Addendum dated
Master Agreement dated

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# Collateral Addendum (2018) to the above-mentioned Master Agreement for Financial Derivatives Transactions ("Master Agreement")

#### Between

Name and address of the Counterparty	
(hereinafter called the "Counterparty")	

and
Name and address of the Bank
(hereinafter called the "Bank")

# 1. Purpose and Scope of this Addendum

- (1) In addition to the definitions and provisions of the Master Agreement, the parties agree to provide each other with Collateral in accordance with the following provisions. Such Collateral shall serve to secure all existing, future, contingent and time-limited claims of the respective recipient (the "Secured Party") against the other party (the "Security Provider") in connection with the Agreement (Clause 1 sub-Clause (2) of the Master Agreement). Clause 9 of the Master Agreement shall remain unaffected.
- (2) Title to any Collateral provided under this Addendum shall pass to the Secured Party upon delivery. If the transfer of securities is governed by foreign law, another legal position which is customary and equivalent thereto under such law shall, if appropriate, pass in lieu of ownership. The Secured Party may dispose of the Collateral without restrictions.

# 2. Definitions

For the purposes of this Addendum:

- "Value" means, in the case of Cash Collateral, the nominal amount plus accrued interest, and, in the case of Securities Collateral, the Market Value, in each case multiplied by the valuation percentages agreed in Clause 11 below; any amounts not denominated in Euro shall be converted into Euro at the Spot Rate;
- "Exposure" means the amount of the claim for non-performance that would arise upon termination of all Transactions pursuant to Clause 8 of the Master Agreement on the relevant Valuation Date at the Valuation Time. Such calculation shall be effected pursuant to Clause 12 sub-Clause (5) (C) (b) of the Master Agreement; to the extent that the calculation is based on quotations provided as Bid Price and Offer Price, the Average Price shall be used. If the party whose Exposure is being determined is the creditor of the claim for non-performance, the Exposure shall be taken into account as a positive amount when calculating its Credit Support Amount, otherwise it shall be taken into account as a negative amount. Any Collateral provided under this Addendum shall not be included in the calculation of the Exposure;
- "Business Day" means each day (other than a Saturday or Sunday) on which banks in Frankfurt am Main are open for business, including trading in foreign currency and acceptance of foreign currency deposits:
- "Cash Collateral" means cash amounts denominated in Euro or other currencies eligible pursuant to Clause 11 below;
- "Notification Date" means the Business Day immediately following the Valuation Date;

- "Valuation Date" means each Business Day specified as such in Clause 11 below. Each Party shall be entitled to determine additional Business Days as Valuation Dates by unilateral notice. Such notice must be received by the Valuation Agent and the other party no later than the Business Day immediately preceding the contemplated Valuation Date;
- "Valuation Time" shall be close of business of banks in Frankfurt
- "Credit Support Amount" of a party means an amount equal to the sum of its Exposure and any Independent Amounts agreed in its favour less any Independent Amounts agreed in favour of the other party and any threshold agreed in favour of the other party in Clause 11 below; if such calculation yields a number less than zero, the relevant party's Credit Support Amount shall be deemed to be zero;
- "Offer Price" means the price for the sale of a security or a currency in each case quoted by leading market participants;
- "Bid Price" means the price for the purchase of a security or a currency in each case quoted by leading market participants;
- "Market Value" of Securities Collateral means the Bid Price at the Valuation Time on the relevant Valuation Date, and in the case of debt securities, including any interest accrued by the end of such day;
- "Average Price" shall be the arithmetic mean of the Offer Price and the Bid Price;
- "Spot Rate" of a currency means the Average Price determined for the Valuation Time on the relevant Valuation Date;
- "Collateral" means Cash Collateral and Securities Collateral;
- "Securities Collateral" means securities eligible pursuant to Clause 11 below;
- "Independent Amounts" means any amounts specified as such in favour of one party in Clause 11 below or pursuant to the terms of any Transactions.

# 3. Transfer of Collateral

- (1) If, on a Valuation Date, a cover shortfall occurs, the party which has failed to provide sufficient Collateral (the "Party Obliged to Provide Collateral") shall, upon the other party's request, transfer to the other party Collateral with a Value which at least equals or exceeds the amount of the cover shortfall.
- (2) A cover shortfall has occurred if a party's Credit Support Amount exceeds the Value of the Collateral held by it under this Addendum. Any Collateral a party has requested pursuant to sub-Clau-

se (1) but not yet received on the relevant Valuation Date, shall be deemed to be held by it to the extent that the transfer of such Collateral is due to be effected only on or after such Valuation Date. Any Collateral for which a party has requested but not yet received a transfer pursuant to Clause 4 sub-Clause (1) shall be deemed to continue to be held by the Secured Party, if the transfer of such Collateral had already become due prior to the relevant Valuation Date.

- (3) The Collateral to be transferred may, at the option of the Party Obliged to Provide Collateral, be Cash Collateral or Securities Collateral. The Collateral shall be transferred to the bank account or, as the case may be, the securities account of the other party set out in Clause 11 below on the immediately following Business Day, if the Party Obliged to Provide Collateral receives the request to transfer Collateral pursuant to sub-Clause (1) before 11:00 a.m. (Frankfurt am Main local time) on a Business Day; otherwise the Collateral shall be transferred on the second Business Day following such receipt.
- (4) The Party Obliged to Provide Collateral is entitled to refuse a transfer pursuant to sub-Clause (1), if a material reason exists which also entitles it to terminate the Agreement pursuant to Clause 7 sub-Clause (1) of the Master Agreement.

#### 4. Excess Cover

- (1) If, on a Valuation Date, there is excess cover, the Secured Party shall upon request transfer to the Security Provider cash amounts or securities at the Security Provider's option, which are equivalent to the Cash Collateral or Securities Collateral provided by the Security Provider and the Value of which does not exceed the amount of the excess cover. "Equivalent" means, in respect of Cash Collateral, amounts in the same currency, and, in respect of Securities Collateral, securities of the same class.
- (2) Excess cover shall apply if the Value of the Collateral held by one of the parties under this Addendum exceeds such party's Credit Support Amount. Clause 3 sub-Clause (2), sentences 2 and 3 shall apply accordingly.
- (3) The cash amounts or securities due shall be transferred to the bank account or, as the case may be, the securities account of the Security Provider 1 set out in Clause 11 below on the Business Day following the Business Day on which the request is received, if the Secured Party receives the request pursuant to sub-Clause (1) before 11:00 a.m. (Frankfurt am Main local time) on a Business Day; otherwise the transfer shall be effected on the second Business Day following such receipt. In respect of securities that are held in custody abroad, such period shall be extended accordingly if one of such days is not a Business Day at the place of the relevant foreign depositary or foreign intermediary depositary and if this results in an earlier transfer being impossible or requiring unacceptable efforts.
- (4) The Secured Party is entitled to refuse a transfer pursuant to sub-Clause (1) if a material reason exists which also entitles it to terminate the Agreement pursuant to Clause 7 sub-Clause (1) of the Master Agreement, unless the Secured Party is no longer entitled to any claims (including future, contingent or time-limited claims) against the Security Provider under the Agreement on the relevant Valuation Date.

# 5. Minimum Transfer Amount

If a minimum transfer amount is agreed in Clause 11 in relation to a party, such party shall be required to effect such transfer pursuant to Clause 3 or Clause 4 only if the relevant cover shortfall or, as the case may be, excess cover, is at least equal to such minimum transfer amount, except with respect to a claim pursuant to Clause 4 sub-Clause (1) which refers to all the Collateral held by the Secured Party under this Addendum.

# 6. Valuation Agent and Dispute

- (1) The "Valuation Agent" shall be the entity specified as such in Clause 11 sub-Clause (7). In the absence of such specification, the party making a request pursuant to Clause 3 or Clause 4 shall act as the Valuation Agent for the relevant Valuation Date; if no such request is made by either party, there will be no Valuation Agent.
- (2) For each Valuation Date, the Valuation Agent shall determine the following amounts in Euro:
  - the amount of the Exposure,
  - the amount of any Independent Amounts and thresholds,
  - the Value of any Collateral held under this Addendum, and
  - any cover shortfall or excess cover and the party obliged to make a transfer in this respect.

To the extent that the calculation is based on quotations, the Valuation Agent may determine the relevant amounts by using screen publication systems (e.g. Bloomberg, Reuters or Telerate) or in any other manner.

- (3) The Valuation Agent shall notify the parties (or, if one of the parties acts as Valuation Agent, the other party) of the result of the calculations on the Notification Date no later than the notification time agreed in Clause 11 below in text form or any other form conforming to market practice means.
- (4) If a party promptly disputes the Valuation Agent's calculations and if, in the event of any disagreement regarding the amount of the Exposure or the Value of Collateral, agreement cannot be reached by the end of the Business Day on which the dispute is received, the disputed Transactions or, as the case may be, the Collateral in question, shall be revalued. The obligation to effect a transfer pursuant to Clause 3 or Clause 4 in the amount of the undisputed portion of the cover shortfall or cover excess determined by the Valuation Agent shall remain unaffected.
- (5) The revaluation of Transactions shall be based on the arithmetic mean of the quotations for corresponding transactions, and the revaluation of Collateral shall be based on Bid Prices. On the Business Day following the day on which the dispute is received, the quotations and Bid Prices shall be obtained by the Valuation Agent from four reference banks, whereby each party shall determine two such reference banks. The Valuation Agent shall notify the parties (or, if one of the parties acts as Valuation Agent, the other party) of the result on the same day no later than 4.00 p.m. (Frankfurt am Main local time) in text form or any other form conforming to market practice means. If, thereafter, a transfer pursuant to Clause 3 or Clause 4 is due to be made, such transfer shall be effected on the next following Business Day. In case of a transfer pursuant to Clause 4 sub-Clause (1), Clause 4 sub-Clause (3) sentence 2 shall apply accordingly.
- (6) The transfers set out in sub-Clause (4) sentence 2 and sub-Clause (5) sentence 4 shall be effected regardless of any minimum transfer amounts agreed for the Party Obliged to Provide Collateral.

# 7. Substitution of Collateral

Subject to the Secured Party's prior consent, the Security Provider shall be entitled to substitute, in whole or in part, any Collateral provided under this Addendum by other Cash Collateral or Securities Collateral of the same or a higher Value. Such substitution shall be effected on a delivery-versus-delivery basis.

# 8. Interest Amounts on Cash Collateral and Securities Collateral

- (1) The Secured Party shall be required to pay interest on any Cash Collateral during the interest periods and at the reference interest rate set out in Clause 11 below. Interest shall become due and payable in arrears on the second Business Day after the expiry of each interest period and shall be credited to the Security Provider's bank account specified in Clause 11 below. However, if the Secured Party is obliged to perform a transfer pursuant to Clause 4 sub-Clause (1) relating to all Cash Collateral held by it, such interest shall also become due and payable at the time set out in Clause 4 sub-Clause (3).
- (2) In the case of Securities Collateral, the Security Provider rather than the Secured Party shall be entitled to any interest payments in respect of the securities. The Secured Party shall forward the relevant amounts to the Security Provider's bank account specified in Clause 11 below for value on the actual date of payment by the issuer. If any interest payments on Securities Collateral to the Secured Party are subject to withholding tax or result in a tax credit, the Secured Party shall owe the amount pursuant to sentence 1 which the Security Provider would have received as owner of the relevant Securities Collateral on the basis of its tax reimbursement or credit claims previously notified to the Secured Party, including (a) the withholding tax to the extent that the Security Provider would be entitled to an exemption from such tax or to its reimbursement, as well as (b) any tax credit payable to the Security Provider under these provisions.
- (3) The Secured Party shall not be obliged to disburse any interest amounts if this would result in a cover shortfall. Any interest amounts not disbursed pursuant to sentence 1 shall be treated as Cash Collateral with respect to any cover shortfall or excess cover.

# 9. Termination of the Agreement

(1) If the Agreement is terminated (Clause 7 sub-Clause 3 of the Master Agreement), the Calculating Party shall immediately value any Collateral provided under this Addendum and in respect of which the Secured Party has not yet transferred equivalent assets to the Security Provider pursuant to Clause 4 sub-Clause (1). The relevant amounts shall be included in the determination of the claim for non-performance pursuant to Clause 8 sub-Clause (1) of the Master Agreement as follows: Collateral provided by the Calculating Party shall be included in the calculation as if the relevant amounts determined were positive market or exchange prices of replacement transactions and collateral received shall be included in the calculation as if the relevant amounts determined were negative market or exchange prices of replacement transactions.

- actions. At the same time, any claims of the parties regarding the transfer of cash amounts or securities according to Clause 3 or Clause 4 shall cease to exist. Prior notice is not required.
- (2) Any Cash Collateral shall be valued at its nominal value plus any interest accrued until the termination of the Agreement and any Securities Collateral shall be valued at the price obtained by the Secured Party upon a sale of equivalent securities (Clause 4 sub-Clause (1)). If the Calculating Party so chooses, the amount which the Secured Party could have obtained immediately after termination of the Agreement in connection with such a sale, taking into account the Security Provider's interests, shall be used instead of the price actually obtained. To the extent that the aforementioned amounts are not denominated in Euro, the Calculating Party shall convert them into Euro on the basis of currency exchange rates offered by leading market participants for selling the relevant currencies.

# 10. Failure to Deliver Collateral

A material reason within the meaning of Clause 7 sub-Clause (1) of the Master Agreement shall also exist, if a transfer due pursuant to Clause 3 or Clause 4 is not effected within one Business Day after notification of the non-performance of such obligation. If the party has disputed the valuations made by the Valuation Agent pursuant to Clause 6 sub-Clause (4), the Master Agreement may only be terminated following a failure to perform the relevant obligation after the procedures specified in Clause 6 sub-Clauses (4) and (5) have been utilized.

# 11. Individual Arrangements

see attachment

Signature(s) on behalf of the Counterparty
Signature(s) on behalf of the Bank