IMPROVING BALANCE OF PAYMENT IN NIGERIA THROUGH AGRICULTURAL EARNINGS

BY

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ABSTRACT

The broad objective of this research is to analyse how the balance of payment management in Nigeria can be improved through agricultural earnings. Data for the study was secondary time series data covering the period 1960 to 2000 collected within the Federal Republic of Nigeria. The data were collected from relevant publications of the Central Bank of Nigeria (CBN) and the Federal Office of Statistics (FOS). Despite the huge earnings made crude oil sales in recent years by Nigeria, the Country had a balance of payment deficit of N326,635.0 million in 1999. This was not the case, as seen in Appendix A during the 1960's and 1970's when agricultural earnings contributed significantly to the nations balance of payment. The Result of multiple regression analysis carried out indicates that exchange rate, interest rate, time factor, and foreign reserve are directly related to balance of payment while imports and exports were inversely related to balance of payment. It is strongly recommended that those factors found to significantly affecting balance of payment of Nigeria be emphasized.

INTRODUCTION

The external sector of the Nigerian economy has undergone profound changes in recent years. Principal among these are the rapid depreciation of the naira, the accumulation of payments arrears, the external debt problem which has resulted in debt restructuring, etc. These changes, along with other aspects of international economic transactions are captured in the balance of payments (BOP) statistics (CBN, 1998).

The balance of payments account is a periodic report that summarizes the flow of economic transactions with foreigners. It provides information on the nation's exports, earnings of domestic assets owned by foreigners, international capital movements, and official transactions by Central Banks and governments (Gwartney et al, 1990).

Prior to the introduction of the Structural Adjustment Programme (SAP) in 1986, Nigeria's balance of Payment (BOP.) had started to show signs of dis-equilibrium having been managed over the years within a policy framework of direct control. The control were in areas of credit, interest rate, exchange rate, and trade. Following the sudden collapse of international oil prices in the 1980's and the consequent fall in foreign exchange receipts, controls were tightened. However, the controls proved counter productive as it became clear that the economy could not be managed within a policy framework that placed heavy reliance on direct controls (Olisadebe, 1993).

Ukeje (2000) found that between 1970 and 1999, there was a decline in agricultural output and domestic food supply bad to be augmented with large imports He stated that the value of imported food and agricultural products more than outweigh the value of agricultural exports. The negative effect of this trend on Nigeria's balance of payment position is quite obvious. Imports continued to grow at an unsustainable rate largely financed by trade arrears. As a result of these obvious problems, external arrears accumulated. This has over the years led to poor balance of payment management in Nigeria.

A reasonable inquiry into the composition of Nigeria's export rays a disturbing structural imbalance. The dominance of crude oil in the nation's export profile has made Nigeria a mono-product economy whose fate is inextricably linked to developments in that sector.

According to Ukeje (2000), a nation is not maximizing the productivity of its resources unless it is employing all of them efficiently, not just some of them. As agriculture had been the mainstay of the Nigerian economy before the oil boom, it is in the national interest that agriculture be given adequate attention now, so as to ensure a stable economy when the oil market collapses.

If the trend of rising food import bill is not reversed, Nigeria's balance of payment position which is already unfavourable will be greatly worsened. Ukeje (2000) further stated that the food import bill rose from a mere N57.7 million in 1970 to an average of N70,484.1 million in 1994-1999.

The continuing disappearance of the traditional agricultural exports and the sharp fall of world oil prices as a result of oil glut, especially in the 1980's, worsened the country's balance of payment. Under this circumstance, it becomes important that the strategy of managing the balance of payment in Nigeria be restructured. The agricultural exports and import substitute commodities provide a new framework for managing the balance of payments in particular.

Ojo (1993) had stated that the growth of agricultural exports and earnings is constrained by low level of production, high level of informal trade, price uncompetitiveness, poor state of infrastructure and protectionism in advanced countries. Analogbei (2000), also stated that when imports exceed exports, undue pressures are expected on the balance of payments.

The broad objective of this study is to assess the role of agricultural earnings in improving Nigeria's balance of payment. The specific objectives are to examine the balance of payment situation in Nigeria, determine the proportion of agricultural exports to foreign reserve, determine the proportion of foreign reserves arising from import substitute commodities, and isolate factors that influence balance of payment equilibrium.

METHODOLOGY

The study used time series data covering the period 1960 to 2000. Data collection lasted for five months. Macroeconomic secondary data were collected from the relevant publications of the Central Bank of Nigeria (CBN) and the Federal office of Statistics (FOS). Such Publications include CBN, Economic and Financial review, CBN annual reports and statement of accounts, F.O.S. Abstracts of statistics, F.O.S. Nigerian Trade Summary, and F.O.S. Economic and social statistics bulletins as well as international financial statistics. The 1998 – 2001 editions of these publications were used.

The data collected covered balance of payment, exchange rate, import value, interest rate, export value, Nigeria's foreign trade in agricultural commodities, and foreign reserve. The study purposively covered the entire nation. Econometric tool need was the ordinary least square multiple regression technique. The implicit form of the model is as specified below

BOP = f(ER, IR, FR, IM, EX, Ti)

Where,

BOP = Balance of payment in millions of naira.

ER = Exchange rate in naira per US dollar.

IR = Interest rate in percentage per annum.

FR = Foreign reserve in millions of naira.

IM = Total value of imports in millions of naira.

Ti = Time/year.

RESULT AND DISCUSSION

Four functional forms of this model were fitted. They included the linear semi log, double log and the exponential firm. The lead equation was chosen on the basis of statistical economic and econometric criteria. The result of the average balance of payment for Nigeria per decade between 1960 and 1999 is given on table 1.

Table 1: Nigeria's balance of payment (in ₦ Million)

Range of Years	Average Balance of Payment
1960 – 1969	30.00
1970 – 1979	597.47
1980 – 1989	419.44
1990 - 1999	22,803.90

Sources: CBN Statistics Bulletin,CBN Annual Report and Statement of Account, CBN Bullion, 1998, 2000

See Appendix A

Between 1960 – 1969, Nigeria had average balance of payment deficit of N30.0 million as against ₦22,803.90 million deficit recorded between 1990 – 1999. It is important to note that between 1960 – 1969, agricultural earnings was the mainstay of Nigeria's economy while by the period 1990 – 1999, agriculture had been abandoned and crude oil exports assumed her position.

The dependence of Nigeria's balance of payment almost solely on the oil sector make Nigeria a mono product economy. The effect is that the continuing fluctuation in the international oil market price coupled with the dynamic OPEN quota allocation makes any meaningful improvement in the balance of payment management in Nigeria a difficult task. The reflection of this is a fluctuating balance of payment position of the country and there is a wide gap between deficits and surpluses. For instance, appendix A shows that while a deficit of N326,635.0 million was recorded in 1999, a substantial surplus of N314,148.7 million was obtained in the year 2000. The degree of fluctuation recorded in the balance of payment position in the 1960's and 1970's were minimal. One must recall that this was the period when agricultural earnings through more exports and legs imports made a significant contribution to the Nation's balance of payment.

Furthermore, the diversification of Nigeria's export products will likely minimize these inherent fluctuations and deficits and improve the balance of payment in the country.

The emergence of crude oil production and exports radically changed the structure of the economy which used to be sustained by agriculture. The oil sector took over as the leading sector of the economy and overtime, the non-oil sector, particularly agricultural production and exports became less competitive. The huge foreign exchange earnings from crude oil exports gave a fillip to massive importation of goods, including food. In Ukeje's study, Nigeria's food import bill rose from a mere N57.7 million in 1970 to an average of N70,484.1 million in 1944 – 1999. Table 2 indicates that the share of agriculture in total exports were 30.0 million in 1970 to 1.4 million 1i 1999. The result of table 2 shows that when agriculture made a significant contribution to import substitute commodities in the 1970's, the food bill of the nation was minimal as against the position in 1999 when the share of agriculture to total export has collapsed thus making the nations food import bill to rise as well. Table 2 also indicates that as the average growth rate of the share of Agriculture in total export falls minimally, there was an astronomical rise in Imports.

Table 2: Nigeria's Foreign Trade in Agricultural Commodities (₦ million)

Year	Average Exports	Average share of exports	Average Imports	Average share of Imports
1970 – 1979	296.01	10.08	402.39	155.96
1980 – 1989	641.60	3.28	2857.57	314.3
1990 - 1999	10,268.53	1.85	52,431.77	29.24

Source: Federal Office of Statistics (FOS) 2000

Table 2 clearly reveals that though both exports and imports of agricultural commodities were on the increase over the years, the amount realized from exports far exceeded that money spent on importation of agricultural commodities needed to argument local production. This had very far reaching implications in our foreign reserve and hence balance of payment. Imports continued to grow at an unsustainable rate largely financed by trade arrears. As a result of these obvious problems external arrears accumulated.

At N962,970.0 million, total imports increased by 11.6 percent in the year 2000 over the level in the corresponding period of 1999, as a result of increased demand for finished consumer goods and foreign imports for the manufacturing sector (CBN, 2000). The Standard International Trade Classification (S.I.T.C.) of Nigeria Imports from 1996 to the year 2000 shows that food, beverage and live animals importation were on the increase during the period under review (Table 3).

Table 3: Imports By S.I.T.C. Section (N Million)

Section	**1996**	**1997**	**1998**	**1999**	**2000**
Food and live animals	75,954.6	100,640.3	102,165.1	103489.8	113,630.5
Miscellaneous Transactions Unclassified	1,125.3	1,691.4	1,674.8	1835.2	2,888.8
Total	**562,626.2**	**845716.7**	**837,418.9**	**862,525.3**	**962,970.0**

Sources: **Federal Office of Statistics 1998, 2001, Central Bank of Nigeria 1998 2000, 2001.**

Comparing tables 1 and 3, it can be observed that the nation's balance of payment position fell between 1996 till 1999 and that at this period there was an increase in Nigeria's importation of goods. Most of these goods were, hitherto, provided by the agricultural sector. Even though appreciable increases were noticed in the nation's foreign reserve between 1996 to 2000 appendix B), these increases did not reflect in the nation's balance of payment. We recon that, the increases noticed in external reserve during this period were used up largely by massive importation also widely noticed at the same period and could not therefore translate to increase in the nation's balance of payment. Until the need to improve balance of payment management through agricultural earnings in the country is given adequate attention, the solution to the problem noticed above may not be realized.

The stock of the gross external reserves rose by ₦411,873.3 million or 81.8 percent to ₦1,007,392.2 million during the year 2000. At this level, the nation's reserves could accommodate 13.6 months of current import commitments, compared with 7.6 months recorded in 1999 (CBN, 2000). The nation's external reserve in 1999 was ₦503,253.0 million.

The position of Nigeria's foreign reserve from the period 1960 – 2000 is presented in appendix B and summarized in Table 4. The table between 1960 – 1969,

Table 4: Nigeria's Foreign Reserve in ₦ million

Range of Years	Average Foreign Reserve
1960 – 1969	199.10
1970 – 1979	1,703.30
1980 – 1989	3,742.40
1990 -1999	124,727.26

Sources: CBN Statistical Bulletin 1998, CBN Bullion 1998, CBN Annual Report and Statement of Account (2000)

Nigeria's average foreign reserve stood at ₦199.10 million. It continued to rise and between 1990 – 1999 an average foreign reserve of ₦124,727.26 million was recorded. Agricultural export earnings and crude oil export earnings made significant contributions to Nigeria's foreign reserve in the former and in the later respectively.

The increased trend observed in the country's foreign reserve over the years did not translate into improved balance of payment management and table 2 indicates that during this period there was massive importation of goods, including food; as the average growth rate of food imports between 1994 – 1995 was ₦78.1 million as against ₦25.4 million between 1970 – 1985.

The position of Nigeria's foreign / external reserve from the period 1960 to 2000 as presented in appendix B shows that the nation's external reserve experienced downward trend from 1960 till 1973, as the reserve fell from ₦343.4 million to ₦241.0 million. During this period, imports and balance of payment were favourably sustained and managed at reasonable levels. Agriculture was the mainstay of the economy at this period. The year 1974 saw the nations foreign reserve rising, and indeed fluctuating, and this continued till the year 2000. At this period, crude oil export sustained the ecbnomy. In the early 1960's, agriculture and other non-oil exports dominated the structure of Nigeria's export as they accounted for 97.3 percent of total export earnings. From 1973, the share of non-oil exports which was 74.6 percent in 1965 declined to 42.4 percent. In the year 2000, the nation's foreign reserve rose to its highest value in forty years as it stood at ₦ 1,007, 392.2 million with an increase of 81.8 percent over the previous year.

It is worthy of mention that since oil exports assume a prominent position in the nation's economy, there has been instability in the nation's economy. As agriculture has been the mainstay of the Nigeria economy before the oil boom, it is in the national interest that agriculture be given adequate attention now, so as to ensure a stable economy if the oil market collapses. Abebefe (1995) seem to share this view when he remarked that agricultural exports have a great role and potential for boosting export earnings as well as providing the needed diversification for the country's export structure. Thus if effectively and adequately promoted, it can contribute immensely to meeting the present deficiency in the supply of foreign exchange in the country.

An investigation into the factors that influence Nigeria's balance of payment equilibrium was conducted. This was deemed necessary to provide us with both the empirical and logical basis of isolating the factors that distort the nation's balance of payment equilibrium. To accomplish this objective, an ordinary least square regression analysis was carried out. A model for this has already been specified above.

The results of the multiple regression ordinary least squares analysis obtained by regression six explanatory variables exchange rate (ER), interest rate (IR), foreign reserve (FR), import value (IM), export value (EX), and time (Ti) –on the balance of payment are shown in tables 5.

From the results, the exponential form was chosen as the lead equation for the model having satisfied some desirable conditions.

Out of the six estimated coefficients in the exponential form, four were positively correlated to balance of payment while two (time and foreign reserve) were significant at 10% level of significance. The F distribution was used in testing the significance of the coefficients of multiple determination (R^2) while the student t-distribution was used in testing the significance of the explanatory variable coefficients. It can be observed from table 5 that 75 percent of the total variations on balance of payment is explained by the explanatory variables included in the model. The exponential form produced the lead equation and is discussed below.

From table 5, time factor as index of balance of payment measurement maintain a direct relationship with balance of payment. This means that Nigeria's balance of payment increases as the year's increase, given her past experience and monitor their economic policies that favour balance of payment.

From table 5, interest rate is important and is directly to balance of payment. Hence as interest rate increases, the balance of payment increase, However, it is not worthy that over the years, market forces were not allowed to determine interest rate. The direct relationship that exist between exchange rate and balance of payment, as shown in table 5, implies that the more naira it takes it takes to bay a unit of foreign currency, the higher the balance of payment. Thus, currency devaluation can be used to achieve this policy and this is consistent with Olisadebe (1993).

Another important factor that influence Nigeria's balance of payment equilibrium is the nation's foreign reserve. As table 5 shows, both are directly related. Hence as the foreign reserve increases, there tends to be a favourable balance of payment, there seems to be low external reserve. This view was equally captured by Olisadebe (1993) who stated that the foreign reserve fell to unacceptable low level during the period of unfavourable balance of payment. Other factors such as value of imports exports time trend were not significant determinants of foreign reserve as shown by the non-significance of the t ratios in the lead equation.

POLICY PROPOSALS

The dominance of oil in the Nigerian economy has virtually led to the collapse of the agricultural sector. For instance, the 3.1 percent growth rate recorded in agriculture in the year 2000 was marginally lower than the average of 3.2 percent recorded in the previous five years and the 5.5 percent annual growth rate target set in the 2000 – 2002 national Rolling Plan. (CBN, 2000).

Appendix A clearly showed us that despite the huge earnings made from oil sales in the recent years by Nigeria, the Country had a balance of payment deficit of N326,635.0 million in 1999. We therefore, wish to reaffirm that until agricultural earnings is effectively used to improve the balance of payment management in Nigeria, the poor trend characterized by unstable economy will continue.

The government should increase its funding to the agricultural sector as well as encourage the private sector to do the same. More importantly, there is need for intensified monitoring of agricultural policy implementation.

CONCLUSION

A wise nation does not pull all its eggs in one basket. Most mono-product economies are characterized by economic instability. A critical look at the economic trend in Nigeria, especially since the neglect of agriculture gives credence to this. It is, therefore in the national interest that agriculture be given adequate attention now, so as to ensure a stable economy when the oil market collapses. The Nigerian economy is wholly dependent on international oil prices. This is not good enough.

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Table 5: Result of Multiple Regression

Functional form	Constant	F-ratio	R^2	Ti	IR	ER	FR	IM	EX
Linear	1449.79	13.23	0.756	-228.23 (-1.173)	1143.02 (2.62)*	-3037.40 (-35.72)*	-0.134 (-10.42)	0.09 (5.20)*	0.04 (0.49)
Exponential	1.03	15.26	0.753	0.095 (4.960)*	0.046 (1.066)	0.045 (0.530)	0.00012 (10.975)*	-0.0001 (-0.498)	-0.0001 (-0.194)
Double Log	-2.01	22.46	0.818	-0.189 (-0.307)	-0.249 (-0.31)	-0.354 (-0.967)	-0.394 (1.016)	-0.069 (-0.121)	1.082 (1.243)
Semi-Log	-14216.1	7.32	0.594	-5156.06 (-0.637)	-21387.9 (-2.022)*	13890.97 (3.878)*	-3115.94 (-0.611)	-2521.71 (-0.334)	14893.7 (1.30

Figures in parenthesis are t-ratios