the second scheduled Interim Observation Date, and so on and so forth. For the avoidance of doubt, the Observation Period Start Date and the Equity Valuation Date are not part of the Observation Period and are therefore not Interim Observation Dates, but they are Observation Dates;
- (vi) in relation to each t'th Interim Observation Date and the Equity Valuation Date, a value for OP_t and OP_t-1 shall be applied as specified in the formula above, and in relation to the Observation Period Start Date, a value for OP_0 shall be applied to the calculation where t equals 1; and
- (vii) by way of example, for the third Interim Observation Date, t equals 3, OP_t equals the Observation Price determined in relation to the third Interim Observation Date, and OP_t-1 equals the Observation Price determined in relation to the second Interim Observation Date.

⁵ This term is stored in the database as plain text, without the graphic.

 $FRV = 100 \times SQRT(252 \times (\Sigma_{t=1} \text{ to NDIP})(Ln(OP_t / OP_{(t-1)})^2)) / NDIP)$

60. **"Futures (Listed Contract Exchange)**" means any futures contracts traded on the Listed Contract Exchange referencing the Underlier.

61. **"Hedge Position**" means any commercially reasonable (i) positions (including long or short positions) or contracts in, or relating to, securities, options, futures, other derivatives contracts or foreign exchange, (ii) stock loan transactions or (iii) other instruments, contracts, transactions or arrangements (howsoever described) that a Hedging Party determines appropriate to hedge, individually or on a portfolio basis, any risk (other than the risk of non-performance by either party of its obligations) in relation to that ED Transaction.

62. "Hedging Party" means the party or parties specified in the Transaction Supplement.

- 63. "Illegality Event Determining Party" means the person specified in the Relationship Supplement.
- 64. "**Index**" means the Underlier.

65. "Index Cancellation" means that

- (i) the Index Sponsor permanently cancels the Index on or prior to the final Equity Valuation Date; and
- (ii) no Successor Index exists; and
- (iii) either:
 - (a) Derivative Contracts relating to the Underlier are not traded with sufficient liquidity (as determined by the Calculation Agent) on either the Primary Options Exchange or the Primary Futures Exchange; or
 - (b) none of the Primary Options Exchange, the Primary Futures Exchange or their respective clearing houses continue to publish a closing level for the Underlier for each scheduled Observation Date.

66. "**Index Close Pricing (Calc Agent)**" means the price in relation to the relevant Pricing Date shall be determined by the Calculation Agent based on information provided by the Index Sponsor as of the Index Publication Time.

67. "**Index Close Pricing (Official**)" means the price in relation to the relevant Pricing Date shall be determined by using the official value of the relevant index provided by the Index Sponsor as of the Index Publication Time.

68. **"Index Component**" means each of the derivative contracts, indices or securities that directly constitute an index or that are directly referenced by that index.

69. "Index Modification" means the Calculation Agent determines that, on or prior to the final Equity Valuation Date, the Index Sponsor makes a material change in the formula for, or the method of calculating, the Index or any other material modification of that Index (other than a modification prescribed in such formula or method to maintain that Index in the event of changes in constituent assets and capitalization and other routine events). If there is a Primary Options Exchange or Primary Futures Exchange, it shall also be a condition that such Primary Options Exchange also adjusts the options or futures contracts relating to the Index to account for the change or modification referred to above, in order for this event to be triggered. For the avoidance of doubt, if there is a Primary Options Exchange or Primary Futures Exchange and neither such exchange adjusts such contracts, then such change or modification shall not trigger this event.

70. "Index Publication Day" means a day on which the Index Sponsor publishes a value for the Index.

71. **"Index Publication Time**" means, in relation to a date, the time at which the Index Sponsor publishes or makes available the official daily closing level of an Index.

- 72. "Index Sponsor" means the corporation or other entity that
 - (i) is responsible for setting and reviewing the rules and procedures and the methods of calculation and adjustments, if any, related to the relevant Index and

(ii) announces (directly or through an agent) the level of the relevant Index on a regular basis during each Pricing Day.

73. "**Index Sponsor Disruption**" means that the Index Sponsor has failed to publish a value for the Index for a Pricing Date prior to the scheduled publication time.

74. "Interim Observation Date" means each scheduled Pricing Day during the Observation Period.

75. "ISDA" means the International Swaps and Derivatives Association, Inc.

76. "ISDA Master Agreement" means the ISDA Master Agreement as such term is defined in the 2006 Definitions.

77. "**ISDA Master Calculation Agent**" means the Calculation Agent as such term is defined in the Relevant ISDA Master Agreement.

78. "**Limited Date Postponement**" means the related Pricing Date shall be postponed until the first succeeding Pricing Day that is not a Pricing Disruption Day; provided that if the period of 8 immediately following scheduled Pricing Days has elapsed and no Pricing Date has occurred, then the final day in such period shall be deemed to be the Pricing Date, notwithstanding the fact that it falls on a Pricing Disruption Day, and the price shall be determined in accordance with Index Close Pricing (Calc Agent) on that day.

79. "**Limited Pricing Postponement**" means if a Pricing Date falls on a Pricing Disruption Day, then the related price for that Pricing Date shall be determined on the first succeeding Pricing Day that is not a Pricing Disruption Day; provided that if the period of 8 immediately following scheduled Pricing Days has elapsed and no Pricing Date has occurred, then the price shall be determined in accordance with Index Close Pricing (Calc Agent). The Pricing Date itself shall not be subject to adjustment, notwithstanding the fact that it falls on a Pricing Disruption Day.

80. "Listed Contract Adjustment" means:

- (i) if there is a Primary Options Exchange or a Primary Futures Exchange, then, solely with respect to the first Observation Date on which the relevant Extraordinary Event is effective, the Calculation Agent shall make appropriate adjustments to OP_t-1 to account for the adjustments made by such exchange to options or futures contracts relating to the Underlier; provided, that if both the Primary Options Exchange and Primary Futures Exchange adjust such contracts, then the Calculation Agent shall refer to the adjustment made by the Primary Options Exchange. No change shall be made to subsequent Observation Dates;
- (ii) if there is no Primary Options Exchange nor Primary Futures Exchange, then the ED Transaction will terminate immediately upon the occurrence of the relevant Extraordinary Event and the Cancellation Amount shall be determined.

81. "Listed Contract Exchange" means the Primary Futures Exchange.

82. "**Listed Contract Modification**" means that the exercise, settlement, payment or any other terms of the Exchange-traded Contract are changed or modified by the related Listed Contract Exchange.

83. "Ln" means natural logarithm, and Ln(X) means the natural logarithm of X, where X is a placeholder for a value.

84. "**Matrix Support Agreement**" means a separate agreement entered into by the Parties and incorporated as part of the 2011 Definitions and the relevant ED Transaction(s) relating to such agreement. Parties to an ED Transaction may, by means of the Matrix Support Agreement, document additional terms applicable to such ED Transaction. In relation to an ED Transaction, the Matrix Support Agreement may be used to document terms beyond the scope of the terms provided for in the 2011 Definitions and the Relevant ISDA Master Agreement.

85. "MIN(A, B, ..., X)" means the smallest number in the set of Values within the parentheses.

86. "**Minimum EE Notice Period**" means a period of days that commences on the effective date of an EE Notice and runs for period specified. If no period is specified, then no Minimum EE Notice Period shall be deemed to apply.

87. "MSA Calculation Agent" means the Calculation Agent as such term is defined in the Matrix Support Agreement.

88. "**NDIP**" means the number of days in period determined pursuant to the value or methodology specified in the Transaction Supplement.

89. "Not Vol Buyer" means the party that is not the Volatility Buyer.

90. "Notice Cut-off Time" means the Scheduled Close (Notice Exchange).

91. "**Notice Day**" means a day on which each Notice Exchange is open for trading at any time during its regular trading session.

92. "Notice Delivery Method" means Written Delivery Method.

93. "Notice Exchange" means the venue specified in the Relationship Supplement, and any related successor.

94. "Notice Form" means Written Form.

95. "**NPV**" means net present value of an amount, discounted from the scheduled EO Settlement Date to the date such amount is payable, at the zero coupon rate with a maturity equal to the actual number of days during this period, derived by the Calculation Agent from the mid-market swap curve, and NPV(X) means the net present value of X, where X is a placeholder for a number.

96. "**Observation Date**" means each of an Observation Period Start Date, Interim Observation Date and Equity Valuation Date.

97. "**Observation Period**" means the period from but excluding the Observation Period Start Date to but excluding the Observation Period End Date.

98. "Observation Period End Date" means the scheduled Equity Valuation Date.

99. "Observation Period Start Date" means the date specified in the Transaction Supplement.

100. "**Observation Price**" means, in respect of a relevant Pricing Date, each price determined per the Pricing Election or methodology specified.

101. **"Official Settlement Price**" means the official settlement price (however described under the rules of the Listed Contract Exchange) of the Exchange-traded Contract.

102. "**OP_t**" means a price determined as follows:

- (i) The variable t shall identify a specific date among a series of dates, where each of the dates in such series is assigned a sequential number from 0 through the number specified as NDIP; for the first date in the series, t equals 0; for the second date, t equals 1, and so on, until for the final date, t equals NDIP;
- (ii) where t equals 0, date t shall be the scheduled Observation Period Start Date, and OP_0 shall mean the Observation Price determined in relation to the scheduled Observation Period Start Date;
- (iii) where t equals any number greater than 0 and less than NDIP, date t shall mean the Interim Observation Date corresponding to such number during the Observation Period and OP_t shall mean the Observation Price determined in relation to such Interim Observation Date;
- (iv) where t equals NDIP, date t shall be the Equity Valuation Date, and OP_NDIP shall mean the Observation Price determined in relation to the Equity Valuation Date.

103. "**Open (Regular Hours)**" means, in relation to an exchange or clearance system, the regular opening time of that exchange or clearance system (without regard to any pre-open trading or settlement).

104. "Open To Close" means the period from the Open (Regular Hours) to the Close (Regular Hours).

105. "**OPSD to OPED** (ex/ex)" means the period from and excluding the Observation Period Start Date to and excluding the Observation Period End Date.

106. "**OSP Unavailability**" means the official settlement price is not available at its scheduled publication time for a reason other than the fact that trading in the relevant contract never commenced or was permanently discontinued.

107. "**OSP Pricing**" means the price in relation to the relevant Pricing Date shall be determined by using the value of the official settlement price (however described under the rules of the Listed Contract Exchange) of the Exchange-traded Contract provided by the Listed Contract Exchange as of the OSP Publication Time.

108. **"OSP Publication Time**" means the time at which the official settlement price (howsoever described under the rules of the exchange) for the relevant Exchange-traded Contract on the Listed Contract Exchange is published.

109. "**Party**" means the applicable party to the ED Transaction.

- 110. "Party A" means the party specified in the Relationship Supplement.
- 111. "Party B" means the party specified in the Relationship Supplement.
- 112. "Postponement Period" means 8 immediately following scheduled Pricing Days.
- 113. "PrcDays In ObsPer" means each scheduled Pricing Day during the Observation Period.
- 114. "**Preamble**" means the Preamble to the Appendix.

115. **"Pre-Disruption Pricing**" means the price in relation to the relevant Pricing Date shall be determined by using the official value provided by the Index Sponsor of the relevant Underlier immediately prior to the occurrence of the event triggering a Pricing Disruption Event, without regard to the time at which such Pricing Disruption Event was tested for.

116. "Price Provider" means each of the following:

- (i) Calculation Agent
- (ii) Index Sponsor
- (iii) Listed Contract Exchange

117. "Pricing Date" means each of the following:

- (i) Equity Valuation Date; and
- (ii) Interim Observation Date
- (iii) Observation Period Start Date.

118. "**Pricing Day**" means a day that is both a scheduled Exchange Business Day and a scheduled Index Publication Day.

119. "Pricing Disruption Consequence" means each of the following:

- (i) Index Close Pricing (Calc Agent);
- (ii) Index Close Pricing (Official);
- (iii) Limited Date Postponement;

- (iv) Limited Pricing Postponement;
- (v) Pre-Disruption Pricing;
- (vi) Prior OP Pricing;
- (vii) Unlimited Postponement (Date Adjustment); and
- (viii) Unlimited Postponement (No Date Adjustment).
- 120. "Pricing Disruption Day" means any Pricing Day on which a Pricing Disruption Event has occurred.
- 121. "Pricing Disruption Event" means each of the following:
 - (i) Aggregate PDE;
 - (ii) Early Closure;
 - (iii) ETC Cancellation;
 - (iv) Exchange Disruption;
 - (v) Failure to Open;
 - (vi) Index Sponsor Disruption;
 - (vii) OSP Unavailability; and
 - (viii) Trading Disruption.
- 122. "Pricing Disruption Reference Contract" means the Futures (Listed Contract Exchange).
- 123. "Pricing Election" means each of the following:
 - (i) Agreed Price;
 - (ii) Index Close Pricing (Calc Agent);
 - (iii) Index Close Pricing (Official);
 - (iv) OSP Pricing;
 - (v) Pre-Disruption Pricing; and
 - (vi) Prior OP Pricing.

124. **"Prior Day Index Publication Time**" means, in relation to a date, the Index Publication Time on the Pricing Day immediately preceding such date.

- 125. "Prior OP Pricing" means the Observation Price for the immediately preceding Pricing Date.
- 126. "Pricing Time" means each of the following:
 - (i) Index Publication Time;
 - (ii) OSP Publication Time; and
 - (iii) Scheduled Index Publication Time.
- 127. "Primary Feature" means a swap.

128. "**Primary Futures Exchange**" means the primary exchange on which futures contracts relating to the Underlier are traded.

129. "**Primary Options Exchange**" means the primary exchange on which options contracts relating to the Underlier are traded.

130. "**Prior Price (Pre-Disruption**)" means the official value of the relevant Underlier published by the Price Provider immediately prior to the occurrence of the event triggering a Pricing Disruption Event, without regard to the time at which such Pricing Disruption Event was tested for.

131. "PubDate+SetCycle" means the date one Settlement Cycle after the original publication of the relevant price.

132. "**Relationship Supplement**" means the document so titled (whether in paper or electronic form) that specifies the data that applies to each ED Transaction agreed to between the Parties of the specified ED Transaction Type (e.g. the Date of the Relevant ISDA Master Agreement will likely be located in the Relationship Supplement). For the avoidance of doubt, the terms of the Relationship Supplement shall form a part of the Confirmation referred to in the Relevant ISDA Master Agreement.

133. "**Relevant ISDA Master Agreement**" means the ISDA Master Agreement between the parties dated as of the Date of the Relevant ISDA Master Agreement.

134. "RS Specified" means the related term shall be agreed by the parties in the Relationship Supplement.

135. **"RS/TS Specified**" means the related term shall be agreed by the parties in the Relationship Supplement. The parties may override this by selecting a different value in the Transaction Supplement.

136. "**RVIND1**" means the mid-market implied volatility of the Index, adjusted for the volatility of volatility, for the remaining term of the ED Transaction (assuming the ED Transaction had not been terminated or, if the ED Transaction is cancelled or terminated prior to the Observation Period Start Date, for the term of the relevant ED Transaction commencing on the Observation Period Start Date) on the Cancellation Effective Date, as determined by the Calculation Agent taking into consideration the implied volatilities of any relevant listed put or call options on the relevant Index traded on the relevant options exchange.

137. "**SchedNDIP**" means the number of scheduled Pricing Days during the period from but excluding the scheduled Observation Period Start Date to and including the scheduled Observation Period End Date.

138. "Scheduled Close (Notice Exchange)" means the scheduled closing time of the Notice Exchange (without regard to any after hours trading).

139. "Scheduled Index Publication Time" means, in relation to a date, the scheduled Index Publication Time.

140. "SchedEVD" means a scheduled Equity Valuation Date.

141. "Securities Exchange" means the Component Security Exchange.

142. "Securities Or Listed Contract Exchange" means either of the Securities Exchange or the Listed Contract Exchange.

143. "**Settlement Currency**" means, in relation to an ED Transaction, the currency specified in the Relationship Supplement and the Transaction Supplement.

144. "Settlement Currency Business Day" means a day on which commercial banks are open for business (including dealings in foreign exchange and foreign currency deposits) in the principal financial center for the Settlement Currency.

145. "Settlement Cycle" means the period specified in the Relationship Supplement and the Transaction Supplement.

146. "Settlement Disruption Consequence" means the Cash Settlement Disruption Consequence.

147. "Settlement Disruption Event" means a Cash Settlement Disruption.

148. "Settlement Feature" means Cash Settlement.

149. "Specified Price" means the price specified in the Transaction Supplement.

150. "**Substitute Pricing**" means that, if a Pricing Date falls on a Pricing Disruption Day, the related Substitute Pricing Election shall apply to determine the price.

151. **"Substitute Pricing Disruption Consequence**" means, in relation to a Pricing Disruption Event, the Pricing Disruption Consequence specified in the General Terms Confirmation.

152. **"Substitute Pricing Election**" means, in relation to a Pricing Disruption Consequence, the Pricing Election specified in the General Terms Confirmation.

153. "Successor Index" means, in relation to an index, if that index:

- (i) ceases to be calculated, announced or published by its sponsor but is calculated, announced or published by a successor sponsor qualified and legally permitted to act as such, then such index; or
- (ii) is replaced by a successor index using the same or a substantially similar formula and method for calculation of the index, then such successor index;

provided, in each case, that the Calculation Agent has determined that there is reasonably comparable liquidity in derivative contracts traded on such successor index relative to the liquidity that existed in derivative contracts traded on the original index.

154. "Trade Date" means the date specified in the Transaction Supplement.

155. "Trading Disruption" means any suspension of or limitation (other than an Early Closure) imposed on trading in:

- (i) one or more Index Components constituting in aggregate a percentage equal to or greater than 20%; or
- (ii) any Futures (Listed Contract Exchange) referencing the Underlier,

in each case, on a related Securities Or Listed Contract Exchange during the 5 Minutes Pre-Close, including by reason of movements in price exceeding limits.

156. **"Transaction Illegality**" means a party determines that, as a result of a Change in Law Event occurring on or after the Trade Date, it has become or, within the next 30 calendar days (but on or prior to the final Equity Valuation Date), it will become illegal for it to be a party or to exercise its rights or to perform its obligations or to receive payments or deliveries under that ED Transaction. Upon the occurrence of a Transaction Illegality, Cancellation and Payment shall be triggered accordingly.

157. **"Transaction Illegality Notice**" means a notice of a Transaction Illegality. Upon or following the occurrence of a Change in Law, Either Trade Party may trigger Cancellation and Payment by delivering an effective notice to the other party stating that it elects to trigger such consequence and the date on which the consequence shall apply. Upon such date stated in the Transaction Illegality Notice, Cancellation and Payment shall be triggered, provided that

- (i) the Transaction Illegality Notice must be delivered while a Transaction Illegality is continuing; and
- (ii) the date stated in the Transaction Illegality Notice on which Cancellation and Payment shall apply and be triggered shall be at least 2 Notice Days after the effect date of such notice.

158. **"Transaction Supplement**" means the document so titled (whether in paper or electronic form) that specifies the data that applies on a trade-by-trade basis to individual ED Transactions agreed to by the Parties in relation to the specified ED Transaction Type (e.g. the Trade Date will likely be located in the Transaction Supplement). For the avoidance of doubt, the terms of the Transaction Supplement shall form a part of the Confirmation referred to in the Relevant ISDA Master Agreement.

159. **"TS Specified**" means the related term shall be agreed by the parties in the Transaction Supplement.

160. "Type of Day" means each of the following:

- (i) Cash Settlement Day;
- (ii) Notice Day; and
- (iii) Pricing Day.
- 161. "Type of Period" means each of the following:
 - (i) Observation Period.
- 162. "**Type of Price**" means each of the following:
 - (i) Observation Price.
- 163. "Underlier" means the underlier specified in the Transaction Supplement.

164. "Unlimited Postponement (Date Adjustment)" means that if a Pricing Date falls on a Pricing Disruption Day, then that Pricing Date shall be postponed until the first succeeding Pricing Day that is not a Pricing Disruption Day.

165. "**Unlimited Postponement** (**No Date Adjustment**)" means if a Pricing Date falls on a Pricing Disruption Day, then the related price for that Pricing Date shall be the price on first succeeding Pricing Day that is not a Pricing Disruption Day. The Pricing Date itself shall not be subject to adjustment, notwithstanding the fact that it falls on a Pricing Disruption Day.

166. "Valuation Feature" means the Valuation Feature specified in the Transaction Supplement.

- 167. "Value" means an amount, level, number, price or similar variable.
- 168. "Valuer" means, in relation to a Pricing Election, the person specified in the General Terms Confirmation.
- 169. "Vega Notional Amount" means the value specified in the Transaction Supplement.
- 170. "Volatility Amount" means the Vega Notional Amount.
- 171. "Volatility Buyer" means the Party specified in the Transaction Supplement.

172. **"Volatility Cap Amount**" and **"VolCapAmt**" mean Volatility Seller) the amount determined pursuant to the value or methodology specified in the Transaction Supplement.

173. "Volatility Cap Factor" means the value specified in the Transaction Supplement.

174. "Volatility Swap Payer" means:

- (i) if (FRV VolK) > 0, then the Volatility Seller shall be the EO Party; and
- (ii) if (FRV VolK) < 0, then the Volatility Buyer shall be the EO Party.

175. "Volatility Seller" means the Party specified in the Transaction Supplement or the Party that is not the Volatility Buyer.

176. "Volatility Strike Price" and "VolK" mean the value specified in the Transaction Supplement.

177. **"Volatility Swap Payout Formula (Capped)**" means that the Calculation Agent shall determine the EO Cash Settlement Amount pursuant to the following formula:

EO Cash Settlement Amount = $ABS(MIN(FRV, VolCapAmt) - VolK) \times Volatility Amount$

178. **"Volatility Swap Payout Formula (Uncapped)**" means that the Calculation Agent shall determine the EO Cash Settlement Amount pursuant to the following formula:

EO Cash Settlement Amount = ABS(FRV - VolK) × Volatility Amount

179. "Written Delivery Method" means that the notice may be delivered in writing, in person, by standard mail, by courier, by certified or recorded delivery, by fax, by email or by other electronic messaging system but may not be delivered orally.

- 180. "Written Form" means that the notice shall be in written and not in oral form.
- 181. " Σ " means summation, and Σ (t=m to n)(X_t) shall be interpreted as X_m + X_(m+1) ... + X_(n-1) + X_n.
- 182. " $\sqrt{1}$ " means square root, and \sqrt{X} means the square root of X, where X is a placeholder for a value.