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MEASURING THE ECONOMIC IMPACT OF THE FEDERAL GOVERNMENT BUDGET: 1995 - 2000

BY

S.I. Doguwa and A. Englama¹

Abstract

This paper presents a relatively simple method for analysing the effects of fiscal policy through the use of a set of weights for the various budget-items. The method provides separate measures of the effects of a given budget on aggregate domestic demand and on the balance of payments. The results of the analysis indicate that the Federal Government budget had a larger contribution to aggregate domestic demand from 1995 through 1999. However, the magnitude of improvement in the balance of payments in 1998 was much lower than the previous and subsequent year. In addition, the expansionary fiscal policies of 1997 through 1999 resulted in accelerated expansionary movements of the money supply compared to the moderate movements during the contractionary fiscal periods of 1995 and 1996. We posit that, if the Federal Government budget for fiscal 2000 is judiciously implemented, then the budget would be expected to have a larger contribution to aggregate domestic demand, while its moderate expansionary impact would be sufficient to lead to an improvement in the balance of payments in fiscal 2000. In addition, the expansionary impact of the budget is expected to result in accelerated expansionary movements in the broad money stock.

1. Introduction

It is common to associate the budget, as a policy tool in developing countries,

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with the fostering of economic stabilization and growth. This is more noticeable in Nigeria where people depend so much on budget pronouncements to guide in business plans. However, there has not been any supraliminal effort to measure the impact of the budget on the domestic economy. Although Omoruyi(1990) provided some methodological notes for budget impact analysis, no attempt has been made using such methodology to carry out some empirical analysis using Nigerian data. This paper attempts to measure the impact of the Federal Government budget in Nigeria using an improved methodology.

In this paper we adopt a relatively simple model for analyzing the effects of fiscal policy empirically, through the use of a set of weights for the various budget items. This model has been used to take into account the difference on the impact of various budget items on the balance of payments and on the gross domestic product. Similarly, the model could be used as a tool of fiscal analysis that requires relatively limited time and empirical information so that it may be used relatively easily by those responsible for ascertaining the stance of fiscal policy.

The objective of this paper, therefore, is to measure the impact of the budget in Nigeria for fiscal 1995 through 2000 on domestic aggregate demand and balance of payments using the weighted budget balance technique, a more superior approach to the traditional simple budget balance methodology. The paper is structured into five sections, with section one as the introduction. Section two reviews the relevant literature. Section three discusses the development of the models and their economic interpretations. Section four analyses the actual Federal Government budget for fiscal 1995 through 1999, as well as the expected impact of the proposed fiscal 2000 budget on aggregate domestic demand, overall balance of payments and monetary aggregates. Lastly, section five summarizes and concludes the paper.

II. Literature Review

Several techniques have been designed to measure the impact of fiscal policy on macroeconomic variables. These techniques, as seen in Morss and Peacock (1968), Borpajari and Ter-minassian (1973) and Omoruyi (1990), differ considerably in analytical complexity as well as in the amount of empirical information needed for their application. In practice, a first step towards measurement is the considerable emphasis placed on reclassifying the government accounts with the object, among others, of measuring the overall balance and the extent of government borrowing from the banking system. This simple budget balance (SBB) approach has the advantage of using concepts that are well known even outside the realm of economics and about which empirical information is usually available.

However, the SBB approach also suffers from some serious limitations. First, the SBB approach implies that all budget items have, in absolute value, the same one-to-one impact on aggregate demand. However, even within the most simplified framework of a static keynessian model of an economy with no foreign and monetary sectors, taxes and expenditure have different absolute impacts on aggregate demand as long as the marginal propensities to consume are less than unity. Peacock and Shaw (1971) reasoned that in more complex analytical models that include a foreign sector and allow for the monetary repercussions of fiscal policy actions, it becomes more evident that the impact of various items of revenue and expenditure can vary widely and that, the net impact of the budget as a whole can be quite different, both in sign and in magnitude, from the outcome of the simple sum of revenues (with positive signs) and expenditures (with negative signs).

A second limitation of the simple budget balance approach as a tool of fiscal analysis, is the fact that it indicates the impact of the budget on total demand rather than on its components, especially the domestic and foreign. More specifically, the use of the simple budget balance as a measure of the effects of a given budget ignores the fact that government expenditure abroad does not add to domestic demand and therefore does not increase domestic employ

ment and output and that government receipt from abroad do not reduce private domestic resources. The leakage caused by the positive marginal propensity of the private sector to import is also ignored, although this leakage obviously reduces the impact of domestic transfers and taxes on internal demand.

The approach of Borpujari and Ter-Minassian (1973) provided separate measures of the effects of a given budget (or its changes) on gross domestic product (GDP) and on balance of payments (BOP): two different sets of weights were assigned to the various budget items - one reflecting their first-round impact on GDP and the other, their first-round effects on the overall balance of payments. Obviously, the impact of the budget on total demand, as indicated by the simple budget balance, generally is different in size from that of GDP as measured by the weighted budget balance. Whether the former is larger or smaller than the latter depends, on the relative sizes of the marginal propensities to import of the private and public sectors and on the composition of the budget.

The approach presented in this paper is relatively similar to that used by Brown (1956), Musgrave (1964), Morss and Peacock (1968) and Borpujari and Ter-Minassian (1973) in their studies of the United States and selected developing countries such as Ghana, Chile and Liberia. The approach adopted has the advantage over the use of the simple budget balance, by taking into account the differences in the effects of the various budgetary items and assigning to each item a weight indicating its first round impact on aggregate domestic demand. If each budget item is multiplied by its corresponding weight, the sum of the product is the weighted budget balance (WBB). In general, the WBB will be different from its simple counterpart in magnitude and sometimes also in sign.

III. Model Specifications and Interpretations

While it may be useful to refer to the studies enunciated in the preceding section in order to compare methods and results, it is necessary to devote some time to the discussion of the model development, interpretation and to the values for which exogenous variables and parameters will be inserted. In this regard, we shall examine the SBB and WBB models as well as the models for measuring the impact of fiscal policy on other economic variables.

Simple Budget Balance ModelCENTRAL BANK OF NIGERIA
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Despite its various shortcomings, the SBB model defined as

$$\text{SBB} = \sum_{i=1}^n R_i - \sum_{j=1}^m G_j \dots\dots\dots (1)$$

where R_i is the i^{th} revenue item and G_j is the j^{th} government expenditure item, is still widely used as an indicator of the expansionary (deficit) or contractionary (surplus) character of a given budget, especially at the policy making level. For completeness, the overall budget deficit or surplus plus the financing items should ideally be zero, that is:

$$\text{SBB} + \sum_{t=1}^r F_t = 0 \dots\dots\dots (2)$$

where F_t is the t^{th} financing item.

In as much as government taxes and other revenues absorb purchasing power of the private sector and government expenditure increases aggregate domestic demand, an overall deficit may be indicative of expansionary fiscal stance. Similarly, an overall surplus may indicate a contractionary impact. However, the SBB analysis would need to be qualified by an analysis of the type of financing, the structure of receipts and expenditure and of the factors that might be causing the deficit.

Idowu, et al(1994) posit that the impact of a given SBB on aggregate demand depends on the way the balance is financed. Consequently, analysis of the sources of budgetary finance plays an integral part in the review of fiscal operations. Foreign borrowings that are used to finance domestic expenditure will, however, have an expansionary impact on the domestic economy. Net recourse to the central bank as domestic source of financing is usually considered expansionary as the rise in credit to government does not require any compensating reduction in credit to the private sector. In contrast, the impact of government borrowing from the deposit money banks depends on the extent to which such banks are able to finance the additional credit without crowding out the

private sector. Thus, the interpretation of the SBB should be viewed with caution.

Weighted Budget Balance Model

The WBB model is an intermediate approach between the use of the SBB and the simulation of a complex econometrics model. Unlike the SBB approach, the WBB involves weighting the various budgetary items in such a way as to reflect their different effects. The weights applied in this paper are adapted from Omoruyi (1990) and they indicate only the first round impact of the budget items. The WBB model represents a framework of analysis designed to take into account the major interrelationships between the budget and the economy.

The impact of the various budget items on aggregate domestic demand are derived by solving the model for GDP in terms of some exogenous variables. Consider, a naive keynesian textbook type model with the trade sector:

$$Y = C_p + I_p + G + (X - M) \dots\dots\dots .(3)$$

where the symbols, reading from left to right, stand for gross domestic product, private consumption, private investment, government expenditures, exports and imports. Government expenditure and exports are taken as exogenous, while,

$$C_p = a + bY \dots\dots\dots .(4)$$

$$M = c + dY \dots\dots\dots .(5)$$

$$I_p = e + fY \dots\dots\dots .(6)$$

where b, d and f are the marginal propensities to consume by the private sector, import and invest, respectively. Substituting (4) through (6) into (3) gives an equilibrium value for Y,

$$Y = \frac{a + e - c + G + X}{1 - b - f + d} \quad \dots\dots\dots (7)$$

implying a domestic spending multiplier denoted by Q:

$$Q = \frac{1}{1 - b - f + d} \quad \dots\dots\dots (8)$$

assuming that a , e and c are not statistically different from zero. Given the static nature of a model of this kind, multiplier effects are sometimes ignored, and the analysis is limited to direct or first round effects for the following reasons: First, if substantial lags exist in the transmission of the effects of fiscal policy change, it is not appropriate to assume that the full-multiplier effects take place during the year of the change, while in general it is reasonable to assume that first-round effect do so. Secondly, disregarding lags in the specifications of the behavioral functions of the model generally results in biased estimates of the parameters of the functions and therefore of the coefficients of the reduced form of the model. However, the estimate of the first-round effects is affected only by the bias in the weights, so that the error under the weighted budget balance approach is smaller than that under a full-multiplier approach.

The net first-round impact or direct impact, J , on domestic aggregate demand may be represented as:

$$J = \sum_{i=1}^n W_i R_i + \sum_{t=1}^r W_t F_t + \sum_{j=1}^m W_j G_j \quad \dots\dots\dots (9)$$

where W_i is the weight of the i^{th} revenue item R_i , W_t is the weight of the t^{th} financing item F_t and W_j is the weight of the j^{th} government expenditure item, G_j .

For the simple budget balance, equation (9) reduces to equation (2), since $W_i = 1$ for all i , $W_t = 1$ for all t and $W_j = -1$ for all j . Borpujari and Ter-Minassian (1973) have developed a model for deriving the weights of the various budget items for developed countries. However, because of the dearth of data in Nigeria, Omoruyi (1990) relied on intuition and informed judgement to derive the weights. Though

Omoruyi's weights are adapted in this paper for the various expenditure, revenue and financing items, probabilities cannot be attached to them. Since different weight regimes can give widely different impact results, it would be necessary to carry out sensitivity analysis in later section to observe the stability of the impact estimates (see Table 1).

For the total effect of the budget on aggregate domestic demand, the induced effects must be included. The effects are equal to $JQ - J$. Using this formulation, the total effect of the budget on aggregate domestic demand is given by

$$JQ = \frac{J}{1 - b - f + d} \dots\dots\dots (10)$$

where J , b , f and d are as defined in (9) and (8), respectively.

Using a summation technique similar to that used to demonstrate the effect of the budget on aggregate demand, we can denote the first-round impact on the overall balance of payments, K as equal to:

$$K = \sum_{i=1}^n h_i R_i + \sum_{t=1}^r h_t F_t + \sum_{j=1}^m h_j G_j \dots\dots\dots (11)$$

where the h 's are weights representing the foreign trade components of receipts, borrowing and expenditure. For the total impact, allowance should also be made for the inflationary and deflationary impact of the budget on aggregate domestic demand and the resulting spill-over into the balance of payments which is approximated by dJQ . Hence, the total impact on the overall balance of payments T , equals:

$$T = K + \frac{dJ}{1 - b - f + d} \dots\dots\dots (12)$$

Morss and Peacock (1968) explicate that a change in the size of the budget deficit from one year to the next, is often taken as a measure of the changing impact of the budget on a country's economic conditions. For all the items, a

negative change indicates a greater expansionary pressure in the later period, i.e. a larger contribution to aggregate domestic demand and/or worsening balance of payments problems. In contrast, a positive change indicates a greater contractionary pressure in the later period, implying a smaller contribution to domestic demand and/or to an improvement in the balance of payments.

Models for Measuring the Impact of Fiscal Policy On Other Economic Variables

Macro-models represent, in theory, the most satisfactory approach to measuring the impact of fiscal policy on the economy. However, it is well known that building a satisfactory fiscal policy model, accurately specifying the links between fiscal and other economic variables as well as the various lags that affect the working of fiscal policy, is indeed a complex undertaking. In this section, we shall attempt to specify and estimate the inter-relationships between fiscal and other economic variables, such as imports, private investment expenditure, exchange rate and monetary aggregates. The model could be used to simulate the effects of various policy changes as well as the stabilizing or destabilizing responses of the budget to exogenous shocks in the economy. If appropriate lags are introduced into the various equations, the models can also be used to trace the time profile of the effects of given fiscal policy actions, that is, to compute multipliers indicating the effects of a unit change in a fiscal instrument on a given endogenous variable within the time unit of the model, in several such periods of time, or in the long-run.

Two multiple regression models of expected change in money supply (M1, M2) due to the budget impact in terms of SBB and other economic variables, such as imports, exchange rate and private sector investment are provided. The first model estimates the change in narrow money (M1) as a function of budget deficit, imports, private investment and exchange rate. That is,

$$\Delta M_1 = a_0 + a_1 BD + a_2 LBD + \xi$$

$$\xi = a_3 LIM + a_4 LEX + a_5 LIP \dots\dots\dots (13)$$

where the symbols, from left to right, stand for change in M1, budget deficit, deficit lag one period, imports lag one period, exchange rate lag one period and private investment lag one period. The second model estimates the change in broad money (M2) as a behavioral function of budget deficit, imports, exchange rate and private investment. That is,

$$\Delta M_2 = b_0 + b_1 BD + b_2 LBD + \psi$$

$$\psi = b_3 IM + b_4 LEX + b_5 LIP \dots\dots\dots (14)$$

where the symbols, reading from left to right, stand for change in M2, budget deficit, deficit lag one period, imports, exchange rate lag one period and private investment lag one period.

Fiscal deficits both for the current year and the preceding year are expansionary and are, therefore, expected to increase the monetary aggregates, thus in equations (13) and (14), the coefficients of fiscal variables (a_1 , a_2 , b_1 , b_2) are expected a priori to be negative, since fiscal deficit by definition carries a negative sign. Depreciation of the local currency is expected a priori to yield more local currency to purchase foreign currency. This would imply that local currency depreciation is an expansionary factor on the monetary aggregates and the coefficients a_4 and b_4 are expected to be positive. Increase in private sector investments would impact positively on domestic credit, which will in turn, increase the money stock. Thus, there is a positive relationship between private investment and money supply, implying positive coefficients a_5 and b_5 . Also, the level of imports is expected to be positively related to money supply.

Budget Analysis

The revenue and expenditure items presented in Table 3 for the periods 1995 through 1999 were directly derived from Tables 5.1 and 5.2 of the Central Bank of Nigeria annual report and statements of accounts for the year ended December, 1999. Some simple proportionality assumptions were used

especially in determining the components of the non-oil revenue of Table 3. As shown in this table, the Federal Government budget indicated that total federal government revenue rose steadily to N307.7 billion in 1995, N369.3 billion in 1996, N423.2 billion in 1997, before dropping to N353.7 billion in 1998, but rose to N662.6 billion in 1999. The drop in 1998 was traced largely to fall in international oil prices. The phenomenal increase in 1999 was accounted for by favourable development in the international oil market and the merger of the dual foreign exchange markets. Similarly, total expenditure rose steadily across the years from N306.7 billion in 1995 and peaked at N947.7 billion in 1999. Thus, there were surpluses in 1995 and 1996, while the Federal Government fiscal operations resulted in deficits in 1997 to 1999. Most of these deficits were largely financed through domestic borrowing from the banking system and drawing from cash balances.

Domestic Spending Multiplier

The model for deriving the marginal propensities used for estimating the domestic spending multiplier, broadly fits into the framework of analysis laid out in the previous section. However, some simplifications were made necessary by the limitations in the availability of data. For lack of better information, it was assumed that the private investment expenditure at current prices is the same as gross fixed capital formation at current prices less government consumption expenditure. Also, since no published information exists on the distribution of the personal income tax by income shares in Nigeria, our domestic spending multiplier, would necessarily differ from that of Morss and Peacock (1968) in complexity of computation.

The empirical estimates of the parameters were derived from the following ordinary least squares regression (equations 15 to 17) for the sample period 1975 to 1999. The results of the regressions are fairly satisfactory from the econometric point of view:

$$C_p = -2210.9 + 0.8658 Y \quad (15)$$

$$(-1.17) \quad (60.54)$$

$$R^2 = 0.994 \quad DW = 2.78$$

$$M = -8127.8 + 0.2772 Y \quad (16)$$

$$(-0.47) \quad (20.92)$$

$$R^2 = 0.949 \quad DW = 2.89$$

$$I_p = -1496.2 - 0.0442 Y \quad (17)$$

$$(1.64) \quad (-6.41)$$

$$R^2 = 0.636 \quad DW = 1.19$$

where the notation is the same as that used in the previous section. In addition, R^2 is the multiple correlation coefficient corrected for degrees of freedom; DW is the Durbin-Watson statistics and the numbers in parenthesis under the coefficients are the t-ratios.

The domestic spending multiplier for fiscal 1999 is estimated by using the coefficients of the aggregate domestic demand of equations (15) to (17) and is presented in Table 3. The estimated multipliers for fiscal 1995 through fiscal 1998 also presented in Table 3, were estimated using similar procedures as in fiscal 1999, but with sample periods ranging from 1975-1995, 1975-1996, 1975-1997 and 1975-1998, respectively. The impact of the multiplier was greater in 1996, followed by 1998, 1997, 1999 and 1995 in that order. The multiplier for the period is slightly above 2 for each of the years, implying that aggregate spending would lead to more than two-fold increase in the level of aggregate domestic demand.

Stability of Impact Estimates

Since different weight regimes are likely to give widely different and conflicting impact estimates, it is necessary to conduct some sensitivity analysis in order to observe the stability of these estimates (i.e by looking at their magnitude and direction for different scenarios). The revenue items whose weights are expected to have some variations are revenue from the oil sector and "other" non-oil revenue. For the expenditure items, only domestically financed expenditure on capital projects item is expected to have varying weights. Three realistic scenarios were used for the different weight regimes (see Table 1).

The average crude oil production in Nigeria for the review period was about 2 million barrels per day of which 0.2 million barrels per day or 10 per cent of production were refined domestically and set aside for domestic consumption. It could reasonably be assumed that the 10 per cent of the oil revenue were generated domestically, while there were periods when all the 2 million barrels per day were exported. Thus, the weights of 10, 5 and 0 percent are assigned to the domestic component of the oil revenue item in the three scenarios. The "other" non-oil revenue component was assumed to have as foreign component, receipts from non-oil exports. However, since these non-oil receipts were very negligible, we assigned weights ranging from 0 to 10 per cent to the foreign component of the "other" non-oil revenue item in the three scenarios. On the expenditure side, domestically financed expenditure on capital projects was expected to attract some import contents in form of machinery and spare parts, ranging from 0 to 10 per cent.

Tables 2(a) and (b) present the result of the sensitivity analysis of the effects of the different weight regimes on the impact estimates. It is clear from the results that the three likely scenarios provided very similar results, both in magnitude and direction. Though there were no variability in direction of impacts, there were some noticeable variations in magnitudes across the years. However, since the most important indicator is the direction of the impact, the three scenarios

would lead to the same conclusions. This suggests that if the weights are objectively chosen, the bias in the interpretation of the impacts would be negligible, thus, leading to stable impact estimates.

Impact of the Budget on GDP and BOP

In Table 2(a), the change in the ordinary budget deficit is compared to changes in the two weighted first-round totals. The table shows that the direction of change in the ordinary budget deficit differed from that of the aggregate demand item in two of the four period sets. Similarly, the direction of the change in the weighted balance of payments item differed from that of the ordinary budget deficit in two of the four period sets. However, the relative magnitudes of change between the two differed considerably. For example, for 1997 to 1998, the ordinary deficit increased by N128.4 billion, while the overall balance of payments item declined by only N49.3 billion; for 1998 to 1999, the ordinary deficit increased by N151.7 billion, while the overall balance of payments position improved by N35.7 billion. This improvement in the overall balance of payments could largely be attributed to government not meeting some of its external debt obligations in 1999.

While the ordinary budget deficit indicated a greater contractionary pressure in 1996 compared to 1995, there was a direct expansionary impact of the budget on aggregate domestic demand. In contrast, the contractionary pressure on the budget in 1996 compared to 1995 led to an improvement in the balance of payments position in 1996. The changes in the size of the ordinary budget deficits from 1997 to 1999 indicated a continuous expansionary pressure on Nigeria's economic conditions. However, except for 1998, the sustained pressure led to a larger contribution to aggregate domestic demand, which was sufficient enough to compensate for direct impact leading to some improvements in the balance of payments position in these years. The greater expansionary pressure on the economic conditions in 1998 compared to 1997 had a first round restrictive (smaller) contribution to domestic demand. However, this restrictive impact on

the aggregate domestic demand was not sufficient to compensate for direct impact leading to a worsening balance of payments problem in fiscal, 1998.

Earlier, it was pointed out that in order to assess the total impact of budgetary activity on domestic aggregate demand, JQ , we must calculate the budget multiplier, Q . It was also suggested that the total impact of the budget on the balance of payments might be approximated by $K + dJQ$. Tables 3 and 2(b) present the budget multiplier for 1995 to 1999, as well as the total impact on both the aggregate domestic demand and on balance of payments. From table 2(b), it is clear that the budget had a total expansionary impact on aggregate domestic demand in every year covered. However, this total expansionary impact was sufficient to compensate for total impact, leading to an improvement in the overall balance of payments in every year, but the magnitude of the improvement in the balance of payments in 1998 was much lower than the previous and subsequent year.

Impact of the Budget on Money Supply

Equations (13) and (14) were estimated using the ordinary least squares technique with annual data ranging from 1975 to 1999. The results of the multiple regression analysis of $\Delta M1$ and $\Delta M2$ on the explanatory variables are as follows:

Explanatory Variables	Equation {18} $\Delta M1$	t- Value	Equation {19} $\Delta M2$	t- Value
Constant	-1681.8	-2.63	-597.30	-0.44
BD	-0.1637	11.14	-0.2985	-9.84
LBD	-0.1409	-6.89	-0.2691	-6.02
IM	-	-	0.0174	2.53
LIM	-0.0240	-1.89	-	-
LEX	939.5	9.16	758.50	6.74
LIP	0.4171	10.92	0.2290	3.16

The t-values for the regression coefficients of equation (18) indicate that the coefficients have the correct sign and significant at the 5 per cent level,

except imports which has the wrong sign and insignificant. The F-statistic gives a value of 419.5 which indicates that the equation is adequately specified even at the 1 per cent level. The adjusted R^2 - value equals 0.989, which suggests that the explanatory variables explain over 98 per cent of the changes in M1. The Durbin Watson statistic return a value of 2.447 indicating a lack of serial correlation in the residuals and confirming that equation (18) could be used for forecasting purposes.

Similarly, the results of the regression analysis on the changes in M2 indicate that all the coefficients of equation (19) have the correct sign and statistically significant at the 5 per cent level. However, the constant is not significantly different from zero. The F-statistic gives a value of 367.1 indicating that the model is adequately specified at the 1 per cent level. The adjusted R^2 equals 0.9876, suggesting that the explanatory variables explain over 98 per cent of the changes in M2. The Durbin Watson statistic which returns a value of 2.3601, confirmed the non-existence of serial correlation in the residuals and therefore, suggests that equation (19) could be used for policy simulation and forecasting.

Table 4(a) presents the results of the estimated impact on money supply as a result of the various fiscal and other policy measures enunciated in 1995 through 1999. The actual changes in the money supply for these periods are also presented in the table for assessing the accuracy of the estimated fiscal impact models on the money supply. It is clear from the table, that the estimated impacts are robust and move in tandem with the actual impacts for both narrow and broad money stock. In addition, the expansionary fiscal policies of 1997 through 1999 have led to an accelerated expansionary impact on both M1 and M2 compared to the moderate movements in the two variables during the contractionary fiscal policy periods of 1995 and 1996.

Expected Impact of Budget 2000 on GDP, BOP and Monetary aggregates

Table 4(b) provides an approximated analytical presentation of the fiscal

2000 budget, based on the final executive adjusted position after consultation with the National Assembly. Since financing items of the expected deficit were not explicitly provided, we assume without loss of generality that about N4.2 billion would be financed through external borrowing, while the balance would be financed domestically.

Table 5 provides a comparison of changes in selected measures of budgetary activities between 1999 and 2000. We posit that with the expected N96.5 billion deficit in fiscal 2000, the ordinary budget deficit would be expected to decline by N188.6 billion from the level recorded in fiscal 1999. Furthermore, the first round impact of the budget on the balance of payments is expected to worsen the balance of payments position in 2000. Thus, while the ordinary budget deficit is expected to exercise greater contractionary pressure in fiscal 2000 compared to fiscal 1999, the budget would lead to a larger contribution to aggregate domestic demand. In contrast, the expected moderate expansionary pressure on the budget in fiscal 2000 compared to fiscal 1999, would almost likely lead to an improvement in the balance of payments position in 2000.

To estimate the effects of the fiscal 2000 budget on the money stock, we assume that the level of imports for 1999 would be maintained for fiscal 2000. Tables 6 and 7 present the fiscal impact of the budget on both narrow and broad money stock. With the expected deficit of N96.5 billion, the narrow money supply is expected to moderately increase by N9.4 billion or 2.4 per cent over the 1999 level. In contrast, the broad money supply is expected to increase substantially by N129.1 billion or 18.5 per cent over the 1999 level.

V. Summary and Conclusions

The paper attempted to measure the impact of fiscal policy on macro-economic variables. It discussed some of the techniques used in the measurement such as simple budget balance (SBB) and the weighted budget balance (WBB). The SBB tries to reclassify the government accounts with the objective of measuring the overall deficit or the extent of government borrowing from the banking system. The WBB approach, on the other hand took into account the

differences in the effects of the various budgetary items by assigning to each item a weight, indicating its first round impact on aggregate domestic demand and on balance of payments.

The naive keynesian text-book type model is used in estimating the coefficients of the reduced form of the model. The estimate of the first round effects was however, affected only by the bias in the weights, so that the error under the WBB approach is smaller than that under a full-multiplier approach. Through these, the direct impact as well as the total effect of the budget on aggregate domestic demand and balance of payments were derived.

The model also specified and estimated the interrelationships between fiscal and other economic variables, such as imports, private investment expenditure, exchange rate and monetary aggregates. We estimated changes in M1 and M2 as a behavioral function of SBB and some other economic variables. The estimates showed that fiscal deficit for the current year and lag one period were expansionary and were therefore, expected to increase the monetary aggregates.

The result of the weighting and their implication for the direct impact of the budget on both aggregate domestic demand and the balance of payments indicated that the ordinary budget deficit had contractionary pressure in 1996 compared to 1995, but there was a direct expansionary impact of the budget on aggregate domestic demand. The contractionary pressure on the budget in 1996 compared to 1995 led to an improvement in the balance of payments position in 1996. The changes in the size of the ordinary budget deficits from 1997 to 1999 indicated continuous expansionary pressure on Nigeria's economic conditions. The sustained pressure led to a larger contribution to aggregate domestic demand, which was sufficient to compensate for direct impact leading to some improvements in the balance of payments position in these years. Using this methodology, we attempted to examine the impact of budget 2000 on aggregate domestic demand, balance of payments and monetary aggregates. We postulate that if budget 2000 is judiciously implemented, it would lead to increased aggregate domestic demand, improvement in the balance of payments and a substantial increase in broad money supply.

In conclusion, the WBB approach used in this study provides a measure of the impact of the budget on aggregate domestic demand and balance of payments. It allows for the different impact of the various budget items and, therefore, for the effects of change in the composition of the budget over time. If the weights assigned to the revenue, expenditure and financing items are significantly different from one another and substantial shifts occur, changes in the WBB are a more reliable indicator of the character of fiscal developments than are changes in SBB.

Table 1:
Different Weight Regimes Applied To
FEDERAL GOVERNMENT BUDGET ITEMS

Budget items:	Scenario1 Weighted for		Scenario 2 Weighted for		Scenario 3 Weighted for	
	Agg. Demand	BOP	Agg. Demand	BOP	Agg. Demand	BOP
<u>(A) REVENUE</u>						
1. Non-Oil Revenue	0.975	0.025	0.975	0.025	1	0
1.1 Custom & Excise Duties	1	0	1	0	1	0
1.2 Value Added Tax	1	0	1	0	1	0
1.3 Companies Income tax	1	0	1	0	1	0
1.4 Others	0.9	0.1	0.9	0.1	1	0
2. Revenue from Oil Sector	0.1	0.9	0.05	0.95	0	1
<u>(B) EXPENDITURE</u>						
1. Recurrent Expenditure For						
Domestic Obligations	-1	0	-1	0	-1	0
External Obligations	0	-1	0	-1	0	-1
2. Interest Payments						
Domestic	-1	0	-1	0	-1	0
Foreign	0	-1	0	-1	0	-1
3. Expenditure on Capital Projects						
Domestic	-0.95	-0.05	-0.9	-0.1	-1	0
Foreign	0	-1	0	-1	0	-1
4. Capital Repayments						
Domestic	-1	0	-1	0	-1	0
Foreign	0	-1	0	-1	0	-1
5. Net Lending	-1	0	-1	0	-1	0
<u>(C) ORDINARY BUDGET DEFICIT(-)/SURPLUS(+): A-B</u>						
<u>(D) FINANCING ITEMS</u>						
1. Domestic Borrowing (net)	1	0	1	0	1	0
2. External Borrowing (net)	0	1	0	1	0	1
3. Drawing on Cash Balances	1	0	1	0	1	0

Table 2(a):
Effects of Different Weight Regimes On Selected Measures of Budgetary Activity

Selected Measures 1/	Scenario	1996	1997	1998	1999
Ordinary Budget Deficit		31,049.4	-37,049.5	-128,389.2	-151,715.4
Direct Impact on Aggregate domestic demand	1	-31,480.0	-25,515.4	48,087.4	-8,077.4
	2	-33,794.7	-23,178.0	52,861.2	-19,534.6
	3	-43,598.0	-26,845.6	49,347.7	-35,700.5
Direct Impact on Balance of Payments	1	31,480.0	25,515.4	-48,087.4	8,077.4
	2	33,794.7	23,178.0	-52,861.2	19,534.6
	3	43,598.0	26,845.6	-49,347.7	35,700.5

\1 Change in level from previous year

Direct Impact on Aggregate Domestic Demand:

(-) means expansionary pressure or larger contribution to aggregate domestic demand

(+) means contractionary pressure or smaller contribution to aggregate domestic demand

Direct Impact on Overall Balance of Payments:

(-) means worsening balance of payments problem

(+) means improved balance of payments position

Table 2(b):
Effects of Different Weight Regimes On Total Budgetary Impact

Total Budgetary Impact On:	Scenario	1995	1996	1997	1998	1999
Aggregate Domestic Demand	1	-349,032.9	-487,634.2	-516,453.5	-428,688.0	-415,970.5
	2	-355,904.4	-501,287.9	-524,044.0	-425,373.3	-438,053.7
	3	-400,569.2	-577,500.3	-604,039.5	-517,690.4	-559,315.7
Balance of Payments	1	50,337.2	79,517.5	90,017.8	62,601.3	74,200.8
	2	51,328.2	81,744.0	91,340.9	62,117.3	78,140.0
	3	57,769.7	94,171.8	105,284.1	75,598.3	99,770.7

Table 3(a)
FEDERAL GOVERNMENT FINANCES (=N= MILLIONS)

Classification	1995	1996	1997	1998	1999	Wi	Bi
(A) REVENUE	307,659.3	369,267.0	423,215.1	353,724.1	662,585.3		
1. Non-Oil Revenue	90,587.9	79,084.4	120,542.8	106,281.2	146,863.2	0.975	0.025
1.1 Custom & Excise Duties	24,990.6	39,042.8	45,748.2	44,010.9	61,363.8	1	0
1.2 Value Added Tax	13,885.8	22,005.9	24,689.5	28,129.3	32,903.4	1	0
1.3 Companies Income tax	14,633.1	15,617.1	18,880.2	25,418.9	32,257.9	1	0
1.4 Others	37,078.4	2,418.6	31,224.9	8,722.1	20,338.1	0.9	0.1
2. Revenue from Oil Sector	217,071.4	290,182.6	302,672.3	247,442.9	515,722.1	0.1	0.9
(B) EXPENDITURE	306,659.3	337,217.6	428,215.2	487,113.4	947,090.0		
1. Recurrent Expenditure For	81,841.3	81,327.0	113,123.7	124,509.0	321,693.3		
Domestic Obligations	81,841.3	81,327.0	113,123.7	124,509.0	267,834.0	-1	0
External Obligations					53,859.3	0	-1
2. Interest Payments	51,058.4	42,964.3	45,439.8	53,588.8	127,969.1		
Domestic	33,806.0	23,147.4	32,000.0	41,884.8	79,571.0	-1	0
Foreign	17,252.4	19,816.9	13,439.8	11,704.0	48,398.1	0	-1
3. Expenditure on Capital Projects	155,181.0	191,248.0	250,047.4	292,564.6	384,247.6		
Domestic	149,182.0	176,000.0	235,237.0	275,483.8	314,619.3	-0.95	-0.05
Foreign	5,999.0	15,248.0	14,810.4	17,080.8	69,628.3	0	-1
4. Capital Repayments	18,578.6	21,678.3	19,604.3	16,451.0	110,444.0		
Domestic	180.0	210.0	120.0	160.0	240.0	-1	0
Foreign	18,398.6	21,468.3	19,484.3	16,291.0	110,204.0	0	-1
5. Net Lending					3,336.0	-1	0
(C) ORDINARY BUDGET DEFICIT (-)/SURPLUS(+): A-B	1,000.0	32,049.4	(5,000.1)	(133,389.3)	(285,104.7)		
(D) FINANCING ITEMS	(1,000.0)	(32,049.4)	5,000.1	133,389.3	285,104.7		
1. Domestic Borrowing (net)	7,102.2	(143,189.5)	(60,637.1)	103,885.7	154,077.4	1	0
2. External Borrowing (net)	22,455.4	7,825.4	13,382.6	16,605.6	21,040.8	0	1
3. Drawing on Cash Balances	(30,557.6)	103,314.7	52,254.6	12,898.0	109,986.5	1	0
(E) BUDGET WEIGHTED TO SHOW:							
1. Direct Impact on Aggregate Domestic Demand: J	(172,418.4)	(203,898.4)	(229,413.8)	(181,326.4)	(189,403.8)		
Total Weighted Financing Items	85,131.8	67,986.0	139,305.0	246,937.0	460,465.5		
Total Weighted Expenditure Items	(257,550.2)	(271,884.4)	(368,718.9)	(428,263.4)	(649,869.3)		
2. Direct Impact on Balance of Payment: K	172,418.4	203,898.4	229,413.8	181,326.4	189,403.8		
Total Weighted Financing Items	221,527.5	269,231.6	288,910.2	240,176.4	487,224.5		
Total Weighted Expenditure Items	(49,109.1)	(65,333.2)	(59,496.4)	(58,850.0)	(297,820.7)		
(F) BUDGET MULTIPLIER: Q	2.0243	2.3916	2.2512	2.3642	2.1962		
1. Marginal Propensity to Consume: b	0.8760	0.8553	0.8467	0.8816	0.8659		
2. Marginal Propensity to Import: d	0.3498	0.2551	0.2699	0.2770	0.2770		
3. Marginal Propensity to Invest: f	-0.0202	-0.0183	-0.0210	-0.0276	-0.0443		
(G) BUDGET WEIGHTED TO SHOW:							
1. Total Impact on Aggregate Domestic Demand: JQ	(349,032.9)	(487,634.2)	(516,453.5)	(428,688.0)	(415,970.5)		
2. Total Impact on Balance of Payment: K + d. JQ	50,337.2	79,517.5	90,017.8	62,601.0	74,200.8		

1 Estimates

Table 3(b):
FEDERAL GOVERNMENT FINANCES (=N= MILLIONS)

Classification	1995	1996	1997	1998	1999	Wi	Bi
(A) REVENUE	307,659.3	369,267.0	423,215.1	353,724.1	662,585.3		
1. Non-Oil Revenue	90,587.9	79,084.4	120,542.8	106,281.2	146,863.2	0.975	0.025
1.1 Custom & Excise Duties	24,990.6	39,042.8	45,748.2	44,010.9	61,363.8	1	0
1.2 Value Added Tax	13,885.8	22,005.9	24,689.5	28,129.3	32,903.4	1	0
1.3 Companies Income tax	14,633.1	15,617.1	18,880.2	25,418.9	32,257.9	1	0
1.4 Others	37,078.4	2,418.6	31,224.9	8,722.1	20,338.1	0.9	0.1
2. Revenue from Oil Sector	217,071.4	290,182.6	302,672.3	247,442.9	515,722.1	0.05	0.95
(B) EXPENDITURE	306,659.3	337,217.6	428,215.2	487,113.4	947,690.0		
1. Recurrent Expenditure For	81,841.3	81,327.0	113,123.7	124,509.0	321,693.3		
Domestic Obligations	81,841.3	81,327.0	113,123.7	124,509.0	267,834.0	-1	0
External Obligations					53,859.3	0	-1
2. Interest Payments	51,058.4	42,964.3	45,439.8	53,588.8	127,969.1		
Domestic	33,806.0	23,147.4	32,000.0	41,884.8	79,571.0	-1	0
Foreign	17,252.4	19,816.9	13,439.8	11,704.0	48,398.1	0	-1
3. Expenditure on Capital Projects	155,181.0	191,248.0	250,047.4	292,564.6	384,247.6		
Domestic	149,182.0	176,000.0	235,237.0	275,483.8	314,619.3	-0.9	-0.1
Foreign	5,999.0	15,248.0	14,810.4	17,080.8	69,628.3	0	-1
4. Capital Repayments	18,578.6	21,678.3	19,604.3	16,451.0	110,444.0		
Domestic	180.0	210.0	120.0	160.0	240.0	-1	0
Foreign	18,398.6	21,468.3	19,484.3	16,291.0	110,204.0	0	-1
5. Net Lending					3,336.0	-1	0
(C) ORDINARY BUDGET DEFICIT (-)/SURPLUS(+): A-B	1,000.0	32,049.4	(5,000.1)	(133,389.3)	(285,104.7)		
(D) FINANCING ITEMS	(1,000.0)	(32,049.4)	5,000.1	133,389.3	285,104.7		
1. Domestic Borrowing (net)	7,102.2	(143,189.5)	(60,637.1)	103,885.7	154,077.4	1	0
2. External Borrowing (net)	22,455.4	7,825.4	13,382.6	16,605.6	21,040.8	0	1
3. Drawing on Cash Balances	(30,557.6)	103,314.7	52,254.6	12,898.0	109,986.5	1	0
(E) BUDGET WEIGHTED TO SHOW:							
1. Direct Impact on Aggregate Domestic Demand: J	(175,812.9)	(209,607.5)	(232,785.6)	(179,924.4)	(199,459.0)		
Total Weighted Financing Items	74,278.2	53,476.9	124,171.4	234,564.8	434,679.4		
Total Weighted Expenditure Items	(250,091.1)	(263,084.4)	(356,957.0)	(414,489.2)	(634,138.4)		
2. Direct Impact on Balance of Payment: K	175,812.9	209,607.5	232,785.6	179,924.4	199,459.0		
Total Weighted Financing Items	232,381.1	283,740.7	304,043.8	252,548.6	513,010.6		
Total Weighted Expenditure Items	(56,568.2)	(74,133.2)	(71,258.2)	(72,624.2)	(313,551.6)		
(F) BUDGET MULTIPLIER: Q	2.0243	2.3916	2.2512	2.3642	2.1962		
1. Marginal Propensity to Consume: b	0.8760	0.8553	0.8467	0.8816	0.8659		
2. Marginal Propensity to Import: d	0.3498	0.2551	0.2699	0.2770	0.2770		
3. Marginal Propensity to Invest: f	-0.0202	-0.0183	-0.0210	-0.0276	-0.0443		
(G) BUDGET WEIGHTED TO SHOW:							
1. Total Impact on Aggregate Domestic Demand: JQ	(355,904.4)	(501,287.9)	(524,044.0)	(425,373.3)	(438,053.7)		
2. Total Impact on Balance of Payment: K + d. JQ	51,328.2	81,744.0	91,340.9	62,117.3	78,140.0		

Table 3(c):
FEDERAL GOVERNMENT FINANCES (=N= MILLIONS)

Classification	1995	1996	1997	1998	1999	Wi	Bi
(A) REVENUE	307,659.3	369,267.0	423,215.1	353,724.1	662,585.3		
1. Non-Oil Revenue	90,587.9	79,084.4	120,542.8	106,281.2	146,863.2	0.975	0.025
1.1 Custom & Excise Duties	24,990.6	39,042.8	45,748.2	44,010.9	61,363.8	1	0
1.2 Value Added Tax	13,885.8	22,005.9	24,689.5	28,129.3	32,903.4	1	0
1.3 Companies Income tax	14,633.1	15,617.1	18,880.2	25,418.9	32,257.9	1	0
1.4 Others	37,078.4	2,418.6	31,224.9	8,722.1	20,338.1	1	0
2. Revenue from Oil Sector	217,071.4	290,182.6	302,672.3	247,442.9	515,722.1	0	1
(B) EXPENDITURE	306,659.3	337,217.6	428,215.2	487,113.4	947,690.0		
1. Recurrent Expenditure For	81,841.3	81,327.0	113,123.7	124,509.0	321,693.3		
Domestic Obligations	81,841.3	81,327.0	113,123.7	124,509.0	267,834.0	-1	0
External Obligations					53,859.3	0	-1
2. Interest Payments	51,058.4	42,964.3	45,439.8	53,588.8	127,969.1		
Domestic	33,806.0	23,147.4	32,000.0	41,884.8	79,571.0	-1	0
Foreign	17,252.4	19,816.9	13,439.8	11,704.0	48,398.1	0	-1
3. Expenditure on Capital Projects	155,181.0	191,248.0	250,047.4	292,564.6	384,247.6		
Domestic	149,182.0	176,000.0	235,237.0	275,483.8	314,619.3	-1	0
Foreign	5,999.0	15,248.0	14,810.4	17,080.8	69,628.3	0	-1
4. Capital Repayments	18,578.6	21,678.3	19,604.3	16,451.0	110,444.0		
Domestic	180.0	210.0	120.0	160.0	240.0	-1	0
Foreign	18,398.6	21,468.3	19,484.3	16,291.0	110,204.0	0	-1
5. Net Lending					3,336.0	-1	0
(C) ORDINARY BUDGET DEFICIT (-)/SURPLUS(+): A-B	1,000.0	32,049.4	(5,000.1)	(133,389.3)	(285,104.7)		
(D) FINANCING ITEMS	(1,000.0)	(32,049.4)	5,000.1	133,389.3	285,104.7		
1. Domestic Borrowing (net)	7,102.2	(143,189.5)	(60,637.1)	103,885.7	154,077.4	1	0
2. External Borrowing (net)	22,455.4	7,825.4	13,382.6	16,605.6	21,040.8	0	1
3. Drawing on Cash Balances	(30,557.6)	103,314.7	52,254.6	12,898.0	109,986.5	1	0
(E) BUDGET WEIGHTED TO SHOW:							
1. Direct Impact on Aggregate Domestic Demand: J	(197,876.8)	(241,474.8)	(268,320.4)	(218,972.7)	(254,673.2)		
Total Weighted Financing Items	67,132.5	39,209.6	112,160.3	223,064.9	410,927.1		
Total Weighted Expenditure Items	(265,009.3)	(280,684.4)	(380,957.0)	(442,037.6)	(665,600.3)		
2. Direct Impact on Balance of Payment: K	197,876.8	241,474.8	268,320.4	218,972.7	254,673.2		
Total Weighted Financing Items	239,526.8	298,008.0	316,054.9	264,048.5	536,762.9		
Total Weighted Expenditure Items	(41,650.0)	(56,533.2)	(47,734.5)	(45,075.8)	(282,089.7)		
(F) BUDGET MULTIPLIER: Q	2.0243	2.3916	2.2512	2.3642	2.1962		
1. Marginal Propensity to Consume: b	0.8760	0.8553	0.8467	0.8816	0.8659		
2. Marginal Propensity to Import: d	0.3498	0.2551	0.2699	0.2770	0.2770		
3. Marginal Propensity to Invest: f	-0.0202	-0.0183	-0.0210	-0.0276	-0.0443		
(G) BUDGET WEIGHTED TO SHOW:							
1. Total Impact on Aggregate Domestic Demand: JQ	(400,569.2)	(577,500.3)	(604,039.5)	(517,690.4)	(559,315.7)		
2. Total Impact on Balance of Payment: K + d. JQ	57,769.7	94,171.8	105,284.1	75,598.3	99,770.7		

Table 4(a)
Fiscal Impact on Money Supply

Year	1995	1996	1997	1998	1999
Estimated Impact on					
M1	30,588.4	26,348.8	40,588.2	50,741.0	71,222.8
M2	51,004.9	47,324.1	59,368.3	102,494.5	172,519.2
Actual Impact on					
M1	32,023.0	26,049.0	41,158.5	49,953.0	74,503.5
M2	51,818.6	51,570.0	59,397.8	95,906.4	174,096.6

Table 4(b)
FEDERAL GOVERNMENT FINANCES (=N= MILLIONS)

Classification	1999 \ 1	2000 \ 2	W1	B1
<u>(A) REVENUE</u>	662,585.3	548,400.0	0.975	0.025
1. Non-Oil Revenue	146,863.21	52,100.0	1	0
1.1 Custom & Excise Duties	61,363.8	72,900.0	1	0
1.2 Value Added Tax	32,903.4	28,600.0	1	0
1.3 Companies Income tax	32,257.9	28,600.0	1	0
1.4 Others	20,338.1	22,000.0	0.9	0.1
2. Revenue from Oil Sector	515,722.1	396,300.0	0.05	0.95
<u>(B) EXPENDITURE</u>	947,690.0	644,900.0		
1. Recurrent Expenditure For	321,693.3	241,500.0		
Domestic Obligations	267,834.0	241,500.0	-1	0
External Obligations	53,859.3	0	-1	
2. Interest Payments	127,969.1	100,000.0		
Domestic	79,571.0	79,000.0	-1	0
Foreign	48,398.1	21,000.0	0	-1
3. Expenditure on Capital Projects	384,247.6	278,700.0		
Domestic	314,619.3	262,700.0	-0.9	-0.1
Foreign	69,628.3	16,000.0	0	-1
4. Capital Repayments	110,444.0	24,700.0		
Domestic	240.0	4,700.0	-1	0
Foreign	110,204.0	20,000.0	0	-1
5. Net Lending	3,336.0		-1	0
<u>(C) ORDINARY BUDGET DEFICIT (-)/SURPLUS(+): A-B</u>	(285,104.7)	(96,500.0)		
<u>(D) FINANCING ITEMS</u>	285,104.7	96,500.0		
1. Domestic Borrowing (net)	154,077.4		1	0
2. External Borrowing (net)	21,040.8	4,200.0	0	1
3. Drawing on Cash Balances	109,986.5	92,300.0	1	0
<u>(E) BUDGET WEIGHTED TO SHOW:</u>				
1. Direct Impact on Aggregate Domestic Demand: J	(199,459.0)	(299,615.0)		
Total Weighted Financing Items	434,679.4	262,015.0		
Total Weighted Expenditure Items	(634,138.4)	(561,630.0)		
2. Direct Impact on Balance of Payment: K	199,459.0	299,615.0		
Total Weighted Financing Items	513,010.6	382,885.0		
Total Weighted Expenditure Items	(313,551.6)	(83,270.0)		
<u>(F) BUDGED MULTIPLIER: Q</u>	2.1962	2.1662		
1. Marginal Propensity to Consume: b	0.8659	0.8659		
2. Marginal Propensity to Import: d	0.2770	0.2770		
3. Marginal Propensity to Invest: f	-0.0443	-0.0443		
<u>(G) BUDGET WEIGHTED TO SHOW:</u>				
1. Total Impact on Aggregate Domestic Demand: JQ	(438,053.7)	(658,017.3)		
2. Total Impact on Balance of Payment: K + d. JQ	78,140.0	117,377.1		

\1 Revised

\2 Derived from Final Executive Adjusted After Consultation

Table 5

**A Comparison of Changes in Selected Measures of Budgetary Activity (=N=' Millions)
Under Different Weight Regimes from 1999 to 2000**

Item	Scenario 1	Scenario 2	Scenario 3
(1) ORDINARY BUDGET DEFICIT (-)/SURPLUS(+): A-B	188,604.7	188,604.7	188,604.7
(2) BUDGET WEIGHTED TO SHOW:			
Direct Impact on Aggregate Domestic Demand: J	-103,531.2	-100,156.0	-88,826.8
(2) BUDGET WEIGHTED TO SHOW			
Direct Impact on Balance of Payment: K	103,531.2	100,156.0	88,826.8

Table 6:
FISCAL IMPACT ON MONEY SUPPLY (M1)

CHANGE IN NARROW MONEY (M1)

	2000		
[A] EQUATION (18)			
Constant	(1,681.8)	1.0	(1,681.8)
BD	(0.1637)	(96,500.0)	15,793.2
LIP	0.4171	(265,741.6)	(110,832.8)
LEX	939.5	92.3	86,714.0
LIM	(0.0240)	862,525.3	(20,703.2)
LBD	(0.1409)	(285,104.7)	40,157.0
Estimated Change in M1			9,446.3

Table 7:
FISCAL IMPACT ON MONEY SUPPLY (M2)

		2000	
[A] EQUATION (19)			
Constant	(597.3)	1.0	(597.3)
BD	(0.2985)	(96,500.0)	28,800.4
LIP	0.2291	(265,741.6)	(60,889.4)
LEX	758.5	92.3	70,009.6
M	0.0174	862,525.3	15,026.9
LBD	(0.2691)	(285,104.7)	76,733.1
Estimated Change in M2			129,083.3

References

1. Borpujari, J.G. and Ter-Minassian, T.(1973). The Weighted Budget Balance Approach to Fiscal Analysis: A Methodology and some case studies. IMF Staff Papers. Vol. XX. pp 801-831.
 2. Brown, E.C. (1956). Fiscal Policy in the Thirties: A Reappraisal. The American Economic Review, Vol. XLVI, pp.857-879.
 3. Idowu, A.E., Doguwa, S.I. and Ladapo, P.A. (1994). Generation of Comprehensive and Reliable Public Finance Statistics in Lagos area: Problems and Prospects. Proceedings of the Third Annual Conference of Zonal Research Units, Research Department, pp 88-104.
 4. Morss, R.E. and Peacock, A.T. (1968). Measuring the Economic Impact of the Budget in Developing countries. Document of International Monetary Fund DM/68/35 pp.1 - 22.
 5. Musgrave, R.A. (1964). On Measuring Fiscal Performance. The Review of Economics and Statistics. Vol. XL VI, pp 213-220.
 6. Omuruyi, S.E. (1990). The Methodological Notes on Budget Impact Analysis. CBN Economic and Financial Review. Vol. 28 No. 1 pp.28-34.
 7. Peacock, A. and Shaw, G.K. (1971). The Economic Theory of Fiscal Policy. London.
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