



The Nigerian Autonomous Foreign Exchange Market Spot Rates Methodology

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1. Introduction

The following document presents a summary of the methodology that FMDQ Securities Exchange Limited (“**FMDQ Exchange**” or the “**Exchange**”) applies to compute the daily Opening and Closing Rates (“**Spot Rates**”) in the Nigerian Autonomous Foreign Exchange Market (“**NAFEM**”).

2. Coverage

The methodology outlined in this document pertains to the calculation of FMDQ Spot FX Rates for the USD/NGN (\$/₦) currency pair, as well as any other currency pairs traded and reported on the FMDQ-designated FX Trading System.

3. Data Sourcing, Observation Windows and Publication Times

The FMDQ NAFEM Spot Rates shall be based primarily on data inputs collected from the FMDQ-designated FX Trading System or any other data portal during relevant observation windows for publication as follows:

S/N	NAFEM Spot Rates	Data Input	Observation Window	Publication Time
1.	Opening Rate	<ul style="list-style-type: none"> ▪ Firm Orders ▪ Indicative Quotes 	8:00 AM – 9:00 AM	9:05 AM
2.	Closing Rate	<ul style="list-style-type: none"> ▪ Executed Transactions ▪ Firm Orders 	9:00 AM – 4:00 PM	5:00 PM

4. Exercise of Expert Judgement

FMDQ Exchange may exercise discretion with respect to the use of data in determining the Spot FX Rates. Calculation of the NAFEM Spot Rates includes a validation process whereby FMDQ reviews data and selects rates pursuant to certain pre-determined tolerance checks. When applying tolerance checks, FMDQ Exchange has the discretion (subject to internal policies and procedures) to include or reject certain data from the calculation of the NAFEM Spot Rates. Based on FMDQ Exchange’s experience in interpreting market data, FMDQ Exchange will apply expert judgment where necessary, with the intent of ensuring the quality and integrity of the closing rate.

5. Calculation Methodology

The FMDQ NAFEM Spot Rates shall be computed as the Volume-Weighted Average Price (“**VWAP**”) of the rates collected for the relevant data input as stipulated in section 3 above, to two (2) decimal places using the below formula:

$$\frac{\sum(\text{Price}_i \times \text{Value}_i)}{\sum_{i=0}^n \text{Value}}$$

Where: Price_i is the executed prices and Value_i is the value of the transaction in USD or any other foreign currency

5.1. Computation of the FMDQ NAFEM Opening Rate

The daily FMDQ NAFEM Opening Rate shall be computed as the VWAP of firm orders and/or indicative quotes obtained during the designated observation window in section 3 using a waterfall methodology as follows:

- 5.1.1.** Level I – All firm orders¹ in the market at 9:00 AM
- 5.1.2.** Level II – All indicative quotes between 8:00 AM – 9:00 AM (subject to a minimum of five (5) indicative quotes)
- 5.1.3.** Level III – Maintain previous day's Closing Rate

5.2. Computation of the FMDQ NAFEM Closing Rate

The daily FMDQ NAFEM Closing Rate shall be computed as the VWAP of firm orders obtained during the designated observation window in section 3 using a waterfall methodology as follows:

- 5.2.1.** Level I – Last ten (10) trades of the current trading day
- 5.2.2.** Level II – Ten (10) data points comprising all trades and most recent firm orders
- 5.2.3.** Level III – Most recent firm orders between 9:00 AM – 4:00 PM (subject to a minimum of ten (10) firm orders)
- 5.2.4.** Level IV – Maintain current trading day's Opening Rate

6. Contingency Plan

- 6.1.** Where there is inadequate data for the computation of the FMDQ NAFEM Spot Rates as stipulated in sections 5.2 and 5.3 above, the previous day's FMDQ NAFEM Closing Rate shall be published as the Opening and Closing Rates for the current day.
- 6.2.** Any republished rates from the previous business day will be identified as such on the FMDQ Exchange website and e-Markets Portal.
- 6.3.** After five (5) consecutive business days of republishing the same previous day's NAFEM Closing Rate (in this case, Closing Rate of five (5) business days prior), an FMDQ Market Review Committee meeting shall be convened in a special session to devise a strategy for the appropriate determination of future NAFEM Spot Rates towards preserving the continuity of the Spot Rates.

¹ Mid-rate of firm orders upon activation of 2WQ