The Nigerian Autonomous Foreign Exchange Market
Spot Rates Methodology

January 2024

Contents

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 Rate ("**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

FMDQ NAFEM Spot Rates shall be based primarily on data inputs collected from transactions traded or reported on the FMDQ-designated FX Trading System, as well as any other data sources (deemed representative) designated by the Exchange during relevant observation windows for publication as follows:

S/N	NAFEM Spot Rates	Observation Window	Publication Time
1.	Opening Rate	8:00 AM – 9:00 AM	9:05 AM
2.	Closing Rate	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 Rate. Calculation of the NAFEM Spot Rate 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 accept or reject data from the calculation of the NAFEM Spot Rates. Based on FMDQ Exchange's experience in interpreting market data, FMDQ Exchange shall apply expert judgment where necessary, with the intent of ensuring the quality and integrity of the Spot Rates.

5. Calculation Methodology

The FMDQ NAFEM Spot Rate 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:

$$\frac{\sum(Price_i \times Value_i)}{\sum_{i=0}^{n} Value}$$

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 data inputs obtained during the designated observation window in section 3 using a waterfall methodology as follows:

5.1.1. Level I – All firm orders[1] 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[2]

5.2. Computation of the FMDQ NAFEM Closing Rate

The daily FMDQ NAFEM Closing Rate shall be computed as the VWAP of data inputs 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 – Minimum of last (5) trades of the current trading day

5.2.3. Level III – Minimum of five (5) data inputs comprising all trades and available market quotes[3] of the current trading day

5.2.4. Level IV – Maintain the previous trading day's Closing Rate[2]

6. Contingency Plan

6.1. Where Levels III and IV as documented in sections 5.1.3 and 5.2.4 have been adopted for five (5) consecutive business days, the Exchange at its discretion may, in line with its internal policies and procedures, defer to alternative approaches and devise a strategy for the appropriate determination of future NAFEM Spot Rates towards preserving the continuity of the Spot Rates.

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[1] Mid-rate of firm orders upon activation of 2WQ
[2] Any republished rates from the previous business day will be identified as such on the FMDQ Exchange website and e-Markets Portal
[3] Market quotes refer to USD/NGN rates quoted by banks for a standard transaction size of $100,000.00