

9-1-1999

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### Recommended Citation

Nwaoba, P. I. (1999). Critical factors affecting Nigeria's foreign exchange flows. *Economic and Financial Review*, 37(3), 1-17.

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## CRITICAL FACTORS AFFECTING NIGERIA'S FOREIGN EXCHANGE FLOWS

By

Peter I. Nwaoba\*

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*This study articulates main factors that affected foreign exchange flows in Nigeria between 1987 and 1997. Foreign exchange inflow is made up of autonomous receipts, gifts and borrowed resources. Factors such as exchange rate, monetary expansion and fiscal imbalances, capital flight, excessive and spurious demand for foreign exchange and debt service burden, were identified in the study as factors which affect foreign exchange. Results from the regression analysis indicated that all the variables met a priori expectations in terms of statistical significance and correctness of signs. The study also established a significant impact of imports and external debt burden on foreign exchange flow, resulting partly from the absence of genuine industrialisation strategy that could lead to the diversification of the country's export base. It further showed that the gains of any policy could impact more on the economy if the exchange rate is properly aligned to its realistic level through appropriate exchange rate management strategy that will encourage repatriation of export proceeds without coercion, boost foreign direct investment and curtail capital flight.*

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### 1. INTRODUCTION

Foreign exchange, a means of payment for international transactions, remains important in the growth and development of any economy. In Nigeria, the sourcing, allocation and pricing of this scarce resource have become a significant part of major economic policy objectives since the enactment of the Exchange Control Act of 1962. All the foreign exchange policies pursued have tended towards increased receipts and reduced disbursements. Reduced outpayments have tended to increase the portion of foreign exchange receipts saved by monetary authorities for the purpose of enhancing the credit

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\*Mr. Nwaoba is a Senior Economist in the Research Department, Central Bank of Nigeria. He acknowledges the invaluable comments made on the paper by Messrs P. J. Obuseki and M. M. Audu (Assistant Directors) and Mr. E. A. Essien (Senior Economist). However, all views expressed in the paper are those of the author and do not represent those of the Central Bank of Nigeria.

worthiness of the economy and for interventions in the foreign exchange market.

Foreign exchange inflow is made up of autonomous receipts, gifts and loans. They are, therefore, either earned, acquired through foreign aid/grants, or borrowed. Foreign exchange could be sourced through the public or private sector. The major source of foreign exchange inflow into Nigeria is export of goods and services. Apart from receipts from petroleum exports, which is the single largest component of total inflow, other sources include public income, capital importation, Central Bank interbank transactions, interest on reserves and investments, interest on foreign exchange market (FEM) account held by banks, external borrowing/grants, receipts into special and domiciliary accounts, across the counter purchases by banks, receipts through traditional non-oil exports and other invisible items of inflow from Nigerian sea and airports, World Bank, exchange equalization commission and bunkering proceeds. Foreign exchange is used for the settlement of international economic transactions. It is derived from savings, made when inflow exceeds outflow, and forms the largest component of official reserves. The other components include holdings of monetary gold, the International Monetary Fund (IMF) gold tranche and the holdings of Special Drawing Rights (SDRs).

Over the years the flow of foreign exchange has faced several bottlenecks, either in the form of reduced inflow or distortions in allocation of foreign exchange. The administrative fixing of the naira exchange rate during the era of controls tended to encourage distortionary practices in the system of allocation and also influenced large scale outflow of foreign exchange from the economy because of the overvaluation of the domestic currency. The activities of speculators increased over time, leading to a flourishing parallel market for foreign exchange and eventually resulted in disequilibrium in the official foreign exchange market. The sharp rise in oil prices in the early 1970s enhanced official foreign exchange receipts, the judicious management of which became necessary to forestall shortages. However, the country started witnessing low level of foreign capital inflow arising from the oil glut in 1981. Aggregate foreign exchange receipts therefore, started declining as price of crude oil, the major source of foreign exchange, dropped each year owing to falling oil prices globally.

The foreign exchange crisis of 1982 led to the application of comprehensive exchange controls and the enactment of the Economic Stabilisation Act that year. Nigeria's external debt service continued to rise at a level in excess of the budgetary provisions of 30.0 per cent of foreign exchange receipts, especially between 1990 and 1992. Other outpayments for current and past consumption were also increasing in value. Under invoicing of exports and over-invoicing of imports became the order of the day. Consequently, the macroeconomic objectives of healthy balance of payments and fiscal viability could no longer be guaranteed under the system of exchange control.

As a result, the rigid controls introduced since 1962 were dismantled and a Structural Adjustment Programme (SAP), aimed at deregulating the economy, was introduced in 1986. Under this system, market forces of demand and supply determined the exchange rate which was expected to result in more foreign exchange inflow, rational allocation and utilization of foreign exchange. It was believed that the floating of the naira will ensure that the domestic currency achieves an appropriate level that will make the external sector competitive. However, the new policy did not achieve the objective for which it was adopted as foreign exchange inflow continued to decline, while disbursements remained high, resulting in deterioration in the net position as well as depletion of external reserves. Over dependence of the economy on oil exports did not allow the expectation to materialise as oil price is determined largely by factors outside the control of the country. The low level of foreign exchange receipts constituted serious constraints to the country's capacity to import essential raw materials and machinery to sustain the capacity utilization rate in existing industries.

The establishment of the Autonomous Foreign Exchange Market (AFEM) in 1995 was expected to enlarge the sources of inflow of foreign exchange into the economy, reduce the demand pressure on official reserves, stabilize the naira, and ensure the achievement of other objectives of policy such as improvement of the country's balance of payments position. Significant improvement in foreign exchange receipts was also expected to enable the Central Bank meet the foreign exchange demand of the end-users, with positive reflection on the prices of locally manufactured goods, all other things being equal.

Unfortunately, foreign exchange flows have been volatile, especially after the second oil shock. This has seriously affected foreign exchange earnings. Foreign exchange flows also impinge on foreign exchange management. It is, therefore, necessary to determine the factors that affect the flows in order to guide policy for foreign exchange management.

The objective of this paper is to articulate such factors, especially since the inception of the SAP, not only to guide management policy, but also make policy recommendations that could improve the foreign exchange flows in Nigeria. For analytical purposes, the rest of the paper is divided into four parts. Part II analyses trends in foreign exchange inflows and disbursements. Part III reviews some relevant literature while part IV presents a model intended to explain the major factors influencing foreign exchange flows and its results. Part V summarises and concludes the paper.

## **II. ANALYSIS OF THE TREND IN FOREIGN EXCHANGE INFLOWS AND DISBURSEMENTS**

The major categories are discussed as follows:

### **II.1 Foreign Exchange Flows**

An analysis of the trend shows that cumulative foreign exchange receipts by the economy dropped slightly from \$6,593.0 million in 1987 to \$6,474.0 million in 1988 before increasing to \$8,137.0, \$11,014.0 and \$12,118.0 million in 1989, 1990 and 1991, respectively. Aggregate inflow declined continuously from the level in 1991 to respective levels of \$8,476.0, \$7,511.0 and \$6,067.0 million between 1992 and 1994. In terms of outflow, total foreign exchange outpayments declined from \$6,767.1 million in 1987 to \$6,576.2 and \$6,480.7 million in 1988 and 1989, respectively before recording increases of \$9,530.8, \$12,097.0 and \$10,188.7 million in 1990, 1991 and 1992, respectively. The level, however, reduced to \$7,424.6 million in 1993 and \$6,336.2 million in 1994. The change in foreign exchange policy in the 1995 budget from re-regulation to guided-deregulation led to remarkable improvement in foreign exchange position in Nigeria. Aggregate inflow of foreign exchange rose to respective levels of \$9,523.0, \$13,045.3 and \$14,975.9 million in 1995, 1996 and 1997, while disbursements stood at \$9,034.3, \$10,956.7 and \$11,232.8 million during the same period. The overall foreign exchange position reflected developments in international oil markets and changes in trade policy regime during the period.

### **II.2 Demand for Foreign Exchange**

The oil boom witnessed by the country triggered off a high propensity to import. This, however, exerted much pressure on the demand for foreign exchange as the import bills, characterized by over pricing of imported goods as well as other malpractices, continued to rise, especially as the exchange rate was over valued. It also encouraged the over dependence of manufacturers on imported inputs, as well as the growth of the parallel foreign exchange market, rapid depletion of external reserves and speculative activities. Demand for foreign exchange increased from \$2,785.0 million in 1987 to \$20,178.0 million in 1990. There was renewed demand pressure in 1993, when the amount demanded rose to a high of \$40,461.8 million before dropping to \$35,687.2 million in 1994. The amount supplied by the Central Bank increased from \$2,330.4 million in 1987 to \$2,581.2 million in 1990 before declining to \$1,855.5 million in 1994. The wide gap between demand for and supply of foreign exchange was largely attributed to speculative demand pressures. For example, requests for foreign exchange were deliberately inflated by end-

users in the quest to receive large chunks of the available foreign exchange for importation of goods.

Given the situation indicated above, the government in 1995 introduced the Autonomous Foreign Exchange Market (AFEM) where the Central Bank intervenes with a view to stabilizing the naira exchange rate. This new policy which brought some element of stability to the market, has been retained since then. Transactions in the AFEM in 1995 showed that the total demand of \$1,723.9 million by the end-users was fully met by the Central Bank through six interventions. Of this amount, \$1,711.7 million was disbursed as some end-users could not take up their allocations mostly owing to their inability to provide adequate naira cover for their bids. Further analysis showed that speculative demand was largely reduced in 1995 as demand for foreign exchange declined by 95.2 per cent when compared with the level in 1994. The pressure has been on the decline since then as reflected in the demand/supply situation up to the end of 1997.

### **II.3 Debt Service Burden**

Borrowing from abroad is necessary for financing highly needed investments in the absence of local resources. The repayment burden of the funds so borrowed has, however, become so heavy in many Less Developed Countries that they cannot meet their obligations and still have resources to pay for vital imports. Majority of the debt overhang that became obvious in the 1980s were linked to the rise in real interest rates worldwide and collapse of commodity prices in international markets, especially the crash in oil prices. Nigeria found itself in such a situation and was lured to external borrowing in the wake of declining foreign exchange earnings occasioned by the glut in the oil market. The country relied on foreign loans, aid and other concessional loans from international organizations such as the World Bank and bilateral agencies under the Paris Club of Creditors. Since then, the debt burden has continued to increase as the stock has risen not necessarily as a result of new borrowing but owing mainly to capitalization of interest and default charges. Thus, the country's stock of debt rose from \$17.7 billion in 1983 to \$25.6 billion in 1986, and increased further to \$33.1 billion in 1990 before declining to \$29.4 billion in 1994.

The high debt burden hampers development efforts as a significant proportion of foreign exchange receipts is used to service accrued debts. The setting aside of a large part of the receipts for debt servicing implies less being made available for servicing the productive sectors of the domestic economy (Olisadebe, 1995:161). The use of a large portion of the foreign exchange resources to finance debt exerts pressure on the external sector of the economy by causing disequilibrium in the balance of payments. Analysis indicates that external debt service payments stood at the respective levels of \$1,933.0 and \$2,393.3 million in 1988 and 1992. Actual debt service ratios in these years remained

at 30.2 and 33.4 per cent compared with the target of 30.0 per cent introduced in 1986. The real issue lies in the fact that most of the contracted loans were often not optimally deployed, resulting in inadequate returns on investment to meet maturing obligations and still leave favourable balance to support domestic economic growth (Ojo, 1994:15). However, external debt service payments remained within the budgetary target between 1993 and 1995. In 1996, payments overshot the budget target by 12.2 per cent with actual debt service ratio at 21.5 per cent, but remained within the budget target in 1997. Nigeria's external debt outstanding at the end of 1997 comprised debts owed to the London Club, the Paris Club and other categories of creditors, amounting to \$27,087.8 million.

Most of these debts have been rescheduled, especially those owed to the International Capital Markets under the London Club of Creditors. The main problem lies with the debts owed to the Paris Club that are expected to be paid as when due without any option of rescheduling interest payments. Rescheduling of Paris Club debts has been difficult because the International Creditors believe the country has not been able to present a credible Medium-Term Economic Programme to the International Monetary Fund (IMF). Other attempts at reducing the debt stock and creating a breathing space for the country include the Debt Conversion Scheme, Debt Buy-Back and Debt refinancing.

### **III. REVIEW OF RELEVANT LITERATURE**

The level of a country's external reserves depends on the quantum of inflow to that country and the rate of deployment of such receipts for financing of imports and external debt service payments. Other items of disbursement include direct and portfolio investments abroad, unrequited transfers to beneficiaries outside Nigeria, loans to other countries, expenditure of Nigerian tourist, payments of international organizations and embassies, parastatals, business travel allowances and estacode, other subscriptions and invisible payments to entities outside Nigeria, including payments for pre-SFEM arrears and payments through the West African Clearing House (WACH). The need for efficient management of available foreign exchange led to the establishment of exchange control procedures. These procedures were necessitated by the need to conserve scarce foreign exchange, and the tighter the control, the severer the foreign exchange situation (or reserve levels) is deemed to be (Essien, 1990:124). But as smuggling of currencies and commodities across the borders became rife, foreign exporters marked up their prices to cover cost of waiting for foreign exchange; importers engaged in overloading of invoices and inflating of import prices in an attempt to obtain foreign exchange beyond what was legally due to them. The government considered it necessary to revise full controls to reduce its economic, social and administrative costs. A free market for foreign exchange was, thus introduced through the Second-tier Foreign Exchange Market (SFEM), as a major

component of the Structural Adjustment Programme (SAP). However, Essien argued that SFEM was certainly not the “ideal” foreign exchange market but a method of reducing human influences which operate outside normal rules and regulations. It was a method of circumventing the human element in the issue of import licences and exchange rate determination and more importantly a method of ensuring that expenditure on foreign goods and services matched the country’s foreign exchange income.

The drive by the government to enhance foreign exchange earnings has been strong. The authorities adopted some policies and granted a number of incentives to enable the country earn enough foreign exchange. Several policies embracing export promotion, government expenditures and foreign exchange supply boosting were, therefore, put in place. The supply side policy measures centred around export promotion, through the granting of incentives and establishment of institutions charged with financing and advisory roles. To encourage export of goods and services and prompt repatriation of proceeds, exporters were allowed to retain 100 per cent of their foreign exchange earnings in their domiciliary accounts when the Second-tier Foreign Exchange Market (SFEM) commenced in 1986. The retention scheme was expected to prove less cumbersome, but the problem remained that an export retention scheme may not be effective in bringing unrepatriated funds back to the country when operated with a regime of overvalued exchange rates or if constraints exist on the uses of the retained proceeds (Ferrara, et al, 1994:28). Introducing retention scheme without constraints on the uses of the funds ensures the supply of foreign exchange into the economy.

A country that is eager to manage its foreign exchange resources well, should approach it on the basis of acceptable criteria to measure the adequacy of the foreign exchange resources. Since the role of foreign exchange varies from country to country, there have not emerged generally acceptable measures of foreign exchange adequacy which will depend on, among other factors, the motives for holding the resources as well as the rate of their inflow and disbursement (Ojo, 1990: 32). It is believed that at theoretical level, adequacy can be related to some macroeconomic variables such as money supply, national income and the trade balance. At practical level, reserve adequacy can be measured by specifying a given level of reserves that is sufficient to meet the needs of an economy over a given period of time. This, of course, is the basis of the reserves/imports ratio which emphasizes the transactions motive for holding reserves by specifying the minimum reserves requirement of a country that would meet her import demand over some given period of time. The minimum reserves/imports ratio set by the International Monetary Fund (IMF) is about four months of imports.

In the management of foreign exchange, a mix of policies have been drawn from both the elasticity approach which emphasized expenditure switching policies, the income-absorption approach which prescribed both expenditure switching and expenditure changing policies, and the monetary approach which favours reliance on expenditure changing policies



(Obaseki, 1991:60). It is argued that with adequate downward adjustment of exchange rates, countries with balance of payments difficulties would be able to export more, import less and save some foreign exchange; that the foreign exchange situation will continue to be precarious if the monetary authorities continue to exchange domestic cash balances for foreign exchange by drawing down their international reserves when demand is accelerating; and that aggregate money supply is taken to be influenced by inflow and outflow of foreign exchange associated with surpluses and deficits in the balance of payments that are not immediately sterilized.

Efficient disbursement of available supply of foreign exchange is as important as implementation of measures to boost foreign exchange supply. It is, therefore, imperative to maintain a reasonable balance between the need to reduce the stock of external debt and that of maintaining a sizeable amount of external reserves. The various foreign exchange markets, to some extent, insulate international reserves and prevent transitory shocks to the capital account from affecting prices and wages (Kiguel and O'Connell, 1995 :31). The outflow of reserves is the sum of excess demand for trade transactions (the current account deficit) and the excess demand for asset transactions (the capital account deficit). Reserves are used to finance current transactions, so shocks to the private capital account are absorbed by the parallel exchange rate rather than by official reserves. The spread between the two rates provides the incentives for illegal transactions and traders may over-invoice imports and under-invoice exports causing a loss of reserves. They argued further that outflows of reserves could also occur through legal channels such as special export financing facilities and the use of trade credits. International reserves could, therefore, be protected through strict management of foreign exchange and prevention of capital flight. This is because the supply of foreign exchange to the parallel market is mostly generated by under-invoiced exports, over-invoiced imports and legal or illegal sales of reserves for capital flows, while the demand is generated by under-invoiced and smuggled imports and by the "replacement" demand for foreign assets aimed at keeping asset stocks at desired levels.

For the developing economies, the emergence of a parallel market in foreign exchange, owing to shortages and bottlenecks in the foreign exchange administration induces instability in the market. Monetary and fiscal policies, while trying to reduce inflationary pressures and maintain budgetary discipline, create the necessary environment for effective foreign exchange and exchange rate management. One of the strategies used in the management of foreign exchange was the system of foreign exchange budget and allocation. Foreign exchange allocation was carried out under an auction based system where available amount of foreign exchange was allocated by the Central Bank through a bidding system. Also, various pricing rules, including average, marginal, weighted and Dutch auction were adopted in the determination of the naira exchange rate. An appropriate exchange rate will tend to maintain equilibrium in the inflow and outflow of foreign exchange in the economy. An inappropriate exchange rate policy, for instance, under and over-

valuation of the currency, will tend to create instability in the foreign exchange market and make foreign exchange management more difficult (Ojo, 1990 :32). The instability pertained to all the rates in the market namely official, bureaux de change and parallel market rates. The desirability of exchange rate stability is not in doubt in view of the implications of instability for micro and macroeconomic planning and projections and foreign investment flows (Obadan, 1995 :44).

In terms of volatility of rates, most countries have intervened in foreign exchange markets by buying or selling their currencies in the market in order to influence their exchange rates. This is because volatility in market fundamentals such as the money supply, income, and interest rates, affects exchange rate volatility because the level of the exchange rate is a function of these fundamentals. Large changes in money supply lead to changes (wide swings) in the level of the exchange rate which in turn imply exchange rate volatility (Bonser-Neal, 1996 :44). Regardless of the origin of volatility, it could impede international investment flows by reducing investment in foreign financial assets and disrupting the efficient allocation of resources by creating disincentive for movement in investment capital. To that extent, exchange rate volatility adversely affects international trade by creating uncertainty about the revenues to be earned on international transactions. Therefore, countries that intervene in their foreign exchange markets expect to reduce exchange rate volatility through the reduction of expected volatility of future market fundamentals and policies, and reduction of the likelihood of speculative exchange rate movements.

However, actions that will contribute to exchange rate stability and enhancement of foreign exchange inflow will include resolution of the external debt problem. A debtor country's debt service burden is bound to increase when export receipts decline. The more the proportion of the inflow that is channelled to debt service payments, the less the amount available for purposes of investment and consumption. The package of policy reforms by the policy makers over the years created an opportunity to adopt several management strategies to reduce the external debt burden, especially in respect of medium/long-term debts through various restructuring schemes. Such strategies included a more cautious approach to new borrowing, pegging of the debt service ratio to the debt service capacity, rescheduling/refinancing, debt buy-back and debt conversion. Ojo ( 1994: 22) observed that in spite of these efforts, the external debt service burden has been heavy as foreign exchange inflow has been inadequate to service the needs of the domestic economy and external debt commitments.

It follows from the above analysis that foreign exchange flows are influenced by a number of factors, the most important of which are export and import of goods and services, demand for and supply of foreign exchange, money stock, external debt service, exchange rate, transfers and the domestic macroeconomic environment.

## IV. MODEL SPECIFICATION AND INTERPRETATION OF RESULTS

### IV.1 The Model

In order to determine the level and pattern of flows of foreign exchange in the economy, information is required on some economic indicators such as export of goods and services, import of goods and services, nominal exchange rate, external debt service payments and financial transfers.

Inflow, from literature, is influenced by the level of exports of goods and services, transfers from abroad and nominal exchange rate.

$$\text{Thus, INFL} = f(\text{EXPN, TRS, NER}) \dots\dots\dots(1)$$

where:

INFL	=	Inflow of Foreign Exchange
EXPN	=	Export of goods and services
TRS	=	Transfers from abroad
NER	=	Nominal Exchange Rate

or,

$$\text{INFL} = \alpha_0 + \alpha_1 \text{EXPN} + \alpha_2 \text{NER} + U_1 \dots\dots\dots(2)$$

$\alpha_1 > 0; \quad \alpha_2 < 0$

At the same time, outflow is determined by the level of imports of goods and services, level of external debt service payments, transfers to overseas and nominal exchange rate.

$$\text{Thus, OUTFL} = f(\text{IMP, DSERV, TRS, NER}) \dots\dots\dots(3)$$

where,

OUTFL	=	Outflow of Foreign Exchange
IMP	=	Import of goods and services
DSERV	=	External Debt Service Payments
TRS	=	Transfers

or,

$$\text{OUTFL} = \beta_0 + \beta_1 \text{IMP} + \beta_2 \text{DSERV} + \beta_3 \text{NER} + V_1 \dots\dots\dots(4)$$

where:

$$\beta_1, \beta_2 > 0; \quad \beta_3 < 0$$

From equations (1) and (2).

Inflow less outflow = Netflow which is influenced basically by balance of trade, debt service payments, Net transfers from abroad and nominal exchange rate.

The explanatory variables used in this study were exchange rate, capital flight, excessive demand for foreign exchange, monetary expansion and fiscal imbalances and debt service burden. However, capital flight could not be proxied in the model due to unavailability of data. Excessive demand for foreign exchange was proxied by balance of trade since foreign exchange is used to finance trade.

Thus,

$$\text{NETFL} = f(\text{EXPN} - \text{IMP}, \text{DSERV}, \text{TRS}, \text{NER}) \quad \dots\dots\dots(5)$$

$$\text{NETFL} = f(\text{BTRD}, \text{DSERV}, \text{TRS}, \text{NER}) \quad \dots\dots\dots(6)$$

where

$$\text{NETFL} = \text{Netflow}$$

$$\text{BTRD} = \text{Balance of Trade} = \text{EXPN} - \text{IMP}$$

$$\text{TRS} = \text{Net Transfers from Abroad.}$$

or,

$$\text{NETFL} = \lambda_0 + \lambda_1 \text{BTRD} + \lambda_2 \text{TRS} + \lambda_3 \text{DSERV} + \lambda_4 \text{NER} + W_t \dots\dots\dots(7)$$

where

$$\lambda_1, \lambda_2 > 0; \quad \lambda_3, \lambda_4 < 0$$

and  $U_t$ ,  $V_t$  and  $W_t$  are all assumed to have zero mean and constant variance.

Using the Ordinary Least Square (OLS) technique, estimates of the parameters in equation (7) would be obtained. Equation (7) represents the relationship of the factors that determine the flow of foreign exchange in Nigeria. All the tests would be carried out at 5 and 10 per cent levels of significance. Annual data from the Central Bank of Nigeria from 1970 to 1997 were used for this analysis.

## IV.2 Summary and Interpretation of Regression Results

Dependent Variable	Independent Variables								
NETFL	C	NER	DSERV	BTRD	TRS	R <sup>2</sup>	R <sup>-2</sup>	F	D.W
	-139.53	-104.84	-0.62	0.56	1.68	0.75	0.71	17.29	2.09
	(-0.35)	(-1.98)	(-3.20)	(7.86)	(2.13)				

\* Significant at 5 per cent level.

+ Values in parenthesis represent the level of significance of (t-values) the explanatory variables.

The explanatory variables specified in the model accounted for 71 per cent of the observed variability in netflow of foreign exchange in Nigeria. The Durbin Watson statistics for the model of 2.09 suggested the absence of serial correlation in the disturbances. The t-statistics of the parameter estimates were all statistically significant at 5 per cent level.

Export of goods and services was significant and with the right sign. The more goods and services produced in an economy, the more the foreign exchange inflow, all other things being equal. But Nigeria is essentially a mono-product economy where crude oil is the mainstay and accounts for about 95 per cent of the country's export revenue and government depends heavily on crude oil export in making its revenue projections. The need for proper diversification cannot, therefore, be over emphasized because a bad policy in the oil sector would lead to budget distortions, as the level of foreign exchange inflow would be adversely affected.

The exchange rate variable was also significant and had the expected sign in each of the equations estimated. The devaluation/depreciation of a domestic currency reduces the price of domestic tradable goods relative to the prices of foreign goods. This results in substitution effect as there will be increased demand for the economy's goods and services by foreigners, thereby increasing foreign exchange inflow.

The impacts of external debt service on the netflow of foreign exchange in Nigeria were significant in line with a priori expectations. They indicated statistical significance with the right signs. The effect of high debt burden on the economy showed in the parameter estimates.

Empirical evidence indicated that the balance of trade and net transfers were also significant. The movement in netflow of foreign exchange is determined by the quantum of receipts into the economy and the level of disbursements during the period under review.

It is the netflow, therefore, that impacts on the overall external reserves position. The return on foreign assets holdings increases when a currency is depreciated. Results from net transfers also confirmed this position.

Nominal exchange rate and debt service exerted significant pressure on netflow. Thus, these items should be of policy relevance.

### **IV.3 Policy Imperatives**

Export of goods and services which is a major determinant of inflow of foreign exchange is dominated by crude oil export. There is, therefore, the urgent need for genuine diversification of Nigeria's export base through an industrialisation strategy that has emphasis on export orientation. To that extent, the supply side of foreign exchange will be boosted and the country will be shaded from the vulnerability of the world oil market shock whenever it occurs. The high dependence on import will also be curtailed which will ultimately reduce the level of foreign exchange outflow through external debt service payments. This will of course be in an economic environment where the naira exchange rate is allowed to find its realistic level without a policy that encourages rent-seeking activities. A realistic exchange rate will encourage exporters to repatriate their export proceeds without coercion, boost foreign direct investments and curtail capital flight.

## **V. SUMMARY AND CONCLUSION**

The paper articulated the main factors influencing foreign exchange flows in Nigeria. Such factors included exchange rate, debt service burden, monetary expansion and fiscal imbalances. Some of the policy measures used by the Government to check the adverse effects of these factors on the economy centred around export promotion incentives, exchange rate determination and demand management, as well as the introduction of foreign exchange budgeting. The strong effects of these factors were confirmed using an econometrics analysis. The study showed that nominal exchange rate and debt service payments largely accounted for the volatility of foreign exchange flows, making them critical issues of policy relevance. The country's export of goods and services is mainly accounted for by crude oil export, hence the urgent need for the continuous diversification of the economy through effective industrialisation strategies. The gains of the policies will impact more on the economy if the naira exchange rate is properly aligned to its realistic level.

## SOME ECONOMIC INDICATORS

YEAR	EXPORTS (M'S)	IMPORTS (M'S)	FOREIGN EXCHANGE INFLOW (M'S)	FOREIGN EXCHANGE OUTFLOW (M'S)	NET TRANSFERS (M'S)	EXTERNAL DEBT SERVICE (M'S)	EXCHANGE RATE (N/S)	EXTERNAL RESERVES (M'S)	NUMBER OF MONTHS OF IMPORTS	GROSS DOMESTIC PRODUCT (GDP) (N'M)	MONEY SUPPLY (M2) (N'M)	INFLATION RATE (%)	FOREIGN EXCHANGE DEMAND BY BANKS (M'S)	FOREIGN EXCHANGE RELEASED TO BANKS (M'S)
1970	1,265.3	1,080.6	901.6	829.9	65.3	31.0	0.7143	146.4	2.1	54,148.9	949.9	13.8	-	-
1971	1,847.7	1,541.3	1,493.0	1,313.6	2.6	31.1	0.6955	201.1	1.8	65,707.0	1,005.3	15.6	-	-
1972	2,017.4	1,410.9	1,818.5	1,876.0	(20.4)	39.8	0.6579	291.2	1.9	69,310.6	1,161.3	32	-	-
1973	3,254.9	1,749.7	3,399.3	2,755.9	(50.6)	46.8	0.6579	366.3	1.6	73,763.1	1,414.0	54	-	-
1974	9,658.0	2,895.5	8,434.0	3,469.6	(103.5)	46.2	0.6299	5,061.1	17.5	82,424.8	2,156.2	13.4	-	-
1975	8,314.0	6,195.7	8,915.9	8,958.1	(131.0)	53.1	0.6159	5,393.5	7.2	79,988.5	3,622.4	33.9	-	-
1976	11,037.3	8,554.3	10,503.7	11,015.5	(163.0)	31.4	0.6265	4,847.2	5.3	88,854.3	5,278.9	21.2	-	-
1977	13,136.2	11,932.8	12,003.4	13,218.1	(197.8)	61.9	0.6466	3,870.1	3.5	96,090.5	7,067.5	15.4	-	-
1978	10,634.2	13,553.3	12,553.3	14,766.7	(284.3)	140.3	0.6060	1,929.1	1.6	89,020.9	7,699.5	16.6	-	-
1979	17,329.2	10,268.8	17,556.0	14,449.1	(389.2)	307.4	0.5957	5,429.4	4.5	91,190.7	9,857.4	11.8	-	-
1980	26,397.4	18,191.2	25,979.0	21,604.7	(630.4)	186.0	0.5464	10,001.1	5.6	96,186.6	14,397.4	9.9	-	-
1981	18,389.7	20,998.5	21,449.0	26,219.0	(577.5)	849.0	0.6100	3,807.2	1.7	70,395.7	15,548.1	21.0	-	-
1982	13,137.7	14,428.9	14,951.0	17,034.3	(413.4)	1,152.0	0.6729	1,531.6	1.1	70,157.0	16,894.0	7.6	-	-
1983	11,074.0	9,365.3	11,679.0	12,065.3	(408.3)	1,984.0	0.7241	1,044.2	1.0	66,389.5	19,368.9	23.2	-	-
1984	11,423.5	5,606.6	12,121.0	11,646.8	(317.3)	3,359.0	0.7649	1,415.1	1.5	63,006.2	21,600.5	39.6	-	-
1985	13,023.1	6,152.1	12,310.0	11,706.2	(257.8)	4,029.0	0.8938	1,641.8	1.7	68,916.1	23,818.6	5.5	-	-
1986	6,371.8	3,911.9	7,204.0	4,826.6	(171.7)	1,862.0	2.0206	1,081.7	2.7	71,075.9	24,592.7	5.4	-	-
1987	7,590.1	4,088.1	6,593.0	6,767.1	(24.0)	1,602.0	4.0179	1,107.8	2.0	70,740.6	29,994.6	10.2	2,785.0	2,330.4
1988	6,931.7	4,390.6	6,474.0	6,576.2	85.6	1,933.0	4.5367	611.4	1.1	77,752.3	42,780.3	56.1	3,259.6	2,879.0
1989	7,870.9	3,693.1	8,137.0	6,480.7	154.9	1,909.0	7.3916	1,759.1	3.3	83,496.0	46,222.9	50.5	17,411.5	2,278.2
1990	13,671.2	4,948.0	11,014.0	9,530.8	449.7	3,839.0	8.0378	3,883.6	5.2	90,342.0	64,902.7	7.4	20,178.0	2,581.2
1991	12,264.4	7,755.8	12,118.0	12,097.0	735.8	3,435.0	9.9095	4,536.3	5.3	94,614.1	86,152.5	13.0	9,242.4	2,897.1
1992	11,886.1	7,203.7	8,476.0	10,188.7	733.0	2,393.3	17.2984	711.7	0.8	97,431.4	128,283.7	44.6	6,435.6	4,045.3
1993	9,924.4	6,655.9	7,511.0	7,424.6	807.1	1,772.5	22.3268	2,971.4	4.8	100,010.0	194,506.1	57.2	40,641.8	2,892.7
1994	9,415.1	6,612.6	6,067.0	6,336.2	500.4	1,843.0	21.8861	2,691.3	5.1	101,350.0	265,151.8	55.3	35,687.2	1,855.5
1995	11,734.4	8,221.5	9,523.0	9,034.3	732.6	1,620.6	21.8861	4,796.8	6.4	103,530.0	315,099.0	72.8	1,723.9	1,711.7
1996	16,117.0	6,438.4	13,045.3	10,956.7	876.7	1,876.6	21.8861	4,074.7	4.5	107,020.0	375,389.9	29.3	1,862.0	1,847.0
1997	15,207.3	9,501.4	14,975.9	11,232.8	1,867.1	1,496.5	21.8861	7,581.2	8.4	111,050.0	438,455.4	8.5	2,987.5	2,939.3

SOURCE: CENTRAL BANK OF NIGERIA ANNUAL REPORTS AND STATISTICAL BULLETIN

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