14th Multi-Year Expert Meeting on Commodities and Development

09-11 October 2023, Geneva

The role of local commodity exchanges in managing commodities price volatility in Nigeria:
The case of the Nigerian Commodities Exchange (NCX)

By

Kingsley Obi Omeihe, Senior Lecturer in Economics, School of Business and Creative Industries,
University of the West of Scotland (UK)

The views expressed are those of the author and do not necessarily reflect the views of UNCTAD.
The role of local commodity exchanges in managing commodities price volatility in Nigeria: The case of the Nigerian Commodities Exchange (NCX)

Kingsley Obi Omeihe
.... A thorough understanding of local commodity exchanges is increasingly crucial, and even more so is a concentrated emphasis on African local commodity exchanges for effectively managing price volatility.... (Omeihe, 2023)
Commodity Exchange Explained

Serve as highly effective platforms where buyers and sellers converge.

Primarily to enhance their price risk management capabilities.

Optimise the marketing of tangible goods.

Offer well-documented development advantages, promoting economic inclusivity.

Strengthening the connection between agriculture and finance.

Enhancing the efficiency and competitiveness of the commodity sector.
Commodity Exchange
Explained

*Futures trading in the commodities market is a popular means of hedging against price movement and is also used for portfolio diversification.

Commodities can be generally divided into four main categories namely:

1. Agriculture Commodities: These include food crops (maize, cocoa, coffee), cash crops (cotton), livestock (cattle), etc.;
2. Energy Commodities: These include natural gas, crude oil, coal, uranium, ethanol, electricity etc.;
3. Metal Commodities: These include iron ore, zinc, aluminium, steel, nickel, precious metals etc.; and
4. Environmental Commodities: These include renewable energy certificates, carbon emissions etc.

Source: NCX
A notable aspect of recent inquiries into the shortcomings of LCXs is their limited success in unlocking their potential to stimulate agricultural production. An inefficient local commodity exchange not only escalates transaction costs but also falls short of assisting buyers and sellers in establishing suitable commodity prices. One of the significant risk factors for commodity-dependent developing nations is price risk, which impacts all stakeholders within commodity-producing countries’ markets. The effectiveness of a commodity exchange relies on the number of participants, their educational background, and their understanding of the exchange.
These concerns demand swift attention to facilitate agricultural production at the farm level and alleviate the substantial revenue losses endured by farmers.

The government has devised strategies to revamp the Nigeria Commodity Exchange (NCX), with the objective of enhancing agricultural productivity, enhancing price determination and transparency, and stabilising food prices.
### Top 10 Agricultural Exports from Nigeria in 2020

<table>
<thead>
<tr>
<th>S/N</th>
<th>Products</th>
<th>FOB Value (USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cocoa Beans</td>
<td>570,808,878</td>
</tr>
<tr>
<td>2</td>
<td>Sesame Seeds</td>
<td>254,037,697</td>
</tr>
<tr>
<td>3</td>
<td>Cashew Nuts</td>
<td>47,364,449</td>
</tr>
<tr>
<td>4</td>
<td>Rubber</td>
<td>42,245,939</td>
</tr>
<tr>
<td>5</td>
<td>Beef/Crustaceans</td>
<td>41,768,864</td>
</tr>
<tr>
<td>6</td>
<td>Coffee</td>
<td>15,323,789</td>
</tr>
<tr>
<td>7</td>
<td>Cotton</td>
<td>14,832,989</td>
</tr>
<tr>
<td>8</td>
<td>Ginger</td>
<td>11,986,858</td>
</tr>
<tr>
<td>9</td>
<td>Hibiscus Flower</td>
<td>4,595,462</td>
</tr>
<tr>
<td>10</td>
<td>Groundnuts</td>
<td>1,246,790</td>
</tr>
</tbody>
</table>

Source: NCX Report

### Contribution to Agriculture Sector in 2020

- **Crop Production**: 87.6%
- **Livestock and Poultry**: 8.1%
- **Fishing**: 3.2%
- **Forestry**: 1.1%

Non-Oil Export by Product in Percentage (2020)
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Kaduna</td>
<td>1,935,914</td>
<td>25,000</td>
<td>8,000</td>
</tr>
<tr>
<td>2</td>
<td>Kano</td>
<td>1,843,019</td>
<td>25,000</td>
<td>2,000</td>
</tr>
<tr>
<td>3</td>
<td>Niger</td>
<td>1,799,270</td>
<td>25,000</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>Kebbi</td>
<td>1,331,454</td>
<td>100,000</td>
<td>2,000</td>
</tr>
<tr>
<td>5</td>
<td>Kogi</td>
<td>1,328,934</td>
<td>25,000</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>Nasarawa</td>
<td>1,273,849</td>
<td>25,000</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>Katsina</td>
<td>1,282,920</td>
<td>25,000</td>
<td>2,000</td>
</tr>
<tr>
<td>8</td>
<td>Taraba</td>
<td>1,297,825</td>
<td>25,000</td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td>Plateau</td>
<td>1,227,142</td>
<td>25,000</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td>Benue</td>
<td>1,160,838</td>
<td>25,000</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>14,481,165</strong></td>
<td><strong>325,000</strong></td>
<td><strong>14,000</strong></td>
</tr>
</tbody>
</table>

Source NCX Report
Commodity Price Volatility

(1) Volatility is an indicator of variation over a specific time frame.

(2) Volatility can emerge due to factors such as transportation costs, trade tariffs and fragmentation of the market (e.g., in the natural gas market, where a substantial portion of traded volumes is distributed via pipelines).

(3) For one thing, the question becomes one of establishing how price volatility can be managed?

(4) Other volatility faces by consumers may include, incomplete pass-through of commodity price changes, differences in exchange rate dynamics, different tax regimes.

(5) Key Drivers
- Demand, Geopolitical Events
- Trade Policy, Climate Change
- Market Transparency, Technological Change, Exchange Rates
- Supply
<table>
<thead>
<tr>
<th></th>
<th>Meso-Level Supply Factors (MSF) Located in the Individual Commodity Markets</th>
<th>Macro-Level Demand Factors (MDF)-Located at the Global Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cyclical Shocks</strong></td>
<td>Meso-Level Shocks: On the meso-level supply side, commodity price volatility can be driven by cyclical or periodical factors, such as seasonality in agricultural markets and unexpected production shortfalls</td>
<td>The global pandemic had a substantial influence on fluctuations in global commodity prices. Travel restrictions resulted in decreased prices for commodities, including oil, metals, and agricultural products.</td>
</tr>
<tr>
<td><strong>Intermittent Shocks</strong></td>
<td>Intermittent: Weather occurrences are challenging to forecast and can frequently lead to supply disruptions in commodity markets, especially within the agricultural sector. E.g., <em>adverse weather conditions in Thailand/Australia led to a decrease in rice production and subsequent price hikes</em></td>
<td>An expansive monetary policy marked by low interest rates can lead to overall demand and bolster economic growth, potentially resulting in heightened demand for commodities.</td>
</tr>
<tr>
<td><strong>Restrictive Shocks</strong></td>
<td><strong>Targeted:</strong> Disease and pest outbreaks can lead to meso-level shocks (40% and 250 billion USD Lost!)</td>
<td><strong>Targeted:</strong> Imposing constraints on trade, such as restrictions on the export of food or outright bans, led to instability during periods of crisis.</td>
</tr>
<tr>
<td><strong>Backstop Shocks</strong></td>
<td><strong>Backstop bottlenecks:</strong> Labor Disputes and Work-Related Disagreements can result in delays and interruptions in production, consequently causing meso-level supply disruptions.</td>
<td>Speculators (investors) also have an impact on fluctuations in commodity prices, regarding commodity prices using futures, options, and various financial tools.</td>
</tr>
</tbody>
</table>
Volatility of wheat and cotton prices

Volatility of crude oil and copper prices

Source: UNCTAD (2023)
Managing Price Volatility Risks by the NCX caused by MSF and MDF (Systemic shocks)

Institutional Logics (Omeihe, 2023)

Enhancing market transparency, delivering timely and precise information can be achieved through the utilization of information and communication technology (ICT).

Establish sufficient storage infrastructure and perform accurate analysis and forecasting to minimize disparities between anticipated and real demand.

Broadening the economic base through diversification constitutes a critical strategy for nations reliant on commodities. Mitigate the adverse impacts of commodity price fluctuations.

Savings funds are created to manage the long-term financial surpluses.

...put succinctly, it presupposes an understanding of NCX behaviour located within social and institutional contexts.

Financing and technical capacity needs for climate adaptation.

Demand Risk

Market Risk

Logistic Risk

Legal Risk

Stewardship

Political Risk

Technological Risk
SUMMARY AND DIRECTION

Transparency.
Trading platforms, warehouse receipts

Improve efficiency of trading platform eg single platform NSE

Encourage trust with smallholder farmers’ associations and encourage them to trade on exchange

New Regulations to attract private sector investments

Improve storage, grading standards

Strengthen financial institutions and mechanisms

Fiscal buffers can act as an insurance against fiscal distress in the event of commodity price drops.

Encourage Traceability and Global GAP Certification.

Synergies across MDA and relevant ministries

Overall Institutional Reforms and establishing a new NCX blueprint
References

- NCX (2023). Repositioning the Nigeria Commodity Exchange (NCX)/ Strategic Execution Plan
- Omeihe (2023b). Navigating the trust deficit: How restoring trust in institutions can drive prosperity
- UNCTAD (2023) Managing commodity price volatility in commodity-dependent developing countries.