

**May 2011 Volatility Swap Supplement**  
**(the "May 2011 Volatility Swap Supplement")**  
**to the 1998 ISDA FX and Currency Option Definitions\* (the "1998 FX Definitions")**  
*(published on June 3, 2011)*

*This supplement incorporates terms and a template for a Volatility Swap as an amendment to the 1998 FX Definitions and the Annex to the 1998 FX Definitions, respectively. Any terms originally defined in the 1998 FX Definitions (or a related supplement) which have been amended to accommodate the Volatility Swap are, for purposes of clarity, black-lined herein to highlight such modifications.*

**I. Non-Deliverable Swap FX Transaction terms:**

**(a) ARTICLE 1 – CERTAIN GENERAL DEFINITIONS**

Article 1 is amended by adding a new Section 1.1(f) as follows:

**ARTICLE 1**

**CERTAIN GENERAL DEFINITIONS**

**Section 1.1 Business Day.** "Business Day" means for purposes of:

(f) the definition of Observation Date and (for purposes of Non-Deliverable Swap FX Transactions) Valuation Date,

(i) the days specified as such in the related Confirmation for purposes of an Observation Date or (if applicable) the Valuation Date, respectively, or

(ii) if a place is not so specified, (A) the Business Days on which the Rate Source specified in the related Confirmation is, as of the Trade Date of a Transaction, scheduled to publish spot rates for the Currency Pair or, (B) if such Rate Source is not so specified or is not willing to provide such dates, a day on which commercial banks are open (or, but for the occurrence of any Disruption Event applicable to a Transaction, would have been open) for business (including dealings in foreign exchange in accordance with the market practice of the foreign exchange market) in the Principal Financial Centers of the Currency Pair.

Section 1.3 is hereby amended to (1) include Non-Deliverable Swap FX Transactions and (2) replace the following definitions thereunder in their entirety as follows:

**Section 1.13. Non-Deliverable.** If "Non-Deliverable", "Cash Settlement" or "In-the-Money Settlement" is specified in a Confirmation, it means that "Non-Deliverable" is applicable to the Transaction and that such Transaction will settle in accordance with the provisions of,

(a) in the case of an FX Transaction, Section 2.2(b);

(b) in the case of a Currency Option Transaction, Section 3.7(b), and

(c) in the case of a Non-Deliverable Swap FX Transactions, Section 6.6(a),

except as otherwise provided in Article 5.

Section 1.6 is hereby amended to (1) include Non-Deliverable Swap FX Transactions and (2) replace the following definitions thereunder in their entirety as follows:

**Section 1.6 Currency Pair.** "Currency Pair" means, (a) in respect of a Deliverable FX Transaction, the currencies specified as being deliverable for a Transaction in the related Confirmation, (b) in respect of a Non-Deliverable FX Transaction, the Reference Currency and the Settlement Currency, (c) in respect of a

\* This Supplement amends and is to be read in conjunction with the 1998 FX and Currency Option Definitions published by ISDA, EMTA, and the Foreign Exchange Committee.

Currency Option Transaction, the Call Currency and Put Currency, (d) in respect of a Binary Currency Option Transaction, the currencies specified as applicable to the Barrier Level in the related Confirmation and (e) in respect of a Non-Deliverable Swap FX Transaction, the currencies specified as such in the related Confirmation.

Section 1.16 is hereby amended to (1) include Non-Deliverable Swap FX Transactions and (2) replace the following definitions thereunder in their entirety as follows:

(a) "Rate Calculation Date" means the Valuation Date, Averaging Date, Barrier Event Determination Date or Observation Date as appropriate.

(e) "Spot Rate" means, for any Rate Calculation Date, (A) with respect to Non-Deliverable FX Transactions and Non-Deliverable Currency Option Transactions, the currency exchange rate determined in accordance with the specified (or deemed specified) Settlement Rate Option, or if a Settlement Rate Option is not specified (or deemed specified), the currency exchange rate at the time at which such rate is to be determined for foreign exchange transactions in the relevant Currency Pair for value on the Settlement Date as determined in good faith and in a commercially reasonable manner by the Calculation Agent and (B) with respect to Non-Deliverable Swap FX Transactions, the currency exchange rate determined in accordance with the specified (or deemed specified) Rate Source, or if a Rate Source is not specified (or deemed specified), the currency exchange rate at the time at which such rate is to be determined for foreign exchange transactions in the relevant Currency Pair for settlement in accordance with market practice for the Currency Pair, as determined in good faith and in a commercially reasonable manner by the Calculation Agent.

(f) "Valuation Date" means each date (i) specified as the Valuation Date or otherwise determined as provided in the related Confirmation, or (ii) with respect to Non-Deliverable FX Transactions and Non-Deliverable Currency Option Transactions, determined in accordance with Section 5.1(d)(vi) or Section 5.2(c)(x)(A), which is a day in respect of which a Spot Rate is to be determined for purposes of determining the Settlement Rate, subject to adjustment in accordance with the Preceding Business Day Convention unless another Business Day Convention is specified to be applicable to that Valuation Date. Unless otherwise specified in the related Confirmation, the Valuation Date will be, (i) in respect of an FX Transaction, two Business Days prior to the Settlement Date, (ii) in respect of a Currency Option Transaction, the Exercise Date and (iii) in respect of a Non-Deliverable Swap FX Transaction, the Final Observation Date.

Article 1 is amended by adding a new Section 1.27 as follows:

**Section 1.27 Non-Deliverable Swap FX Transaction.** "Non-Deliverable Swap FX Transaction" means a type of FX Transaction to which Non-Deliverable applies and is of an applicable Transaction Type as defined in Section 6.2

**(b) ARTICLE 6 – GENERAL TERMS RELATING TO NON-DELIVERABLE SWAP FX TRANSACTIONS**

The 1998 FX Definitions are amended by adding a new Article 6 as follows:

**ARTICLE 6**

**GENERAL TERMS RELATING TO NON-DELIVERABLE SWAP FX TRANSACTIONS**

**Section 6.1 Certain Definitions and Provisions Relating to Non-Deliverable Swap FX Transactions.** When used in relation to a Non-Deliverable Swap FX Transaction, the following terms have the indicated meanings:

(a) "Fixed FX Rate" means a rate, expressed as a decimal, equal to the per annum rate specified as such in the Confirmation for the Non-Deliverable Swap FX Transaction or that party (i.e., a per annum rate of 15.10% as specified in a Confirmation shall be expressed as 0.1510 for calculation purposes).

(b) “Floating FX Rate” means a rate, expressed as a decimal, equal to the per annum rate determined in accordance with the Floating FX Rate Option specified in the Confirmation (i.e., a per annum rate of 15.10% determined as specified in a Confirmation shall be expressed as 0.1510 for calculation purposes)

(c) “Floating FX Rate Option” means, in respect of the calculation of a Settlement Amount, the Floating FX Rate Option specified as such in the related Confirmation which may be specified by reference to any of the terms defined in these Definitions or defining the Floating FX Rate Option in the related Confirmation.

(d) “Fixed FX Rate Payer” means in respect of an Non-Deliverable Swap FX Transaction, the party specified as such in the related Confirmation.

(e) “Floating FX Rate Payer” means in respect of an Non-Deliverable Swap FX Transaction, the party specified as such in the related Confirmation.

(f) “Observation Date” means, in respect of a Valuation Date, each date specified as such or otherwise determined as provided in a Confirmation which is a day in respect of which a Spot Rate is to be determined for purposes of determining an Observation Rate, not subject to adjustment in accordance with any Business Day Convention. If an Observation Date or a means of determining an Observation Date is not so specified, an Observation Date shall be, as of the Trade Date of a Transaction, each Business Day from and including the Initial Observation Date up to and including the Final Observation Date (such period being the “Observation Period”). Any date identified as an Observation Date in accordance with the previous sentences shall constitute an Observation Date notwithstanding that it may fall on a date which is, at any time following the Trade Date, not a Business Day, or if a Spot Rate cannot be determined on such date for any other reason.

(i) “Initial Observation Date” means in respect of an Non-Deliverable Swap FX Transaction, the date specified as such in the related Confirmation or if such date or a means of determining such date is not so specified, the Trade Date.

(ii) “Final Observation Date” means in respect of an Non-Deliverable Swap FX Transaction, the date specified as such in the related Confirmation or if such date or a means of determining such date is not so specified, the Valuation Date; provided, however, that the Final Observation Date shall not be subject to adjustment in accordance with any Business Day Convention

(g) “Observation Rate” means, for any Observation Date, (i) the Observation Rate specified for the relevant Currency Pair or otherwise determined as provided in the related Confirmation in accordance with the Rate Source or, (ii) if an Observation Rate or a means of determining an Observation Rate is not so specified, the Spot Rate for that Observation Date

(h) “Rate Source” means the source specified as such in the related Confirmation which may be specified by reference to any of the terms defined in Section 6.5 of these Definitions or defining the Rate Source in the related Confirmation.

(i) “Rate Source Business Days” shall mean all days, as of the Trade Date of a Transaction, on which the Sponsor is scheduled to publish spot rates for the Currency Pair.

(j) “Vega Notional Amount” means the currency and amount specified as such in the related Confirmation.

(k) Market Disruption for a Non-Deliverable Swap FX Transaction. Unless the parties otherwise specify, in the case where it becomes impossible to obtain the Observation Rate on an Observation Date for any reason, the Observation Rate for such Observation Date will be determined by the Calculation Agent in good faith and in a commercially reasonable manner.

## **Section 6.2 Transaction Type.**

(a) **Volatility Swap.** “Volatility Swap” means a type of Non-Deliverable Swap FX Transaction that incorporates the relevant Floating FX Rate Options defined in Section 6.4(a).

**Section 6.3 Terms relating to Transaction Fee.**

(a) **Transaction Fee.** “Transaction Fee” means, in respect of an FX Transaction, where such fee is required, and a Transaction Fee Payment Date, the amount, if any, that is specified or otherwise determined as provided in the related Confirmation and, subject to any applicable condition precedent, is payable by one party to the other as further specified or otherwise determined as provided in the related Confirmation on the Transaction Fee Payment Date or on each Transaction Fee Payment Date if more than one is specified, for value on such date.

(b) **Transaction Fee Payment Date.** “Transaction Fee Payment Date” means, in respect of an FX Transaction, one or more dates specified as such or otherwise determined as provided in the related Confirmation, subject to adjustment in accordance with the Following Business Day Convention unless another Business Day Convention is specified to be applicable to that Transaction Fee Payment Date.

(c) **Transaction Fee Payer.** “Transaction Fee Payer” means the party designated as such in the related Confirmation that will pay the Transaction Fee on the Transaction Fee Payment Date.

**Section 6.4 Floating FX Rate Options.**

(a) **Volatility.**

(i) “Realized Volatility” or “RV” means that the rate calculated on the Valuation Date will be a per annum rate calculated on the basis of the following formula (expressed as a percentage):

(A) Where “Mean Adjustment” is applicable, Realized Volatility is calculated as follows:

$$RV = \sqrt{\frac{\sum_{i=1}^N (R_i - R_m)^2}{N - 1}} \times \sqrt{AF}$$

Where,

$N$  is the number of Observation Dates in the Observation Period, excluding the Initial Observation Date (where the Observation Rate on the Initial Observation Date shall equal  $S_0$ ).

$R_i$  is the  $i^{\text{th}}$  natural logarithmic return, where  $R_1$  is equal to the natural logarithmic return on the first Observation Date following the Initial Observation Date, calculated as follows:

$$R_i = \ln\left(\frac{S_i}{S_{i-1}}\right)$$

$(S_i)$  is the Observation Rate for an Observation Date

$(S_{i-1})$  is the Observation Rate for the Observation Date that immediately preceding  $S_i$

$R_m$  is the “Mean Return” calculated as follows:

$$R_m = \frac{\sum_{i=1}^N R_i}{N}$$

AF is the Annualization Factor which is a number specified as such in the Confirmation. If the Annualization Factor is not specified in the related Confirmation, where (i) daily observations

are taken, AF shall be equal to 252, (ii) weekly observations are taken, AF shall be equal to 52 and (iii) monthly observations are taken, AF shall be equal to 12.

- (B) Where “Mean Adjustment” is not applicable, Realized Volatility is calculated as follows:

$$RV = \sqrt{\frac{\sum_{i=1}^N (R_i)^2}{N}} \times \sqrt{AF}$$

## Section 6.5 Certain Definitions Relating to Rate Sources.

### (a) Rate Sources.

(i) “Sponsor Mid Page” means that the rate for an Observation Date will be the mid Spot Rate for that Observation Date as published by the Sponsor at the Specified Time.

(ii) “Sponsor Mid-Reuters Screen” means that the rate for an Observation Date will be the Spot Rate for that Observation Date as published by the Sponsor at the Specified Time and displayed on the applicable Reuters Screen Page.

(b) **Sponsors.** “Sponsor” means, in relation to any display page, other published source, information vendor or provider specified in subsection (a) above:

(i) “WM Company” means the display page so designated by The WM Company, through its currency market data services or its Successor Source. Any service related information (including the dates on which such services will not be provided) may be found on its internet website page, <http://www.wmcompany.com/>.

(ii) The Sponsor specified as such in the related Confirmation.

(c) **Successor Sources.** “Successor Source” means, in relation to any display page, other published source, information vendor or provider specified in subsection (a) above:

(i) the successor display page, other published source, information vendor or provider that has been officially designated by the Sponsor of the original page or source; or

(ii) if the Sponsor has not officially designated a successor display page, other published source, service or provider (as the case may be), the successor display page, other published source, service provider, if any, designated by the relevant information vendor or provider (if different from the Sponsor).

## Section 6.6 Terms relating to Settlement.

### (a) Non-Deliverable Swap FX Transaction.

(i) On the Settlement Date in respect of a Non-Deliverable Swap FX Transaction, (A) if the Settlement Amount is a positive number, the Fixed FX Rate Payer will pay that amount in the Settlement Currency to the Floating FX Rate Payer or, (B) if the Settlement Amount is a negative number, the Floating FX Rate Payer will pay the absolute value of that amount in the Settlement Currency to the Fixed FX Rate Payer, in each case subject to any applicable condition precedent and any applicable provisions of Article 5.

(ii) Settlement Amount. “Settlement Amount” means an amount expressed in the Settlement Currency calculated on a formula basis as follows:

$$\text{Settlement Amount} = \text{Face Notional Amount} \times 100 \times (\text{Fixed FX Rate} - \text{Floating FX Rate})$$

**II. Non-Deliverable Swap FX Transaction template**

EXHIBIT I  
to the May 2011 Volatility Swap Supplement to the 1998 FX and Currency Option Definitions

**Additional Provisions for a Confirmation of  
a Non-Deliverable Swap FX Transaction**

[See Exhibit I of the 1998 FX and Currency Option Definitions for the introduction, standard paragraphs and closing for the letter agreement and Exhibit II-E of the 1998 FX and Currency Option Definitions for terms relating to Article 5.]

2. The terms of the particular Transaction to which this Confirmation relates are as follows:

(a) General Terms:

Trade Date:	[date]
[Date of Annex A:]	[date]
Transaction Type:	Volatility Swap
Vega Notional Amount:	[CCY] [amount]
Currency Pair:	[CCY]/[CCY]
Fixed FX Rate Payer:	[Party A][Party B]
Fixed FX Rate:	[rate]%
Floating FX Rate Payer:	[Party B][Party A]
Floating FX Rate Option:	Realized Volatility
Settlement Currency:	[CCY]
Settlement Date:	[date]
Settlement:	Non-Deliverable
[Settlement Rate Option:	[            ]] <sup>1</sup>
Valuation Date:	[date] [Final Observation Date][The first Business Day following the Final Observation Date]
[Transaction Fee:	[CCY] [amount]], payable by the Transaction Fee Payer to the other party on the Transaction Fee Payment Date
[Transaction Fee Payment Date:	[date]]
[Transaction Fee Payer:	[Party A][Party B]]

(b) Other terms and conditions:

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<sup>1</sup> If the Settlement Amount of a Volatility Swap requires further conversion to a third currency, specify the Settlement Rate Option required to convert that amount to such Settlement Currency and the formula used to calculate that conversion.

Rate Source: [ ]

Sponsor: [ ]

Specified Time: [ ] [a.m./p.m.] (local time in [ ])

Mean Adjustment: [Applicable][Inapplicable]

N: [number]

Annualization Factor: [number]

Initial Observation Date: [Trade Date][date]

Final Observation Date: [date]

3. Calculation Agent: [Party A][Party B][other]

4. Business Days and Business Day Conventions:

Business Days applicable to each  
Observation Date and the Valuation Date: [Rate Source Business Days][other]

Business Days applicable to the  
Settlement Date: [Principal Financial Center of the Settlement Currency]

**III. Non-Deliverable Swap FX Transaction example**

EXHIBIT II  
to the May 2011 Volatility Swap Supplement to the 1998 FX and Currency Option Definitions

**EXAMPLE CONFIRMATION:  
Non-Deliverable Swap FX Transaction – Volatility Swap**

[See Exhibit I of the 1998 FX and Currency Option Definitions for the introduction, standard paragraphs and closing for the letter agreement and Exhibit II-E of the 1998 FX and Currency Option Definitions for terms relating to Article 5.]

2. The terms of the particular Transaction to which this Confirmation relates are as follows:

(a) General Terms:

Trade Date:	March 1, 2011
Transaction Type:	Volatility Swap
Vega Notional Amount:	USD 100,000.00
Currency Pair:	USD/EUR
Fixed FX Rate Payer:	Party A
Fixed FX Rate:	15.10%
Floating FX Rate Payer:	Party B
Floating FX Rate Option:	Realized Volatility
Settlement Currency:	USD
Settlement Date:	April 4, 2011
Settlement:	Non-Deliverable
Valuation Date:	Final Observation Date
Transaction Fee:	USD 5,000.00, payable by the Transaction Fee Payer to the other party on the Transaction Fee Payment Date
Transaction Fee Payment Date:	March 3, 2011
Transaction Fee Payer:	Party A

(b) Other terms and conditions:

Rate Source:	Sponsor Mid Page
Sponsor:	WM Company
Specified Time:	4:00 p.m. London time
Mean Adjustment:	Applicable

N:	23
Annualization Factor:	252
Initial Observation Date:	Trade Date
Final Observation Date:	March 31, 2011
3. Calculation Agent:	Party B
4. Business Days and Business Day Conventions:	
Business Days applicable to each Observation Date and the Valuation Date:	Rate Source Business Days
Business Days applicable to the Settlement Date:	New York