

UNDERSTANDING PRIVATE SAVINGS BEHAVIOUR IN NIGERIA: AN EMPIRICAL ANALYSIS

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Abstract

The objective of this paper is to investigate the determinants of private savings in Nigeria. The core private savings model was estimated as well as its eclectic variants to provide insights into the behaviour of private savings in Nigeria. The results are quite illuminating. While some of the variables had their hypothesized signs, others were counter-intuitive. For instance, while our results repudiated the efficacy of financial liberalization as a tool for the mobilization of private savings, it substantiates the adverse effects of an external debt overhang and terms of trade deterioration on private savings. Finally, the paper recommends an enhancement in per-capita incomes and a stable macro economy to facilitate savings and cautions on the dangers of adopting foreign models uncritically.

Introduction

The association between savings, investment and growth has historically been very close. Hence, the contribution of poor savings and investment to the unsatisfactory growth performance of several less developed countries is chiefly not in dispute. This disappointing growth performance has generally been attended by dramatic declines in investment. Domestic savings rates have also fallen steeply thereby worsening the already precarious external payments position. In turn, attempts to correct external imbalances by cutting-back aggregate demand, have led to further compression of investment expenditure, completing the vicious circle of sluggish growth and declining investment and savings rates (Khar and Villanueva 1991).

The crucial role of domestic savings mobilization to the sustenance and reinforcement of the savings-investment-growth chain in developing countries has preoccupied development economists for decades. As Lewis (1970: 224-225) notes, "the central problem in the theory of economic growth is to understand the

process by which a community is converted from being a five per cent to a twelve per cent saver with all the changes in attitudes, in institutions and techniques which accompany this conversion". This is also the position of Otani and Villanueva (1990).

Indeed, recent literature on the endogenous growth theory have revisited and affirmed the critical role of savings and investment to the long-run growth performance of developing economies. In the endogenous growth models of Romer (1986) and Lucas (1988), capital accumulation affects not only the level of per capita output, but also its rate of growth along the steady state path. In these models, steady state growth is determined by technological progress embodied in fixed capital or accumulated through human capital formation; the source of technological change is endogenous in nature, arising from the response of agents to appropriate incentives to save and invest.

More recently, the need to raise domestic savings has become exceedingly compelling in light of shrinking private foreign capital inflows. The fact is that the diminution in foreign capital inflows is likely to persist as international financial institutions adopt a less altruistic posture, as government of OECD countries impose leaner budgets, and as pressure mounts to meet the need for finance of the transforming economies of Eastern Europe. Thus, domestic savings rates will have to rise significantly to provide the needed catalyst for investment and growth.

The exigency of the need to heighten savings rates is perhaps more graphically illustrated by reference to statistics. Quantitatively, private savings as a ratio to GDP plummeted from 25.82 per cent on average between 1973-81 to 14.14 per cent between 1982-85 in Nigeria. Although private savings rates rebounded to 24.5 per cent on average between 1990 and 1993, this stands in sharp contrast to respectable rates of between 35 and 40 per cent registered by East Asian countries.²

Table 1 presents the evolution of variables shaping private savings behaviour in Nigeria. From the Table, it is apparent that government savings has consistently been negative, offsetting private savings and dragging domestic savings. Furthermore, the Table reveals that the real exchange rate has, for the most part, been negative over the twenty-one years (1973-93). This is the anti-thesis of a desired positive real interest rate which will engender greater domestic savings. Moreover, the ratio of broad money to GDP (mirror of financial deepening) has been low, This is suggestive of inadequate financial liberalization which will precipitate more savings. Meanwhile, inflation rate is astronomical, reaching 44 per cent in 1993 while the debt service ratio at 29 per cent is unacceptably high. Both of these variables have constituted powerful disincentives to savings. Indeed, the character of the macro economic environment (with inflation as surrogate) is absolutely

crucial to the mobilization of savings. The debt service ratio has risen progressively, peaking at 44 per cent in 1993 while the growth rate of the terms of trade has also been largely negative over the period under reference. These have contributed to dissuade savings.

TABLE 1: EVOLUTION OF DETERMINANTS OF SAVINGS

Year	GS	PS	RIR	M2	INFL	DS	DSR	TG	DEPEND
1973	001812	20018136	0	34895	1	50	4	141	1554
1974	003265	230326	2	35507	-	23	5	1754	03538
1975	08691	2809691	10	09024	17	28	2	1451467	25530
1976	006973	2106973	30	44889	33	21	3	926	554
1977	004893	2604893	18	47219	23	26	4	169	95507
1978	004466	3104466	12	57763	15	31	1	109	05590
1979	004715	2304715	12	59828	16	23	1	2414	05485
1980	002330	2802330	7	54764	11	28	2	3985	05484
1981	004519	3204519	4	62578	9	32	4	967	05499
1982	005320	1905320	14	76077	20	19	9	784	05517
1983	000577	1409577	1	81265	7	14	16	266	05535
1984	001574	1101574	36	84733	23	11	24	109	05562
1985	001100	1101100	31	76767	39	11	34	973	05583
1986	000967	1300967	4	67845	5	13	33	50.3	05607
1987	000642	1201642	4	70055	5	12	33	2048	95612
1988	000459	1800459	3	57843	10	18	14	280	05625
1989	000550	1500550	25	64808	38	15	30	1806	05627
1990	000260	2300263	25	52578	40	23	26	211	05025
1991	000280	3000283	13	52452	-	30	23	156	05654
1992	000235	2100295	2	68375	13	24	25	345	046
1993	000207	2300207	26	62436	44	23	29		

Source: World Bank: *World Tables*, 1993.

Note:

GS	Government Savings/GDP
PS	Private Savings/GDP
RIR	Real Interest Rate
M2	Broad Money/GDP
INFL	Inflation Rate
DS	Domestic Savings/GDP
DSR	Debt Service Ratio
TG	Terms of Trade growth Rate
DEPEND	Dependency Ratio.

The dependency ratio (i.e., the proportion of the youth and elderly to the working group in the population) at 56.4 per cent in 1993 is quite high. These have also tended to undermine savings.

Against the background of this dismal savings' rates, this paper seeks to understand the behaviour of the private savings function in Nigeria. The remainder of this paper has the following structure: the next Section surveys theoretical and empirical issues; the following Section outlines the model; the fourth Section presents and analyses estimation results; and the final Section proffers some policy advice and concludes.

Review of Theory and Evidence

Theoretical and empirical explorations of savings behaviour in developing countries have spawned an extensive literature. Typically, authors employ variants of the neoclassical "life-cycle" and permanent income hypotheses developed by Ando and Modigliani (1963) and Friedman (1957) as the principal paradigms for explaining consumption and saving behaviour. Stripped of technical details, the standard life-cycle model presupposes that individuals save to smooth their consumption overtime in line with their anticipated life time income. Thus, household savings is postulated to depend on lifetime income, wealth, and the expected returns on savings. Hence, government policies that bear on any of these variables would be expected to impinge on savings too. Moreover, the age structure of the population, measured by the ratio of population defined as dependent (under 15 years and over 64 years) to total population (dependency ratio) constitute another important determinant of savings. The larger the proportion of the working-age population in a country, the greater the aggregate life time income and thus, the higher the aggregate savings. In general, a number of factors have been identified in the literature as influencing savings behaviour.

There is theoretical ambiguity regarding the effect of a change in interest rates on savings because of the offsetting influence of the interplay of the negative income and the positive substitution effects of such a change. Higher interest rates will escalate the opportunity cost of consumption and thus inspire greater household savings (the substitution effect) while increasing the wealth of positive savers and hence triggering greater consumption (the income effect). Empirically, the direction of association between savings and the interest rate is similarly less that clears. Fry (1978 and 1980) reports a positive (although small) relationship between the real interest rate and aggregate savings. This result-was countered by Giovannini (1983 and 1985) who found, using a modified data set, that the response of aggregate savings to changes in the real interest rate is inconsequential. Similarly, Mwege *et al.* (1990) and Oshikoya (1992) found an insignificant relationship after controlling for a range of factors³ but Azam (1995) finds a significant association after controlling for terms of trade shock and financial repression. The lack of a significant and robust relationship between the real interest

rate and savings in the context of developing countries may reflect more of a measurement problem than a substantive one with the existing theory of the role of financial intermediation⁴ (Hadjimichaeletal. 1996).

Ogaki et al (1993) and Masson et al. (1995) introduced an interesting low-middle- and high-income distinction to empirical inquiry on the effect of interest rate on private savings. They surmised that because subsistence consumption is less prevalent in middle- and high-income countries, the interest elasticity of private savings is higher in these countries by comparison to low-income countries.

The classic Mckinnon-Shaw thesis, which, in principle, is a repudiation of the mainstream theoretical postulate of a negative correlation between real interest rates and investment also contends that high real rates of interest relative to the marginal productivity of capital will raise the volume of both real and financial savings. However, empirical evidence fails to authenticate this relationship. To paraphrase Schmidt-Hebbel and Serven (1996): "financial liberalization and interest rate deregulation often as part of structural adjustment programmes have had very little effect on improving the size and allocation of savings." And in Schmidt-Hebbel et al. (1992), the authors allude to three implications of the insensitivity of the real interest rate to private savings as follows: (i) fiscal stabilization that lowers the real interest rate would not automatically depress private savings; (ii) financial reform that raises the real interest rate would not automatically raise positive savings (although it may shift savers portfolio from flight capital to domestically held assets); and (iii) tax incentives for savings would be ineffective in raising private savings.

The population structure has been identified as an influential factor impinging on savings behaviour in Less Developed Countries (LDCs). At issue is the percentage of the young and elderly in the total population. This group of people generally has low or no incomes and therefore save less. Thus, if this category of people is preponderant in any economy, aggregate savings will be small. Leff (1969 and 1980) found a significant inverse relationship between dependency rates and savings rates in LDCs. He rationalized his finding thus: rapidly growing populations (as found in LDCs) are characterized by a high ratio of dependents to the working age population who, because they contribute to consumption, but not to production, impose a severe constraint on society's potential for savings. But the veracity of Leff's conclusion has been challenged by a number of authors' including Bilsborrow (1979 and 1980) and Ram (1982) who pointed to specification and sample biases in Leff's data while querying the authenticity of the data itself.

For industrial economies, empirical evidence shows that the changing age composition of the population has induced a decline in the aggregate savings rate. Montgomery (1986) estimated that increasing the population share of the 25 to 35

age group accounts for about a quarter of the decline in the personal savings rate in the United States, while Hendershott and Peek (.987) found that the rising share of the group aged 65 and older significantly decreased savings rates.

Bovenberg and Evans (1990) found the rising share of the group aged 65 and older to be the most important factor accounting for the decline in the United States personal savings rate from 1970-81. Summer and Carroll (1987) however cautioned on the assignment of a one-to-one correspondence between income shares between the different age groups and personal savings rates in the United States. But Graham (1987) corroborated the popular view when he found, using pooled data for 24 OECD economies, that both the female labour force participation and the ratio of population 14 years and under to the population age 15 to 64 are negatively correlated.

The two dominant paradigms in modern neoclassical macroeconomics offer diametrically opposite view on the effectiveness of fiscal policy in raising national savings. In Keynesian orthodoxy, an increase in government consumption - that is, a decrease in government savings (and an increase in the budget deficit) - will raise income by a "multiplier effect." In turn, the rise in income will spark an expansion in private savings. The net effect on national savings is contingent on whether the rise in private savings swamps the fall in government savings.

The Ricardian equivalence proposition⁵ assumes that expectations and intertemporal considerations come into play in relation to government budgetary actions. In this hypothesis, the manner of financing deficits is immaterial. Given 'dynastic' household, with parents altruistically bound to their children across generations through the bequest motive, households respond to government dissavings by increasing private savings in anticipation of higher taxes in future (Mwega 1996:10). Thus, variations in government savings are neutralized by countervailing movements in private savings. However, for developing countries, the basic premises⁶ underlying this theory are absent. Expectedly, therefore, empirical evidence for developing countries has **overwhelmingly** rejected Ricardian equivalence. This includes Corbo and Schmidt-Hebbel (\ 9911; Haque and Montiel (1989), Easterly, Rodriguez and Schmidt-Hebbel (1994). Thus, Schmidt-Hebbel et al. (1996) reckoned that features assumed away by the proposition such as weak intergenerational links, financial market imperfections (including borrowing constraints), consumer myopia, and precautionary savings resulting from uncertainty may, in fact, be absolutely crucial.

A couple of studies have estimated public-to-private savings offset coefficients, employing differing samples and methodologies and reaching diverging conclusions. Corbo and Schmidt-Hebbel's (1991) effort was based on a sample of thirteen developing countries, using a framework that distinguishes among Keynesian

permanent income and Ricardian consumption hypotheses. The results, circumscribed to a significant degree, by aggregation bias, show an overall public-to-private savings coefficient of 0.47. Edwards (1995) reports offset coefficient for a sample of industrial and developing countries varying from 0.43 to 0.58. The unequivocal import of the massive rejection of the Ricardian equivalence proposition is that public savings remain a powerful instrument for raising national savings.

A direct correspondence is envisaged between changes in the terms of trade and savings in accordance with the Laursen-Metzler-Haberger construct⁷. Thus a deterioration in the terms of trade is expected to lower savings via the lowering of real income. This effect has been validated by Ostry and Reinhart (1992) and Azam (1995). But Obsfeld (1982) has rebutted this link, contending instead, that a deterioration in the terms of trade actually engenders greater savings. According to him, an economy maintains a target level of savings. When real income dips following a terms of trade regression, savings will rise to sustain the target level.

Probably reinforcing the empirical indeterminacy of the Laursen-Metzler-Haberger effect, Svensson and Razin (1983) avers that a change in the terms of trade has ambiguous effect on savings, depending on whether the change is temporary or permanent. Persson and Svensson (1985) concur that these effect while being equivocal, depends, in addition to the temporary or permanent nature of the change, on whether the change is anticipated.

In regard to the effect of terms of trade shocks, the peculiar circumstances of sub-Saharan African countries is instructive. When world prices of their primary export commodities drop, export earnings will diminish, private disposable income will decline and tax receipts may plummet. These are short run effects. In the long run, if export volumes expand sufficiently to offset the decline in export prices, aggregate demand rises to counteract the fall in real disposable income, and domestic policies are sound enough to redress the terms of trade deterioration, the ensuing exchange rate depreciation and/or decline in domestic costs could relieve or counterbalance the drop in the price of traded goods relative to non-traded and, over time, reverse the fall in disposable income.⁹

The effect of financial reforms on savings (typically mirrored by the ratio of broad money to GDP, in most empirical studies), could be through two channels, and could be negative or positive. In the first place, financial deepening may improve the quality of intermediation; spurring growth and, by extension, raising savings. By contrast, financial liberalization could precipitate greater consumer lending and lead to lax control on consumer borrowing. The net outcome is lower savings.

The direction of impact of external debt accumulation on private savings is theorized as negative. A high external debt ratio could be indicative of a "debt

overhang" leading economic agents to anticipate future tax liabilities for its servicing. This will invariably prompt the transfer of money off-shore thereby dampening domestic saving. In Nigeria, however, tax liabilities have not changed markedly despite burgeoning external debt and the attendant debt service ratio. Therefore, the channel by which foreign debt accumulation hurts private savings is via the decline in income provoked by the fall in government consumption expenditure.

The importance of macroeconomic stability to savings mobilization is hardly in need of emphasis. Hadjimichael et al. (1995 :31) elucidated the channel of influence thus: "macroeconomic stability sends important signals to the private sector about the direction of economic policies and the credibility of the authorities" commitment to manage the economy efficiently. Such instability by facilitating long-term planning and investment decisions encourage savings and private accumulation."

A commonly used surrogate for macroeconomic instability is inflation. Inflationary expectations is postulated to negatively impact savings through the McKinnon-Shaw mechanism, by provoking lower real rate of interest. While Masson et al. (1995) and Hadjimichael et al. (1995) confirm this link. Edwards' (1994) results were inconclusive. Mwege (1996) however reports a non-significant inflation coefficient for the savings equation and suggests its high correlation with the real interest rate as possible cause.

The Model

Following from the exposition above, the variables shaping private savings behaviour can easily be identified. These include: income which is captured by per capita gross domestic product (GDP); real interest rate which tests the Mckinnon-Shaw thesis; dependency ratio which gauges the impact of the population structure on private savings; government consumption and savings which mirrors the impact of fiscal policy on private savings: ratio of broad money to GDP which captures the effect of financial deepening on private savings; growth rate of terms of trade -surrogate for external shocks: debt service ratio which mirrors the impact of external debt accumulation on private savings: and inflation rate used to gauge the influence of macroeconomic instability on private savings. Thus, the general form of the private savings equation estimated is:

$$PS = ff(PCY, RIR, TG, M2, INF, GS, GC, DSR, DEPEND)$$

Definition of variables (with the indicated hypothesized direction of impact):

- PS = private savings as a ratio to GDP. Private savings is defined as Gross Domestic Savings less Public savings;
PCY = level of per capita income (+ve);

RIR	=	real interest rate defined as nominal interest rate less inflation rate (+ve);
TG	=	growth rate of terms of trade (+ve);
MS	=	degree of financial depth captured by broad money as ratio to GDP (+ve);
INF	=	macroeconomic stability mirrored by annual rate of inflation (-ve);
GS	=	Public savings (-ve);
GC	=	government consumption expenditure (+ve);
DSR	=	external debt service ratio measured as ratio of external debt stock to exports (-ve);
DEPEND	=	dependency ratio (-ve)

The data covering 1973 to 1993 was obtained from *World Tables, 1993 Edition*. This model is estimated using Ordinary Least Squares Technique. The results reported in Table 1 shows the nuances of private savings behaviour on the basis of some eclectic experiments conducted For instance, in equations (1) to (5), DSR, DEPEND and PCY are in natural logarithmic forms and logged one year. TG and M2 are simply lagged one year in their linear forms and GS is in log form and lagged one year in equations (3) and (5)

Estimation Results and Analysis

The results of the regression experiments are presented in Table 2 Overall, the descriptive statistics (R², F test and DW) are within acceptable bounds. Specifically, the empirical results reveal the non-significance of real interest rates (proxy for financial liberalization) to the determination of savings in Nigeria. Moreover, the coefficient is incorrectly signed in equations (1) and (2).

These observed polar relationship between real interest rates and savings is contrary to expectation although it has antecedents in Van Wijnbergen (1983) and Grovannini (1985). Evidently, this negative association is reflective of the intensity of the income effect (relative to the substitution effect) of real interest rate changes. This finding contradicts the authoritative Mckinnon - Shaw thesis that higher real interest rates engenders greater savings. Here. Hadjimichael et. al. (1995) submission on this antithetical relationship is germane. The fixing of interest rates a stitutionally during most of the period covered by empirical studies provides a plausible explanation. However, in equations (3) - (5) which incorporate either or both government savings and government consumption in the regression relationship, the real interest rate turned out positive although still insignificant.

An equally interesting result from our estimations relate to the negative and significant effect on personal savings of the ratio of broad money (M2) to GDP.¹⁰ refuting the potential for pay offs from current efforts at financial deepening. The robustness of this result across alternative specifications accentuate the need to

rethink current preoccupation with financial deepening as the route to growth via enhanced savings mobilization. The negative sign of the M2 coefficient has empirical support in Corbo and Schmidt - Hebbel (1991) In fact, Schmidt -Hebbel et al. (1996) attribute the negative sign to the use of broad money as surrogate for financial deepening. In his view: "broad money may be negatively correlated with consumer borrowing constraints (and thus positively with consumption) and positively correlated with consumer wealth (and, again, with consumption)"

The results of the impact of external debt (mirrored by the debt service ratio) on private savings conforms with theoretical expectation and is supportive of the debt overhang hypothesis or more appropriately, the dampening effect on private savings of decline in domestic government spending and income Increases in the debt service ratio influences negatively, and significantly, private savings. This result was robust across alternative specifications and has parallels in Fry (1989) and Aghevli et al. (1990). Thus, external debt accumulation as a deliberate policy has a powerfully adverse impact on private savings.

The growth rate of terms of trade exerts a positive and significant impact on private savings. The result validates Laursen -Metzler - Harberger postulate and is empirically substantiated in Fry (1985; 1986; and 1989). Thus a deterioration in the terms of trade dampens private savings.

In equations (1) and (2). domestic inflation, which is a proxy for macroeconomic instability, is negative in line with expectation, but insignificant even at the 10 per cent level, suggesting that the character of the macroeconomic environment does not drive private savings. This result is somewhat puzzling, but equally confounding is the positive sign of the inflation variable in equations (2) to (5), and particularly its significance in equation (5). This counter-intuitive sign on the INF variable is plausibly an endorsement of the pervasive view that private savings respond more to "come levels than financial and fiscal variables or the institutional setting.

An empirical authentication of this view is gleaned on perusal of the coefficient on per capita income (PCY). PCY impinges positively and significantly (at the 10 per cent level) on savings. By corollary, an economy's ability to mobilize domestic savings for financing investment is in part, contingent on its level of development; the less developed a country is, the lower the resources it can success of East Asian countries, it should not be orchestrated as a universal truism for reasons alluded to earlier. The East Asian case is exceptional and hard to replicate under prevailing conditions in Nigeria and probably, elsewhere in sub-Saharan Africa. Perhaps, the inability of the policy of financial liberalization to engender significant private savings mobilization in Nigeria lies in the prevalence of conflicts in policies' rather than the policy itself *ei la* Soyibo and Adekanye (1992)

Table 2: Estimation Results

Variables	Equation (1)	Equation (2)	Equation (3)	Equation (4)	Equation (5)
PCY	0.397 (2.41)**	0.40 (2.18)**	0.28 (1.72)	0.25 (1.82)*	0.31 (5.24)***
RTR	-0.011 (-0.42)	-0.02 9- (0.55)	0.01 (0.45)	0.01 (0.71)	0.0005 (0.21)
TG	0.0024 (2.47)**	0.003 (2.57)**	0.02 (1.79)*	0.002 (1,85)*	0.002 (2.85)**
M2	-0.138 (-3.65)***	-0.14 (-3.32)***	-0.10 (2.95)***	-0.14 (2.52)**	-0.17 (3.83)***
INF	-0.018 (-0.68)	-0.02 (-0.7)	0.008 (0.33)	0.01 (0.58)	0.005 (2.39)**
GS	-	-	0.01 (0.17)	-	0.02 (1.04)
GC	-	-	-	0.33 (0.92)	0.47 (1.79)
DSR	-0.011 (1.67)*	-0.01 (-1.49)	-0.24 (-3.200)***	-0.21 (-3.78)***	-0.02 (-5.85)***
DEPEND	-8.274 (-2.02)*	-	-	-	
CONSTANT	6.15 (2.53)**	1.53 (1.67)**	2.21 (2.60)**	1.71 (2.00)**	1.02 (1-32)
R ²	0.71	0.64	0.79	0.80	0.88
SE	0.18	0.26	0.16	0.15	0.11
F	7.94	7.03	11.01	12.78	19.98
DW	2.02	2.04	2.10	2.01	2.20

Note: T values are in parenthesis below the coefficients;
 R² is the coefficient of determination,
 SE is the standard error of the equations;
 *, **, *** imply significance at the 10%. 5% and 1% levels respectively.

In this spirit, Montiel (1995:9) outlined a set of institutional and macroeconomic conditions crucial to the realization of the goals of financial liberalization as follows:

- The existence of an appropriate legal framework, including well-established property rights.
- The existence of a financial safety net (explicit or implicit deposit guarantees) to avoid liquidity crises.
- The existence of an adequate regulatory and monitoring frameworks to prevent collusion and avoid excessive risk taking due to moral hazard problem.
- The existence of potentially (at least) successful borrowing class.
- Fiscal adjustment to replace the revenues previously received from financial repression.

It must be stressed though that the scope of liberalization in Asia has not entirely been total nor has the pace been sudden or all-embracing. Indeed, for the most part, financial liberalization in these countries has been gradual and well-sequenced. Thus, interest rates are still managed in Korea. Malaysia and Thailand, although now adjusted more frequently. Meanwhile, while total credit controls are being eliminated, sectoral credit allocation requirements remained in place for some time (Montiel, *op. cit.*) *Moreover, despite hikes in nominal interest rates following liberalization, real interest rates remained negative. Positive interest rates had to be induced through changes in nominal rates in Indonesia and Malaysia or through reduction in inflation in Korea. Nepal, the Philippines, Sri Lanka and Thailand.* (Montiel, *ibid.*)

We must however admit to the concurrence of our result with certain other priors that are now generally regarded as 'conventional wisdom. External debt overhang and terms of trade deterioration have a strong negative impact on private savings. The fundamental policy moral here is for government to activate efforts at debt-decumulation while actualizing the diversification of the export base in favour of manufactures, to insulate the economy from the deleterious effects of terms of trade shocks.

The drive to raise private savings would also warrant improvements in per capita income. Per capita income levels are currently abysmal and will have to be raised markedly to permit the mobilization of private savings. Simultaneously, the domestic macroeconomic environment should be propitious enough to attract foreign savings as investment. The concomitance of domestic savings and foreign investment will, *ceteris paribus*, engineer growth.

One striking result from this study is the revelation that deficit budgeting (government dissavings) impacts positively on private savings as does government

consumption expenditure. This is at odds with the widespread notion that deficit financing is inherently evil. The policy substance here is that budget deficits, especially when targeted at directly productive ventures, could have salutary impact on private savings and, indeed, growth.

In conclusion, this article has explored the determinants of private savings in Nigeria. The results in terms of the direction of impact of the hypothesized determinants turned out a mixed-bag. One cautionary note that must be sounded is the need *for* the authorities to be wary of adopting and implementing, in a *doctrinaire* manner, policies that may spawn counter-productive consequences on the economy. Country peculiarities should be the supreme consideration guiding the decision to embrace a particular policy initiative or charting a policy direction.

Notes

1. The contribution of Mr. Godwin Akpokodje and comments by two anonymous referees of the journal are gratefully acknowledged. The usual caveat however applies.
2. These statistics are authors' computation based on data from *World Debt Tables*,
3. Other studies that reached similar conclusion include Boskin, 1978; Schmidt-Hebbel et al, 1992 and Edwards, 1994.
4. For instance, savings data in developing countries are usually suspect. Moreover, during the period covered by this study, interest rates are kept low in most developing countries by administrative fiat irrespective of the dictates of economic fundamentals.
5. The Ricardian equivalence theory is elucidated in Barro (1974) and can be stated succinctly as follows: in anticipation of an increase in future tax liabilities following a decrease in contemporaneous government savings (an increase in government expenditures), private savings will increase by an equivalent amount so that national savings remain unaffected
6. These include the existence of perfect capital markets, the absence of liquidity constraints, the lack of uncertainty about the future course of fiscal policy and the equality between public and private discount rates
7. See Laursen and Metzler (195'») and Haberger (1950)
8. The overall effect on tax receipts is a function of the degree of reliance by government on export taxes
9. See Hadjirnichacl et al (IM95) tor an excellent elucidation of this link
10. Note that the private saving measure used here is total private sector saving (gross domestic saving less public sector saving) However. Schmidt

Hebbel et. al. (1992) used household savings and also reported a negative association.

11. This result seems to uphold Keynesian orthodoxy that stresses the place of budget deficits as a potent instrument for igniting output growth which will generate some offsetting effect on private savings, hence an offset coefficient that is positive but less than one.
12. The beta coefficient of an explanatory variable X, for example, is obtained by simply multiplying the estimated coefficient of X by the standard deviation of X, and then dividing the resulting product by the standard deviation of the dependent variable. The most important determinant is the one with the highest absolute value.

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