# THE ACHIEVEMENT OF CONVERGENCE IN THE NIGERIA FOREIGN EXCHANGE MARKET

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## Introduction

The last 10 years have seen two important developments that have implications for monetary and exchange rate policy frameworks in Nigeria. First, as capital controls became less effective, the exchange rate experienced turbulent with high level of depreciation of Naira. This led to the market determination of exchange rate using the Dutch Auction System (DAS) since 1999 - which means operating floating exchange rate regime. Floating foreign exchange rate have gained increased support as a preferred system for reducing the vulnerability of emerging markets to external shocks.

The fact that Naira is floating is not a panacea for effective monetary policy management learning from the Argentina experience. Also with volatile capital flows, there are associated over- and undershooting of exchange rates that the economy would encounter. More importantly, the volatility associated with floating exchange rates, however, exposes economic agents to risk of changes in the assets and liabilities in their balance sheet, as well as in their stream, of current and expected cash flows. Consequently, in the absence of developed derivative markets, in the year 2005, the foreign exchange management was structured to support the monetary policy by introducing the band of ±3% to anchor the rate for effective planning and to prevent volatility in the financial market.

Second, inflation which has been on the increase since 1999 was at a single digit in 2004 and maintained at about single digit by end of the second quarter of 2006. The decline was re-establishing the fact that monetary control was achieved after a period of unstable double digit inflation. These two developments have shown that the exchange rate do have a very strong role in monetary policy framework either using monetary targeting or inflation targeting, the role of foreign exchange management should not be ignored.

The outcome of the exchange rate management is also dependent on the degree of openness of an economy. Therefore, since the liberalization of exchange rate management started in 1986, the degree of openness had been single digit which is indicative of some level of restriction. A double

## 1.0 CHARACTERISING THE EXCHANGE RATES SINCE 1999

Table 1

DEGREE OF OPENNESS OF ECONOMY: NIGERIA, 1999 - 2005

| Year | International Trade (N million) | GDP at constant price (N million) | Ratio of Openness |
|---|---|---|---|
| 1999 | 2051.49 | 312.18 | 6.6 |
| 2000 | 2908.69 | 329.17 | 8.8 |
| 2001 | 3358.93 | 344.28 | 9.8 |
| 2002 | 3463.20 | 356.30 | 9.7 |
| 2003 | 4431.56 | 392.76 | 11.3 |
| 2004 | 4782.15 | 416.72 | 11.5 |
| 2005* | 5160.42 | 445.89 | 11.6 |

*2005 figures are estimates: Source: CBN Statistical Bulletin and 2004 Annual Report

digit level of openness indicates the liberalization of the external sector management.

Table 1 shows the movements of the degree of openness of the economy since 1999. The achievement of convergence is predicated on the degree of openness and the technique of intervention of CBN in the foreign exchange market.

It has been established that central banks in developing economies at earlier stages of development often intervene to support a pegged exchanged rate and more likely functioning as "market makers" while developed countries central banks intervene to dampen exchange rate volatility. Central Banks also enter foreign exchange market to regulate the amount of foreign exchange reserve (to build reserves for intervention or to reduce reserves to lower carrying cost).

Consequently, the foreign exchange management is first and foremost management of a monetary indicator. It is often a signal of the stance of monetary policy and if the Central Bank of Nigeria (CBN) is to manage price stability then efficient management of the exchange rate has a link with the price level changes and interest rate management.

This paper will discuss the achievement of convergence in the Nigerian foreign exchange market in the Nigeria foreign exchange market in five sections with Section 1 being the introduction. Section 2 discusses the exchange rate management and monetary policy. Section 3 dwells on the liberalization of the foreign exchange market, while section 4 explains the process of foreign exchange convergence. Section 5 provides concluding remarks.

## Section 2
## Exchange Rate Management and Monetary Policy

In this section, we briefly describe the characteristics of the Nigerian Foreign exchange rate management and the implication for monetary policy.

Exchange rate management in Nigeria is characterized by official intervention in the foreign exchange market because of the level of development. Even though the exchange rate management regime is a floating regime, but it could be described as a "dirty" float. The fear of "clean" float has recently come to be seen as one of the central de facto characteristics of exchange rate regimes in emerging markets. The interpretation of this phenomenon is still open to question. Does the optimal monetary regime for emerging markets with open capital markets entail limited exchange rate flexibility? Is the flexible exchange rate, liquid financial market and credible inflation targeting regime dilemma for emerging markets a choice between open capital markets or monetary freedom with no separate choice of exchange rate policy? Does the pervasive fear of floating indicate instead that many emerging markets inadvisably choose to limit exchange rate flexibility when a genuine floating regime would be preferable? These are issues and with the Chilean experience, we are supportive of flexible exchange rate in a liquid and deep market and with credible inflation targeting environment.

Although the literature on the relationship between exchange rate management and monetary policy are versed, we discussed in this section that exchange rate intervention using floating regime is optimal for monetary policy management, taking into account the particular economic environment and shocks faced by emerging markets, where anticipation of exchange rate policy can drive inefficient private sector decisions. The main factors that are claimed to support fear of floating ex post are the pass-through of (excessive) exchange rate volatility into domestic inflation, the costs to inflation credibility this might entail, and the contractionary effects of devaluation on an economy with a high level of dollarized liabilities.

Under more rigid exchange rate arrangements, including various forms of pegs, central banks have little discretion over intervention policies. Operational aspects of intervention, including the timing, frequency, amounts and modalities of intervention are among the most important decisions taken by monetary authorities. Intervention is defined as official purchases and sales of foreign exchange to achieve one or more of the following four objectives:

- Moderating exchange rate fluctuations and correcting misalignment
- Addressing disorderly market conditions characterized by sharp fluctuations in the exchange rate, high exchange rate volatility, and wide bid-offer spreads relative to calm periods, and sudden change in foreign exchange turn over.
- Accumulating foreign exchange reserves and;

- Supplying foreign exchange to the market.

These objectives capture what are known to be widely adopted policy objectives of foreign exchange operations in many developing countries. However, central banks globally face the same set of questions on the mechanics of intervention and these include:

- Amount and timing when and in what amount should a central bank intervene in the foreign exchange market?
- Should the official intervention be rules based or discretionary?
- What market factors (liquidity, or flows, etc) should be used to help determine the timing and amount of intervention?
- Degree of transparency should the central bank interventions be announced or kept secret?
- Market and counterparties in which currency pair, instruments (spot or forward contracts) should intervention take place?
- With whom (any authorized dealer or primary dealers) should the central bank trade and how should it approach them (directly or through brokers) to achieve its intervention objectives?

In order to measure flexibility of the exchange, we compare movements in exchange rates with movements in monetary policy instruments that affect the exchange rate. Examining the exchange rate in isolation is not informative about exchange rate policy; as it does not take into account the shocks that monetary policy faces. If exchange rate is stable, we do not know whether it was due to policy choices despite shocks or to a lack of shocks. To deal with this problem, we define a flexible exchange rate as an exchange rate that is volatile relative to the instruments that could stabilize it. The implicit idea is that the policy maker faces a choice about how to accommodate a given external shock: it can be allowed to affect the exchange rate if policy is inactive, or the exchange rate can be insulated if policy is active.

All these points showed that exchange rate operates as intermediate target of monetary policy and therefore it then implies that the domestic interest rates have implications for the path of exchange rate. In an import dependent economy such as Nigeria, the pass-through from exchange rate changes to inflation is transmitted through to the economy faster than through the changes in the interest rates.

**Section 3**
**Liberalization of Foreign Exchange Market**

Up till August 1986 from independence, the foreign exchange market operated under exchange control. In September 1986, the Nigeria's exchange rate framework changed with the implementation of the Structural Adjustment Programme (SAP); which was to promote price stability as a sound basis for sustainable economic growth.

Since September 1986, different exchange rate regime had been experimented. The exchange rate framework incorporated the basket, band and crawl (BBC) regimes (Williamson, 1998.1999). First, Naira was managed against a basket of currencies of its major trading partners and competitors. Second, the CBN operated Inter-bank Foreign Exchange Market (IFEM) as a managed float-market based relying on inter-bank exchange market as the core. This resulted in serious Naira depreciation which was not reflective of economic fundamentals.

Third, is the implementation of retail Dutch Auction System (RDAS) adopted in 2002 where the exchange rate was determined by auctioning with clearing rate declared as the ruling rate. The Authorized dealers bought foreign exchange for their customers account. Fourth, is the policy adopted in 2005 whereby the exchange rate was allowed to fluctuate within a policy band of ±3%.

The liberalization of the foreign exchange market since 1995 during the implementation of IFEM achieved some level of success particularly with the increasing level of reserves. The RDAS adopted in 2002 achieved among others the following:

- Naira exchange rate was determined by the interplay of market forces of demand and supply
- Conserve external reserves
- Reduced to the barest minimum the premium between official rate and that of the parallel market and/or bureau de change.
- Ensure stability of Naira exchange rate

However, the RDAS which expired in February 19, 2006 operated for 43 months 19 days and had some inadequacies in spite of its achievements. These included cumbersomeness of its process etc. RDAS was operated in an inherent capital account restriction policy environment. It encouraged capital flight through the banks buying foreign exchange for the customers account. It was largely manual and highly prone to speculation and supported rent-seeking behaviour

of the authorised dealers. RDAS did not give opportunity to price discovery which is what drives the floating exchange rate market.

With the robust external reserve position, bank consolidation and fiscal discipline achieved by end 2005, on the 20th February, 2006, CBN moved to Wholesale Dutch Auction System (WDAS).

In addition to the objectives that guided the introduction of RDAS, the WDAS is aimed at:

- Further liberalization and development of the foreign exchange market to facilitate the convertibility of the Naira
- The unification of exchange rates between the official and inter-bank markets and to resolve the multiple currency problems
- Facilitating greater market determination of exchange rates for the Naira vis-à-vis other currencies.
- Promote the efficient and smooth functioning of the foreign exchange market as well as achieve a stable and realistic exchange rate.

**Section 4**

**The Process of Foreign Exchange Convergence**

This section documents the process of foreign exchange market convergence achieved at inter-bank and official market in May, 2006 and the three markets convergence (inter-bank, official and bureau de change) in July, 2006.

The WDAS implementation took off with the expected depth and sophistication using electronic and computer based processing, having tested intervention which appreciated Naira in August and December, 2005. The intervention of 2005 before the implementation of WDAS was to test the effect of foreign inflows in the economy on foreign exchange market and to prove that the laws of economics of supply and demand do work in the Nigerian economy.

The capital flow into the Nigeria economy since the start of bank consolidation exercise has been substantial and had persisted even after consolidation. When we examined the type and structure of the capital flows, we observed that the flows are directed toward equity with some attracted to the money market. There are three properties that account for crisis/volatility of capital flows in an emerging economy:

- The domestic macroeconomic stability which is important to external or supply factors of the flows.
- The differential between the international interest rates and domestic interest rates.
- The financial development and quality of institutions.

These three factors will give fillip to the foreign exchange management. These factors are observed to exist now in the Nigerian economy and to that extent it confirmed the fact that even if the reserve accretion reduces, WDAS would not suffer from unstable and low volume of foreign exchange inflows; and with consolidation exercise completed, the fringe banks who were engaged in infractions would have been eliminated. It is also believed that the consolidated banks with the Authorised dealership are now operating with trust and are given more information by the CBN to ensure efficient and effective conduct of the foreign exchange market.

The success of the bank consolidation exercise has provided muscle for WDAS as the threat of insolvency problems with domestic money banks is a thing of the past, coupled with the fact that payment and communication system has become more efficient. WDAS market starts and ends in 2 hour (8.30 a.m. to 10.30 a.m.) and payment is T+1 moved from T+2 before the take-off of WDAS.

The debate on capital account convertibility and capital account management has been strongly influenced by specific country experiences and so when the WDAS was planned to take-off, it was a signal that some level of capital account convertibility must also be implemented by removing some controls on some capital account transactions. Consequently, the take-off of WDAS signaled the move towards final removal of exchange control relics and move towards capital account convertibility. In particular, Chile's experience with controls on capital inflows in the 1990s formed the lessons that guided the moves in the WDAS.

The control of capital mobility has costs and benefits so also are the removal of controls on capital mobility. Most of the potential costs of control are related to possible increases in corruption and to microeconomic inefficiencies. The benefits on the other hand are potentially related to reducing the country's vulnerability to external crises and helping the monetary authorities achieve specific macroeconomic objectives, including monetary policy (liquidity management) and exchange rate objectives.

Consequently, the moves towards WDAS was part of the sequencing of the financial sector reforms and the timing of further liberalization of the foreign exchange market, and removal of constraints on some of

the capital account of the balance of payment. CBN developed the code of conduct for dealing in the WDAS market, agreed on the Information and Communication Technology (ICT) platform and that was done on the background of the strengthened payment and clearing arrangements.

WDAS which started on the 20th of February, 2006 has addressed the multiple exchange markets and the exchange rates converged at the official and inter-bank market at the end of May, 2006. This achievement signaled effective foreign exchange management and the efficiency that the foreign exchange market has started to witness (see figure 1)

.The WDAS is an eNOODLES process (electronic Naira /Dollars Exchange System). The rating of Nigeria by Fitch rating group and Standard and Poor rating group placed Nigeria's foreign exchange management at the level of the markets in Turkey, Chile, and Mexico. Consequently, it behooves on the eNOODLES WDAS to operate in the international standard as a matter of urgency. As an emerging market, Nigerian must prove to the international market that Nigeria's foreign exchange market "can do" and will do using any instrument to stabilize price.

The achieved convergence between WDAS and inter-bank occurred within a space of 12 - 13 weeks of WDAS take-off. The following factors were supportive of the convergence result:

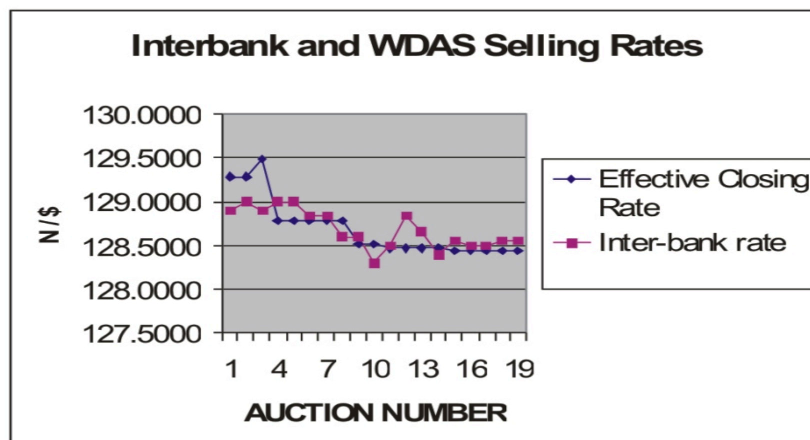
- The strict monitoring of the authorized dealers open position limits.
- Effective coordination between the money market and foreign exchange market operations.
- The daily monitoring of the market by the foreign exchange dealers to address any market surprises.
- The success of the consolidation exercise.
- The mopping up exercise for liquidity management

However, the politico - economic dynamics shifted in the middle of the second quarter of 2006. The shift created pressure on the BDC/parallel market demand for foreign exchange resulting in heavy depreciation of the Naira exchange rate in this market. It would have been theoretically acceptable that these markets are fringe market and so should have no impact on the inter-bank foreign exchange market. However, the development in the BDC/parallel market became alarming when the conical shaped behaviour of pricing were emerging such that at the inter-bank market, Naira was appreciating while it was depreciating at the BDC/parallel market with a premium of over N20/USD. Consequently, the CBN had to strategize by doing the following:

- Study the factors responsible for the depreciation of Naira at the BDC/parallel market
- Have open discussions with the operators of the BDC/Parallel market and the Authorized dealer and Travelex to understand the dynamics of the market.

It was observed that there were supply shortage and so the supply side of resource allocation was deployed. It was also observed that the harmony between the money market and foreign exchange market must be strengthened. The exchange rate is exogenous to money market operators while the interest rate is exogenous to foreign exchange market and both require having consistency in resource allocation. The CBN then took the decision in March, 2006 to allow the BDCs to the official market as brokers. The brokerage was to have the BDC operators come to buy cash at the official windows twice a week and thus increased the supply of dollar. The CBN sells a sum of US$40,000 (forty thousand Dollars) per week to the brokers. The increased supply of dollars, the continuous liquidity

**FIGURE 1**



management in response to monetary policy target ensured that Naira was not overheated and the further liberalization of documentation at the demand end resulted in the convergence of the official, inter-bank and BDC/Parallel markets observed in July 2006 (see Figure 2).

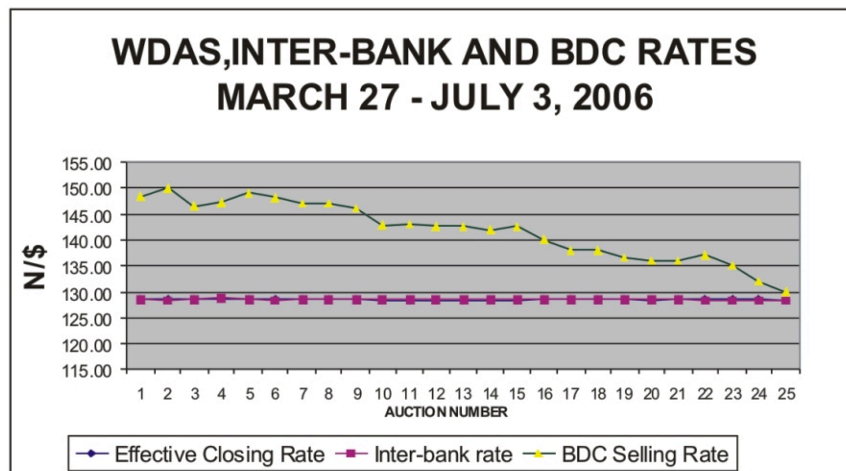
In addition to macro-policy issue, is the operational issues of ensuring that banks quote two-way and that there is discipline in the spread. In this dispensation, the market is one market and there is no more CBN effective rate as the CBN dealers are always in the market calling for quotes (bid/offer), buying and selling apart from the spot market that operates twice a week. Consequently, the CBN Chief Dealer must deal profitably within the established targets he must operate within the market. The Director of the market has also been given target and must deal within target. The dealers and the director of market are continuously trending to gauge the market and to ensure effective conductive of the market. (see figure 3).

**Section 5**

**Summary and Concluding Remarks**

The goal of this paper is to provide insight into the achievement of the exchange rate convergence in the three markets, thus eliminating the multiple foreign exchange markets in the economy. There are supportive factors which had been discussed in the paper. In the last 20 years, foreign exchange management suffered tremendous depreciation even when economic

## FIGURE 2




## FIGURE 3