

12-1-2007

Exchange Rate versus Capital Account Liberalization in Nigeria: some important issues

A. E. Akinlo

D. O. Yinusa

Follow this and additional works at: <https://dc.cbn.gov.ng/efr>

Recommended Citation

Akinlo, A. E. & Yinusa, D. O. (2007). Exchange Rate versus Capital Account Liberalization in Nigeria: some important issues. *Economic and Financial Review*, 45(4), 69-89

This Article is brought to you for free and open access by CBN Institutional Repository. It has been accepted for inclusion in *Economic and Financial Review* by an authorized editor of CBN Institutional Repository. For more information, please contact jelongshak@cbn.gov.ng.

Exchange Rate versus Capital Account Liberalization in Nigeria: Some Important Issues

*A. E. Akinlo and D. O. Yinusa**

I. Introduction

The role of money in initiating and transmitting macroeconomic fluctuations remains a question dividing opinions in the economics profession. Money and economic fluctuations are closely associated as are money and price level changes. These economic movements are often referred to as the business cycle—the general fluctuations around a trend rate of aggregate output, employment, and the rate of inflation. Indeed, few economists will question the long-term association between money and economic growth. But economists will disagree over the interpretation of these data. Monetarists argue that excessive changes in the rate of money supply are the primary causes of the business cycle. Many Keynesian economists not only dispute this claim but argue instead that changes in the growth of monetary aggregates result in response to changes in the level of economic activity (Dalgaard, 1987).

Economists also disagree over the degree to which money influences output and prices. Changes in the supply of money and changes in the price level are strongly correlated. The correlation between these changes was originally formulated years ago as the quantity theory of money. At this point, it is clear that connection exists between money, output and prices. As such, the question “does money matter?” has, of late at least, been replaced by the question “how much does money matter?” The recognition that “money matters” still does not resolve the issue of the direction or magnitude of the relationship between money and the economy. It is really an empirical issue. As such, there have been a number of approaches that have been used for the purpose of evaluating the effects of money on output and prices in a typical

**This is a revised version of the paper earlier presented at the seminar. The title of the paper has also been modified. Anthony E. Akinlo (Ph.D) is Professor of Economics & Director, Centre for Industrial Research and Development (C.I.R.D), Obafemi Awolowo University, Ile-Ife, Nigeria while Dauda O. Yinusa (Ph.D) is of the Department of Economics, Obafemi Awolowo University, Ile-Ife, Nigeria. The views expressed herein do not represent the views of the institution to which the authors are affiliated or those of the Central Bank of Nigeria. The authors acknowledge the comments and suggestions of anonymous reviewers.*

developing economy like Nigeria¹. This study has become so important because an understanding of this relationship will help monetary policy design and management in a fast changing world. Also, the need for continuous research into this subject is also highlighted by the reliance on monetary policy as the principal tool for economic stabilisation in emerging market economies. Inflation and output fluctuations in developing economies provide the occasion to re-examine alternative theories in the context of fast-changing economic and social institutions. As monetary management in these economies used to be the residual component of central planning, achieving a better understanding of the interactions between money and other macroeconomic variables is all the more imperative.

However, of all the prices in the economy, the exchange rate seems to occupy a very strategic position by virtue of its role in linking a small open economy with the rest of the world. As such, prominent attention will be given to brief but insightful review of exchange rate management in Nigeria. Also, an attempt will be made to evolve operational framework for fuller exchange rate liberalization and management, with suggestions about pace and sequencing of exchange rate liberalization in Nigeria.

II. Money-Output-Price Nexus-Some Theoretical Views

The essential role of money as the fundamental determinant of the price level can be established in the context of a microeconomic general market-equilibrium framework and a stylised consensus macroeconomic model. At a microeconomic level, and under certain plausible and rational assumptions concerning agents' preferences and optimising behaviour, the conditions for equilibrium in the product, services, labour and asset markets determine the relative prices of goods and services, the real wage (in terms of a general price index), and the spectrum of the relative real rates of return on all assets, including the associated risk premia. The determination of the general price level, and its rate of change, requires control of the nominal quantity of base money or of some other monetary aggregates that can be effectively controlled by the central bank. This result reflects the role of money both as a medium of exchange and as a unit of account. Under price and wage flexibility, and in the absence of any nominal rigidities, the price level will promptly and fully respond to a change in the money stock. More generally, the determination of the price level by the nominal quantity of money will be established in the long-run equilibrium. At an aggregate, macroeconomic level, the fundamental proposition

¹Walsh (2003) has an excellent review of the various approaches that have been used to model the relationship between money, output and prices in various economies covering different time dimensions.

concerning the link between the supply of money and the price level is captured by the quantity theory of money (Papademos, 2006).

The different views about the role of money in output and price fluctuations in developing countries could be classified into four. The first view doubts the existence of a systematic relationship among money, output and prices in developing economies. It argues that many factors could be disruptive to money demand, for example the release of the monetary overhang caused by quantity-rationing in the regulated era, households' enhanced motive for precautionary saving, monetisation and re-monetisation of some economic transactions, and increased financial sophistication. Consequently, even if money does influence output and prices, the relationship would not be sufficiently stable to be exploitable by monetary policy. This argument may explain why many developing and transition economies opted for exchange-rate-based stabilisation instead of money-based stabilization (Zhang and Wan, 2004).

The second view holds that the major difficulty in targeting monetary aggregates in developing and transition economies arises not from the instability of money demand, but from the endogeneity of money (Peebles, 1991; Development Research Institute, 1995; Chang and Hou, 1997). Setting up quantity targets is pointless when the government lacks effective means or political will to achieve them. This does not imply, however, that monetary aggregates should be consigned to oblivion. Rather, money contains information about output, prices and other determinants of money demand. As monetary data are relatively easier to collect, changes in monetary aggregates should be monitored and fed into the formulation of fiscal, income, interest rate and exchange rate policies.

Proponents of the third view refer to the fact that prior to financial liberalization; developing countries' financial system was dominated by state banks (Bennett and Dixon, 2001). Most firms, particularly state-owned enterprises (SOEs), rely on bank credits to finance investment or even working capital. Therefore, monetary policy impacts directly on aggregate demand and supply via bank lending. Its effects on prices are uncertain due to the non-monetary causes of inflation such as relative price realignment, price reform, fluctuations in grain prices, currency devaluation, and so on.

By contrast, the fourth view disputes the link between money and real activity. It claims that certain institutional features of the Nigerian economy, such as

government commitment to supporting the SOEs, make it possible for firms to circumvent financial constraints (Wang, 1991; Brandt and Zhu, 2000, 2001). Hence, changes in money supply will largely affect prices rather than real activity.

The studies attempting to estimate the demand function of real balances embody the fifth view. Implicit in this argument is the monetarist view that changes in money lead, on a one-to-one basis, to changes in prices in the same direction. Money may affect real output temporarily. In the long run, real output tends towards its 'natural' level which is determined by the amount of labour, capital, natural resources, technology and institutions, yet independent of the stock of money.

To assess the extent to which the competing views are borne out by reality, it is desirable to use a framework of sufficient generality to encompass all the alternatives. This would ensure the comparability of the testing results. A suitable vehicle is the equation of exchange, $MV = PT$, where M is the stock of nominal balances, V is the velocity of circulation, T is the amount of total transactions, and P a price index of T . The logarithmic form of the exchange equation is

$$m + v - p - t \dots \dots \dots (1)$$

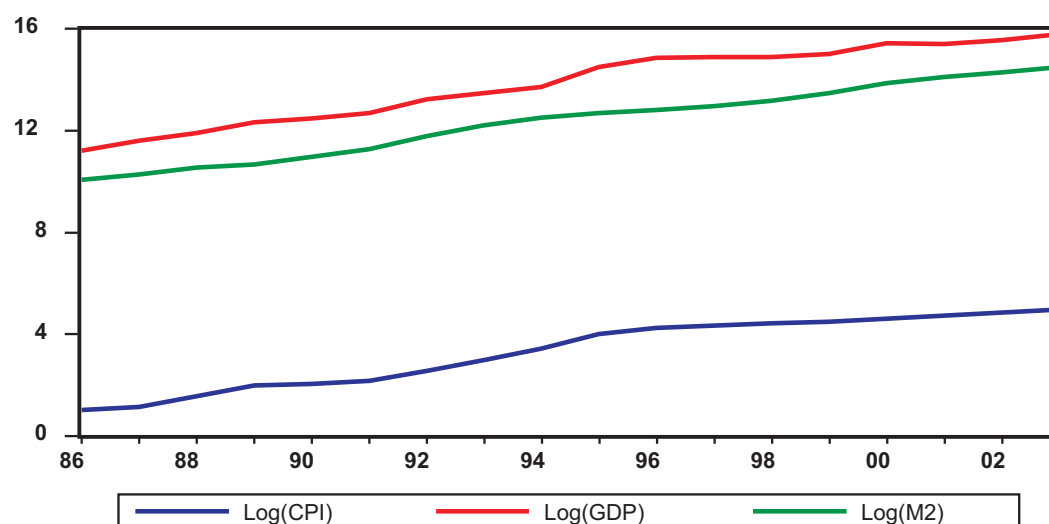
where the lower case letters represent the logarithms of the variables denoted by the corresponding upper case letters. Although an *ex post* identity, equation (1) can be turned into stylised representations of views 2 to 5 when supplemented with causal assumptions. Before the transformation can be done, however, three modifications to the equation are necessary: (i) Total transactions need to be replaced by a measure of final output, since it is the latter that is of more interest to policy decisions. As there is no obvious reason that the ratio of total output to total transaction will stay constant, the coefficient on m may not be unitary. (ii) As a store of value, money competes with other forms of asset. The rate of return on alternative assets may bear significantly on velocity if money can be easily substituted for by the other assets. Therefore, a nominal interest rate that proxies for the opportunity cost of holding money should be included in the monetary equilibrium relationship. (iii) Price-money homogeneity is routinely pre imposed in previous studies about money demand. Since the factors affecting prices did not coincide exactly with those affecting money, the validity of this claim needs to be verified. Thus, the coefficients on money and prices should not be restricted to be equal as in equation (1). With these modifications, equation (1) becomes

$$m - a_3 i - a_1 y - a_2 p \dots \dots \dots (2)$$

where i is the nominal interest rate. Equation (2) can now be used as the framework for turning the alternative views into structural models. The necessary condition for the first view to hold is the absence of a stable relationship among the four variables in equation (2). Should such a relationship exist, equation (2) adequately describes the monetary equilibrium. Adding different behavioural assumptions to the equation yields four stylised monetary models, each corresponding to one of the remaining views. The view of endogenous money implies a model where the supply of nominal balances adjusts to meet the demand for nominal balances.

The amount of money in existence is determined by the level of real output, prices and velocity (which in turn is influenced by the nominal interest rate). The model representing the third view is similar to the naïve LM model: prices are rigid; the stock of money is exogenously determined by money supply; changes in money supply affect real output. According to the fourth view, the effects of changes in money supply fall primarily on prices. It is thus essentially a hypothesis about the determination of prices. A representation of this view can be obtained from equation (2) by making prices the endogenous variable. The fifth view rests upon three assumptions: exogenous money, endogenous prices and the proportionality between money and prices. Restricting the coefficient on price to unity and making real balances the dependent variable changes equation (2) into a model for the fifth view.

Fig. 1: Evolution of Money, Output and Prices in Nigeria



Clearly, the empirical relevance of these models would vary with the time horizon of investigation. For example, endogenous variables may anticipate as well as respond to changes in exogenous variables. Such interactions complicate the short-run temporal ordering of changes in exogenous and endogenous variables. Investigations focusing on the short-run may end up with supporting evidence for several views. Furthermore, some of the implications of the five views are more tenable in the long-run. Because the adaptation of expectations and adjustment of prices take time to complete, short-run investigations may fail to detect any stable link among the variables even though an equilibrium relationship does exist. By the same token, the price-money homogeneity postulated by view 5 may only be discernible in the long-run. A proper empirical evaluation of what the observed relation between money, prices and output means causally, therefore, necessitates differentiating between the short-run and the long-run.

At the empirical level, a first and important finding is that there is strong and robust evidence concerning the long-term relationship between money and prices, based on data collected for many countries and over long periods of time. McCandless and Weber (1995), Odusola and Akinlo (2001) and Akinlo (2006) find that the correlation between inflation and the growth of money is close to 1, varying between 0.92 and 0.96, depending on the definition of money used, as suggested by theory. The existence of a strong and stable long-term relationship between inflation and money growth is documented by many other studies, including a number of major studies on Nigeria. It is also interesting to note that the relationship between inflation and money growth is particularly close for high-inflation countries (Walsh, 2003). These findings are, of course, important and consistent with theory. But because robust correlations and long-term relationships need not imply causality, and because we are also interested in the links between money and prices over shorter time periods, we have to examine other types of evidence.

One approach employed in recent empirical studies to study the impact of monetary phenomena on the economy is based on vector autoregressions (VARs)², which were pioneered by Sims (1972, 1980) and further developed and extensively applied by Christiano and his colleagues. This approach has the merit that it is not constrained by a particular specification of the underlying structural relationships, and it provides evidence on the intertemporal response of the price level and output to a change in the monetary policy stance.

² Among the excellent recent application of this methodology are Leeper, Sim and Zha (1996), Christiano, Eichenbaum and Evans (1999), King and Watson (1996).

III. Role of the Foreign Exchange Markets

Foreign exchange markets have the role of facilitating and channeling the flow of currency between prospective buyers and sellers of foreign currency. It is an important market not only because of its role in linking a small open economy with the rest of the world, but because of the effects of the developments in this market in influencing macroeconomic outcomes in the economy. This raises the issue of whether to fix or float a currency. Indeed, adopting fixed exchange rates is an extreme where countries must give heavy weight to the foreign exchange market in setting domestic macro policy even in the short-run and 100% weight over the longer term. Extreme opposite of virtually ignoring the exchange rate in setting domestic macro policy should apply only to the largest most closed economies (Willett, 2001). In between the extremes, the smaller and more open the economy, and the greater the degree of dollarization of the economy, the greater is the weight that should be given to foreign exchange market developments in setting domestic macroeconomic policy (Yinusa, 2007). Nigeria belongs to the “in between” group and as such, prominent attention should be given to developments in the foreign exchange market in designing macroeconomic policies to avoid unintended consequences. There would be no need for such a market if there were no international trade or capital movements. Growing liberalisation of foreign trade and deregulation of capital movements in Nigeria from the mid 1980s increased the need for a market where financial companies could trade foreign currency for Naira.

IV. Exchange Rate Management in Nigeria

Exchange rate management in Nigeria has evolved over the years spanning various exchange rate pricing regimes. Sequel to a major provision of the enabling law establishing the Central Bank of Nigeria (CBN) under exchange rate policy, maintenance of a healthy balance of payments (BOP) position and the preservation of the external value of the naira has been the major task given to the CBN. In its nearly five decades of existence, the CBN has adopted several foreign exchange management options in an attempt to achieve these objectives and more. Between 1960 and 1986, the country operated the fixed exchange rate regime backed by control measures under different genres. For example, between 1960 and 1967, the country's currency (the Nigerian pound) was fixed at par with the British pound. But from 1967 to 1974, the Nigerian naira (the new name for the country's currency) was pegged to the US dollar. Also, in April 1974, the authorities started a policy of progressive appreciation of the naira to reflect the improved strength of the naira as a result of enhanced foreign exchange receipts due to the oil boom and the improved BOP position.

There was, however, a policy reversal late in 1976 when dwindling oil fortunes and foreign reserves due to the oil glut, led to the fixing of the naira using import weighted basket of currencies of Nigeria's seven major trading partners³ (Komolafe, 1996 and Obaseki, 1991). This currency basket system under the fixed exchange rate mechanism actually ran from 1978 to 1986.

The effects of this pegged exchange rate mechanism are legion. The naira became overvalued, the economy became distorted and there was unbridled importation of finished consumer goods which had dire consequences for domestic production, the level of external reserves and the BOP position. Sharp practices on the part of dealers and end users of foreign exchange compounded the problem leading to prolonged BOP problem.

It was against this background that the market based Second-Tier Foreign Exchange Market (SFEM) was introduced in September 1986 as the corner stone of the Structural Adjustment Programme (SAP). Among the problems this liberalized system was expected to solve included finding a realistic value for the naira, ensuring the competitiveness of goods produced in the country, addressing the problem of import dependence and capital flight, attracting foreign investment into the country and reducing the spread between the official and parallel market exchange rates. To address these problems, this market based system has undergone a lot of fine-tuning and witnessed the adoption of various methods. For example, in July 1987, the first and second tier markets were merged into the Foreign Exchange Market (FEM). By March 1992, there had been a complete floating of the naira instead of pre-determining quotas. There was, however, a policy reversal in 1994 with the introduction of "guided deregulation" by which the exchange rate of the naira to the dollar was fixed at ₦22.00. This ultimately led to the introduction of the Autonomous Foreign Exchange Market (AFEM) and the abolition of the 1962 Exchange Control Act in 1995.

But like any regulated system in Nigeria, AFEM failed because of inherent abuses, sharp practices and bureaucratic bottlenecks. In October 1999, AFEM gave way to the Inter-Bank Foreign Exchange Market (IFEM) which was expected to shore up the value of the naira and achieve a realistic naira exchange rate. However, because of persistent high demand for foreign exchange culminating in continued depreciation

³The seven currencies include US dollar, British pound, German mark, French franc, Japanese yen, Dutch guilder and the Swiss franc.

of the naira, persistent depletion of foreign exchange reserves and widening premium between the official and parallel market exchange rates, IFEM was also abandoned.

In July 2002, the Dutch Auction System (DAS) was re-introduced to address the problems identified under IFEM. Under the DAS, end-users, through their authorized dealers buy foreign exchange at their bid rates, and the rate that clears the market (marginal rate) is adopted as the ruling rate till the next bid session, with the CBN intervening twice weekly. DAS has succeeded in ensuring a sustained accretion to the country's foreign reserves (which now stand at \$40b), narrowing the arbitrage premium between official and parallel market rates (IMF, 2003) and achieving a more realistic exchange rate value for the naira. Indeed to further consolidate on these gains, the authorities introduced a variant of the DAS - the Wholesale Dutch Auction System (WDAS) in February, 2006. The CBN also licensed some commercial banks to establish Bureau de Change (BDCs) in a bid to checkmate the activities of parallel market operators. Furthermore, in the last quarter of 2006, the CBN appointed fourteen foreign banks to manage about \$7b of Nigeria's external reserves.

All these efforts, plus the recent consolidation in the banking industry account for the sustained accretion to the country's foreign reserves, narrowing of the premium between the parallel and official exchange rates and the enhanced value of the naira exchange rates.

V. Central Bank Intervention in the Foreign Exchange Market

Under currency pegs, official purchases and sales of foreign currency to bridge the gap between foreign currency supply and demand at a given price are often rules-based in that the timing and amount of intervention are predetermined. In contrast, official intervention in the foreign exchange market is optional, or discretionary, under a flexible exchange rate regime, although authorities still can and do intervene, usually to correct misalignments, calm disorderly markets, supply foreign exchange, and accumulate reserves. Thus, a government that is shifting to a flexible regime needs to formulate policies on the objectives, timing, and amounts of intervention. Like all other markets, foreign exchange markets are imperfect. For example, “herding” (when investors buy or sell en masse) and “feedback trading” (trading driven by price movements rather than fundamentals) may result in the misalignment of a currency with a country's economic fundamentals, with serious repercussions.

Among other things, an overvalued currency undermines the competitiveness of the country's exports, while an undervalued exchange rate could stoke inflation.

Moreover, when a country's capital account is not fully liberalized, or its capital market is inefficient, temporary shocks may trigger exchange rate volatility in "thin" markets. Volatility can be politically costly because the exchange rate serves as a symbolic measure of a government's success in macroeconomic management. And long-lasting misalignments and erratic exchange rate movements can subject cost and income projections in the real sector to wide margins of error, making long-term planning and investment difficult. However, misalignments are difficult to detect, and there is no consensus on a methodology for estimating the equilibrium exchange rate. The indicators used most frequently the nominal and real effective exchange rates, productivity and other competitiveness measures, the terms of trade, the balance of payments, interest rate differentials, and parallel market exchange rates—usually do not enable policymakers to assess the degree of misalignment accurately enough to help them determine the optimal timing and amount of intervention.

Even when policymakers detect exchange rate misalignment or destabilizing volatility, central bank intervention may not always correct the problem. The empirical evidence on the effectiveness of intervention in influencing the exchange rate is mixed, and the impact of intervention on the exchange rate level appears to be short-lived. Empirical studies have also found that intervention tends to increase, rather than decrease, exchange rate volatility (Adubi, 2002). Thus, short-term exchange rate volatility may not warrant intervention, especially when it occurs in a liquid, or orderly market. Volatility may reflect the market process of price discovery and provide useful signals to policymakers and market participants.

Central bank intervention is usually justified, however, to calm disorderly markets that is, markets with unequal number of sellers and buyers of foreign exchange, resulting in illiquidity. If market illiquidity persists, it can hurt the real economy. Although volatility that is due to disorderly markets and that is likely to lead to a collapse of liquidity is also difficult to detect, acceleration in exchange rate changes, widening bid-offer spreads, and a sharp increase in inter bank trades relative to customer-bank turnover are signs to watch for. Central banks may also have to intervene in the foreign exchange market to supply foreign currency or build up their reserves. First, many central banks have a regular supply of foreign currency because of income on foreign reserves and their roles as the bankers of governments that borrow or receive aid in foreign currency. Second, they normally target a certain level of reserves, requiring the regular purchase of foreign currency to maintain core reserve coverage ratios.

A country may need to re-evaluate its international-reserve management policy when it moves to a flexible exchange rate regime. On the one hand, the level of reserves required to maintain a flexible rate may be lower than that required to maintain a fixed one. In addition, improved supervision of private sector foreign currency exposures may reduce reserve requirements. On the other hand, the elimination of capital controls may create a need for higher reserves to maintain or boost market confidence and lower exchange rate volatility, reduce the likelihood of crises, and increase the effectiveness of intervention, while providing funds for the government to invest in longer-term assets with higher returns. In general, central banks should be selective in their interventions and parsimonious in their use of foreign reserves. The difficulty of detecting exchange rate misalignments and disorderly markets means that decisions on the timing and amount of intervention are subjective and may be off the mark. Moreover, by entering the market infrequently, central banks can convince the markets of their commitment to exchange rate flexibility and improve the potential effectiveness of the occasional intervention. When a country introduces a band as part of a gradual move to exchange rate flexibility, intervention episodes may be more frequent than under more flexible regimes; nonetheless, central banks should minimize the number of interventions and make full use of the exchange rate flexibility allowed by the width of the band. Central banks in many advanced economies (for example, Canada, New Zealand, and the United Kingdom) seldom intervene in the foreign exchange market.

Transparency also helps build confidence in the new exchange rate regime, especially in the aftermath of a forced exit. Many countries, including the Philippines and Turkey, issued statements and policy reports affirming that they were committed to a flexible exchange rate regime and that they would not intervene in the foreign exchange market to target a certain exchange rate level. The published intervention policies of Australia and Sweden are good examples of the policies that need to be developed and communicated to the market to enhance the effectiveness of official foreign exchange operations. Disclosing information on intervention with a time lag can improve market transparency and central bank accountability. The United Kingdom discloses information on intervention in a monthly press release, the European Central Bank in a monthly bulletin; the U.S. Treasury confirms interventions on the day they take place and provides additional details in quarterly reports.

Selected country experiences suggest that rules-based intervention may be useful when the exchange rate is not under a lot of pressure in a one-sided market. Such a

policy may help countries supply foreign exchange or accumulate reserves without affecting the exchange rate. Eventually, however, central banks will gain enough experience and credibility to intervene on a more discretionary basis. Rules-based intervention policies tend to be transitory, abandoned or modified by most countries (for example, Brazil and Canada).

VI. Foreign Exchange Market Efficiency-A Must for Successful Liberalization

Duttagupta, Fernandez and Karacadag, (2005), Laurens (2005) and Mishkin, (2007) suggest that the following steps can help a country improve the depth and efficiency of its foreign exchange market:

Allowing some exchange rate flexibility (for example, within a band around a peg) to stimulate foreign exchange activity. Authorities should also foster a sense of two-way risk in the exchange rate - the risk that the currency may either appreciate or depreciate - to encourage market participants to take both short and long positions. Between 1995 and 2001, turnover increased in the foreign exchange markets of countries that adopted more flexible exchange rate regimes and declined in countries that adopted less flexible regimes.

Reducing the central bank's market-making role by cutting back its trade with banks and its interventions to allow scope for other market makers. The central bank should not trade with non-financial customers.

Increasing market information on the sources and uses of foreign exchange and on balance of payments trends to enable market participants to develop credible views on exchange rate and monetary policy and price foreign exchange efficiently.

Authorities should also ensure that information systems and trading platforms provide real-time bid and offer quotations in the inter-bank market.

Phasing out or eliminating regulations that stifle market activity. Important measures would include abolishing requirements to surrender foreign exchange receipts to the central bank, taxes and surcharges on foreign exchange transactions, and restrictions on inter-bank trading; unifying segmented foreign exchange markets; and relaxing current and some capital account restrictions to increase the sources and uses of foreign exchange in the market. Capital controls should be eased gradually, however, and only after certain macroeconomic and institutional preconditions have been met.

Unifying and simplifying foreign exchange legislation and avoiding frequent, ad hoc changes to the law, so as to increase market transparency and

reduce transaction costs.

Improving the market's microstructure by reducing market segmentation, increasing the effectiveness of market intermediaries, and securing reliable and efficient settlement systems.

Developing and deepening the foreign exchange market is more complicated when a country is forced to abandon a peg under market pressure and has not had time to prepare for an orderly exit.

The government is likely to face conflicting objectives. On the one hand, it needs to sell foreign exchange to prevent excessive depreciation. On the other, to maintain market credibility it needs to signal that it will not intervene to defend a particular exchange rate level. Under these circumstances, many countries have gradually renounced the central bank's market-making role, removed barriers to foreign exchange market operations, and tolerated greater exchange rate volatility, while allowing interest rates to rise to counter market pressure and monitoring market transactions to determine the sources and direction of other flows. However, the negative effects of volatility and rising interest rates on investment need to be weighed with the benefits of increased flexibility (Yinusa, 2007).

VII. Pace and Sequencing of Exchange Rate Liberalization

Countries face certain trade-offs in choosing between a rapid exit from a peg and a more gradual move to a floating exchange rate regime. A rapid approach involves fewer intermediate steps, if any, between fixed and floating regimes than a gradual approach.

For a country with a strong macro economy and a prudent monetary policy, a rapid approach can be a more credible signal of commitment to exchange rate flexibility than a gradual approach, while allowing the country to limit its interventions in the foreign exchange market and, thereby, conserve its foreign exchange reserves (Laurens, 2005). Countries seeking greater monetary policy independence may also be better off moving rapidly, as may those with an open capital account it may be harder to pursue a gradual exit strategy in the presence of large and volatile capital flows. However, a gradual approach is preferable if a country lacks the appropriate institutional framework, including a deep foreign exchange market and the ability to monitor and manage exchange rate risk; such a country runs a high risk of experiencing excessive exchange rate volatility if it moves too quickly (Calvo, 1996).

The absence of a full-fledged inflation-targeting framework as an alternative nominal anchor need not preclude a rapid exit strategy, if there is a robust commitment to price stability. The building blocks of inflation targeting such as fiscal discipline, the monetary authorities' operational independence in pursuit of low inflation, credible steps to contain inflation, and transparency and accountability are fundamental to the success of any monetary policy regime regardless of whether inflation targeting is formally adopted. South Africa exited from a fixed peg to a float in the early 1980s but did not formally adopt inflation targeting until 2000. Other countries forced to float in one step for example, Mexico and Turkey used monetary targeting as an interim strategy before adopting inflation targeting.

A gradual approach allows the country to move toward a free float in measured steps for example, by shifting from a fixed peg against a single currency to a fixed or crawling peg against a basket of currencies, and then to an exchange rate band that is increased in increments.

Pegging to a basket of currencies has the advantage of reducing the transmission of external shocks to the domestic economy and tempering the exchange rate's exposure to the potentially erratic movements of a single currency. The basket may be composed of a weighted average of the currencies of a country's main trading partners. A shift to a crawling peg against a basket of currencies can help a country maintain its external competitiveness if its inflation rates are different from those of its trading partners. Moving to a horizontal or crawling exchange rate band can provide greater exchange rate flexibility and monetary policy independence. While these variants of pegged regimes are easier to maintain than wide exchange rate bands and floats, they constrain monetary policy and can be difficult for countries with liberalized capital accounts to sustain. In either case, whether the exit is rapid or gradual, each step forward should ensure two-way risk in exchange rate movements.

Early preparation for the move to a floating exchange rate increases the likelihood that the exit will be successful. A country should begin to lay the groundwork for the exit while it still has a peg, securing central bank independence, improving its ability to forecast inflation, making monetary policy more transparent, developing information systems on foreign exchange risk, and increasing information on balance of payments developments. Once it has laid the groundwork, it can move to a second stage, introducing some exchange rate flexibility to stimulate activity in the foreign exchange market, while it develops the other tools it will need to operate the new regime. Intervention policies can be addressed later in the transition.

Although policymakers have no control over the pace of a disorderly exit, they still need to make decisions about sequencing. Their top priority should be to stabilize the exchange rate; often, this can be done by eliminating the shortage of dollars in the market and maintaining monetary control. Policymakers should also attempt to signal a conservative monetary policy, although the design of an alternative nominal anchor will probably require more time. Adopting a flexible exchange rate before liberalizing the capital account enables a country to absorb capital account shocks at a lower cost to the real economy than under a fixed exchange rate.

By contrast, liberalizing the capital account first can help offset temporary current account shocks, expand the range of instruments available for risk management, and deepen the foreign exchange market. Accordingly, when an exchange rate is floated before the capital account is liberalized, central bank intervention may be needed to offset temporary current account shocks and to limit excessive real exchange rate volatility.

The experiences of emerging market economies over the past decade highlight the risks of opening the capital account before adopting a flexible exchange rate. Many countries were forced off pegs after sudden reversals of capital flows under open capital accounts (for example, Mexico at the end of 1994, Thailand in July 1997, and Brazil in early 1999). Others faced heavy inflows and upward pressure on pegged rates and had to allow exchange rate flexibility to avoid overheating the economy (for example, Chile and Poland during the 1990s). Thus, even under favorable economic conditions, opening the capital account before introducing exchange rate flexibility can threaten domestic liquidity, create macroeconomic imbalances, and precipitate speculative attacks.

In all, one can safely say that while it is better to plan an exit in a calm economic environment, even planned exits do not necessarily last. Many countries have reversed course after adopting a flexible exchange rate regime. Either macroeconomic conditions or a lack of institutions or both may contribute to the reversal from a float to a fixed regime. Fiscal dominance played an important role in the reversals of both Russia (1993-95) and Venezuela (2002-03), while Nigeria's reversal in 1994 occurred amid concerns about excessive depreciation. Other obstacles to floating in many developing countries include the limited number of participants in the foreign exchange market, pervasive exchange controls, a weak technological infrastructure, and underdeveloped money markets. Both fixed and floating exchange rates have distinct and different advantages. No single exchange

rate regime is appropriate for all countries in all circumstances. Countries will have to weigh the costs and benefits of floating in the light of both their economic and institutional readiness.

VIII. Conclusion

Given what we know so far, a reasonable view might be that liberalization brings about desirable effects in the long-run but it is dangerous in the medium run. The next natural question is how to reap the benefits without incurring the costs, or with minimal costs. This section concludes with some possible solutions.

Wait. Most countries will eventually liberalize, but this needs to be done as a matter of priority. When is the time ripe? A first answer is provided by the ubiquitous contrast between the effects of liberalization in the developing and the developed countries. It suggests that, *if one wants to avoid, at least to limit boom-and-bust cycles and high exchange pressure volatility, it may be useful to wait until a proper economic, and, possibly political infrastructure has been built.* This may take years, if not decades. *The implicit strategy advocated in the early 1990s, that economic liberalization will force economic and political progress, is dangerous: its success remains to be demonstrated and it is a bit too machiavellian to be comfortable with.*

Buckle up. The experience from both developing and developed countries suggests that liberalization is a source of widespread instability. Two conclusions follow. *It is important to set up adequate welfare systems before liberalizing. Free markets may raise efficiency, but they are known to increase inequality, at least initially.* Boom-and-bust cycles affect more seriously the poorer, less educated segments of the population. In addition, the boom years must be used to prepare for the bust years. Fiscal policy, in particular, ought to be used to build up public savings which will be available to combat financial meltdowns and protect those most hurt by the bust, if it happens.

Float or dollarize? Well, not necessarily. Is there a way out of the hard choice between waiting for decades and getting ready for acute volatility? One idea, defended among others by Arteta, Eichengreen and Wyplosz, (2001) and Eichengreen (1994) is to avoid the middle ground of pegged exchange rates, and opt for either of the two extremes, fully floating exchange rates and hard pegs (currency boards, monetary unions or dollarization). Some progress could be achieved by comparing liberalizing countries which adopted floating exchange rate regimes and

those that maintained, or sought to maintain, soft pegs. *Unfortunately, identifying truly floating exchange rates is proving to be a tricky exercise. Calvo and Reinhart (2000) and Benassy-Quéré and Coeuré (2000) show that many countries which declare floating exchange rate regimes in fact heavily manage their currencies.*

While it is true that currency crises cannot formally occur when the exchange rate is freely floating, pressure can take the form of excessive exchange rate fluctuations. Such fluctuations may have very severe effects, in terms of both competitiveness and currency exposure by various economic agents. *The view that floating is an option for each and every country fails to recognize the benefits from exchange rate stability, especially in countries which are open and have limited financial market services.* Europe's eagerness to limit exchange rate fluctuation, delaying for 40 years financial liberalization, provides an example of a successful strategy. Hard pegs, on the other side, are in vogue, but their costs (e.g. in Argentina) and the difficulty of designing credible exit strategies are being increasingly recognized. It seems fair to predict that the debate on 'extremes vs. the soft middle' will end up in a draw, much as it happened with the older debate on 'fixed vs. flexible rates'. Given that exchange rate regimes carry enormously widespread implications, a few simple criteria are unlikely ever to settle the debate. On the other side, it is crucial to realize ex ante that liberalization rocks the exchange markets. Building some form of exchange rate flexibility (either by floating or by being ready to realign pegs) into the liberalization program is essential. An appreciation (or revaluation) during the early capital inflow phase, clearly understood and presented to be temporary, could reduce the overheating. A depreciation (or devaluation) when and if the inflows reverse themselves into outflows and/or the economy slows down, could avoid an all-out attack and the subsequent output crash.

One step at a time. The seminal sequencing strategy advocated by McKinnon (1991) is to *start with domestic goods market liberalization, then to open up to trade, and then to proceed to domestic financial liberalization before finally setting free the capital account, possibly starting with long-term assets and keeping short-term assets for the last step.* This strategy has not been proven wrong so far. The most delicate steps are those involving domestic financial and capital account liberalization. Since they also tend to work in the same direction at the same horizon, spreading these measures several years apart seems reasonable.

Microeconomics matter. Structural conditions should be explicitly considered. The fact that crises are more likely when goods markets are not free, when banking

regulation and supervision is rudimentary, when corruption is rampant, and when property rights are not well established, is overwhelming. This is given a prominent position in McKinnon's list, and it should remain that way. *There is little point in liberalizing domestic and external financial markets when the goods markets and the financial institutions do not function properly.* Extreme examples like Nigeria even suggest that financial liberalization under such conditions is likely to do more harm than good.

References

- Adubi, A.A. (2002), "Central Bank Intervention and Exchange Rate Stability in Nigeria", Monograph Series, No. 1, National Centre for Economic Management and Administration (NCEMA), Ibadan, Nigeria.
- Akinlo, A.E. (2006), "The stability of money demand in Nigeria: An autoregressive distributed lag approach", *Journal of Policy Modeling*, 28, Pp. 445-452.
- Alston, Julian M., and James A. Chalfant. "A Note on Causality between Money, Wages, and Prices in Australia." *Economic Record*, 63 (1987), 115-19.
- Arteta, Carlos, Barry Eichengreen, and Charles Wyplosz, (2001), "When Does Capital Account Liberalization Help More Than It hurts?" NBER Working Paper No. 8414 (Cambridge, Massachusetts, National Bureau of Economic Research).
- Bennett, J. and H.D. Dixon (2001), Monetary policy and credit in China: A theoretical analysis, *Journal of Macroeconomics*, 23, 297-314.
- Brandt, L. and X. Zhu (2000), Redistribution in a decentralized economy: growth and inflation in China under reform, *Journal of Political Economy*, 108, 422-39.
- and (2001), Soft budget constraint and inflation cycles: a positive model of the macro-dynamics in China during transition, *Journal of Development Economics*, 64, 437-57.
- Calvo, G. (1996), *Money, Exchange Rates, and Output*, The MIT Press, Massachusetts, USA.
- Calvo, G. and Carmen M. Reinhart, (2000), "Fear of floating", NBER Working Paper No. 7993 (November)
- Chang, G.H. and J. Hou (1997), Structural inflation and the 1994 'monetary' crisis in China, *Contemporary Economic Policy*, 15, 73-81.
- Christiano, L.J., M. Eichenbaum, and C. Evans (1999), "Monetary Policy Shocks: What have we Learned and to What End?" in J. Taylor and M. Woodford

- (eds.), *Handbook of Macroeconomics*, Vol.1A, Amsterdam:Elsevier North-Holland, Pp. 65-148.
- Dalgaard, B. (1987), *Money, Financial Institutions, and Economic Activity*, Scott, Foresman and Company, USA.
- Development Research Institute, Nankai University (1995), Price shocks and macroeconomic stability in the course of incremental reform, *Jing Ji Yan Jiu (Economic Research Journal)* 2, 8-12.
- Duttagupta, R., G. Fernandez, and C. Karacadag, (2005) "Moving to a Flexible Exchange Rate How, When, and How Fast?", *Economic Issues*, No. 38, IMF (December).
- International Monetary Fund (IMF). 2003. *A Global Financial Stability Report*. Washington, DC: International Monetary Fund.
- King, R.G. and M.W. Watson (1996), "Money, Interest Rates and the Business Cycle," *Review of Economics and Statistics*, 78(1), Pp. 83-107, (Feb.)
- Komolafe, O. Stella (1996), "Exchange Rate Policy and Nigeria's External Sector Performance." *Nigerian Journal of Economic and Social Studies*, Vol. 30 No. 1,2, &3.
- Laurens, B.J. (2005), "Exchange Regime and Monetary Policy Implementation: From Fixed to Float", Paper presented at the Joint Africa Institute Workshop on Monetary and Foreign Exchange Operations, Sept. 12-16, Tunis, Tunisia.
- Leeper, E.M., C.A. Sims and T. Zha (1996), "What does Monetary Policy Do?" *Brookings Papers on Economic Activity*, 2 Vol. 2, Pp.1-63.
- McKinnon, Ronald I. (2001), "The Problem of Dollar Encroachment in Emerging Markets," *Journal of Policy Modeling*, Vol. 23, PP.301-319.
- McCandless, G.T. and W.E. Weber (1995) "Some Monetary Facts," *Federal Reserve Bank of Minneapolis Quarterly Review*, 19(3) Pp. 2-11.
- Mishkin, Frederic S. (2007) "Inflation Dynamics", Speech presented at the Annual

Macro Conference, Federal Reserve Bank of San Francisco, San Francisco, California (March 23).

Obaseki, P.J. (1991), "Foreign Exchange Management in Nigeria," *Economic and Financial Review*, CBN, Vol. 29, No. 1, PP. 57-78.

Odusola, A.F. and A.E. Akinlo (2001), "Output, Inflation, and Exchange Rate in Developing Countries: An Application to Nigeria." *The Developing Economies*, Vol. XXXIX, No. 2, (June).

Papademos, L. (2006), "The role of money in the conduct of monetary policy", Being text of the speech by Vice President of the ECB at the Fourth ECB Central Banking Conference "The role of money: money and monetary policy in the twenty-first century" Frankfurt am Main, (9 November)

Peebles, G. (1991), Explaining narrow money growth in China, *Comparative Economic Studies*, 33, 83-110.

Walsh, C. (2003), *Monetary Theory and Policy*, The MIT Press, USA.

Wang, Y. (1991), "Economic reform, fixed capital investment expansion, and inflation: a behavioural model based on the Chinese experience", *China Economic Review* 2, 3-27

Willett, T.D. (2001), "Truth in advertising and the great dollarization scam", *Journal of Policy Modeling*, 23, Pp. 279-289.

Zhang, Yin and Guanghua Wan (2004), "Output and Price Fluctuations in China's Reform Years: What Role did Money Play?", *Research Paper No. 2004/56*, (August).

Yinusa, D.O. (2007), Between dollarization and exchange rate volatility: Nigeria's portfolio diversification options", *Journal of Policy Modeling*, Vol. 30, Issue 5, pp. 811-826