FMDQ

THOUGHT LEADERSHIP SERIES

The Nigerian Derivatives Market PART 1

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Overview of Derivatives and Derivatives Markets

Financial derivatives are financial securities that derive their values from other assets, rates, indexes, or events (typically referred to as the "underlying"). They are essentially legal contracts specifying that the underlying or cash flows linked to the underlying, will be exchanged at an agreed price on a later date. The fact that settlement of derivatives transactions happens sometime in the future is, perhaps, their most distinctive quality. There are four (4) major types of derivatives contracts, namely: forwards, futures, options, and swaps.

Derivatives are either traded on an Exchange or over-the-counter ("OTC"). The Exchange-traded derivatives ("ETDs") market is dominated by futures and options, while forwards and swaps dominate the OTC derivatives market. OTC derivatives are bilaterally negotiated and customised to meet the exact needs of the counterparties to the transactions. On the other hand, ETDs are standardised, mostly anonymously traded, and may not provide perfect hedges. Where derivatives traded OTC are considered illiquid and expose the counterparties to significant counterparty risk, ETD markets have mechanisms in place to minimise counterparty risk and are generally more liquid.

> *"The choice between a tailored hedge and a standardised hedge boils down to a choice between a perfect hedge with a high bid-ask spread and counterparty risk; or an imperfect hedge with a low bid-ask spread and basis risk."*
>
> *- Bank of International Settlement*

Historical Perspective and the Emergence of Financial Derivatives

While some accounts claim that derivatives were invented in the 1970s following increased volatility in the financial markets, others believe that derivatives (even if not so called) have been in existence for much longer. Given that in their simplest form, derivatives are private agreements of future delivery on underlying goods/commodities, the notion that derivatives contracts emerged as soon as humans were able to make credible promises is believable. Derivatives, therefore, are primarily risk management tools, having been originally used to hedge price risk of agricultural commodities. Today, there are many different types of derivatives contracts and the underlying to which their values are tied have expanded beyond commodities and traditional asset classes to literally anything (including, but not limited to, market volatility, risk events, and weather predictions), in so far as one can find a willing counterparty.

While derivatives remained dominated by OTC transactions for most of their history, they have evolved and found increasingly important applications in commerce and finance. Their first and enduring application in finance was in the Foreign Exchange ("FX") market. The collapse of the Bretton Woods Agreement in the 1970s following the United States' abandonment of the gold standard and devaluation of the US Dollar led to the introduction of floating exchange rates, where the value of all the main currencies were determined by market trading. This translated to considerably increased risk of currency price fluctuations and provided sufficient economic rationale and tailwind for the adoption of the Chicago Mercantile Exchange's newly launched currency futures. These currency futures now represent the first successful application of derivatives in finance and paved the way for other forms of financial derivatives.

What followed was a period of rapid growth in the application of derivatives to finance, especially in the OTC market, giving financial market participants access to a broad range of new financial securities for hedging/managing risks, sharing risks and executing new trading and investment strategies. The global OTC derivatives market (measured in nominal outstanding amounts) grew by c. 850% in the decade leading up to the global financial crisis, from $72.00 trillion in 1998 to $684.00 trillion[1] in June 2008, over eleven times the world's GDP at the time (2008: $60.11 trillion[2]). This growth was largely unregulated and accompanied by the increasing complexity of OTC derivatives products.

[1] European Central Bank, 2009
[2] International Monetary Fund, 2009

Role of Derivatives in the Global Financial Crisis (GFC) and Post-GFC Developments

Although sub-prime lending and the housing market were at the epicentre of the global financial crisis, the OTC derivatives market was implicated as having exacerbated the crisis due to the lack of transparency and counterparty risk interconnections inherent in this market. While counterparty risk interconnections meant the default by a major market participant resulted in "spill-over" risk transmitted to other market participants through the OTC derivatives market, the opacity of the market meant that the regulators and market could not accurately and promptly gauge the deterioration in the creditworthiness of OTC derivatives counterparties.

Following the GFC, mitigating counterparty risk associated with OTC derivatives and increasing the transparency of the OTC markets have been prominent drivers of many financial market reforms. During the Group of Twenty ("G20") 2009 Pittsburgh Summit[3], a reform programme to reduce the systemic risk of OTC derivatives was introduced. This led to the introduction of mandatory reporting for all OTC derivatives to trade repositories, clearing requirements for standardised OTC derivatives, higher capital requirements for non-centrally cleared derivatives, and supporting guidelines/regulations in various jurisdiction (including Nigeria), in the years that followed.

[3] http://www.g20.utoronto.ca/2009/2009communique0925.html

Opportunities for Hedging with Derivatives in Nigeria

Notwithstanding the increased regulation, the adoption of the financial innovation that derivatives represent has continued unabated, spreading to new jurisdictions, including developing markets. In 2020, the National Stock Exchange of India Limited emerged as the world's largest Exchange by number of derivatives contracts traded[4]. Like India and many other developing market economies, there are tremendous opportunities for the application of derivatives in Nigeria for corporates (financial and non-financial), and the government.

Corporates may invest surplus cash and lock-in yield on anticipated cash inflow(s) by buying interest rate futures. A corporate seeking to raise capital in the future may also sell interest rate futures to hedge against increase in the cost of capital on a planned raise. Also, corporates in key trade sectors that import raw materials or export finished goods may use FX derivatives to hedge FX risks and improve business planning.

Nigeria runs a defined-contribution pension scheme, thus monthly inflows can be estimated with a fair amount of accuracy. In addition to this, aggregate fund inflow to the industry exceeds monthly pay-outs due to favourable demographics (young and growing labour force; low retirement rate) and the ever-increasing adoption of the pension scheme. A Pension Fund Administrator ("PFA") can buy bond futures to lock in yield on the investment of its projected receipts, if the PFA anticipates a decline in long-term interest rates. A PFA whose fund has a different profile (that is, monthly pay-outs exceed inflows) can sell bond futures to lock in yields on the future sale of bonds in its portfolio to meet its pay-out obligations, if the PFA anticipates an increase in long-term interest rates.

Insurance companies may also lock in yields on anticipated premiums from renewable policies and anticipated liquidation of their investment portfolios to meet claims, if market conditions are expected to change unfavourably before premiums are received or payment of claims become due. Further, a commodity-dependent economy like Nigeria, whose government earns about 50.00% of its revenue from the export of crude oil, may hedge variability in the price of such commodity (and improve planning and budgeting) using appropriate commodity derivatives products.

[4] Futures Industry Association

Overview of the Nigerian Derivatives Market

In Nigeria, the derivatives market remains largely OTC (with the Naira-settled OTC FX Futures ("OTC FX Futures") contract being the only derivatives product that trades on an Exchange)[5] and have found application in different forms. Derivatives have been added to bond issues (as several institutions have issued redeemable bonds; that is, bonds with embedded call options) and embedded in loan transactions with prepayment clauses (that is, loans with embedded put options). Their most important application is, however, in the FX market as banks, other financial institutions, and corporates enter OTC derivatives contracts to hedge the risk of the volatility of the value of the Naira.

In a bid to ensure financial system stability, and in line with global efforts to reduce the systemic risk of OTC derivatives, the Central Bank of Nigeria ("CBN") in its capacity as the regulator of the FX market, introduced the Guidelines for FX Derivatives and Modalities for CBN FX Forward (the "Guidelines") in January 2011. The Guidelines approved FX Options, FX Forwards (deliverable and non-deliverable), FX Swaps, and Cross-Currency Interest Rate Swaps as derivatives products tradable in the inter-bank market for the sole purpose of hedging FX exposures. In addition to these, the CBN, through the Guidelines, announced its participation in the FX derivatives market by offering to sell FX derivatives to clients through qualified banks and willingness to provide hedges to support projects with long-term FX exposure. It was believed that deepening the FX derivatives market would help smoothen out the demand for FX and reduce accelerated demand in reaction to anticipatory depreciation of the Naira.

[5]The OTC FX Futures contract is a hybrid between forwards and futures. While the product is essentially a non-deliverable forward settled in Naira, it trades on an Exchange and is subject to the risk management practices of ETDs such as daily valuation and margining. The detailed structure of the OTC FX Futures market will be discussed in Part 2 of this article

Globally, FX markets are dominated by derivatives transactions which account for over 65.00% of FX market turnover[6]. Following the release of the Guidelines and the CBN's effort to support liquidity in the FX derivatives market, the contribution of FX derivatives transactions to total FX market turnover stood around 20.00% between 2013 and 2015. While this certainly represents progress, the huge disparity between the two figures (that is, 65.00% FX derivatives contribution to global FX market turnover versus 20.00% contribution in Nigeria) suggests huge potential for growth in FX derivatives transactions in Nigeria.

Following a period of illiquidity and uncertainty in the Nigerian FX market, the CBN laudably revised the structure of the inter-bank market in June 2016 on the back of the release of the Revised Guidelines for the Operation of the Nigerian Inter-Bank Market (the "Revised Guidelines"). The Revised Guidelines, among other things, introduced an additional hedging product – the OTC FX Futures contract – to help banks and end-users hedge FX risk and smoothen out the demand for the Naira. While the Revised Guidelines serve as the primary regulation establishing the OTC FX Futures market, FMDQ Securities Exchange Limited has been empowered by the CBN to organise the market and provide ongoing governance.

Alongside the subsequently introduced Investors' and Exporters' Foreign Exchange Window (the "I&E FX Window"), the introduction of the OTC FX Futures product revolutionised the Nigerian FX market. While the I&E FX Window saw a remarkable improvement in foreign investor participation in the FX market, the ability of these investors to hedge FX risks and preserve their capital through OTC FX Futures contracts provided further impetus for the period of relative exchange rate stability that followed.

Given the long-run positive effect of the derivatives market on economic development in various jurisdictions, its rather successful application in the Nigerian FX market, and clear economic rationale for its widespread application in the Nigerian financial market, the derivatives market has continued to evolve in Nigeria. Subsequent articles in this series will provide further insight into the operations of the OTC FX Futures market and discuss the evolution of the Nigerian derivatives market since 2016.

[6] Triennial Central Bank Survey of Foreign Exchange and Over-the-counter (OTC) Derivatives Markets in 2019, Bank of International Settlement

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