# Foreign Exchange Market Segmentation, Foreign Exchange Utilisation and Exchange Rate Volatility: The Nigerian Experience

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## I. Introduction

The choice of exchange rate regime impact on the economic growth, inflation and external reserves of emerging economies. Due to the economic costs that exchange rate volatility can bring to an economy, most countries have engaged in exchange rate reforms. This is particularly evident in many sub-Sahara African countries, with a shift towards the independence of their Central Banks, to adopt different forms of exchange rate regimes. Nigeria has gone through different exchange rate regimes over the years. As the nation's foreign exchange earnings increased significantly following the oil boom in the early 1970s, it became necessary to manage foreign exchange rate to prepare for periods of burst.

Prior to the introduction of the Structural Adjustment Programme (SAP) in 1986, Nigeria had a pegged exchange rate regime and strong exchange controls. What existed during this period was more a case of allocation of foreign exchange than free flowing purchase and sale of foreign exchange. The increasing demand for foreign exchange and the inability of the exchange control system to evolve an appropriate mechanism for foreign exchange allocation in consonance with the goal of internal balance, led to a shift in September 26, 1986, to a new mechanism under the SAP. The main objectives of exchange rate policy under SAP were to; preserve the value of the domestic currency, maintain a favourable external balance and the overall goal of macroeconomic stability and determine a realistic exchange rate for the naira.

In an attempt to achieve these objectives, a transitory dual exchange rate system (First and Second -Tier Foreign Exchange Market – SFEM) was adopted in September 1986, which metamorphosed into the Foreign Exchange Market (FEM) in 1987. Bureau-de-change was introduced in 1989 with a view to enlarging the scope of FEM. In 1994, there was a policy reversal, occasioned by the non-relenting pressure on the foreign exchange market. Further reforms such as the formal pegging of the naira exchange rate, the centralisation of foreign exchange in the CBN, the restriction of Bureau-de-change to buy foreign exchange as an agent of the CBN among others were all introduced in the foreign exchange market in 1994 as a result of the volatility in exchange rate. There was another policy reversal in 1995 to that

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of "guided deregulation". This necessitated the institution of the Autonomous Foreign Exchange Market (AFEM), which later metamorphosed into a daily two-way quote Inter-Bank Foreign Exchange Market (IFEM) in 1999. The Retail Dutch Auction System (rDAS) was introduced in 2002 as a result of the intensification of the demand pressure in the foreign exchange market and the persistence in the depletion of the country's external reserves. Finally, the Wholesale Dutch Auction System (wDAS) was introduced in February 20, 2006. The introduction of the WDAS was also to deepen the foreign exchange market to evolve a realistic exchange rate of the naira. This was later changed to rDAS in October 2013, which enabled the Central Bank to monitor uses of foreign exchange purchases from the apex bank. In February 2015, the CBN discontinued the rDAS with a view to gradually relegating its participation in the foreign exchange market to interventions at the inter-bank market on a need basis.

Traditionally, the CBN has dominated the foreign exchange market in the formal sector with some presence from the Bureau-de-change. With the introduction of the two-way quote inter-bank market and the several liberalisation policies by the CBN we have seen the gradual transfer of dominance from the CBN to the inter-bank market. According to the CBN 2013 half year report, of total inflow into the country in the first half of year, inflow through the CBN accounted for 27.3 per cent while 72.7 per cent of the total US$72.44 billion inflow were from autonomous sources. A further breakdown revealed that over-the-counter (OTC) and ordinary domiciliary account, which were traded in the inter-bank segment of the market, were US$34.15 billion and US$16.47 billion, respectively. These figures were far in excess of the US$19.78 billion inflow through the CBN.

## II. Foreign Exchange Market Segmentation

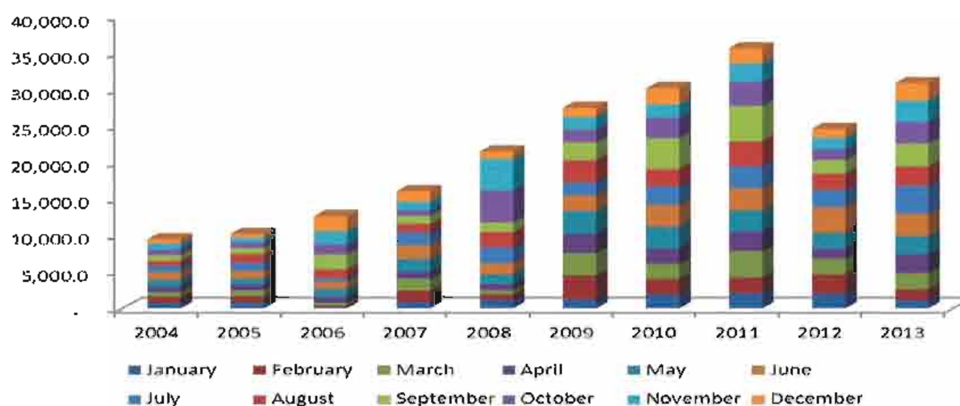
Market segmentation is the process of subdividing a large homogenous market into clearly identifiable segments having similar needs, wants and demand characteristics. In the foreign exchange market, segmentation could be done along products i.e. Spot, Forwards and Derivatives, user type (Institutional, Corporate or Retail), transaction type (imports, exports and services) among others. Nigeria's current exchange rate arrangement is described by the IMF as a managed float with no preannounced target for the exchange rate of the naira. Currently, there are two exchange rates: the inter-bank foreign exchange market (IFEM) at which the CBN transacts, at a rate quoted by a group of commercial banks and the bureau-de-change rate. The markets can be further broken into the official market consisting of the central bank intervention, the inter-bank market, and the bureau-de-change segments.

## II.1 Authorised Markets

### II.1.1 Central Bank Auction (Interventions at the inter-bank market)

The CBN had historically dominated the foreign exchange market prior to the emergence of the inter-bank market. Till recently, the CBN conducted a bi-weekly auction using the Retail Dutch Auction (rDAS) system, which consisted of the spot and forward auctions. The spot auction held regularly and was more dominant, while the forward auction held less frequently and was often reintroduced during volatile market conditions. The CBN had also been intervening directly at the inter-bank whenever there was a need. The transition towards being purely a participant at the inter-bank market began many years ago, as the CBN had gradually transferred a significant amount of transactions that had been previously eligible at the auctions to the inter-bank market. Prior to the discontinuance of the rDAS, only the importation of refined petroleum products and raw materials used in local manufacturing were allowed at the CBN auctions. The CBN began dollar sale to the BDC segment of the market in 2006. This resulted in appreciation of the naira in the BDC market leading to convergence in the three major market segments.

**Figure 1: Dollar Supply from the CBN (including sales to Bureau-de-Change from April, 2006-2013)**




**Source: CBN**

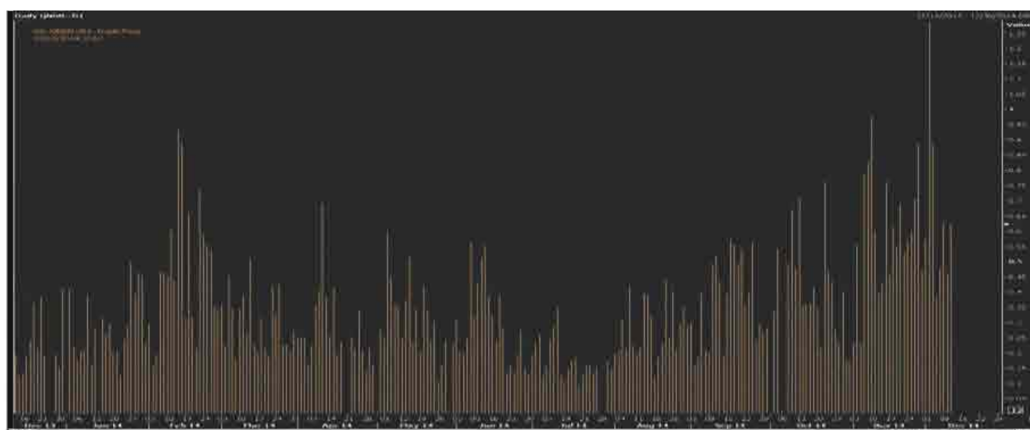
### II.1.2 Inter-bank Market

With the closure of the rDAS window, the inter-bank market has become the undisputed dominant segment of the foreign exchange. This emergence was not a sudden one as the reduction of eligible transactions at the rDAS had increased the activity level at the inter-bank market. The active participation and trading by commercial banks in the two-way inter-bank market has enhanced the accessibility and liquidity in the market. The estimated daily turnover of the inter-bank market in 2014 was US$350 million with a record daily turnover of US$1.23 billion on December 02, 2014. The exchange rate at the CBN auction

market has been stable for a considerable period of time, while the inter-bank market has been more volatile and reflects demand and supply conditions in the market. In period of excess supply, the exchange rate appreciates significantly and vice-versa.

The inter-bank market is essential as it provides access to a wider audience than any other segment of the market. It is also the most transparent market as live prices are displayed on both Reuters and Bloomberg. The transparency of the inter-bank market and increased liquidity in this market were contributing factors for the inclusion of the nation's bonds in the JP Morgan emerging market bond index. According to JP Morgan, "liquidity and removal of the one-year lock-in period for foreign investment in government securities" paved the way for Nigeria's bond inclusion in the index. Furthermore, JP Morgan warned of exclusion from the index if additional controls are put in place, "The introduction of any additional controls may also lead to Nigeria's exclusion from the GBI-EM Global and GBI-EM Global Diversified". Thus, it can be translated that an active, liquid inter-bank market together with less restriction on holding period for foreign investors in government securities allowed for index entry and would be needed for the FGN bonds to remain in the index.

**Figure 2: USD/NGN Volume analysis**



**Source: Reuters Eikon**

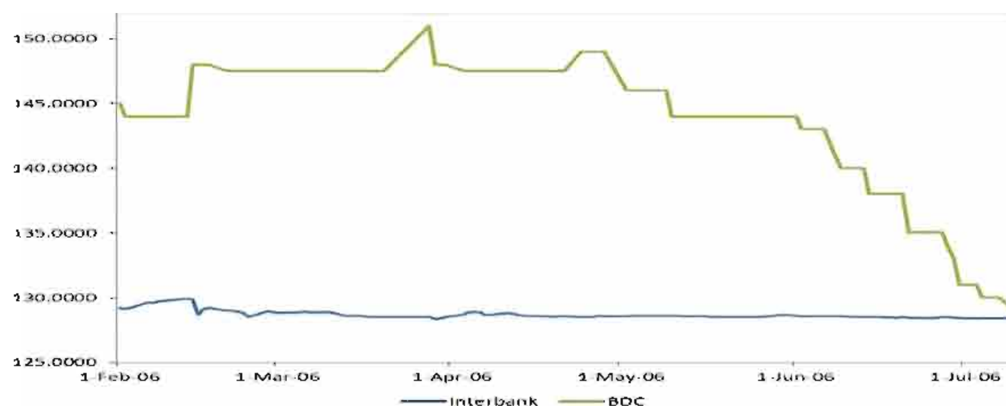
The Financial Market Dealers Association (FMDA) has been canvasing for market development. The emergence of the FMDQ, an OTC exchange registered with the Securities and Exchange Commission (SEC) is expected to accelerate the development of the Nigerian financial markets. The Inter-bank market will serve as the base and help to ensure a vibrant foreign exchange market.

## II.1.3 Bureau-de-Change

The BDC operators were established to serve the retail end of the market. For a long-term, they have been trading independent of the other segments of the market. However, as the CBN commenced the liberalisation of the foreign exchange market in 2006, the BDC

segment of the market was allowed to purchase funds directly from the CBN and the inter-bank market to meet the needs of their clients. This resulted in a marginal convergence of the exchange rates in the authorised markets. The market is predominantly cash-based and all banks currently source dollar cash from Travelex. Presently, the Central Bank sells US$30,000 weekly to individual BDCs, which the BDCs sell to clients with eligible transactions.

**Figure 3: Exchange Rate in the Inter-bank and BDC Market Segments following the CBN's Commencement of Dollar Sale to BDCS**




**Source: CBN, Citibank**

To deepen the BDC segment of the market, the CBN issued new regulatory requirements for BDC operations in the country in 2014. The CBN increased their capital base by 250 per cent to ₦35 million from ₦10 million. Also, the mandatory cautionary non-interest deposit was raised to ₦35 million from the initial ₦1 million. As a result of this, the total number of BDCs in the country fell to 2,586 from 3,208 before the regulatory requirement.

Before the recent changes that barred sales to the BDCs from the inter-bank market, the BDC market was estimated at a daily average volume range of US$150-US$200 million with the majority of this sourced from the inter-bank market and autonomous sources. Historically, average daily volume in the BDC segment of the market was as high as US$300-US$400 million before the enforcement of regulations that helped bring down the volumes.

Policy tinkering on the BDC segment has direct implications for the inter-bank market. Over the years, the inter-bank market appreciated on CBN's pronouncement of a reduction in the amount BDCs can source from the inter-bank market and vice versa. On September 26, 2013, the CBN issued a circular, which limited the amount BDCs can source from individual bank to US$250,000.00. Following the circular, the naira appreciated by 1.05 per cent the following day closing at ₦159.95/USD below ₦161.65/USD. However, the policy was reversed on the January 24, 2014 when the CBN removed the cap on the amount of dollars BDCs can source from the inter-bank market. This resulted in a pressure point, as the currency depreciated by 1.21 per cent the next day to close at ₦162.45/USD from ₦160.50/USD.

Following the circular which limited the dollar sale to the BDC segment, the naira was stable for a sustained period of time in the inter-bank market although the divergence between the inter-bank and the BDC market widened. It must be noted that the increased divergence was mainly a function of supply in the BDC segment and not a function of the transfer price from the inter-bank market as there is a 1 per cent cap on premium charged between the price at which the fund is sourced and sold to the BDCs.

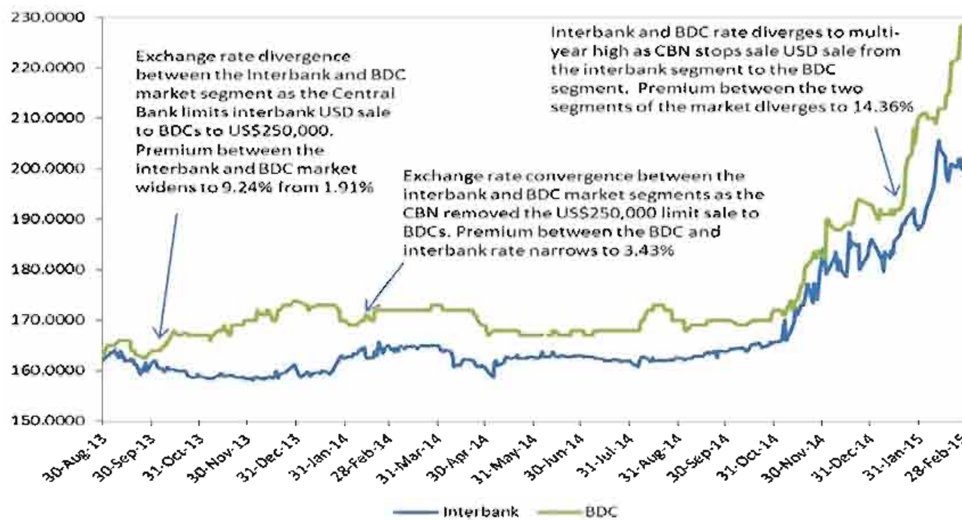
The reversal of the circular in January 2014 coincided with a period of general negative sentiment on emerging markets. The naira subsequently depreciated in the inter-bank market and strengthened in the BDC market. However, persistent pressure in the inter-bank market ultimately fed into the BDC market as a significant portion of its fund were sourced from the inter-bank. This persistent pressure in the inter-bank market was responsible for the unsustainability of the strengthening in the BDC segment. Ultimately, the decision must be taken as to the market that accurately measures the value of the currency and volatility. Exchange rate convergence is desirable by the central bank, while achieving it could be at a cost to the external reserves and increased volatility in the inter-bank market. It must also be noted that the inter-bank market is most tracked market globally and thus, best measures volatility in the exchange rate.

Analysis showed that despite the fact that the naira appreciated in the BDC segment in the short-term following a policy that favoured that segment of the market, this appreciation is often short-lived. However, appreciation of the currency in the inter-bank market is often sustained over a longer period of time. As shown in the graph below, prices in the BDC segment of the market is upwardly sticky and downward trends are not sustained. Higher BDC rates typically lead to uncertainty and increased demand in the inter-bank market, and also put pressure on the CBN to depreciate gradually to reduce the divergence between the Inter-bank and BDC rates.

In January 2015, the CBN outlawed the sale of USD from the inter-bank market to the BDC segment, which led to the widening of the gap between the BDC and the inter-bank market rates. The spread widened from 3.12 per cent on the January, 21 2015 to 14.25 per cent on February 27, 2015. This made it very important to dimension how these markets are interlinked and how a policy for one segment of the market impact volatility in another segment.

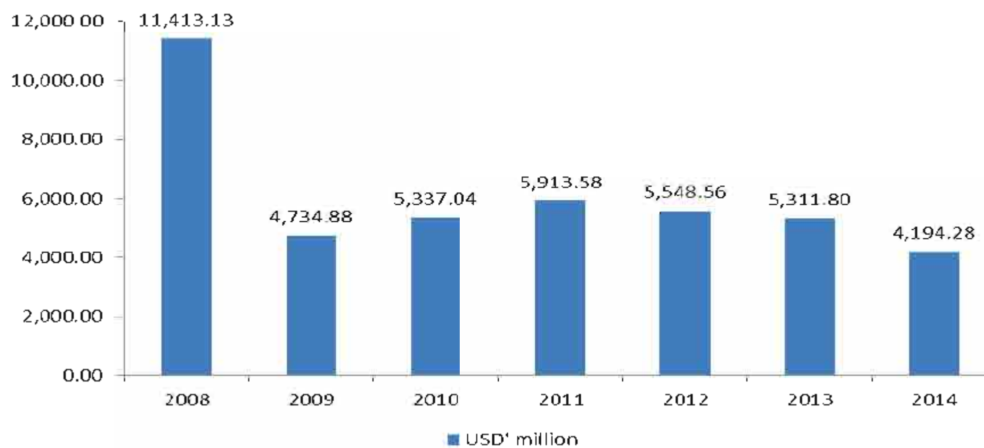
It should be noted that despite the inter-bank market being the most tracked globally, in the Nigerian context, the BDC rate is the widely publicised rate and serves the large informal sector (the size of the parallel market is challenging to estimate).

**Figure 4: Lag in Exchange Rate Movement in the BDC Segment**




**Source: CBN and Citibank**

**Figure 5: Demand from the BDC sector**




**Source: CBN Statistical Database**

### II.1.4 International Money transfer Companies

With an estimated 17 million people in the diaspora, Nigeria like most countries with a large diaspora has a very active and vibrant money transfer market. This includes banks, international money transfer companies and informal agents in the grey market. According to the World Bank, in 2012 Nigeria was the largest receiver of inward remittance in Africa at approximately US$21bilion, which is in line with the average over the past few years.

**Table 1: Nigeria Remittance Data (2008-2013)**

| Year | Amount US$'billion |
|---|---|
| 2008 | 19.21 |
| 2009 | 18.37 |
| 2010 | 19.82 |
| 2011 | 20.62 |
| 2012 | 20.63 |
| 2013 | 20.89 |

**Source: World Bank Annual Remittance Data**

Money transfer operators ("MTO") have been in operation in Nigeria since the mid-1990s with Western Union and MoneyGram being the major players accounting for over 90 per cent of the market. Other operators have included Cash4Africa, Vigo, Rial among others. The business model in Nigeria is based on partnerships with local banks. Western union alone has over 4,800 locations in Nigeria mainly through the branches of their Nigerian bankers. Until September 2014 when the CBN released the Guidelines for outwards transfers, their operations were restricted to inward transfers only.

### II.2 Unofficial Market

#### II.2.1 Unauthorised Parallel Market

The parallel market is the most opaque, yet large segment of the market. Parallel markets typically get created in markets where there are exchange control restrictions, which inhibit or out rightly ban the free movement of funds and capital to and from that jurisdiction. Parallel markets hardly exist in countries with freely floated and fully convertible currencies. Nigeria has historically had exchange control restrictions on both current and capital account transactions. A lot of the reforms by the CBN over the years have practically led to full current account convertibility, but there are still some restrictions on capital account transactions. Our history of exchange controls have led to the development of a large and vibrant parallel market which is dominated by the following players:

a. Retail users of foreign exchange;
b. Traders in Nigeria's large informal sector;
c. Investors evading exchange controls on capital accounts; and
d. Money Launderers.

The CBN has put in a lot of effort over the years to bring in legitimate users of foreign exchange (Users 1 – 3) into the official markets. The BDC's operations have been expanded to include transactions that were previously the exclusive preserve of the banks e.g. school fees, insurance, medical fees, travel allowance, among others. The Central Bank also reduced the spread between the BDC/rDAS and inter-bank/rDAS rates by commencing the

sale of foreign exchange directly to them. This has led to mainstreaming retail customers who would have ordinarily patronised the parallel market. Other measures that have been employed to achieve this purpose include:

a. Allowing the use of Naira Debit/Credit cards for foreign exchange transaction;
b. Increasing the allowable limit on these card transactions to US$150,000 per annum from the initial limit of US$40,000;
c. Reducing the documentation for retail importers subject to a maximum of US$250,000 to just Form M and proforma invoice; and
d. Introduction of the investment in foreign securities as an eligible transaction.

These measures have helped in bringing in a significant portion of the demand from the parallel market to the official market. There are enough stress-free avenues for retail users to access foreign exchange in the official market. The outcome has, however, been slightly less successful when one considers the size of small business people in the Nigerian Informal sector. Some of the reasons given by traders who still patronise the parallel market are:

1. Failure of cards at point of payment;
2. Preference for cash by suppliers;
3. Electronic fraud; and
4. Lack of adequate awareness about some of the policies.

These reasons are legitimate and there is also the sense that the reluctance to change has been a part of the reason that some have not adapted to the use of the alternative means of payment. One also has to consider the "tax advantage" that can be negotiated or avoided working outside the official market versus the compulsory payment of these taxes if payments are done through the bank. The challenge for the Central Bank is to work with the operators to find a way to assuage the concerns of the traders and create the enabling environment to make it easier and more convenient for them to come within the official market. This will lead to making the parallel market irrelevant and help to isolate the unwanted users of foreign exchange in that market.

### II.2.2 Offshore Non-Delivery Forward ("NDF") Market

The NDF market was developed as an offshore market to trade the currencies of emerging markets with capital controls. NDFs are contracts for differences which are usually cash settled in US dollars. Liquidity typically exists from one month up to a year. London, which is the major financial market for currencies, is where the most liquidity exists for NDFs. The NDF market for USD/NGN is a US$100 million a day market dominated mainly by the global banks, multinationals and international institutional investors. However, liquidity in the market also thins out when the physical spot market becomes stressed. Unlike the deliverable market where the carry trade principle is embedded in the pricing of forwards, in the NDFs the implied yield of the market can widen significantly if the market prices in a major devaluation or appreciation.

The features/terms of an NDF include:

- The notional amount: This is the "face value" of the NDF, which is agreed between the two counterparties. It should be noted that there is never any intention to exchange the notional amounts in the two currencies;
- The fixing date: This is the day and time whereby the comparison between the NDF rate and the prevailing spot rate is made;
- The settlement (or delivery) date: This is the day when the difference is paid or received. Depending on the currencies in deal, the fixing date is one or two good business days before the settlement date;
- The contracted NDF rate: This is the rate agreed between the two counterparties on the transaction date, and is essentially the outright forward rate of the currencies in deal; and
- The prevailing spot (fixing) rate: The fixing spot rate on the fixing date is usually an average dealing rate for the day (in Nigeria, it is provided by the FMDQ), and is commonly calculated by calling a number of dealers in the market for a quote at a specified time of day, and taking the average. The exact method of determining the fixing rate will be agreed when a trade is initiated, but most NDF markets have their own conventions (for example, two days before Settlement/Value date).

### Advantages of NDFs

The key benefits of an active NDF market are: reduced pressure on the spot market and hedging for investors and corporates. NDF provides protection against unfavourable foreign exchange movements for both investors and corporates between deal date and the maturity date. This can assist in managing foreign currency exposures. Investors and corporates simply exchange the uncertainty of exchange rate fluctuations for the certainty of an agreed cash flow. Users who have hedged their exposure in the offshore NDF market will no longer have to bring forward obligations or execute plain forward transactions, which may be covered in the Local spot market. NDFs also provide flexibility as the maturity date and the contract amount can be tailored to meet end users' particular requirements.

## III. Exchange Rate Regime

The optimal choice of exchange rate regime is a topic with a long tradition in international macroeconomics. No exchange rate regime is empirically superior to others. Choice of the exchange rate arrangements should be tailored to specific circumstances of a country. The potential determinants of exchange rate regimes can be grouped in three categories:

- Macroeconomic Variables;
- Capital Openness Variables; and
- Optimum Currency Area Variables.

Until very recently, we operated a managed float regime. Under this regime, the exchange rate was flexible within a band (the last band was 168 ±5%), with the end points defended through interventions. Over the years, the CBN had managed to keep the currency within

its target band and investors' confidence in the apex bank's ability to maintain the band was often reinforced by the stable/growing external reserves. However, this currency regime was subject to volatility around the band. This volatility was most pronounced in periods of falling oil prices and declining external reserves. Also, it is important to note that Nigeria is overly exposed as the dollar supply into the market is limited and significantly reduced during these periods.

We are currently in transition from a managed float to a lightly managed float. The current regime still runs like an auction albeit at more flexible rates, which are very close to the inter-bank rate. The CBN still requests for details of individual clients and sets a rate at which they sell. The slightly managed float is hinged on the forces of demand and supply being the major determinants of the exchange rate with occasional interventions by the Central Bank whenever liquidity is needed. The CBN will need to subordinate its role in the market and trade at the inter-bank market rate when they intervene to fully crossover.

**Table 2: Exchange Rate Regimes**

| | Main Features | Country Circumstances | Main Advantages | Main Disadvantages |
|---|---|---|---|---|
| **FLOATING REGIMES** | | | | |
| Independent Float | Exchange rate is determined in the market freely by demand and supply. The monetary authority does not intervene in the foreign exchange market. Monetary policy is independent of the exchange rate regime and can be used freely to steer the domestic economy. | Appropriate for medium and large industrialised countries and some emerging market economies that are relatively closed to international trade, but fully integrated in the global capital markets, and have diversified production and trade, a deep and broad financial sector, and strong prudential standards. | More easily deflect or absorb adverse shocks.<br><br>Not prone to currency crisis.<br><br>High international reserves not required. | High short-term volatility (excessive fluctuations may be dampened in the case of lightly managed float).<br><br>Large medium-term swings only weakly related to economic fundamentals. High possibility of misalignment.<br><br>Discretion in monetary policy may create inflationary bias. |
| Lightly Managed Float | The exchange rate is determined essentially in the market by demand and supply. Occasional interventions (direct or indirect through monetary policy) aim to moderate excessive fluctuations. Monetary policy is largely free to be used to steer the domestic economy. | | | |
| **INTERMEDIATE REGIMES** | | | | |
| Managed Float | The monetary authority intervenes actively in the | Appropriate for emerging market economies and | Limited flexibility permits partial absorption of | Lack of transparency because criterion for |

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|---|---|---|---|---|
| | foreign exchange market without specifying or precommitting to a preannounced path for the exchange rate. Intervention may be direct (sterilised and non-sterilised) or indirect through changes in interest rates, etc. It may operate like an unannounced crawling broad band. Monetary policy is relatively free to be used to steer the domestic economy. | some other developing countries with relatively stronger financial sector and track record for disciplined macroeconomic policy. | adverse shocks<br><br>Can maintain stability and competitiveness if the regime is credible.<br><br>Low vulnerability to currency crisis if edges of the band are soft. | intervention is not disclosed in managed float, and broad band regimes are not immediately identifiable. This may lead to uncertainty and lack of credibility.<br><br>High international reserves are required. |
| Crawling Broad Band | The exchange rate is maintained within a broad band around a central rate that is adjusted periodically at a fixed preanounced rate to keep the effective exchange rate competitive. A common adjustment rule is forward looking crawl (based on differentials between target inflation and expected inflation in major trading partners). It imposes constraints on monetary policy, with the degree of policy independence being a function of the band width. | | | |

| | | | | |
|---|---|---|---|---|
| **SOFT PEG REGIME** | | | | |
| Crawling Narrow Band | The exchange rate is maintained within a narrow band around a central rate that is adjusted periodically at a fixed preannounced rate to keep the effective exchange rate competitive. A common adjustment rule is forward looking crawl (based on differentials between target inflation and expected inflation in major trading partners). There is limited discretion for monetary policy depending on the band width. | Appropriate for developing countries with limited links to global financial markets, less diversified production and export structure, shallow financial markets, and lacking monetary discipline and credibility.<br><br>Countries stabilising from very high level of inflation | Can maintain stability and competitiveness if the peg is credible.<br><br>Lower interest rates<br><br>Provides a clear and easily monitorable nominal anchor<br><br>Allows high inflation countries to reduce inflation by moderating inflationary expectations. | Prone to currency crisis if the country is open to international capital markets.<br><br>Encourages foreign debt.<br><br>High international reserves are required.<br><br>Little shock absorptive capacity. Shocks are largely absorbed by changes in the real sector. |
| Crawling Peg | The exchange rate is adjusted periodically according to a set of indicators. The rate of crawl can be set at a preannounced fixed rate at or below the projected inflation differentials (forward looking). Maintaining a credible crawling peg imposes constraints on monetary policy. | | | |

| Pegged Within Band | The exchange rate is allowed to fluctuate within a narrow band around a formal or de facto central fixed peg. The central rate is fixed in terms of a single currency or of a basket of currencies. This regime may be the result of cooperative arrangements or unilateral. There is some limited degree of monetary policy discretion depending on the bandwidth. | | | |
|---|---|---|---|---|
| Fixed Peg | The exchange rate is pegged at a fixed rate to a major currency or a basket of currencies (or to SDR). The monetary authority is not committed to the peg indefinitely. The peg is adjusted (devaluation) when misalignment becomes unsustainable. The monetary authority stands ready to defend the peg through direct intervention and monetary policy. Traditional central banking functions are possible but the degree of | | | |

| | | | | |
|---|---|---|---|---|
| | monetary policy discretion is limited. | | | |
| **HARD PEG** | | | | |
| Currency Board | Strict exchange rate regime supported by a monetary system based on legislative commitment to exchange domestic currency for a specified foreign currency at a fixed rate. Domestic currency is issued only against foreign exchange. There is almost no scope for independent monetary policy. | Appropriate for countries with a history of monetary disorder, high inflation, and low credibility of policymakers that need a strong anchor for monetary stabilisation. | Provides maximum credibility for the economic policy regime.<br><br>Can facilitate disinflation<br><br>Not prone to currency crisis.<br><br>Low transaction costs, low and stable interest rates.<br><br>Lack of monetary discretion eliminates inflationary bias. | Central bank loses its role as lender of last resort. Higher probability of liquidity crisis.<br><br>Low seigniorage under currency board, no siegniorage in the case of dollarisation.<br><br>No shock absorptive capacity. Shocks have to be fully absorbed by changes in economic activity.<br><br>Exit from dollarisation is very difficult. |
| Currency Union Dollarisation | Another country's currency is used as the only legal tender, or the country belongs to a currency union in which the same legal tender is shared by all members of the union.<br><br>Monetary autonomy is fully surrendered. There is no scope for independent monetary policy. | Appropriate for countries that have already developed extensive trade and other economic ties (EMU).<br><br>Small countries already integrated in larger neighboring countries (dollarisation). | | |

**Source: Choice of Exchange Rate Regimes for Developing Countries, Africa Region Working Paper Series No. 16, April 2001, The World Bank.**

**Table 3: IMF Annual Report on exchange Arrangements and Exchange Restrictions 2014**

| Exchange rate arrangement (number of countries) | Exchange rate anchor | | | | Monetary aggregate target (25) | Inflation targeting framework (34) | Other (43) |
|---|---|---|---|---|---|---|---|
| | U.S. dollar (43) | Euro (26) | Composite (12) | Other (8) | | | |
| No separate legal tender (13) | Ecuador, El Salvador, Marshal Islands, Micronesia, Palau, Panama, Timor-Leste, Zimbabwe | Kosovo, Montenegro, San Marino | | Kiribati, Tuvalu | | | |
| Currency board (12) | Djibouti, Hong Kong SAR<br>**ECCU** – Antigua and Barbuda, Dominica, Grenada, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines | Bosnia and Herzegovina, Bulgaria, Lithuania | | Brunei Darussalam | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Conventional peg (44) | Aruba Bahamas, The Bahamas, Bahrain, Barbados, Belise, Curacao and Sint Maarten, Eritrea, Jordan, Oman, Qatar, Saudi Arabia, South Sudan, Turkmenistan, United Arab Emirates, Venezuela | Cabo Verde Comoros, Denmark, Sao Tome and Principe<br>**WAEMU** - Benin, Burkina Faso, Côte d'Ivoire, Guinea-Bissau, Mali, Niger, Senegal, Togo<br>**CEMAC** - Cameroon, Central African Republic, Chad, Congo, Equatorial Guinea, Gabon | Fiji, Kuwait, Libya, Morocco, Samoa | Bhutan, Lesotho, Namibia, Nepal, Swaziland | | | Solomon Islands |
| Stabilised arrangement | Guyana, Iraq, Kazakhstan (02/14), Lebanon, Maldives, Suriname, Trinidad and Tobago | FYR Macedonia | Singapore, Vietnam | | Bangladesh (02/13), Burundi (03/13), Democratic Republic. of the Congo, Guinea (08/13), Sri Lanka, (10/13), Tajikistan, | | Angola, Azerbaijan, Bolivia, Egypt (07/13) |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | | Yemen | | |
| Crawling peg (2) | Nicaragua | | Botswana | | | | |
| Crawl-like arrangement (15) | Honduras, Jamaica | Croatia | | | China, Ethiopia, Uzbekistan | Armenia (03/13), Dominican Republic, Guatemala (11/12) | Argentina, Belarus (09/12), Haiti, Lao P.D.R., Switzerland (05/13), Tunisia |
| Pegged exchange rate within horizontal bands (1) | | | Tonga | | | | |
| Other managed arrangement (18) | Cambodia (7/13), Liberia | | Algeria, Iran, Syria | | The Gambia, Myanmar, Nigeria, Rwanda | Czech Rep. (11/13) | Costa Rica (08/13), Kyrgyz Rep. Malaysia, Mauritania, Pakistan (12/13), Russia, Sudan, Vanuatu |
| Floating (36) | | | | | Afghanistan, Kenya, Madagascar, Malawi (05/12), Mozambique, Papua New Guinea, Seychelles (03/14), Sierra | Albania, Brazil, Colombia, Georgia (11/13), Ghana, Hungary, Iceland, Indonesia (08/13), | India, Mauritius, Mongolia, Zambia |

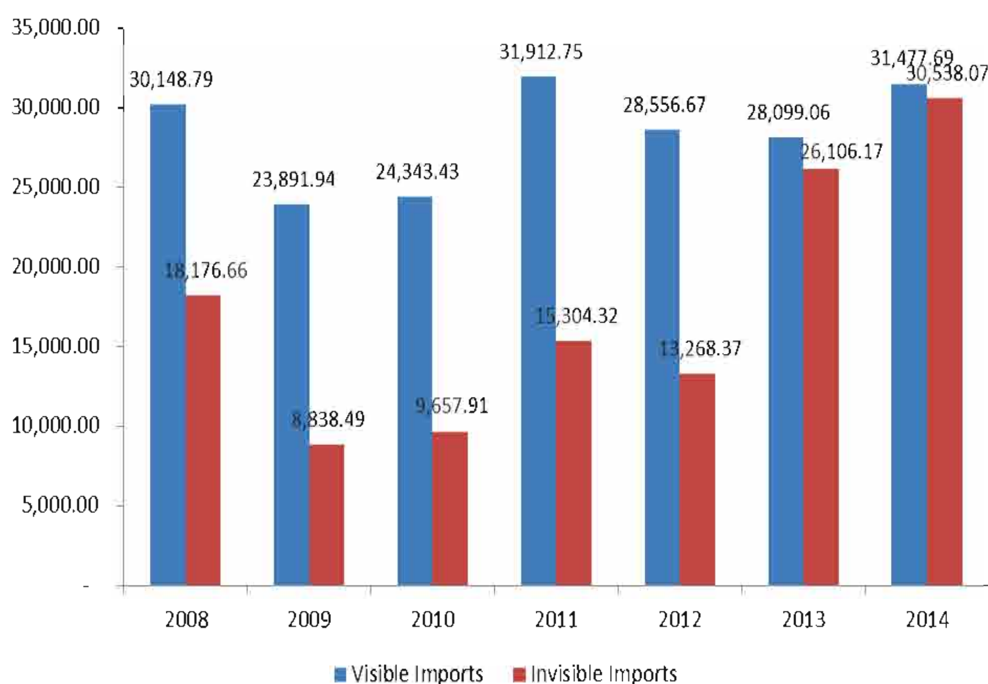
| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | | Leone, Tanzania, Ukraine (02/14, Uruguay | Israel (05/13), Korea, Moldova, New Zealand, Paraguay (07/13), Peru, Philippines, Romania, Serbia, South Africa, Thailand, Turkey, Uganda | |
| Free Floating (29) | | | | | | Australia, Canada, Chile, Japan, Mexico, Norway, Poland, Sweden, United Kingdom | Somalia, United States<br>**EMU** – Austria, Belgium, Cyprus, Estonia, Finland, France, Germany, Greece, Ireland, Italy, Latvia (01/14), Luxembourg, Malta, Netherlands, Portugal, Slovak Rep., |
| | | | | | | | Slovenia, Spain |

**Source: IMF Annual Report on Exchange Arrangements and Exchange Restrictions 2014**

## IV. Foreign Exchange Utilisation

Utilisation of foreign exchange can be classified into two main categories, visible and invisible imports. Historically, the visible import segment dominates in foreign exchange utilisation. However, with increased depth in financial services and a burgeoning transport services sector, the invisible sector utilisation of foreign exchange has been on the rise.

**Figure 6: Visible and Invisible Sector Foreign Exchange Utilisation (USD'Million)**



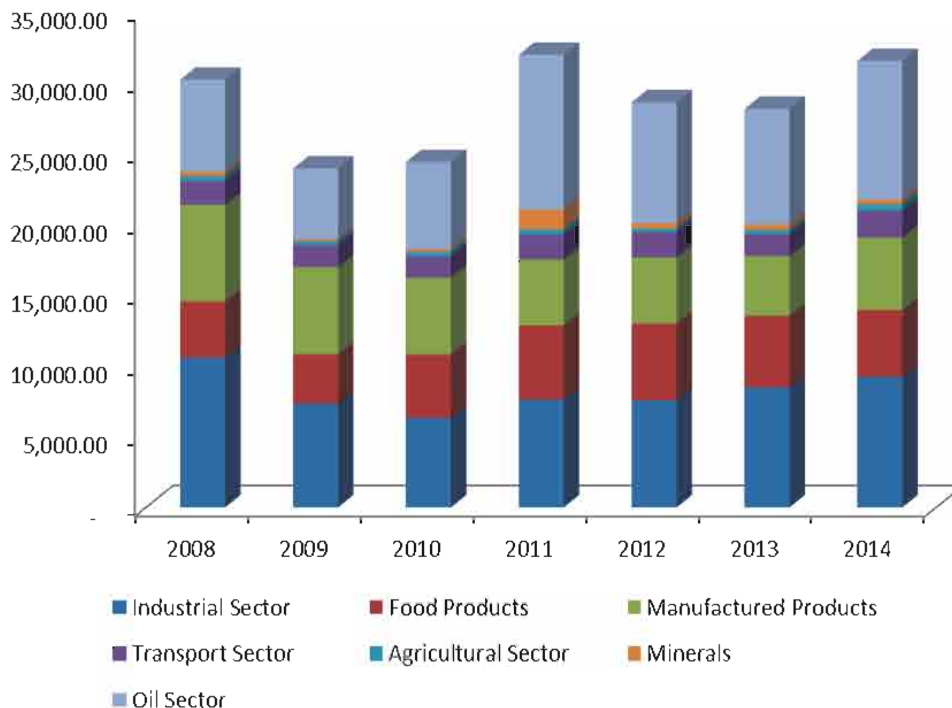

**Source: CBN Statistical Bulletin data**

Until 2012, the visible sector accounted for an average of 68.6 per cent of total foreign exchange utilisation. However, this average dropped to 51.3 per cent in 2013 and 2014 due to the increase in foreign exchange utilisation by the financial services segment of the invisible sector. Nigeria remains an import dependent country which suggests that visible foreign exchange utilisation predominates. Under the visible sector, industrial sector, food products, manufactured products and oil sector account for 91 per cent of the total utilisation of the sector.

Available data showed that the oil sector, which is mainly the downstream sector of the oil and gas industry, is the single largest buyer of foreign exchange from the CBN, while the sector's dollar inflow into the country is near zero. The oil sector utilisation of foreign

exchange is for financing imports of refined petroleum products (diesel, PMS and kerosene). The sectors' dollar demand should therefore fluctuate depending on the price of crude oil. In a period of high crude prices, the sector's demand and utilisation of foreign exchange effectively increases thus, limiting the ability of the CBN to grow the reserves. However, it remains to be seen whether a decline in the price of crude oil also results in a decline in the sector's utilisation of foreign exchange (Although 2009 suggests this, a recurrence will be needed to prove this). Between 2009 and 2011, the sector utilisation of foreign exchange increased by 120 per cent before the federal government reduced fuel subsidy.

**Figure 7: Breakdown of Visible Sector Foreign Exchange Utilisation**




**Source: CBN and Citibank**

In the last 7 years, the financial services sector accounted for 71.2 per cent of the total foreign exchange utilisation in the invisible segment. It is also important to note that this sector also accounts for a significant inflow of foreign exchange into the country. At the height of the financial crisis in 2008/2009, there was net outflow of foreign exchange leading to the financial services sector utilisation of foreign exchange to rise to USD14.3 billion in 2008. This number reduced significantly in subsequent years to an average of USD7.3 billion over a four-year period. However, the inclusion of Nigeria government bonds in the JP Morgan emerging bond index in 2012, resulted in an increased interest in the country from offshore investors. This was supported by the quantitative easing in the United States, which created cheap dollars for investors seeking higher yields in emerging

economies. The financial integration of Nigeria with the global economy means that the country will experience more volatility and demand for foreign exchange from the financial services sector during periods of outflow from emerging markets. The commencement of tapering, general negative sentiment about emerging markets and falling oil prices led to increase in financial services utilisation of foreign exchange to an all-time high of US$22.2 billion and US$24.4 billion in 2013 and 2014, respectively.

**Figure 8: Breakdown of Invisible Sector Foreign Exchange Utilisation**

**Source: CBN and Citibank**

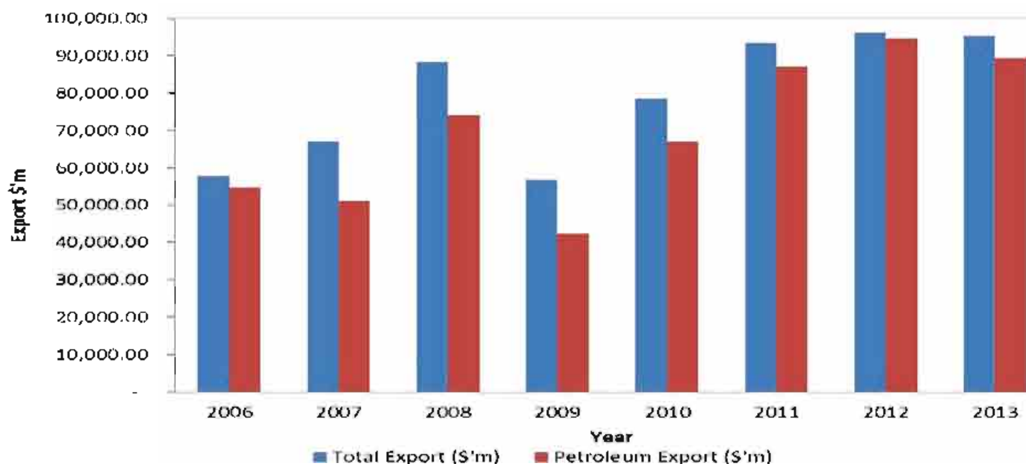
## VI. Exchange Rate Volatility

Exchange rate volatility is defined as the risk associated with the unexpected movement in the exchange rate (Ozturk, 2006) i.e., it is the risk associated with currency depreciation or appreciation. According to Marston et. al., (1988), "Volatility is the day to day, month to month variability of exchange rate, a variability that may have no trend to it". This means volatility is a high frequency concept referring to movements in the exchange rate over relatively short period of time.

Nigeria is a mono-product economy. According to OPEC statistical bulletin (2013/2014) the value of Nigeria's total export revenue in 2013 was US$95,118 million and the revenue of petroleum exports from the total export revenue was US$89,314 million which is 93.9 per cent of total export revenue. This means that Nigeria's economy will be vulnerable to the movements of oil prices.

During periods of favourable oil price shocks triggered by conflict in oil-producing areas increased in demand for the commodity by the consuming nations, seasonality factors, trading positions, among others. Nigeria experiences favourable terms of trade evidenced by a large current account surplus and exchange rate appreciation. Conversely, when crude oil prices are low, occasioned by factors such as low demand, seasonality factors and excess supply, the reverse becomes the case, with exchange rate under pressure, external reserves depletion, rising budget deficit and slow economic growth (Englama et. al., 2010). An example was a drop in the revenue from oil exports, during the global financial crisis in 2009. According to OPEC statistical bulletin (2010/2011), oil export revenue dropped from US$74,033 million in 2008 to US$43,623 million in 2009 and the naira depreciated to ₦148.902/US$ in 2009 from ₦118.546/US$ in 2008.

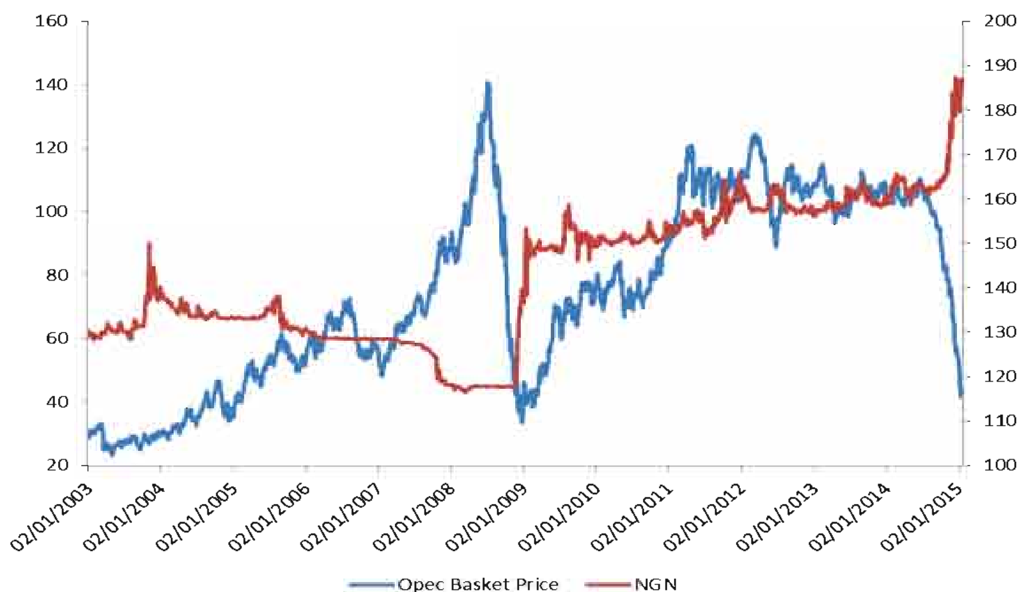
**Figure 9: Nigeria's Total Export and Petroleum Export ($' m)**




**Source: OPEC Statistical Bulletin 2013/2014**

In the same period between the oil price peak of 2008 and the trough of 2009, the nation's external reserves declined by US$20.33 billion to US$41.75 billion in August 2009 from below US$62.08 billion in September 2008 as the CBN attempted to stabilise the currency. A similar trend can be observed in the recent oil price decline that has resulted in the first adjustment in naira exchange rate since 2009.

**Figure 10: Correlation between Oil Prices and the Naira Exchange Rate**




In the last decade, Nigeria has become more intertwined with the global market and thus, impacted by global events other than the oil price. In 2012, Federal Government of Nigeria Bonds were included in the JP Morgan emerging market index (Criteria for the inclusion included liquid currency and bond trading market and lifting of the one year restriction of foreign investors holding of government securities). Consequently, there was significant inflow into the country by both Index trackers and investors searching for higher returns. The inclusion of Nigeria's bond in the JPMorgan Emerging market bond index resulted in a period of appreciating and stable naira as well as external reserves growth. Between August 2012 and March 2013, the inter-bank rate hovered between ₦156.10/US$ and ₦158.90/US$, in-line with the CBN effective rDAS rate of ₦157.36/US$ in the same period. The convergence in inter-bank and rDAS rate meant that corporate clients accessed the inter-bank market for a significant amount of their transactions instead of the CBN rDAS market. According to JP Morgan, estimated fund inflow into the country as a result of the inclusion between August 2012 and the year end was US$4.5 billion. Conversely, global shift in risk and constant changes in risk appetite in emerging market securities means Nigeria is likely to witness more exchange rate volatility in the future.

Since the inclusion of the nation's bond in the JPMorgan index, there have been several pressure points on the currency. The first pressure point came after the then Federal Reserve Bank Chairman, Ben Bernanke, made his famous statement in May 2013 about "Tapering", a term which refers to the Fed reduction of monetary stimulus. Subsequently, there was a net outflow of US$3 billion in Q2, 2013, the first time the country experienced a net outflow since Q2, 2012. Consequently, the naira depreciated by 2.8 per cent in June

2013, closing the month at ₦162.58/US$ from the ₦158.20/US$ close in May 2013. The second period of emerging market outflow experienced by the nation was in February/March 2014. This was a period of general negative sentiment on emerging markets like Turkey and Brazil. Emerging Portfolio Fund Research (EPFR) global data showed that total outflow from emerging markets in the first quarter of 2014 was over US$50 billion. Nigeria experienced the tail end of this risk as outflow from Nigeria began in February, compared with the entire first quarter for most emerging markets. The link between Nigeria and the global market means that the CBN must be more active and decisive in its actions.

## V. Comparison with Other Countries- Poland

From the 1940s to the 1980s, Poland was part of the Eastern European Communist Bloc, which was characterised by a closed economy with a centralised and command control. The collapse of communism in the 1980s ushered in the era of democracy, which led to economic reforms. These reforms focused on the gradual liberalisation of their economy, restructuring of their economies and an aggressive privatisation exercise in a bid to improve the efficiency of their industries. They also introduced schemes and policies to induce entrepreneurial development and the free flow of international capital to boost foreign investment. Poland is globally acclaimed as the example of how a country can successfully restructure and reform its economy and make the transition towards being more open and competitive. The collapse of communism had created difficult economic conditions. It was characterised by high unemployment, hyperinflation and huge public debt. This made the execution of the reforms all the more remarkable as it was achieved despite initial difficulties, which led to change and alteration of some of their policies in line with the changing conditions.

**Table 4: Selected Economic Indicators for Poland (1990 – 2000)**

| Selected Economic Indicators | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| GDP/capital (US$)) | 1,547 | 1,999 | 2,198 | 2,232 | 2,402 | 3,086 | 3,484 | 3,725 | 4,098 | 4,011 | 4,082 |
| Consumer prices, %p.a. | 585.8 | 70.3 | 43.0 | 35.3 | 32.2 | 27.8 | 19.9 | 14.9 | 11.8 | 7.3 | 10.1 |
| Producer prices, %p.a. | 622.4 | 48.1 | 28.5 | 31.9 | 25.3 | 25.4 | 12.4 | 12.2 | 7.3 | 5.7 | 7.8 |
| Real growth wages rates, %p.a. | -24.4 | -0.3 | -2.7 | -3.9 | 0.5 | 3.0 | 5.7 | 6.8 | 4.5 | 4.7 | 2.6 |
| Retail trade growth rates, %p.a. | -17.4 | 3.8 | 7.9 | 6.9 | 3.0 | 2.3 | 4.5 | 6.8 | 2.6 | 4.0 | 1.4 |
| Money supply (M2), tri. zloty | 19.1 | 26.1 | 41.1 | 55.9 | 77.3 | 104.3 | 136.7 | 176.4 | 220.8 | 263.8 | 294.4 |
| Discount rate, %p.a., | 48.0 | 36.0 | 32.0 | 29.0 | 28.0 | 25.0 | 22.0 | 24.5 | 18.3 | 19.0 | 21.5 |
| Deficit of central gov. budget, % of GDP | 0.4 | -3.8 | -6.0 | -2.8 | -2.9 | -2.6 | -2.5 | -1.4 | -2.4 | -2.0 | -2.2 |
| Unemployment rate, %, | 6.3 | 11.8 | 13.6 | 16.4 | 16.0 | 14.9 | 13.2 | 10.5 | 10.4 | 13.0 | 15.0 |
| Exchange rate per US$, average* | 9,500 | 10,582 | 13,631 | 18,145 | 2.27 | 2.42 | 2.70 | 3.28 | 3.49 | 3.97 | 4.35 |
| Current account, mil. US$ | 716 | -1,359 | -269 | -2,329 | -944 | 5,455 | -1,352 | -4,268 | -6,858 | -11,660 | -9,946 |
| Foreign debt, S$mm | 48,500 | 4,8400 | 47,000 | 47,200 | 42,174 | 43,957 | 47,354 | 49,648 | 59,163 | 64,890 | 68,193 |
| Foreign reserve, US$mm | 4680 | 3814 | 4287 | 4281 | 6029 | 14963 | 18033 | 20670 | 27210 | 26107 | 26321 |

* In 1994 downward redenomination by four figures.

**Source: GUS, Rocznik Statystyczny**

As with every economy, the monetary policy inclusive of the foreign exchange rate policy was an integral part of these reforms and the Polish Government used it extensively during the transition period. In general, it was a gradual move from a fixed exchange rate regime, through the crawling peg and crawling band and eventually ending up with a free floating fully convertible currency. This was done along with other policies to attract foreign investment by allowing free flow of capital to and from the Polish economy.

**Table 5: The Evolution of the Exchange Rate System in Poland**

| Period | Exchange Rate System | Characteristics |
|---|---|---|
| Jan 1990–Oct 1991 | Fixed rate against US dollar, and from May 1991 against a basket of five currencies. Devaluation in | Exchange rate as anti-inflationary anchor. |
| | May 1991, by 16.8%. | |
| Oct 1991–May 1995 | Crawling peg with monthly rate of devaluation declining steadily from 1.8% to 1.2%. Two devaluations, by 12% in Feb 1992 and 8% in Aug 1993. | Attempt to reconcile disinflation objective and maintaining competitiveness of exporters on the world market. |
| May 1995–Apr 2000 | Crawling band system, with fluctuation band increasing from ±7% to ±15%. Steady decrease of monthly devaluation rate from 1.2% to 0.3%. Revaluation of the central parity by 6% in Dec 1995. | Higher flexibility of foreign capital inflow management. Steady move to independent monetary policy framework. |
| Apr 2000– | Free-floating exchange rate system | Inflation targeting monetary policy framework (the first inflation target was actually set in Jan 1999). |

**Source: National Bank of Poland**

Prior to the commencement of the reforms, the foreign exchange market had been really a system of allocation by the government and no real foreign exchange market in which market forces had any form of influence in its determination. There was no foreign participation and there were restrictions to the flow of capital. It was also characterised by an active black market with a huge premium over the official exchange rate.

**Table 6: Daily Market Turnover**

| | 1998 $'billion | 2001 $'billion | Apr-04 $'billion | Apr-07 $'billion | Apr-10 $'billion | Apr-13 $'billion |
|---|---|---|---|---|---|---|
| **Foreign Exchange Market** | 2,600.00 | 4,000.00 | 4,915.00 | 9,224.00 | 7,848.00 | 7,564.00 |
| **Spot Transactions** | | | 1,051.00 | 2,405.00 | 1,955.00 | 2,324.00 |
| **Outright Forwards** | | | 189.00 | 527.00 | 318.00 | 464.00 |
| **FX Swaps** | | | 3,495.00 | 5,881.00 | 5,368.00 | 4,581.00 |
| **CIRS** | | | 3.00 | 68.00 | 79.00 | 125.00 |
| **Currency options** | | | 177.00 | 343.00 | 128.00 | 70.00 |

**Source: Narodowy Bank Polski's financial system development reports 1998-2001, 2004, 2007, 2010 and 2013.**

The reforms have led to increased foreign exchange market turnover, improved liquidity, the elimination of the black market and introduction of an array of hedge products, which have all led to the increased flow of capital to Poland. According to the Narodowy Bank

Polski (The Polish Central Bank) the average transaction size grew from nothing before the reforms to .US$5million and €5million, with the minimum amount of 1 million each. The introduction of the Foreign Exchange Law of December 18, 1998 led to the liberalisation of the forwards market, which helped increase the volume of forwards and swaps and led to the introduction of a lot of new hedge products for foreign exchange and interest rates.

By 2010, the Polish foreign exchange market had become the largest currency market in Central and Eastern Europe. The average daily volume in 2010 was approximately US$7.2 billion. A large offshore market for the Zloty had also developed in London. The EUR/PLN had evolved into the dominant currency pair in the market accounting for over 80 per cent of currency transactions. The average daily turnover of spot transactions increased by 19 per cent between 2010 and 2013 driven mainly by increased foreign trade and the development of electronic trading platforms dedicated to corporates and high net worth individuals. The foreign exchange swap market had become the most liquid segment of the domestic foreign exchange market due mainly to its use by foreign banks to manage their exposure to the local treasury bond market. The foreign exchange swap market has gone from obscurity in the 1990s to a peak of a daily turnover of US$5.9 billion in 2007. As with all free floating currencies, there is a large participation of foreign banks and portfolio investors in the Polish foreign exchange market. In April 2013, transactions between local banks and non-residents accounted for about 33 per cent of the turnover.

## VII. Way Forward

There are challenges with respect to the best method to manage the exchange rate and reduce volatility. There are debates as to whether a free floated currency could be the solution. However, like many of its peers, Nigeria remains cautious about the idea of a free floated currency. As Calvo and Reinhart (2002) argued, fear of floating - a reluctance to allow exchange rates to fluctuate freely - could arise for various reasons: policy credibility concerns; fear of Dutch disease in case of large appreciations; and fear of inflation, currency mismatches, and/or balance sheet effects (on account of high liability dollarisation) in case of large depreciations. Ultimately, there is no quick fix to exchange rate volatility although a gradual transition of the economy could assist in controlling exchange rate volatility.

It should be noted that there are limitations to what monetary policy can achieve on its own. Poland for example showed a harmonised restructuring of the economy by not only the monetary and fiscal authorities, but by the whole economic management team as a whole. A roadmap was created and difficult decisions were taken in line with overall objective.

### VII.1 Segmentation

We have explained earlier the various efforts of the CBN in formalising all legitimate transactions from the parallel market to the official window. This has been partially successful, while efforts must be made to ensure that more of the trades going on through

the parallel market get transferred to the official markets. Some of the reasons for this challenge include:

a. The lack of awareness of some of the policies: There is need for the CBN to cooperate with the commercial banks on a strategy to effectively communicate the various options available to traders in the informal sector. This should also include ways of demonstrating the ease and various advantages to using the array of options available through the banks;
b. Reluctance to Change: As in the above, this can only be managed through improved awareness and engagement;
c. Unreliable access to funds through the use of Debit/Credit Cards: This has improved over the years, while there are still complaints about challenges to access in some countries. Again, a coordinated effort by the CBN and banks to ease this burden, especially by finding ways to remove all obstacles towards the ease of using ATM cards, especially in the top countries visited by the business people;
d. "Tax Advantage": When transactions are done through the banks, all charges, levies, dues and taxes are collected and remitted to the various government and statutory authorities. When funds are sourced through the parallel market, it is easier to avoid or "negotiate" these payments. This has led some parts of this segment to avoid transactions with banks. The CBN has to engage their regulatory partners e.g. the Nigeria Customs Service (NCS) to ensure that there is a stricter compliance to the law to place bank transactions on an equal footing with parallel market transactions.

When all legitimate transactions are done in the official markets, it will be easier for the CBN to isolate unwanted transactions at the parallel market and clamp-down hard towards eliminating or at least ensuring the market becomes largely insignificant. It would also lead to improved data and help the CBN make better decisions that will help boost trade and commerce.

## VII.2 Utilisation

Over the last few years, the CBN has done a great job of selecting critical sectors of the economy and providing intervention funds at lower rates to try and boost productivity. The results have, however, been mixed so far. The intervention in the agricultural sector has proven successful, while that of the aviation and manufacturing sectors have not been as impactful as hoped. The power sector has also benefitted from this policy and it's still a bit too early to assess its effectiveness. The success of the CBN's efforts coupled with the various on-going reforms by the Federal Government is critical towards the much needed economic restructuring of Nigeria.

Nigeria remains an import dependent economy which has resulted in a huge import bill. Available data on foreign exchange utilisation from the CBN showed that, the importation of petroleum products, food product imports and manufactured products importation accounted for a significant proportion of the Nation's import bill. From the above, it is clear that if we are able to refine the crude oil locally to meet the needs for the country, the

nation would become agriculturally self-sufficient and spur a resurgent manufacturing sector, and significantly reduce the size of import bill. For this to happen, Nigeria has to transit towards being a much more business friendly country. This will happen when we are able to provide the needed infrastructure, including electricity, transportation, communication; improve access to affordable credit; reduce bureaucracy for businesses; and enact business friendly laws and policies. Beyond self-sufficiency, increased productivity could lead to increased exportation of agricultural products, refined petroleum products and manufactured goods, which would help diversify the foreign currency earnings base as well as boost the growth of our external reserves.

## VII.3 Volatility

There are various factors both local and external that can affect market volatility, while improved utilisation and segmentation will help better manage it. The economic changes that would have occurred to lead to a reduced import bill will also make it easier to manage volatility. The current challenge we have in periods of volatility occasioned by lower oil prices is that even if devaluation takes place due to the change in the current account, imports at best remains constant as there is no local manufacturing base that would help import substitution take place. If this was available, it would be easier to come up with policies that would lead to reduction in importation during these periods.

The lack of a vibrant market to hedge products for clients put significant pressure on the naira. Currently, hedging on naira by corporates is done via outright forward transactions (due to the illiquidity of the forward market, Forward transactions are synthetically created through a spot and an interest rate differential). The lack of a vibrant forward market for hedging means that the spot market is effectively where all hedging transactions are covered. As a result, during periods of exchange rate volatility, when clients with dollar exposure are looking to hedge against a naira depreciation/devaluation, the avenue to hedge is not readily available. This calls for the development of a vibrant local market for deliverable forwards and swaps, which should also lead to improved liquidity in the local NDF market. There is also a need to improve the suite of hedge products available to include Options and various interest rate hedge products to help customers better hedge their currency exposures.

## VII.4 Role of the CBN in the Nigerian Foreign Exchange Market

The CBN has to continue to work in tandem with all stakeholders in the reform process to ensure that the desired outcome is not only achieved, but also entrenched into the whole of the financial system. The CBN will also have to remain focused and continue to follow the roadmap it has developed towards achieving its set goals for the Nigerian foreign exchange market. Some of the decisions could be tied to certain structural milestones and the CBN could nudge its partners towards attaining these milestones for it to achieve its goals. Several questions need to be asked, and they include:

- What is the utopian exchange rate regime to be targeted and how can we move gradually towards it?;
- What level of involvement should the CBN have in the foreign exchange market beyond setting policy?;
- How segmented should the market be?;
- Should the foreign exchange market have several tiers and if so how many?; and
- Full convertibility i.e. Current and Capital accounts, to be or not to be?.

It should be noted that since 2006, the CBN has instituted a lot of changes towards the liberalisation of the foreign exchange market. We practically have full current account convertibility and some capital account transactions have become eligible. All these happened despite the tendency of the CBN to roll back some of the reforms whenever there is pressure on the naira, but by and large, most of the reforms have remained impactful.

The most advanced and industrialised nations have free floating/lightly managed float exchange rate characterised by full convertibility and limited to no exchange controls. With the way the economy is currently constituted, it will be ill-advised to adopt a freely floating exchange rate regime, but as stated above, we can create a guide on how we expect to get there, based on certain economic reform milestones. We can also start to structure the foreign exchange market towards being prepared for this outcome.

It is also clear that we need to bring all legitimate foreign exchange transactions into the official market to make the parallel market redundant with the hope of shutting it down completely in the near future. All the various tiers of market should be rolled into one (the inter-bank market, BDCs, International Money Transfer operators and other authorised buyers getting their pricing at the inter-bank market). This will ensure a unified exchange rate within the system and cut out the temptation to round trip and arbitrage between the various tiers of the market.

We need to acknowledge the CBN's recent bold initiative of ending the rDAS and moving towards purely intervening at the inter-bank market to smoothen out increased volatility. The CBN rightfully should be seen less as operating a tier of the market, but as market participant. The CBN should not be getting involved in the minute day-to-day details of customer transactions - the plan should be to shift that responsibility permanently to banks. This move has paved the way for the potential unification of the rates in the various segments of the market, starting with the inter-bank market and the CBN's selling rate. It should be noted that this reform will potentially lead to intermittent increased volatility as the market adjust to the new regime, especially in an environment with lower crude oil prices. The CBN will need to be resolute in its conviction to ensure that the transition is successful. In the medium to long-term, there is need to remain steadfast in the quest to becoming the major financial hub in Africa where capital flows through offshore to Africa will lead to a much bigger, vibrant and liquid Nigerian foreign exchange market where the CBN's participation will become less and less important.

In conclusion, reforms are usually difficult to implement despite all good intentions. There is the typical resistance to change, and this is not usually helped if tough choices have to be made for them to happen. It is not a coincidence that most of the liberalisation reforms we have seen have occurred during the "times of plenty", and that some rolling back takes place once things start to get difficult. There has to be a strong resolve to get things done. The CBN cannot achieve its aims while working in isolation as there are limitations to monetary policy. This has to be done within the context of broader far reaching economic reforms, involving the fiscal authorities.

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