THE IMPACT OF INTEREST RATES LIBERALIZATION ON GROSS DOMESTIC INVESTMENT IN NIGERIA, 1973-1993

BY

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DECLARATION

I, CHUBA ANEBAMINE MATHIAS, declare that to the best of my knowledge, the data contained in this thesis has not been submitted to any other University for examination. All references in this work have also been duly acknowledged.

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CERTIFICATION

The Thesis entitled THE IMPACT OF INTEREST RATES LIBERALIZATION ON GROSS DOMESTIC INVESTMENT IN NIGERIA, 1973 - 1993: by CHUBA, ANEBAMINE MATHIAS meets the regulations governing the award of the degree of Master of Business Administration of Ahmadu Bello University, and is approved for its contribution to knowledge and literary presentation.

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DEDICATION

TO MY BROTHER

MR. SUNDAY OJONUBAH

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I am greatly indebted to my supervisor, Mallam S.A. Abdullahi whose rigorous scrutiny and material contributions enhanced the quality of this work. I commend his useful and objective advice and criticisms towards the successful completion of this work. I pay homage to him for his useful comments.

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ABSTRACT

This thesis examines the savings - investment-growth link in Nigeria. It also evaluates the impact of interest rates and non-interest rates structural adjustment reform policies on gross domestic investment. This thesis presents the trends in gross domestic investment and provide reasons why it decreases over time. This study prescribes relevant policy options and proposes possible areas of further research.

This research shows that economic growth in Nigeria is largely a function of the level of gross domestic savings because gross domestic savings determines the financeable rate of gross domestic investment, which in turn is the basic determinant of economic growth.

This thesis reveals that interest rates liberalization does not have a negative impact on gross domestic investment but the non-interest rates structural adjustment reform policies are inversely related to gross domestic investment in Nigeria.

This thesis identifies the decreasing savings rate and uncertainty in Nigerian economy resulting from economic and political instability to be the other reasons for the decreasing growth trends in gross domestic investment in Nigeria.

From the findings of this thesis, the researcher concludes that gross domestic investment will increase if the savings constraints are removed, uncertainty in. business

environment in Nigeria is reduced or eliminated, the non-interest rates structural adjustment reform policies are abandoned, the number of financial institutions increased and interest rates liberalized.

This study recommends an investigation of the effect of interest rate policy on domestic debt services, inflation and exchange rates so as to foster a better understanding of the macroeconomic environment. It also recommends an investigation of the effect of profit on investment in Nigeria.

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CHAPTER ONE

GENERAL INTRODUCTION

1.1 INTRODUCTION

The liberalization of the financial system, mainly by raising interest rates, was a policy measure adopted by the Nigeria Government to increase private savings. For example, in 1987, nominal deposit rates were increased by about 400 per cent and lending rates by about 111 percent from relatively low levels (CBN, June 1994). The objective was to make and maintain them positive in real terms as the upsurge in inflation in the 1970s had rendered them negative.

The high interest rates observed in Nigeria during the era of interest rates deregulation have been frequently blamed for the country's slow growth and pointed out as a major failing of the adjustment programme initiated in August, 1987. This believe is premised on the assumption that the demand for funds is for purpose of investment and that investment demand will be larger at a lower lending rate. This thesis regards that such blame is largely misplaced for obvious reasons. First, interest rates deregulation led to an increase in savings mobilization in Nigeria (Chuba, 1997). While it is impossible to achieve economic growth without adequate investment, savings generates investment. Second, investment does not depend upon interest rates alone. For instance, investors may be prepared to borrow more and invest

more, even if interest rates are high provided they anticipate a still higher margin of profits. On the other hand, investors will not be tempted to borrow even if interest rates are very low, or even zero if they are afraid that they may lose even their capital. In otherwords, investment depends upon risk and the prospects of profits in a particular industry or what Keynes (1936) calls the marginal efficiency of capital rather than upon interest rates. Third, interest rates is just one among many factors that have negative effect on investment. For example, the deregulation of Nigerian economy went beyond interest rates liberalization. One would expect the non-interest rates structural adjustment reform policies rather than interest rates deregulation to be the major obstacle to investment expansion in Nigeria. Therefore, the negative effect of the non-interest rates policies on investment is erroneously attributed to an increase in interest rates.

With the notion that the high lending rates during the Structural Adjustment Programme (SAP) era was responsible for investment contraction, the Federal Government of Nigeria re-introduced some measures of regulation in the management of interest rates in 1994. Deposit rates were set at 12-15 percent per annum, while a ceiling of 21 percent per annum was fixed for lending rates (CBN, June 1994). This change in policy was not base on empirical finding. Therefore, this study wants to investigate the impact of interest rates deregulation on gross domestic investment in Nigeria.

1.2 STATEMENT OF THE PROBLEM

Most low income countries (LICs), Nigeria inclusive have regulated the nominal interest rates paid and charged by the banks and the institution of the formal financial markets. Real interest rates, after inflation was discounted, have not been controlled. Most LICs have kept nominal rates fixed, even in the presence of substantial inflation, and at levels which have frequently been too low.

The imposition of interest rates ceilings and low level of interest rates are problems because of the following reasons:- First, a low interest rates would lead to a rapid outflow of domestic deposits, attracted by the comparatively higher rates of return offered in other financial markets. To prevent this outflow, capital controls would have to be reimposed. While capital controls may have been temporarily effective some decades ago, many financial innovations since then have rendered such controls ineffective. The outflow of deposits would trigger a contraction of the money supply and, thus, ultimately reduce the supply of credit. Second, the imposition of interest rates ceilings would require the rationing of credit. Such a system would only achieve lower interest rates for the few lucky beneficiaries that happen to receive credit. The other investors that are rationed out of the market, would face higher interest rates than before the imposition of controls. Third, systems of credit rationing with interest rates ceilings do not encourage the allocation

of credit to the most productive activities. The adoption of this system, therefore, would reduce the rate of productivity growth and, thereby, the overall growth rate. Fourth, interest rates have not reflected the true scarcity, opportunity cost, or shadow price of capital. Fifth, interest rates have not equated the supply and demand for formal credit. Instead, they have created excess demands which have required administrative rationing to clear the market. These rationing processes have not resulted in selection of the best investment projects, because they relied more on non-economic considerations, such as collateral, than on the profitability of the projects financed and in any case they have been very vulnerable to the influence of the pressure groups and to the abuse of political power. Sixth, bank interest rates have been much lower than those prevailing in formal markets, seventh, in inflationary countries, they have been negative in real terms, erratic, and unpredictable, thus reducing the capacity of banks to mobilize savings. Eight, interest rates have not covered the costs and risks associated with the administration of credit, frequently leading to operating losses and eventually to the decapitalization of financial institutions. To remain financially viable, many intermediaries have restricted their operations to the largest and safest borrowers. The low lending rates, in particular, have not covered the higher costs associated with marginal clients, leading to the exclusion of the small, poor, or innovative borrowers from

credit access. Ninth, interest rates below cost have transferred a substantial income subsidy to the (not so poor) beneficiaries of institutional loans (Gonzales -Vega, 1982).

1.3 JUSTIFICATION OF THE STUDY

There are several reasons why interest rates have received much attention. Firstly, interest rates are the most important relative price in a market economy. Secondly, interest rates have been the most frequently controlled price. Thirdly, interest rates controls have introduced the most widespread distortions in all markets of the economy. Like other prices in a market system, interest rates are signals which influence decisions: interest rates affect more numerous, diverse, and important decisions than any other price.

1.3.1 THE PRICE OF THE FUTURE

In the most fundamental sense, interest rates are the price of the future in terms of the present. In this respect, they are a signal influencing the decisions to consume in the present or in the future, that is, the decisions to save, and also the decisions to produce goods for present consumption or for future production, that is, capital formation. To be a good signal interest rates must indicate the rate at which it is possible to transform present resources into future production, a function of technology and of the availability

of resources. They must also reflect the rate at which the community is willing to postpone consumption for the sake of more in the future, a function of the tastes and needs of the community.

If interest rates below equilibrium are imposed, the terms of trade between present goods and future goods are twisted. The fact of life is scarce capital, but low interest rates tell savers not to bother with savings, that the future is amply provided for, that now is the time to consume. The same low interest rates tell investors that savings are plentiful, and that high prices can be bid for investment goods to induce a transfer of resources away from the production of consumable. Unfortunately, there can be no investment without savings. The conflict between the decisions of savers to save very little and of investors to invest much has to be resolved by administrative "rationing", by decisions on some basis other than the willingness of individuals to save and invest. When interest rates are deprived of their role as a price that allocates resource uses, capital remains scarce and resources are misallocated. Higher interest rates, on the other hand, would tell consumers that the future is expensive and that sacrifices in present consumption are well rewarded; and they would tell investors that capital goods are scarce and that they have to be economized.

In summary, interest rates affect the inter-temporal decisions determining savings and investment, and through these they influence the rate of growth of the economy and the levels of activity and employment as well as their stability.

1.3.2 THE PRICE OF FINANCIAL ASSETS

Interest rates are also the prices relevant in financial markets. As such, they are a signal influencing the composition of assets held by individuals. Savings can be incorporated in gold, jewellery, housing, inventories of goods, and in a foreign or domestic financial assets. Wealth holders compare the returns, risk, and liquidity of alternative assets, and chose a portfolio. The interest rates paid on domestic financial assets determine the extent to which these are incorporated into a wealth portfolio. Thus, they influence the nature of domestic savings and the proportion of these savings mobilized for use in investment through the domestic financial system.

In high-income economies with relatively integrated capital markets, rates of return on assets are fairly uniform. In the LICs, characterized by fragmented capital markets, there are large differences among rates of return, reflecting a poor correlation between the investment opportunities and the endowment of resources and access to credit of different people. Many producers with good opportunities to make highly productive investments cannot take advantage of them for lack

of access to resources; others, with surplus resources, are forced to devote them to investments with low returns. Given the resulting dispersion of rates of return, one additional unit of savings will have a different impact on growth depending on how it is saved, that is, depending on the type of asset chosen for savings.

The availability of an easily accessible financial asset like a bank deposit, which earned a sufficiently high interest rate, would induce a revision of a person's portfolio decisions. Investments with low returns could be eliminated in exchange for acquiring this rewarding financial asset. The resources thus liberated would, in turn, be channeled by the financial intermediary to other farmers who had better investment opportunities and were willing for this reason to pay a sufficiently high interest rate. Obviously, the elimination of projects with low returns and the financing of better ones would improve the allocation of the nation's resources and promote its growth.

In summary, in LICs the movement of resources from inferior to better uses is as important as the accumulation of capital. Even those with a pessimistic view about the interest elasticity of aggregate savings, that is, who doubt that higher interest rates would bring about much more savings, must recognize the role that interest rates can play in channeling the available savings through the financial system to the best investment opportunities.

1.3.3 THE PRICE OF CAPITAL

Interest rates is the price of capital. As such, it influence decisions concerning the choice of techniques, that is, the proportions in which factors of production are combined, as well as the selection of investment projects. This is because capital costs affect total costs in accordance with relative factor intensities. If interest rates are too low, relatively capital-intensive project will become more profitable, and this will be a signal to reduce costs by diminishing the labour intensity of production. This increases the unemployment and underemployment of labour and tends to concentrate income distribution.

With a given stock of capital for the economy as a whole, a greater capital intensity of the sectors which obtain access to credit, induced by low interest rates, will reduce the availability of capital for other sectors. Thus, while the over-capitalized sectors frequently operate below capacity, the under-capitalization of other sectors leads to their low productivity and low incomes, contributing to economic dualism.

1.4 OBJECTIVES OF THE STUDY

The major objective of this research is to give a comparative analysis of the impact of interest rates regulation and deregulation on gross domestic investment (GDI) in Nigeria. Other objectives o the study are as follows:

i) to know the impact of non-interest rates structural adjustment reform policies on gross domestic investment;

ii) to review and appraise the trend in gross domestic investment;

iii) to analyses the factors impending investment expansion in Nigeria; and

iv) to highlight the policy implications.

1.5 RESEARCH HYPOTHESES

1.5.1 H_o: $B_2 > b_2$ (Interest rates liberalization does not have a negative impact on gross domestic investment in Nigeria).

H_1: $B_2 < b_2$ (Interest rates liberalization has a negative impact on gross domestic investment in Nigeria).

1.5.2 H_o: $\alpha_3 = 0$ (The non-interest rates structural adjustment reform policies: deregulation of foreign exchange market, removal of subsidies and privatization of public enterprises have no impact on gross domestic investment in Nigeria).

H_1: $\alpha_3 < 0$ (The non-interest rates structural adjustment reform policies have a negative and significant impact on gross domestic investment in Nigeria).

1.6 RESEARCH METHODOLOGY

The research makes use of data obtained from the Central Bank of Nigeria (CBN) publications, Nigeria Deposit Insurance Corporation (NDIC) Annual Report and Statement of Accounts;

IMF and World Bank Publications; and Augmented by relevant publications of the Federal Office of Statistics, Lagos.

The study makes use of both descriptive and analytical tools. The descriptive too consists of the use of tables, percentages, ratios and averages in analysizing the data collected. The analytical tool consists of the use of Ordinary Least Square (OLS) regression.

In this study, an investment function is estimated in order to know the extent to which the explanatory variables influence gross domestic investment in Nigeria. The investment function is estimated with pre-determined time dimensions in order to observe intertemporal changes, if any, in the behaviour of the coefficients of the variables associated with the change in gross domestic investment. The periods used are 1973-1986, 1987-1993 and 1973-1993. The periods 1973-1986 and 1987-1993 represent the periods of regulation and deregulation respectively. The separate regression coefficients are important because it enables the researcher to compare the impact of the structural shift on the parameter estimates of the investment function in Nigeria before and after SAP. The synthesis of both periods of regulation and deregulation gives another period, 1973-1993 in which a dummy variable is included in the regression.

A dummy variable is included in the regression to take care of non-interest rates structural adjustment reform policies that were introduced by Nigeria government during the

SAP era. It takes a value of one from 1987 - 1993 and zero other wise.

The parameter estimates for the three periods are presented in order to analyze the impact of interest rates and non-interest rates structural adjustment reform policies on gross domestic investment in Nigeria.

1.7 THE EXPECTED RESULTS

Interest rates is a cost of capital and the higher the cost, the lower the investment, all things being equal. For this reason, the regression coefficient of interest rates is expected to be negative in all the three regression equations. The regression coefficient of interest rates is expected to be greater in the SAP than the pre-SAP era indicating that interest rates liberalization does not have a negative impact on gross domestic investment in Nigeria.

All the independent variables used in this study except the gross domestic product (GDP) are expected to have a negative regression coefficients. The explanatory power is expected to be high.

1.8 SCOPE AND LIMITATIONS OF THE RESEARCH

This research covers a period of twenty one years, 1973-1993. the choice of 1973 as the base year is premised on the fact that oil boom era in Nigeria began that year. The choice of 1993 as a terminal date is due to the fact that the first

phase of interest rates liberalization in Nigeria ended that year. The second phase of interest rates deregulation started from October 1996 to date. That is, from January 1994 to September 1996, some measures of regulation were re-introduced in the management of interest rates in Nigeria (CBN Briefs, June 1997 and the Federal Government Budget Speech, 1998).

The research does not cover the second phase of interest rates regulation and deregulation because the three years sample period of interest rates regulation and the two years sample period of interest rates deregulation are small for a research that uses an analytical tool as a method of data analysis. This is because when the data collected from a given sample are small, the statistical inferences estimated from such data are bias and unreliable.

The fundamental limitations of any research work in the developing countries, Nigeria inclusive, concerns the poor quality and inadequacy of data. However, the statistical inferences estimated from the data collected for this study are reliable because the official sources from where the data are collected are dependable.

1.9 ORGANIZATION OF THE WORK

Chapter one covers the introduction, statement of problem, justification, objectives, hypotheses, methodology, expected results, scope and limitations of the study.

Chapter two presents a review of relevant literature on the subject matter. In this chapter, gross domestic investment, gross domestic product, interest rates, interest rates liberalization and the dummy variable are defined. The chapter also reviews the relationship between interest rates, savings, investment and economic growth both at theoretical and empirical studies. Furthermore, the chapter reviews the effect of risk and profit on investment and find gaps that need to be filled in the literature.

Chapter three analyses the impact of interest rates and non-interest rates management policy on gross domestic investment in Nigeria from 1973 - 1993. In this chapter, the invalid, unsubstantiated and implausible arguments for low interest rates policy are raised. This chapter also discusses interest rate policy in Nigeria since regulation and analyses the trends in interest rate from 1973-1993. Further this chapter examines the effect of interest rates liberalization on gross domestic investment. The effect of the non-interest rates structural adjustment reform policies on gross domestic investment in Nigeria is also discussed. Furthermore, this chapter analyses and appraises the trends in gross domestic saving and investment; and provides reasons for the decreasing growth trends in gross domestic investment over time.

Chapter four presents the models for the study. In this chapter, the models are estimated, the hypotheses are tested and the regression results are evaluated.

Chapter five summarizes the findings of the thesis. In this chapter, conclusions are drawn and relevant policy recommendations are made.

CHAPTER TWO

LITERATURE REVIEW

2.1 DEFINITIONS OF CONCEPTS

2.1.1 DEFINITION OF GROSS DOMESTIC INVESTMENT

Investment, a world with many meanings in popular usage, has only one meaning in national income accounting - the value of that part of the economy's output for any time period that takes the form of new structures, new producers' durable equipment, and change in inventories. In practice, apart from the change in inventories, the value of this output is measured by the amount of expenditure on these items. Gross domestic investment (GDI) comprises both private and public investment. In this study, gross domestic investment are deflated by appropriate consumer price index in order to remove the influence of price variations. In other words, they are in real terms. In this thesis, only annual data are used and so gross domestic investment as far as this research is concerns is the sum of private and public investment in any year under consideration.

2.1.2 DEFINITION OF GROSS DOMESTIC PRODUCT

Gross domestic product is the monetary value of all the final goods and services produce in an economy in a given accounting period, usually a year. The data on gross domestic product (GDP) used in this thesis are also in real terms.

2.1.3 DEFINITION OF INTEREST RATES

There is a considerable difference of opinion regarding the concept of interest. Interest is the payment made and received for the use of money. It can also be taken as the income received for capital. Marshall defines interests as: "The payment made by a borrower for the use of a loan for, say, a year, is expressed as the ratio which that payment bears to the loan and is called interest. And this term is also used more broadly to represent the money equivalent of the whole income which is derived from capital". Knut Wicksell, the well-known Swedish economist, defines interest as a "payment made by the borrower of capital, by virtue of its productivity, as a reward for his (capitalist's) abstinence." Wicksell has shown why interest is paid by the borrower (because he finds it productive) and why interest has to be paid to the lender (that is, as a reward for savings). Keynes, the most well-know authority on the subject, defines interest as a payment in money and for money and considers it as a reward for parting with liquidity.

From the above definitions, it is clear that interest rates can be in form of deposit rates or lending rates. The deposit rats is the reward for savings and the lending rates is the payment made by a borrower for the use of a loan. It is the lending rates that affects investment directly but the deposit rates affects the volume of investment through savings. For this reason, the interest rates used in the

estimation of the investment function in this thesis is the real lending rates.

2.1.4 DEFINITION OF INTEREST RATES LIBERALIZATION

Interest rates liberalization is the removal of administrative control by the Central Bank of Nigeria (CBN) and a reliance on the market forces in the determination of the level and structure of interest rates.

2.1.5 DEFINITION OF A DUMMY VARIABLE

A dummy variable is the non-interest rates structural adjustment reform policies that were introduced by the Nigeria Government during the SAP era. It includes the deregulation of foreign exchange market, the reduction/cancellation of subsidies, privatization of public enterprises and the deregulation of the banking system.

2.2 SAVINGS, INVESTMENT AND ECONOMIC GROWTH

Savings have little connection with the need for investment. Most people like to have something in reserve to meet unforeseen contingencies and so some savings is undertaken for this purpose. A certain amount of savings is made to cover expected expenditure in the future - to provide for the education of their children or to make provision for old age or for dependants after death, or for the purchase of expensive goods, such as a house or new car (Hanson, 1974).

None of this savings is related to interest rates or the needs of investment. Although none of this savings is related to the need of investment, savings is a necessary pre-requisite of investment. Investment depends on the rate of interest and the marginal efficiency of capital, but requires an equivalent amount of savings to make it possible. Investment in turn determines the volume of production and income. Keynes (1936) regarded consumption and investment as the vital influence on the level of employment. According to Keynes, both private as well as government consumption and investment expenditures determine the level of production and income.

The savings rate (marginal or average) is regarded as a key performance indicator by development economists and foreign aid practictioneers admonish their clients to increase their savings ratio as a primary condition for achieving a satisfactory rate of economic growth. The Neo-classical economists view savings as the determinant of investment. Modern capital-oriented growth models have identified savings as the constraints on investment, or in the case of the two-gap models, one of two possible constraints on investment, the other being the foreign resources. The growth of producers' capital equipment requires that some labour and other factors of production be diverted from making goods which are currently consumable to making capital goods. In other words, progress requires that some of a country's income be saved and invested.

2.2.1 THE SAVINGS - INVESTMENT RELATIONSHIP

Understanding the savings - investment link is important for at least two reasons: first, as just argued, it may hold the key to the positive correlation between savings and growth. Second, if capital accumulation is indeed the centerpiece of the growth engine, the interaction between savings and investment is crucial for assessing the validity of the traditional recipe that raising savings is the surest way to increase growth.

The empirical evidence first reported by Feldstein and Horioka (1980), and recently updated by Feldstein and Bacchetta (1991) indicates that in the long-run savings and investment rates show a strong positive correlation. The finding by Feldstein and Horioka (1980) that national savings and domestic investment are highly positively correlated has generated a lot of debate among economists and managers on the extent to which the "capital immobility implication" attributed to this correlation implies lack of financial openness.

The basic Feldstein-Horioka regression is as follows:-

$$I_t = c + bS_t + e_t \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad (2.1)$$

Where I_t = gross domestic investment - GDP ratio

S_t = annual data on gross national savings - GDP ratio

c = constant Term

e_t = error term

b = regression coefficient

According to Feldstein and Horioka (1980), the coefficient b measures the degree of capital mobility and takes values from zero (perfect capital mobility) to one (complete capital immobility). A complete capital immobility implies that domestic investment is entirely financed by domestic or national savings whereas a perfect capital mobility indicates that domestic investment is entirely financed by external financial resources.

On a sample of industrial countries; Feldstein and Horioka find a correlation coefficient close to 0.9 (virtually the same found in Feldstein and Bacchetta's update). Other studies (Dooley, Frankel and Mathieson, 1987; Summers, 1988) find a similarly strong correlation for less developed countries (LDCs) although somewhat lower in magnitude than for industrial countries.

Chuba (1997) adopts Feldstein-Horioka's model but in a modified form in his investigation of the relationship between savings and investment in Nigeria. His model is as follows:

$$GDI = \alpha_o + \alpha_1 GDS + U \quad \ldots\ldots\ldots\ldots\ldots\ldots \quad (2.2)$$

where GDI = gross domestic investment

GDS = gross domestic savings

α_o = intercept of investment function

U = error term

α_1 = regression coefficient

Using annual data from 1970 - 1994 to estimate his model, he finds the values of the regression coefficient and coefficient of correlation to be 0.91 and 0.86 respectively. His findings show that gross domestic savings is positively related to gross domestic investment. Specifically, 86 percent variation in gross domestic investment is caused by the variation in gross domestic savings.

2.2.2 THE INVESTMENT-GROWTH LINK

Growth and development theory have long regarded the accumulation of physical capital as the engine of growth. Indeed, the notion that raising the investment rate is key to increasing long-run growth has been at the heart of growth thinking since the times of David Ricardo.

The strong association between investment ratios and long-term growth performance is a well-established empirical fact (See Khan and Delano, 1991). Indeed, most country experiences of sustained growth tend to stress the link between capital accumulation and GDP growth. The strong investment-growth correlation referred to above has been extensively corroborated by a number of econometric studies. Levine and Renelt (1992) conducted extensive tests on the robustness of alternative specifications of the growth process. In particular, they looked for the specification least sensitive to changes in additional explanatory variables, the sample of countries and the choice of time

periods. Their main result is that the only robust regressor in the different growth equations - both across countries and over time - is the ratio of physical investment to GDP. Other variables, such as indices of external openness and price distortions and indicators of fiscal and monetary policy stance, all are ultimately fragile as regressors. Moreover, this general result also holds in other empirical analyses of growth conducted for Latin America and East Asia (Schmidt-Hebbel, Solimano and Serven, 1994). Chuba (1997) investigates the relationship between gross domestic product and gross domestic investment in Nigeria. Using OLS regression method and using annual data from 1970 - 1994, he finds the values of regression coefficient and coefficient of correlation to be 6.96 and 0.98 respectively. A positive regression coefficient and coefficient of correlation give credence to the direct relationship between gross domestic investment and gross domestic product. The coefficient of correlation of 0.98 indicates that there is 98 percent degree of relationship between gross domestic investment and GDP in Nigeria. So, savings determines investment, which in turn determines the level of economic growth.

2.3 INTEREST RATES, SAVINGS, INVESTMENT AND ECONOMIC GROWTH

The surge in real interest rates observed worldwide in the early 1980 has raised widespread concern about their possible detrimental economic effects. In response to these

concerns, numerous studies were carried out to measure the impact of high interest rates on key economic variables such as output growth, investment, savings, factor productivity and relative factor returns. An empirical regularity observed in several cross-country studies e.g. World Bank (1993) and Galbis (1993) is that countries with higher real interest rates generally tended to exhibit faster output growth, but not higher investment rates. This finding suggests that higher interest rates discourage investment, but encourage a more efficient allocation of resources which raises overall productivity, such that the net impact on growth is positive. While other studies (e.g., Khatkhate, 1988) have questioned the empirical robustness of these findings, a basic lesson from this literature still holds namely that higher interest rates do not automatically constitute an obstacle to growth. Rather, the impact of higher interest rates on investment and growth mainly depends on what has caused interest rates to rise in the first place. On the theoretical grounds one would not expect a simple invariant relationship between real interest rates, investment, savings and economic growth, since all these variables are simultaneously determined by other more fundamental factors. For example, an increase in real interest rates due to a decline in financial savings on account of an expected devaluation is likely to be negatively related to investment and growth. In contrast, an increase in real interest rates occasioned by an investment surge

triggered by the discovery of precious natural resources would be associated with higher investment and growth.

Since the presence of interest controls generally tends to contract the size of credit markets, their elimination should lead to an overall expansion of credit. That is interest rates controls introduce a wedge between the demand and supply for credit. The rise in interest rates triggered by the elimination of controls reduces the overall excess demand for credit, but raises the supply of credit, which is the binding side of the market under the imposition of interest rate ceilings. The expansion of credit supply, therefore, would be the dominant factor determining the evolution of total credit. In the event that the supply of credit is completely interest inelastic (as is sometimes claimed), the increase in interest rates following the removal of controls would still have a positive effect on growth by promoting a reallocation of credit toward the most productive activities.

2.3.1 INTEREST RATES AND SAVINGS

Governments have attempted to raise private savings through interest rates liberalization. In the development economic literature, the theory of high interest rate policy was popularized by Mckinnon (1973) and Shaw (1973) who argued that, in countries characterized by "financial repression", raising nominal interest rates relative to inflation would increase savings and the supply of investable resources in an

economy. According to the McKinnon and shaw doctrine, financial repression arises mostly when a country imposes ceilings on nominal deposit and lending interest rates at a low level relative to inflation. The resulting low or negative real interest rates discourage savings mobilization and the channeling of the mobilized savings through the financial system.

Country and cross-country studies for OECD countries tend to show that savings is not much influenced by interest rates (See Deaton 1992, section 2.2). Increasing evidence for developing countries (Giovannini 1983, 1985; Corbo and Schmidt-Hebbel 1991; Schmidt-Hebbel, Webb and Corsetti 1992) suggests that private savings (or consumption) typically does not respond to the real interest rates. Edwards (1994) confirms the insensitivity of private savings to the real interest rates for a cross -country sample of OECD and developing economies. In those exceptional cases where a positive response of savings to the interest rates is found (Gupta 1987, Fry 1988), it is quantitatively very small.

There is little evidence that domestic savings in developing countries are interest-elastic (Fitz Gerald, 1989; Jansen, 1989. Taylor, 1988) and it is widely held that sustained increases in the real interest rates generally dampens the response of investment expansion. Further, empirical evidence has shown that a significant portion of the private sector's savings is used to finance capital flight)

rather than investment (FitzGerald and Sermad, 1990). Hence, they conclude that the suggestion that the removal of distortions in the savings market will yield higher savings, investment and growth does not coincide with the facts.

The findings by Deaton (1992), Giovannini (1983, 1985), Corbo and Schmidt - Hebbel (1991), Schmidt - Hebbel, Webb and Corsetti (1992) and Edwards (1994) that savings is insensitive to real interest rates are in direct contradiction to real life experience and empirical evidence in Nigeria. Soyibo and Adekanye (1992), in their investigation of the relationship between aggregate savings and real interest rates in Nigeria use OLS regression model but in a log form and find aggregate savings to be positively and significantly correlated with real interest rates. Chuba (1997), investigates the impact of interest rates deregulation and non-interest rates structural adjustment reform policies on gross domestic savings in Nigeria. He uses three time periods, 1970-1986 for the period of interest rates regulation, 1987-1994 for the period of interest rates deregulation and 1970-1994 for the combined period of regulation and deregulation. He uses OLS regression model but in a linear form and finds out the followings. First, gross domestic savings is positively related to real interest rates for all the three time periods. Second, interest rates deregulation has positive impact on gross domestic savings. Third, the non-interest rates structural adjustment reform policies have negative

impact on gross domestic savings. He recommends further researches into the following areas. First, that further research should investigate the impact of interest rates liberalization on gross domestic investment in Nigeria. Second, that an investigation of the impact of non-interest rates structural adjustment reform policies on gross domestic investment in Nigeria should be carried out. He states that until these researches are done, the relationship between interest rates and non-interest rates structural adjustment reform policies on savings, investment and economic growth in Nigeria will be blurred.

2.3.2 INTEREST RATES AND INVESTMENT

The empirical proposition is that increased real interest rates raise the quantity and quality of investment. Two channels for the effect are postulated. One is that the higher interest rates increase the availability of domestic credit to finance investment, although the theory here is hard to distinguish from the effect of interest rates on savings. A second potential channel is through Mckinnon's (1973) hypothesis on the complementarity of money and capital. In this hypothesis, because investment projects are lumpy, investors must accumulate their investment balances in the form of deposits until the required amount of principal is reached. The more attractive the return on deposits, the more willing investors are to accumulate them.

The credit availability mechanism has been investigated extensively by Fry. In Fry (1981a), empirical results are reported for 12 Asian developing countries which show that the ratio of domestic credit to nominal gross national product (GNP) is positively and significantly related to real interest rates. Fry (1981b) gives similar results for seven Pacific basin Developing Countries. Fry (1980) found strong positive and significant relationship between the availability of domestic credit and investment in a pooled time-series study of 61 developing countries, while Fry (1986) reached similar conclusions from a study of 14 Asian developing countries.

The complementarity hypothesis has been investigated extensively and with conflicting results. One group of studies tests the hypothesis by including real money balance in investment or savings functions. A positive and significant coefficient has been identified, for example, by Abe, Fry, Min, et al (1975), Fischer (1981), and Jao (1976).

A second group of studies has tested the complementarity hypothesis by including either an investment variable or a savings variable in the demand for money function. Akhtar (1974) rejected the hypothesis in a study of Pakistan Using the investment rate. Similarly, Harris (1979) found that out of tests for five Asian developing countries, only the results for one (Taiwan) supported the hypothesis. In a test using the savings rate, Fry (1978) found a negative and significant coefficient in a pooled time-series study for 10 Asian

developing countries and rejected the hypothesis. However, in time series tests on data for India and Nepal, Thornton (1989, 1990) found a positive and significant coefficient for the savings rate in a demand for money function and a positive and significant coefficient for real money balances in a savings function, and concluded that the complementarity hypothesis was relevant for the poorest developing countries.

There have been few studies relating directly to the efficiency of investment. In a study of Turkey, Fry (1979) found a positive and significant relationship between real interest rates and the incremental capital-output ratio. A similar result was achieved in a pooled time - series study of 11 Asian developing countries by the Asian Development Bank (1985).

2.3.3 INTEREST RATES AND ECONOMIC GROWTH

Since the seminal works by Mckinnon (1973) and Shaw (1973), there has been a considerable amount of empirical research into the workings of financially repressed economies and the beneficial effects of financial liberalization.

The Mckinnon-Shaw claim is that a repressed financial system interferes with development in a number of ways: savings vehicles are underdeveloped and/or the return on savings is negative or unstable; financial intermediaries that collect savings do not allocate them efficiently among competing uses, and firms are discouraged from investing

because poor financial policies reduce the returns to investment or make them excessively unstable. In contrast, liberalization on the financial sector from interest rate ceilings and other restrictions facilitate economic development and growth because higher interest rates lead to increased savings and a more efficient allocation of capital.

The empirical proposition is that increased real interest rates promote economic growth. In a model which captured rates on economic growth in 7 Asian countries, Fry (1980) concludes that around half a percentage point in economic growth was foregone for every one percentage point by which the real rate of interest is set below its equilibrium level. The Lanyi and Saracoglu (1983) study also found a positive and significant relationship between interest rates and the rate of growth of real GDP.

Less favourable results have been found in other studies however. A paper by Khathhate (1988) found no difference in average real GDP growth rates between countries having below average and above - average real interest rates in a sample of 64 developing countries. In addition, Gupta found conflicting results in two studies. Thus the Gupta (1984) cross-section study of 25 Asian and latin American countries found an unfavourable effect of higher interest rates on the rate of economic growth. In a study of India and Korea, however, Gupta found evidence that higher real interest rates raised economic growth (John Thornton 1991).

Robert and Ross (1992) demonstrate that for 119 country sample, both developed and developing countries with average real interest rates below -0.5 over the 1974 - 89 period tended to grow more slowly than countries with average real interest rates greater than - 0.5. This generally supports the findings of Gelb (1989), Easterly (1990), and Roubini and Sala-i-Martin (1991) that severely repressed interest rates are associated with slow growing countries. Furthermore, Robert and Ross (1992) find that countries with severely depressed interest rates tend to have low investment rates and low efficiency of investment measures.

In another contribution, Fry (1988), a strong and consistent supporter of their theoretical approach, argued that

> ".....the bulk of the empirical evidence is consistent with the Mckinnon-Show view that financial liberalization increase savings, improves the efficiency with which resources are allocated among alternative investment projects, and therefore raises the rate of growth" (P. 154).

In contrast, Dornbusch and Reynoso (1989) call the evidence in support of the financial repression paradigm "episodic" and argue that repression is only important when financial instability becomes the dominant force in the economy. This latter judgement is somewhat harsh given the evidence cited above. There does appear to be a considerable

amount of evidence in support of the basic tenets of the financial repression paradigm but it has to be conceded that the evidence is by no means unanimous.

Dornbusch and Reynoso also criticize the financial repression paradigm for its lack of theoretical depth. The key relationship is clearly that between real interest rates and savings with all the other relations-between interest rates and investment, financial intermediation and growth - depending in one way or another on this key relation. Thus high interest rates increases savings and financial intermediation, which finances higher investment and faster growth. They argue that the strong belief in the ability of higher interest rates to achieve so much is surprising given that the offsetting income and substitution effects of higher interest rates imply that their net effect is ambiguous.

However, the Dornbusch and Reynoso criticism ignores the potential for a shift to savings from the purchase of gold, real estate and other inflation hedges that predominate under financial repression. In addition, higher domestic interest rates can also reduce the flow of savings abroad, thereby increasing the amount available for domestic investment. Cuddington (1987) found foreign interest rates to be significant in capital flight equations for Mexico and Venezuela.

2.4 RISK AND PROFIT AS THE DETERMINANTS OF INVESTMENT

2.4.1 RISK AND INVESTMENT

A growing theoretical literature has focused attention of the impact of risk on investment, and has suggested that the impact may be large. The reason is that most investment expenditure are at least in part irreversible - sunk costs that cannot be recovered if market conditions turn out to be worse than expected. In addition, firms usually have some Leeway over the timing of their investments - they can delay committing resources until new information arrives. When investments are irreversible and can be delayed, they became very sensitive to uncertainty over future payoffs. Hence there is reason to expect changing economic conditions that affect the perceived riskiness of future cash flows to have a large impact on investment decisions larger, perhaps, than a change in interest rates.

This theoretical literature and the insight it provides may help to explain why neoclassical investment theory has so far failed to provide good empirical models of investment behaviour, and has led to overly optimistic forecasts of effectiveness of interest rate and tax policies in stimulating investment (Solimano and Pindyck, 1993). It may also help to explain why the actual investment behaviour of firms differs from the received wisdom taught in business schools. Observers of business practice find that the "hurdle rates" that firms require for expected returns on projects are typically three

or four times the cost of capital (Solimano and Pindyck, 1993). In other words, firms do not invest until price rises substantially above long-run average cost.

But most important for this paper, the irreversible investment literature suggests that if a goal of macroeconomic policy is to stimulate investment over the short to intermediate term, stability and credibility may be much more important than particular levels of tax rates or interest rates (Solimano and Pindyck, 1993). Put another way, this literature suggests that if uncertainty over the evolution of the economic environment is high, tax and related incentives may have to be very large to have any significant impact on investment spending.

If this view is correct, it implies that a major cost of political and economic instability may be its depressing effect on investment. This is likely to be particularly important for developing economies. For many LDCs, investment as a fraction of GDP has fallen during the 1980s, despite moderate growth. Yet the success of macro economic policy in these countries requires increases in private investment. This has created a sort of catch - 22 that makes the social value of investment higher than its private values. The reason is that if firms do not have confidence that macro policies will succeed and growth trajectories will be maintained, they are afraid to invest, but if they do not invest, macro policies are indeed doomed to fail. This would make it important to

understand how investment depends on risk factors at least partly under government control, for example, price, wage, and exchange rate stability, the threat of price controls or expropriation, and changes in trade regimes.

Once we view investment as the exercising of an option, it is easy to see how uncertainty affects timing. Once a firm irreversibly invests, it exercises, or "kills" its option to invest. It gives up the possibility of waiting for new information to arrive that might affect the desirability or timing of the expenditure; it cannot disinvest should market conditions change adversely. This lost option value is an opportunity cost that must be included as part of the cost of the investment. As a result the simple net present value (NPV) rule that forms the basis of neoclassical models, "invest when the value of a unit of capital is at least as large as its purchase and installation cost" must be modified. The value of a unit of capital must exceed the purchase and installation cost by an amount equal to the value of keeping the investment option alive.

Business risks are associated with volatility in business environment and the sources of volatility are economic and political instability. Inflation is the best indicia of economic instability, and is associated with lower rates of capital formation. The other indicia of economic instability are the average annual standard deviation of the change in the real exchange rate and the average annual standard deviation

of the change in the real interest rates. The first indicia of political instability is the annual probability of a change in government, as estimated from a probit model by Cukierman, Edwards, and Tabellini (1992). The other political variables are the average number of assassinations, government crisis, strikes, riots, revolutions, and constitutional changes per year (Solimano and Pindyck 1993).

Solimano and Pindyck (1993) run a large set of cross - section regressions in order to explore the ability of these economic and political variables to "explain" the effect of volatility on investment. They find that the mean inflation rate is the only variable that is consistently significant as an explanator of investment. Although the average annual standard deviation of the change in the inflation rate and the average annual standard deviation of the change in the real interest rate are individually correlated with investment, they are always insignificant when combined with mean inflation rate in a regression. Strike is also significant in these regressions, but only for the LDCs. As long as mean inflation rate is also in the regression, all of the other political variables are either insignificant and/or have the wrong sign. This is true for the LDCs, the OECD countries, or when the regressions are run over the full sample.

This suggests that strikes, riots, revolutions , and other forms of political turmoil and uncertainty (as measured by these indicia) may have little to do with uncertainty over

the return on capital, and hence with investment. It may mean that as long as a government can control inflation - an indicator of overall economic stability, and from which exchange rate and interest rate stability tend to follow- it can limit the uncertainty that matters for investment. These results also raise doubts regarding recent results in the literature that relate indicia of political instability to growth.

If we take these results at face value, their study suggests that controlling inflation should be one of the most important intermediate objectives of policy.

Of particular concern to the researcher is inflation, which can affect investment in several ways (i) High and volatile inflation may indicate an inability of the government to control the economy (See Fischer 1993). As a consequence, government policies will be perceived by investors as unsustainable and hence risky, leading them to defer investing (ii) High and volatile inflation is associated with greater volatility in the marginal profitability of capital, and with volatile relative prices (See Fischer, 1986). (iii) Inflation amounts to a tax on real monetary balances. Hence if money and capital are complementary-through the production function or through cash-in-advance constraints - Inflation and investment will be negatively correlated.

Fischer (1993) and Kormendi and Meguire (1985) have found such a negative correlation.

Rodrik (1989) examine the effects of uncertainty over policy reforms designed to stimulate investment (for example, a tax incentive). He shows that if each year there is some probability that the policy will be reversed, the resulting uncertainty can eliminate any stimulative effect that the policy would other wise have on investment. Azenman and Marion (1991) develop a similar model in which the tax rate can rise or fall, and show that this uncertainty can, in the short run, reduce irreversible investment in physical and human capital, and thereby suppress growth. They also show that various measures of policy, uncertainty is in fact negatively correlated with real GDP growth in a cross section of 46 developing countries.

Studies such as these suggest that levels of interest rates and tax rates may be of only secondary importance as determinants of aggregate investment spending in the short run; changes in interest rates volatility and policy instability may be more important.

2.4.2 PROFIT AND INVESTMENT

There is no comparable single factor on which this study can build a relatively simple explanation of investment spending. It would appear that the researcher can safely argue that investment spending depends on the prospective profitability of such spending: Investment expenditures will be relatively large when the expected rate of profit is high

and relatively small when the expected rate of profit is low.

Keynes does not agree with the classical theory on the relationship between investment and interest rates. The classical theory assumes that demand for funds is for purposes of investment and that investment demand will be larger at a lower interest rates. Keynes, however, shows that investment does not depend upon interest rates alone. For instance, investors may be prepared to borrow more and invest more, even if the rate of interest is high provided they anticipate a still higher margin of profits. On the other hand, investors will not be tempted to borrow even if interest rates is very low, or even zero, if they are afraid that they may lose even their capital. In other words, investment depends upon the prospects of profits in a particular industry or what Keynes calls the marginal efficiency of capital rather than upon interest rates. Recent empirical studies have proved that Keynes is perfectly correct on this point (Sundharam, 1959).

The importance of the literature review are that it service as a basis for the model specification for this study and it gives at a glance the determinants of investment.

2.5 THE GAPS IN THE LITERATURE

Uchendu (1993) investigates the response of savings and investment to interest rates liberalization in Nigeria. He uses annual data covering 1969 to 1991 to analyze the response of savings and investment to interest rates deregulation. He

uses OLS regression models in the estimation of the savings and investment functions for Nigeria.

He finds out that gross domestic savings is significantly and positively explained by GDP, real savings rate and foreign savings; and financial savings rate is unambiguously explained by commercial banks nominal savings rate. This is in support of the findings by Soyibo (1992) and Chuba (1997). He also finds out that nominal interest rates and GDP are negatively and positively related to gross domestic investment respectively.

He concludes that savings and investment were responsive to interest rates liberalization in Nigeria. The implication is that interest rate policy should be fine - tuned to encourage savings without discouraging investment.

The aggregate analysis of the pre-SAP and SAP periods which Uchendu (1993) uses did not give room for comparative study. A separate analysis of investment behaviour of Nigerians during regulation and deregulation which this study employs, enables this thesis to test the structural break associated with the structural adjustment programme.

Moreover, the deregulation of the Nigerian economy went beyond interest rates liberalization. State differently, structural adjustment programme is of two components; interest rates and non-interest rates structural adjustment reform policies. The researcher expects Uchendu to have investigated the impact of the non-interest rates structural adjustment

reform policies on gross domestic investment in Nigeria but he did not do that. As a result, the negative impact of the non-interest rates structural adjustment reform policies on gross domestic investment may have been erroneously attributed to an increase in interest rates.

Further more, the researcher expects Uchendu to have use data of the real lending rates rather than the nominal lending rates in the estimation of the investment function for Nigeria for two obvious reasons. Firstly, nominal interest rates include the effects of inflation, they are poor measures of the true costs of borrowing or returns to lending. By contrast, real interest rates remove the effects of inflation from nominal interest rates and provide a more accurate measure of borrowing costs and returns to lending. Real interest rates influence savings and investment decisions and determine the allocation of resources over time. Secondly, if a meaningful comparison of the impact of lending rates on GDI in Nigeria before and after SAP has to be made, it is necessary that all the variables in the investment equation must be in real terms.

CHAPTER THREE

THE IMPACT OF INTEREST RATES AND NON-INTEREST RATES MANAGEMENT POLICY ON GROSS DOMESTIC INVESTMENT IN NIGERIA, 1973-1993.

3.1 ARGUMENTS FOR LOW INTEREST RATES

It is argued that high interest rates discourage borrowing and can undermine the financial soundness of banks, as borrowers have more difficulty realizing the high profits needed to repay the high interest rates. This argument is no longer tenable because if markets operate perfectly under laissezfare, then the increase in loan rates resulting from deregulation is uniformly desirable. True, some borrowers are chased out of the market. However, these borrowers are inefficient; they cannot function profitably when the price of investment funds reflects their true opportunity costs.

There are other less plausible justifications for the policy for low and stable interest rates structure. There is, for instance, the assumption that low and stable interest rates can help to strengthen the stability of financial institutions because low interest rates on their liabilities help to protect their earnings. This justification tends to focus excessively on assets (investment) of the financial institution without giving due attention to the liabilities (Savings mobilization). It is usually not appreciated that the two phenomena are really two sides of the same coin. While assets (investments) generate liabilities (savings) it is not

possible to sustain sound investment effort without adequate savings mobilization. In other words, low nominal interest rates structure on assets and liabilities of financial institutions are likely to yield negative real interest rates and therefore are likely to be unattractive to investors and depositors. Consequently, the earnings of financial institutions will decline substantially.

In the administration of interest rates in Nigeria, monetary authorities conduct discriminatory interest rate policy for different sectors of the economy. The specific interest rate policy like the one prevailing in our agricultural sector has been justified on a number of grounds. The notion is widespread that investment on agriculture do not produce a high yield, requiring cheap credit to encourage production and innovation. It is also believed that poor farmers cannot afford high interest rates . These stereotypes and assumptions are supposed to apply particularly to small farms and small farmers, many of whom are assumed to be exploited by money lenders. Without interest subsidy, it is claimed, such activities (farm activities) would not take place, probably because such projects are not sufficiently profitable. But the argument remains that if an activity is sufficiently profitable to be worthwhile, its returns will adequately cover the cost of resources employed. In this case subsidy is unnecessary to promote the activity and it becomes merely an arbitrary gift for income distribution. If however

the activity subsidized by low interest rates is not sufficiently profitable, the subsidy obscures this fact, the subsidy does not remove the cause of the unprofitability of the project especially in Nigeria where low productivity in agriculture lies some where else. It may be a consequence of a number of structural rigidities such as the absence of good roads to convey the farm output to the market, the non-existence of the market itself, the unavailability of the key inputs and where available, the uncertainty of the supply. Such constraints cannot be removed by pursuing unrealistic interest rate policy.

Another reason behind interest rates repression emanates from the fear that higher interest rates may be inflationary, either through the direct impact on costs or the indirect effect through expectations. Unfortunately, this argument completely ignore the probable response of government to the lower level of investment which could result (for example at low interest rates savings may not be forthcoming, thus constraining fixed capital formation). The most likely response is that government dissatisfaction with low private investment will encourage an enlarged public investment programme. Given low financial savings, this must rely for financing on monetary expansion with its associated inflationary consequences. Furthermore, this process is self-reinforcing. The more financialized savings is repressed by low real interest rates, the greater the government's need to

compensate by monetary expansion (Roe, 1982).

In conclusion, the arguments that justify the low interest rate policies of the low income countries are not valid. What is important is access to credit. The policies that have attempted to keep the price of credit low have modified access in undesirable ways, and have aggravated distortions that work against efficiency and welfare. These policies, therefore, have reduced the allocative efficiency of affected economies and their rates of growth of savings and investment. They have endangered the financial viability of institutional lenders and contributed to the concentration of income in the hands of the beneficiaries of institutional loans. The revision of the low interest rates policy is necessary for accelerated and sustainable growth and development.

3.2 INTEREST RATES MANAGEMENT IN NIGERIA

The management of interest rates has involved two approaches, namely, administrative fixing and free market determination of the rates (See CNBN Briefs, June 1996).

3.2.1 MANAGEMENT OF INTEREST RATES PRIOR TO 1986

Prior to the structural adjustment programme in 1986, the level and structure of interest rates were administratively determined by the Central Bank of Nigeria. Both deposit and lending rates were fixed by the Bank based on policy

decisions. At that time, the major reasons for administering interest rates were the desire to obtain the social optimum in resource allocation, promote orderly growth of the financial market, combat inflation and lessen the Burden of internal debt servicing on the government.

In implementing credit policy, the sectors of the economy were classified into three categories: preferred, less preferred and others. The preferred category included agriculture, manufacturing and residential housing, while the less preferred sectors consisted of important and general commerce. In the group of "others" were credit and financial institutions, government, and "personal and professional" sectors. Such a classification enabled government to direct financial resources at concessionary interest rates to sectors considered as priority areas. The concessionary rates were typically below the minimum rediscount rate which was itself quite low, averaging about 7.25 per cent between 1978 and 1985. The prevailing rates were unable to keep pace with inflation, resulting in negative real interest rates. Moreover, the demand for credit soon exceeded the rate of savings and a large proportion of government borrowing had to be financed by the Central Bank. Other implications of the low interest rate policy was that even "preferred sectors" could not get access to funds partly because financial institutions were unable to raise sufficient loanable funds through savings or from the money market at the favoured/concessionary rates

of interest. A case in point was the directive given to banks to lend to agriculture at 7.00 per cent in 1984 when the average savings deposit rate was 9.50 percent. Overall, the low interest rate regime resulted in inefficient production and excessive demand for credit.

3.2.2 MANAGEMENT OF INTEREST RATES SINCE 1986

Within the general framework of deregulating the economy in 1986 to enhance competition and efficient allocation of resources, the Central Bank of Nigeria introduced a market-based interest rate policy in August 1987. The policy decision was not without controversy, While it was generally agreed that low interest rates did not encourage savings, it was feared that high interest rates, which were likely to accompany deregulation, might stifle investment. The deregulation of interest rates allowed banks to determine their deposit and lending rates according to market conditions through negotiations with their customers. However, the minimum rediscount rate (MRR) which influences other interest rates continued to be determined by the Central Bank in line with changes in overall economic conditions. The MRR which was 15 percent in August 1987 was reduced to 12.75 percent in December 1987 with the objective of stimulating investment and growth in the economy. During the same period the savings deposit rate of commercial Banks, on the average, was 11.5 percent and the interest rate paid by merchant banks on 90 -

day funds was 15 per cent. The prime lending rates of commercial and merchant banks were, on the average, 18.0 and 20.5 percent respectively, while their corresponding maximum lending rates were 19.2 and 22.0 per cent. Following the need to moderate monetary expansion in 1989, the MRR was raised to 13.25 percent. It was also observed that there were wide disparities in the interest rate structure of the various banks. Generally, the deposit rates offered by the newly licensed banks were higher than those of the older and well established ones. However, the lending rates charged by both categories of banks were a lot closer. It was also observed that while banks were willing to raise their lending rates, deposit rates were deliberately kept low resulting in a wide spread between lending and deposit rates. In a bid to remove distortions in the structure of interest rates, the CBN reached an accord with the banks towards the end of 1989 on margins between their deposit and lending rates. Consequently, the spread between the savings deposit and lending rates was fixed at 7.0 percentage points. Also, the margin between the prime and the maximum lending rates for each bank was fixed at 4.0 percentage points, while the inter-Bank rates were to be at least 1.0 percentage point below the prime lending rate.

In furtherance of the flexible interest rate policy, the CBN introduced an auction-based system for the issue of treasury securities (Treasury Bills and Certificates) in 1989. Under the system, authorized dealers submitted competitive

Bids through which the issue rate emerged. The lack of responsiveness of the structure of deposit and lending rates to market fundamentals, particularly the decline in inflation in 1990 and the increase in domestic liquidity, compelled the authorities in 1991 to fix a maximum spread of 4 percentage points between the cost of funds of commercial and merchant banks and their maximum lending rates. The banks were therefore, directed to observe a maximum lending rate of 21 percent and a minimum deposit rate of 13.5 per cent. The banking community was highly critical of the new policy measure claiming that it was against the deregulatory posture of the government. While the reported figures showed that the rates charged were within the guidelines, there was sufficient evidence that actual rates were higher. As it were, the benefits of the policy were largely marginal. Hence, the ceilings on interest rates were removed in January 1992. Interest rates in 1993 were volatile and rose to unprecedented levels. The behaviour of interest rates was traceable to a number of factors including:-

i) the high rate of domestic inflation arising from the huge fiscal deficit of the Federal Government which was financed mainly by the Central Bank;

ii) the undue discretion which the deregulation of interest rates conferred on key market players in pricing their funds as well as the arbitrating activities of market speculators;

iii) technical insolvency and serious cash flow problems on the part of some weak banks resulting in distress borrowing; and

iv) the use of stabilization securities and the system of allocation of foreign exchange both of which induced the sterilization of large funds at the CBN.

It was thought that the high interest rates in 1993 discouraged investment in the directly productive sectors of the economy, while volatile inter-bank rates undermined the efficacy of open market operations and general stability in the financial system.

It was on the basis of this wrong perception of the effect of interest rates on investment that some measures of regulation were introduced in the management of interest rates in 1994. Deposit rates were set at 12-15 per cent per annum, while a ceiling of 21 percent per annum was fixed for lending rates. The developments in interest rates in 1994 were generally within the prescribed limits, with deposit rates ranging from 12.2 per cent in the first quarter to 13.8 percent in the fourth guarter, while lending rates were under the prescribed maximum of 21 percent. The interest rates were negative in real terms since inflation was estimated to be over 50 percent. In 1995, the Central Bank maintained the interest rate regime introduced in 1994 with minor modifications to make for flexibility. Under the new arrangements, banks and other financial institutions were

required to maintain a maximum spread of 7½ percent points between their deposit and lending rates subject to a maximum lending rate of 21 percent. To ensure the substainability of the policy, government undertook to drastically reduce the rate of inflation through fiscal, monetary and supply - side initiatives.

It should be remarked, however, that the changes in interest rate management are significantly different from what prevailed during the era of regulation. The new policy allows for a band within which deposit rates can be negotiated, while lending rates are no longer specified for activity sectors. It also allowed room for negotiation up to a limit of 21 percent per annum.

The 1996 monetary policy circular retains the 1995 interest rate policy measures with indication that efforts would be made to create an enabling environment for the full deregulation of interest rates later. In October 1996, interest rates were once again fully deregulated. This deregulation policy stance of the government continues into 1998 (See CBN Briefs, June 1997 and the Federal Government budget Speech, 1998).

3.3 TRENDS IN INTEREST RATES SINCE REGULATION

Interest rates exhibit an upward but a sluggish growth trend during the period of regulation. For example, in 1973, the average lending rate was 9.00 percent, average savings and

fixed deposit rates were 3.00 and 3.50 percent respectively compared with their corresponding levels of 8.50 percent for the lending rate; 6.00 percent for the savings deposit rates and 6.13 percent for the fixed deposit rate in 1980. In 1986, the average lending rate had only moved to 11.00 percent while savings and fixed deposit rates rose to 9.50 and 9.63 percent respectively (See table 3.1 and 3.2).

The Sluggish growth of deposit rates during regulation did not encourage financial savings. Consequently, investment expansion and growth were considerably constraint by savings.

Interest rates rose to unprecedented levels immediately after deregulation. From an average of 11.00 percent in 1986, which marked the end of the era of administrative determination of the rates, lending rates move to 18.57 percent in 1987 - the immediate year commencing the period of deregulation of the rates. Since then lending rates had been increasing. The upsurge in the lending rates also stimulated the cold attitude of banks toward deposits mobilization. The drive to mobilize deposits was accompanied by an increase in the savings and time deposit rates which moved from the respective averages of 9.50 and 9.63 percent in 1986 to 14.00 and 15.28 percent in 1987. In 1993, the average lending rate had moved to 31.16 percent while savings and fixed deposit rates rose to 16.66 and 24.72 per cent respectively (See tables 3.1 and 3.2).

The initial sudden rise in all interest rate immediately after the deregulation of the rates was not unexpected. What appears to be unusual is that the presence of factors which are expected to bring about a fall in the rates did not achieve the expected change. For example, a situation of persistent decline in the inflation rates is expected to bring about a reversal in the expectation of the economic agents involved in the determination of nominal lending rates and translate the change in expectation to a decline in the nominal lending rates. The Nigerian situation presents a paradoxical case in which interest rates continue to rise and then remained sticky downward in a situation of uninterrupted decline in inflation rates that lasted more than one year. Even the presence of excess liquidity in the Banking system during the greater part of 1990 did not succeed at bringing down the rates. Consequently, during the entire period of 1990 all levels of interest rates exceeded their 1989 levels. While the lending rates attained an average of 26.40 percent, savings and fixed deposit rates reached 18.80 and 21.30 percent respectively compared with their corresponding levels of 25.77 percent for the savings deposit rate and 20.78 percent for the fixed deposit rate in 1989.

TABLE 3.1: COMMERCIAL BANKS DEPOSIT RATES (PERCENT)

YEAR	TIME DEPOSIT RATES					SAVINGS RATES
	3 MONTHS	3-6 MONTHS	6-12 MONTHS	OVER 12 MONTHS	AVERAGE TIME DEPOSIT RATES	
1973	3.00	3.50	3.50	4.00	3.50	3.00
1974	3.00	3.50	3.50-4.00	4.00	3.56	3.00
1975	3.00	3,00-3.50	3.00-3.50	4.00	3.38	4.00
1976	3.00-2.50	3.00-3.50	3.00-3.50	3.00-3.50	3.13	4.00
1977	3.50-3.00	3.50-3.00	2.50-3.00	3.00-3.50	3.13	4.00
1978	2.00-4.75	2.50	2.00-5.25	3.00-5.50	3.44	4.00-5.00
1979	4.75	5.00	5.50	5.50	5.19	5.00
1980	5.75	6.00	6.25	6.50	6.13	6.00
1981	5.50	6.00	6.25	6.50	6.06	6.00
1882	7.25	7.50	7.75	8.00	7.63	7.50
1983	7.25	7.50	7.75	8.00	7.63	7.50
1984	9.75	9.50	9.75	10.00	9.75	9.50
1885	9.25	9.50	9.75	10.00	9.63	9.50
1986	9.25	9.50	9.75	10.00	9.63	9.50
1987	14.90	15.30	15.10	15.80	15.28	14.00
1888	13.40	12.10	13.70	14.30	13.38	14.50
1989	18.90	21.60	21.40	21.20	20.78	16.40
1990	19.60	20.50	22.10	23.00	21.30	18.80
1891	15.71	17.09	20.10	20.10	18.25	14.29
1992	20.80	22.30	22.10	20.50	21.43	16.10
1993	23.60	23.26	23.99	28.02	24.72	16.66

Source: CBN: Statistical Bulletin, Vol. 5, No. 1, June, 1994.

TABLE 3.2: MINIMUM REDISCOUNT AND LENDING RATES (PER CENT)

YEAR	MINIMUM REDISCOUNT RATES	COMMERCIAL BANKS LENDING RATES			
		FIRST CLASS ADVANCE	PRODUCE ADVANCE	OTHER ADVANCES	AVERAGE LENDING RATES
1973	4.50	7.00	10.00	10.00	9.00
1974	4.50	7.00	10.00	10.00	9.00
1975	4.50-3.50	6.00	9.00	9.00	8.00
1976	3.50	6.00	8.00	10.00	8.00
1977	4.00	6.00	6.00	6.00	6.00
1978	5.00	7.00	11.00	11.00	9.67
1979	5.00	7.50	9.00	11.00	9.17
1980	6.00	7.50	8.50	9.50	8.50
1981	6.00	7.75	9.75	10.00	9.17
1982	8.00	10.25	7.75	11.75	9.92
1983	8.00	10.00	9.75	11.50	10.42
1984	10.00	12.50	7.00	13.00	10.83
1985	10.00	9.25	8.50	11.75	9.83
1986	10.00	10.50	10.50	12.00	11.00
1987	12.75	17.50	19.00	19.20	18.57
1988	12.75	16.50	17.30	17.60	17.13
1989	18.50	26.80	25.90	24.60	25.77
1990	18.50	25.50	26.00	27.70	26.40
1991	14.50	20.01	20.51	20.80	20.44
1992	17.50	29.80	30.80	31.20	30.60
1993	26.00	36.09	39.06	18.32	31.16

Source: CBN: Statistical Bulletin, Vol. 5, No. 1, June, 1994.

3.4 THE IMPACT OF INTEREST RATES LIBERALIZATION ON GDI

Although nominal lending rates have increased substantially, the real cost of borrowing has not shown such a marked increase after the deregulation of interest rates. Except in 1987, 1990 and 1991, the lending rates have been negative in real terms (See table 3.3). The negative real lending rates recorded during the era of deregulation is as a result of high rates of inflation during the period. So, the feelings by most Nigerians that interest rates deregulation has led to a decrease in gross domestic investment, does not tally with empirical evidence in Nigeria. The researcher believes that the increase in nominal lending rates that accompanied the deregulation of the rates could not have affected gross domestic investment adversely because investment is a negative function of the real lending rates rather than the nominal lending rates. since the real cost of borrowing during the SAP period has not increase over that of Pre-SAP era, it is wrong to attribute the decrease in gross domestic investment to the liberalization of interest rates.

Moreover, one expects the inconsistency in interest rates policy to be an important factor that affect investment expenditures adversely in Nigeria rather than the changes in the levels of interest rates. This is because the inconsistency of interest rates policy constitutes economic instability which can affect investment expenditures decision negatively.

TABLE 3.3: THE REAL LENDING RATES (PER CENT).

YEAR	(1) NOMINAL LENDING RATES	(2) INFLATION RATES (%)	(3)=(1)-(2) REAL LENDING RATES
1973	9.00	5.4	3.60
1974	9.00	13.4	-4.40
1975	8.00	33.9	-25.90
1976	8.00	21.2	-13.20
1977	6.00	15.4	-9.40
1978	9.67	16.6	-6.93
1979	9.17	11.8	-2.63
1980	8.50	9.9	-1.40
1981	9.17	20.9	-11.73
1982	9.92	7.7	2.22
1983	10.42	23.2	-12.78
1984	10.83	39.6	-28.77
1985	9.83	5.5	4.33
1986	11.00	5.4	5.60
1987	18.57	10.2	8.37
1988	17.13	38.3	-21.17
1989	25.77	40.9	-15.13
1990	26.40	7.5	18.90
1991	20.44	13.0	7.44
1992	30.60	44.5	-13.90
1993	31.16	57.2	-26.04

Source: CBN: Statistical Bulletin, Vol. 5, No. 1, June, 1994.

3.5 THE IMPACT OF THE NON-INTEREST RATES STRUCTURAL ADJUSTMENT REFORM POLICIES ON GDI

Official source has put inflation rates at 44.5 and 57.2 percent in 1992 and 1993 respectively. In no period during regulation, has inflation rates increased to this extent (See table 3.3). In fact, the average inflation rates for 1973-1986 is 15.7 per cent compared to 30.2 percent for the period, 1987-1993. The high inflation rates during the period of deregulation have led to a decrease in investment expenditures in Nigeria. The reasons for the negative relationship between inflation rates and investment expenditures are given i sub-section 2.4.1 of this thesis. The other reason for the negative coefficient of correlation between investment and inflation is that as inflation rates accelerate, the purchasing power of the naira is progressively eroded and weakened so much that the incomes of most Nigerians are inadequate to afford them the Basic necessities of life not to even talk about savings. Hence, investment expenditures is considerably constrained by savings.

The high inflation rates during the period of deregulation is not unconnected to the rising costs of production. Such escalating costs are due to the non-interest rates structural adjustment reform policies embarked upon during the SAP era. The analyses below illuminate this statement.

The deregulation of the foreign exchange market (FEM) has been accompanied by large and sustained depreciation of the

naira exchange rate which has necessitated sharp increases in the local currency required for the financing of activities having offshore components (See table 3.4). The aggregate increase in the financial requirement for meeting the naira exchange rate depreciation is large due to the high import content of domestic activities. This has affected the financing of investment projects, the local costs of which have increased astronomically compared with the pre-FEM era. Moreover, the instability of the naira exchange rate that accompanied the deregulation of the foreign exchange market introduces uncertainty in business environment. For example, in 1973, N0.66 was equal to $1.00 (one U.S dollar) but by 1993, N22.33 was exchanged for $1.00. The same pattern of analysis can be given of the exchange rate between naira and British pound sterling. It is this uncertainty in business environment introduced by the instability of exchange rate that is more of a fundamental factor that adversely affected investment expenditures in Nigeria rather than a particular level of interest rates.

The reduction/cancellation of subsidies on some production inputs coupled with the commercialization policy has also resulted to the escalation of the prices of the affected inputs to the extent that much more funds are now required by corporate bodies that use the inputs.

TABLE 3.4 AVERAGE NAIRA EXCHANGE RATES*.

YEAR	U.S DOLLAR	POUND STERLING
1973	0.6579	1.6289
1974	0.6299	1.4795
1975	0.6159	1.3618
1976	0.6265	1.1317
1977	0.6466	1.1671
1978	1.6060	1.2238
1979	1.5957	1.2628
1980	0.6100	1.2647
1981	0.6100	1.2495
1982	0.6729	1.1734
1983	0.7241	1.1216
1984	0.7649	1.0765
1985	0.8938	1.1999
1986	2.0206	2.5554
1987	4.0179	6.5929
1988	4.5367	8.0895
1989	7.3916	12.0695
1990	8.0378	16.2419
1991	9.9095	17.4955
1992	17.2984	27.8684
1993	22.3268	33.2522

* The table carries time series of average exchange rates expressed in Naira per Unit of given national currency.

Source: CBN: Statistical Bulletin, Vol. 6, No. 2, Dec., 1995.

Also, the privatization programme led to the floatation of new shares, in addition to debentures and the right issues of stocks, which has had the effect of increasing the demand for money. These policy measures, which have produced autonomous increases in the demand for money balances have been matched with restrictive monetary policy based on imposition of credit ceilings, "rightly" introduced in order to minimize the inflationary impact of other policies. Consequently, the emerging excess demand for money balances has translated into high bank lending rates as the banks need to ration only the permissible credit during the period. The high lending rates means a high cost of production to the investors. The high prices of commodities is therefore a manifestation of the high cost of production.

Given the above scenario of rising production costs in the face of low effective consumer demand, it is not surprising that the problem of unemployment continues to worsen. Indeed, the implementation of privatization compounded the unemployment situation. This is because one of the arguments in support of privatization is that the public enterprises are over-staff implying that the emoluments of such redundant hands are an unnecessary strain on government finances. It is thus expected that these redundant staff members will be laid off as the privatized enterprise strive for economic viability. The deteriorating level of employment further depresses the ability to save among income recipients

since the dependency ratio is increased. The decrease in gross domestic investment is as a result of a decrease in aggregate savings rate. Table 3.5 shows the levels of unemployment in Nigeria for the selected years. Except in 1984 and 1985, total unemployment in each year during deregulation exceeds the total unemployment for each year during regulation.

TABLE 3.5: REGISTERED UNEMPLOYMENT

YEAR	LOWER GRADE WORKERS	PROFFESIONAL AND EXECUTIVES	TOTAL
1975	23,239	179	23,418
1976	20,860	166	21,026
1977	14,683	151	14,834
1978	18,661	135	18,796
1984	120,945	2,514	123,459
1985	96,580	4,165	100,745
1986	85,158	6,123	91,281
1987	145,084	15,100	160,184
1988	116,162	16,293	132,455
1989	96,055	14,281	110,336
1990	89,752	10,182	99,934
1991	110,513	12,624	123,137
1992	90,507	34,185	124,692
1993	90,523	34,074	124,597

Sources: (1) CBN: Statistical Bulletin, Vol. 5, No. 1 June, 1994.
(2) CBN: Annual Report and Statement of Accounts for the Year ended 31st Dec., 1994.

3.6 TRENDS IN GROSS DOMESTIC SAVINGS

Firstly, the study shows the trends in gross domestic savings at current market prices. Secondly, the study presents the trends in gross domestic savings at constant market prices. This is because it is the real rather than the nominal gross domestic savings that actually shows the true growth

trends of savings over time. The trends of gross domestic savings are shown in table 3.6.

The money gross domestic savings (GDS) during the period of regulation, exhibits an upward trend from 1973 to 1980. In 1973, money GDS was N2.82 billion but it rose to N11.94 and N16.43 billion in 1979 and 1980 respectively. From 1980 - 1983, the money GDS decreases, reaching N6.19 billion in 1983. Although it increases from N6.19 billion in 1983 to N9.14 billion in 1985, it decreases to N8.52 billion in 1986. From 1987-1992, the money GDS continues to rise from a low level of N19.20 billion in 1987 to N120.24 billion in 1992, though it falls to N99.72 billion in 1993. The nominal GDS are generally higher in all the years of deregulation than regulation but this may not be unconnected to the high levels of inflation rates during the SAP era.

Column 3 of table 3.6 therefore presents the real GDS. The real GDS during the period of regulation shows an increasing trend from 1973 - 1980. In 1973, real GDS was N20.74 billion but it rose to N38.84 billion in 1980. From 1980 - 1984, real GDS exhibits a downwords trend from a relatively high level of N38.84 billion in 1980 to N7.67 billion in 1984. However, the real GDS are slightly higher in 1985 and 1986 than 1984, N9.14 billion in 1985 and N8.08 billion in 1986. The real GDS shows an upward trends from 1987-1990, from N16.54 billion in 1987 to N28.70 billion in 1990. From 1990 - 1993, the real GDS exhibits a decreasing

trends from N28.70 billion in 1990 to N11.69 billion in 1993.

From the review of the trends of real GDS, it is noticed that real GDS are generally lower in most years of deregulation than regulation. So, the average real GDS is lower in the SAP than the pre-SAP era, N19.41 billion in 1987-1993 compared to N21.64 billion in 1973-1986 period.

3.7 TRENDS IN GROSS DOMESTIC INVESTMENT

The gross domestic investment (GDI) at current market prices exhibits an upward trend from 1973-1978, from a relatively low level of N2.75 billion in 1973, it rose to N9.93 billion in 1978. Although it fell to N9.48 billion in 1979, it rose to N11.82 billion in 1981. From 1981 - 1984, GDI has shown a decreasing trends, from N11.82 billion in 1981 to N6.06 billion in 1984. From this low level of GDI at current market prices in 1981, it continues to rise in all the years of deregulation until it reaches N104.75 billion in 1993. The GDI at current market prices are higher in the period of deregulation than the period of regulation (See table 3.7) but this is as a result of high rates of inflation during the SAP period. In order to show the true trends of GDI, it is necessary to remove the influence of price changes.

TABLE 3.6: TRENDS IN GROSS DOMESTIC SAVINGS

YEAR	GROSS DOMESTIC SAVINGS AT CURRENT MARKET PRICES (N' BILLIONS)	GROSS DOMESTIC SAVINGS (BILLIONS OF 1985 NAIRA)
1973	2.82	20.74
1974	5.41	35.13
1975	4.76	23.00
1976	7.37	28.79
1977	10.30	34.80
1978	8.41	24.38
1979	11.94	31.01
1980	16.43	38.84
1981	9.76	19.06
1982	7.29	13.23
1983	6.19	9.12
1984	7.27	7.67
1985	9.14	9.14
1986	8.52	8.08
1987	19.20	16.54
1988	21.08	11.63
1989	51.89	19.03
1990	84.14	28.70
1991	76.59	23.15
1992	120.24	25.13
1993	99.72	11.69

Sources: (1) The World Bank: The World Tables, 1994.
(2) Annual Abstract of Statistics, F.O.S, 1995 Edition

TABLE 3.7: TRENDS IN GROSS DOMESTIC INVESTMENT

YEAR	GROSS DOMESTIC INVESTMENT AT CURRENT MARKET PRICES (N' BILLIONS)	GROSS DOMESTIC INVESTMENT (BILLIONS OF 1985 NAIRA)
1973	2.75	20.22
1974	3.33	21.62
1975	5.79	27.97
1976	9.01	35.20
1977	9.51	32.13
1978	9.93	28.78
1979	9.48	24.62
1980	11.31	26.74
1981	11.82	23.09
1982	10.39	18.86
1983	8.42	12.40
1984	6.06	6.39
1985	6.49	6.49
1986	11.01	10.45
1987	14.91	12.84
1988	19.56	10.79
1989	32.42	11.89
1990	41.73	14.23
1991	55.19	16.68
1992	96.34	20.14
1993	104.75	12.28

Sources: (1) The World Bank: The World Tables, 1994.
(2) CBN: Statistical Bulletin, Vol. 5 No. 1, June, 1994.

Column 3 of table 3.7 therefore presents the GDI in 1985 constant market price. The study shows that the values of real GDI in most years under study are higher in the period of regulation than deregulation. The average real GDI from 1973-1986 is N21.07 billion while the average real GDI from 1987-1993 is N14.12 billion. The question now is: what are the factors responsible for the decrease in gross domestic investment in Nigeria?

3.8 REASONS FOR THE DECREEASE IN GROSS DOMESTIC INVESTMENT IN NIGERIA

Investment expenditures depend on the risk factors. Business risks are associated with volatility in business environment and the sources of volatility are economic and political instability. Changes in inflation rates, inconsistency in interest rates policy and fluctuations of naira exchange rates are factors that constitute economic instability in Nigeria. The researcher has already demonstrated that the non-interest rates structural adjustment reform policies introduced by the Government of Nigeria have contributed in no small way in fuelling economic instability in this country. Government crisis, strikes and riots are the political instability that created fear in the minds of Nigerians and foreigners alike in making further investment in this country.

This thesis shows at both theoretical and empirical levels that there is a strong positive correlation between

savings and investment. It means that any factor that affect savings negatively will also affect investment expenditures negatively. For this reason, the following factors discussed below have affected investment expenditures in Nigeria negatively either directly or indirectly.

The decrease in savings and/or savings rates has been attributed to a decrease in per capita income. The real per capita income has declined because of the fall in real income and the rapid increase in population over time.

From table 3.8, there has been an upward increase in the population of Nigeria throughout the whole period under consideration, from 58 million people in 1973 to 93.3 million people in 1993. But the real GDP exhibits a downward trend especially from 1980 - 1984, N120,300 million for 1980 and N67,100 million in 1984. Although the real GDP increased from 67,100 million in 1984 to N96,360 million in 1993, it had not yet attain the level of real GDP in 1974 - 1977. Given that population continues to rise, the real per capita income from 1984-1993 was bound to fall below that of 1974-1977 level. In keynes absolute income hypothesis (1936), average propensity to save rises with an increase in per capita income, implying that the decrease in savings in Nigeria is attributed to a fall in real per capita income.

TABLE 3.8: THE REAL GDP PER CAPITA (N'MILLIONS)

YEAR	(1) POPULATION (MILLIONS)	(2) REAL GDP (N' MILLIONS)	(3)=(2)÷(1) REAL GDP PER CAPITA (N' MILLIONS)
1973	58	90,070	1,553
1974	60	127,270	2,121
1975	61	110,870	1,818
1976	63	111,760	1,774
1977	65	113,480	1,746
1978	67	104,490	1,560
1979	69	111,450	1,615
1980	71	120,330	1,695
1981	73	99,120	1,358
1982	76	94,280	1,241
1983	78	84,150	1,079
1984	81	67,100	828
1985	83	72,360	872
1991 (census)	88.5	102,180	1,155
1992	91.0	110,690	1,216
1993	93.3	96,360	1,033

Sources: (1) The World Bank: The World Tables, 1994.
(2) CBN: Annual Report and Statement of Accounts for the Year ended 31st Dec., 1994.
(3) Annual Abstract of Statistics, Federal Office of Statistics, Lagos, 1996 Edition.

Another reasons for the decline in savings in Nigeria is that the middle and upper income strata which are more

favourably placed to save indulge in what Thorstein Veblem termed "conspicuous consumption". This propensity is corroborated by what Ragnar Nurske called the "demonstration effects". This indicates that people in LDCs especially the upper income group tries to emulate standard of consumption in economically advanced countries so much so that little or no income is left for savings.

Raggazi (1981) submits that development institutions as well as planning authorities are partly responsible for the poor mobilization of savings n the LDCs, This is because rather than focussing attention on savings mobilization, investment has always been accorded an exclusive focus. Whereas in a well balanced economy, the two phenomena are really two faces of the same coin; both are comparable. While it is impossible to achieve a high level of economic growth without adequate investment, savings generates investment. Excessive administrative interventions into domestic financial markets like low, interest rates policy hinders domestic savings mobilization.

Another constraint to savings mobilization in Nigeria is the high dependency ratio. Here, the children and the aging force constitute a high proportion of total population because of an increase in birth rate. The number of peoples depending on the labour force are not only the children and aging force but also the economically active but unemployed people. So that as unemployment increases, the number of dependants also

increases. Dependants do not earn income but they only consume. The high consumption resulting from large number of dependants have a negative effect on income. Hence savings is considerably constrained.

It has been argued in section 3.4 of this thesis that the deregulation of the foreign exchange market, removal of subsidies and privatization of public enterprises are among other factors that led to a decrease in savings since the deregulation of Nigerian economy. These policy reforms led to an increase in the cost of production which exerts an upward movement in the prices of commodities. At a high level of the prices of commodities, a given level of expenditure can be financed with a high proportion of income as inflation rates accelerate and so little or nothing is left for savings.

Inaccessibility of savings institutions constitutes a major stumbling block to savings in the rural areas. Accessibility of savings channels becomes important as it encourages the rural folks to participates in the modern sector. This however, depends on the availability of adequate infrastructures such as high degree of good roads, rails, telecommunications, electricity, etc. that facilitate the functions of these savings institutions. The prevailing high illiteracy rates among rural dwellers have not endeared them to the advantages and importance inherent in the existence of these institutions in their areas. Increasing knowledge of their functions and existence can only be achieved if the

general level of education coupled with adequate publicity are put in place. The high illiteracy rates of the people in rural areas among others contribute to the concentrations of banks in the urban centres in Nigeria. So, the scattered savings among the rural dwellers are not yet mobilized for the purpose of investment and growth because of lack of banking facilities in the rural areas.

Not only that the banking facilities are inadequate in Nigeria but the incentives given by these banks are also very poor. The incentives here are measured by the services rendered and deposit rates given by the banks to their customers. In Nigeria, it is not uncommon to see the banks' customers queuing for six hours to lodge deposits. The delays are caused by inability of these banks to install the necessary machines that will facilitate their banking operations and employment of unskilled labour. These delays in the banks bore depositors and discouraged banking habit. Moreover, the banks deposit rates are still very low to encourage people to save. While banks charge high lending rates to their customers, deposit rates are deliberately kept low in order to make enormous profits. The low deposit rates offered by banks in Nigeria discourages savings mobilization. While it is true that the wide margin between lending and deposits rates may enable the banks to make profits, it is also true that the banks will not be able to make adequate loans and investment if enough savings is not mobilized and

their objective of profit maximization will be defeated.

Lack of confidence in the banking system due to incessant banks failure and loss of deposits to customers have been identified as another constraint to savings mobilization in Nigeria. There were large numbers of financial institutions in Nigeria: Community banks, peoples bank, commercial banks, merchant banks, mortgage banks and finance houses. Many of these financial institutions especially the community banks, peoples bank, mortgage banks and finance houses are already out of the scene. Although the Federal Government of Nigeria has taken the right step by setting up the banks tribunal to fish out and deal with the people directly or indirectly connected to the fraudulent practices which led to the bankruptcy of many banks, the Nigeria Deposit Insurance corporation (NDIC) has not made much effort to see that the deposits of the customers of the failed banks are paid back to them. So it is likely that the deposits of these people will be lost to the failed banks. Until NDIC inconjuction with CBN indicate now and when the deposits of the people in the affect banks will be paid back, the confidence in the banking industry in Nigeria will not be restored. This and low deposit rates explain why many Nigerians prefer to keep their money in real rather than financial assets today. Consequently, the financial institutions in Nigeria cannot mobilize adequate savings that can be transmitted into investments.

CHAPTER FOUR

MODEL SPECIFICATION AND ANALYSIS OF REGRESSION RESULTS

4.1 MODEL SPECIFICATION

Three models are specified for this study. These are in line with the hypotheses in section 1.5 of this thesis.

The first and second models are for the first hypothesis. Here, the two models become necessary for the comparison of the impact of interest rates regulation and deregulation on gross domestic investment in Nigeria for the periods 1973 - 1986 and 1987 - 1993 respectively. The models are:

$$GDI_1 = f\ (GDP_1,\ R_1) \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad (4.1.1)$$

Where GDI_1 = gross domestic investment

GDP_1 = gross domestic product

R_1 = interest rates

From equation (4.1.1), the mathematical form of the model for this study is as follows:

$$GDI_1 = b_o + b_1\ GDP_1 + b_2\ R_1 + U_1 \quad \ldots\ldots\ldots \quad (4.1.2)$$

This model is used for estimation of the investment function from 1973 - 1986. The other model which is used for estimation of investment function from 1987 - 1993 is given below.

$$GDI_2 = f(GDP_2, R_2) \quad \ldots\ldots\ldots\ldots\ldots \quad (4.1.3)$$

Where GDI_2, GDP_2 and R_2 are as defined in equation (4.1.1)

The linear regression model from equation (4.1.3) is:

$$GDI_2 = B_o + B_1 GDP_2 + B_2R_2 + U_2 \quad \ldots\ldots\ldots (4.1.4).$$

The third model is used to test the second hypothesis. The model is:

$$GDI_3 = f(GDP_3, R_3, D) \ldots\ldots\ldots \quad (4.1.5).$$

where D = dummy variable and other variables are as defined in equation (4.1.1).

From equation (4.1.5), the functional form of the model for this study is as follows:

$$GDI_3 = \alpha_o + \alpha_1 GDP_3 + \alpha_2R_3 + \alpha_3D+U_3 \quad \ldots\ldots\ldots \quad (4.1.6).$$

This model is estimated using data from 1973-1993.

The α_i, b_i and B_i are the various regression coefficients (where i = 1,2,—- - n) and U_i is the error term which takes into account the influence of less important factors and the error in the measurement of data. All the α_i except α_1 are

expected to have a negative regression coefficients. b_1 and B_1 are expected to be positive while b_2 and B_2 are expected to be negative. The $B_2 < b_2$ if interest rates deregulation has a negative impact on gross domestic investment but if $B_2 > b_2$, then interest rates deregulation has a positive impact on gross domestic investment in Nigeria. This implies that if $B_2 = b_2$, then interest rates deregulation has no impact on gross domestic investment at all. The α_o, b_o and B_o are the constants or intercepts of the regression equations. They may be negative, zero or positive. In this study, equations 4.1.2, 4.1.4 and 4.1.6 will be estimated.

4.2 THE CHOICE OF THE MODEL AND VARIABLES

4.2.1 THE CHOICE OF THE MODEL

Uchendu (1993) estimated investment functions for Nigeria using four equations. The first equation is:

$$GDI/GDP = C_o + C_1LR \quad \ldots\ldots\ldots\ldots\ldots\ldots \quad (4.2.1)$$

Where GDI/GDP = gross investment rate

LR = prime lending rate (Commercial banks)

The second equation is as follows:

$$GDI = D_o + D_1GDP + D_2LR \quad \ldots\ldots\ldots\ldots \quad (4.2.2)$$

where GDI = gross domestic investment

GDP = gross domestic product

LR = prime lending rate (Commercial banks)

The third equation is:

$$GDI/GDP = E_o + E_1 TFS/GDP \quad \ldots\ldots\ldots\ldots \quad (4.2.3)$$

where GDI/GDP = gross investment rate

TFS/GDP = Financial savings to GDP ratio

The fourth equation is:

$$GDI/GDP = G_o + G_1 LA/GDP \quad \ldots\ldots\ldots\ldots \quad (4.2.4)$$

Where GDI/GDP = gross investment rate

LA/GDP = Loan and Advances (Commercial and merchant banks) to GDP ratio.

C_o, D_o, E_o and G_o are the intercepts of his regression equations and C_1, D_1, D_2, E_1, and G_1 are the regression coefficients of his models.

He finds the Durbin Watson Statistic (DW) for equations 4.2.1, 4.2.2, 4.2.3 and 4.2.4 to be 0.476, 1.043, 0.439 and 0.455 respectively. He also finds the coefficient of determination (adjusted R-Squared) to be 0.3730, 0.6732, 0.3553 and 0.3237 for equations 4.2.1, 4.2.2, 4.2.3 and 4.2.4 respectively. The results of his findings indicate that all his equations except equation 4.2.2 performed poorly in explaining the determinants of investment in Nigeria. For this reason, this thesis adopts equation 4.2.2 in the estimation of investment function for Nigeria.

4.2.2 THE CHOICE OF THE VARIABLES

Like Uchendu (1993), the researcher uses all the variables incorporated in equation 4.2.2 but substitutes real

lending rates for nominal lending rates. This is because as already argued, investment is a function of real lending rates rather than the nominal lending rates. Moreover, if a meaningful comparison of the investment efforts by Nigerians before and after SAP has to be made, it is necessary that all the variables in the investment equations must be in real terms. This study also incorporates a dummy variable into Uchendu's model and it represents the impact of non-interest rates structural adjustment reform policies on gross domestic investment in Nigeria.

The data on real gross domestic investment and gross domestic product used for this study are obtained by deflating the data on current gross domestic investment and gross domestic product by appropriate consumer price index. But the data on real lending rate is the average of first class advance, produce advance and other advances of commercial banks less inflation rates.

4.3 EXPLANATION OF VARIABLES

Political, social and economic variables are classified into dependent and independent variables.

4.3.1 THE DEPENDENT VARIABLES

These are variables whose change depends on the changes of other factors (independent variables) within the model. In the case of equation (4.1.2) above, real gross domestic

investment is a dependent variable which responds to changes in real gross domestic product and interest rates.

4.3.2 THE INDEPENDENT VARIABLES

These are variables which influence the dependent variables but they are influenced by variables outside the model. For example in equation (4.1.2) above, real gross domestic product and interest rates are independent variables because they influence the amount thus invested.

4.4 ESTIMATION OF THE MODELS, TEST OF HYPOTHESES AND ANALYSIS OF REGRESSION RESULTS

4.4.1 ESTIMATION OF THE MODELS

$$GDI_1 = \underset{(-2.51)}{-18.9} + \underset{(5.35)}{0.401GDP_1} \underset{(-0.56)}{-0.077R_1} \quad \ldots\ldots\ldots\ldots\ldots \quad (4.4.1)$$

R = 0.727

DW = 1.68

t - values in parenthesis

$$GDI_2 = \underset{(-2.16)}{-13.7} + \underset{(4.45)}{0.293GDP_2} \underset{(-0.15)}{-0.0058R_2} \quad \ldots\ldots\ldots\ldots\ldots \quad (4.4.2)$$

R = 0.841

DW = 1.99

t - values in parenthesis

$$GDI_3 = \underset{(-3.01)}{-17.7} + \underset{(6.71)}{0.391GDP_3} \underset{(-0.62)}{-0.0474R_3} \underset{(-2.77)}{-5.59D} \quad \ldots\ldots\ldots \quad (4.4.3)$$

R = 0.771

DW = 1.60

t - values in parenthesis

4.4.2 TEST OF HYPOTHESES

In testing the hypothesis for this study, reference should always be made to chapter one, section 1.5 of this thesis.

To test the hypothesis in sub-section 1.5.1, let's compare the regression coefficients of interest rates of equations (4.4.1 and 4.4.2). The regression coefficients of interest rates are -0.077 and -0.0058 for the periods of regulation and deregulation respectively. The parameter estimate of interest rates is greater in the SAP than the Pre-SAP period. So, this study rejects the alternative hypothesis that interest rates liberalization has a negative impact on gross domestic investment and accept the null hypothesis that interest rates liberalization does not have a negative impact on gross domestic investment in Nigeria.

In testing the hypothesis in sub-section 1.5.2, the researcher considers the value of the parameter estimate of the dummy variable and the t-statistic. The parameter estimate of the dummy variable is -5.59 indicating a negative relationship between the non-interest rates structural adjustment reform policies and gross domestic investment in Nigeria. The calculated and tabulated t-values of the dummy

variable are -2.77 and -1.740 respectively. The calculated t-value is greater than the tabulated t-value in absolute term. The parameter estimate of the dummy variable is therefore statistically significant at 5.0 per cent level of significance. Given these results, the thesis rejects the null hypothesis that the non-interest rates structural adjustment reform policies do not have any impact on gross domestic investment and accepts the alternative hypothesis that they have a negative and significant impact on gross domestic investment in Nigeria.

4.4.3 ANALYSIS OF REGRESSION RESULTS

The regression coefficients of GDP in equations 4.4.1, 4.4.2 and 4.4.3 are 0.401, 0.293 and 0.391 respectively. The calculated t-values for the regression coefficient of GDP are 5.35 for equation 4.4.1, 4.45 for equation 4.4.2 and 6.71 for equation 4.4.3 while the tabulated t-values are 1.796, 2.132 and 1.740 for equations 4.4.1, 4.4.2 and 4.4.3 respectively. The calculated t-values are greater than the tabulated t-values in the three equations estimated in this study. The results show that GDP has a positive and significant impact on gross domestic investment in Nigeria. For example, in equation 4.4.1, a 100.0 percentage points increase in gross domestic product leads to a 40.10 percentage points increase in gross domestic investment.

The regression coefficient of income is less in the

period of deregulation than the era of regulation. This result is due to the fact that the real GDP in the SAP period has fallen below the levels of real GDP attained in the pre-SAP era. For example, the real GDP from 1987 - 1993 are generally lower than the real GDP from 1973 - 1977 and 1979 - 1980 (See Appendix A).

The parameter estimates of interest rates are -0.077, 0.0058 and -0.0474 for equations 4.4.1, 4.4.2 and 4.4.3 respectively. The values of the calculated t-statistic for the parameter estimates of interest rates are -0.56 for equation 4.4.1, -0.15 for equation 4.4.2 and -0.62 for equation 4.4.3 and the tabulated t-values are -1.796, -2.132 and -1.740 for equations 4.4.1, 4.4.2 and 4.4.3 respectively. In all the three regression equations, the values of the calculated t-statistic are less than the tabulated t-statistic if the negative signs are ignored. The results shows that interest rates has a negative relationship with gross domestic investment but it is statistically insignificant at 5.0 per cent level of confidence. The statistical insignificance of interest rates in the three regression equations gives credence to the statement that interest rates is not an important variable in the investment function.

The regression coefficient of interest rates is greater in the period of deregulation than the era of regulation. It is -0.077 for the pre-SAP period, -0.0058 for SAP period and 0.0474 for the whole period combined. It means a 100.0

percentage points increase in real lending rates during the pre-SAP period leads to a 7.70 percentage points decrease in gross domestic investment and a 100.0 percentage points increase in real lending rates during the period of deregulation leads to a 0.58 percentage points decrease in gross domestic investment in Nigeria. These results are expected because while nominal lending rates increases during the SAP period, the real lending rates are negative during the period because of high rates of inflation. So, interest rates liberalization does not have a negative impact on gross domestic investment in Nigeria.

The regression coefficient of the dummy variable is -5.59 (See equation 4.4.3). Its calculated t-value is -2.77 and its tabulated t-value is 1.740. Its calculated t-value is greater than its tabulated t-value if the negative signs are ignored. Therefore, the dummy variable representing the impact of the non-interest rates structural adjustment reform policies on gross domestic investment in Nigeria is negatively and statistically significant at 5.0 per cent level of confidence. In fact, from the combined regression results, the dummy variable is the most important factor that affects gross domestic investment in Nigeria. The following analysis throw more light on this statement. A 100.0 percentage points increase in real GDP leads to a 39.10 percentage points increase in gross domestic investment. A 100.0 percentage points increase in real lending rates leads to a 4.74

percentage points decrease in gross domestic investment. A 100.0 percentage points increase in the dummy variable leads to a 559 percentage points decrease in gross domestic investment in Nigeria. These findings illuminate the insignificance of interest rates as a determinant of investment.

There is high degree of relationship between gross domestic investment and the explanatory variables used in this study as given by the high coefficient of correlation 72.70, 84.10 and 77.10 percent for the periods 1973-1986, 1987 - 1993 and 1973-1993 respectively. The high coefficient of correlation found in all the three regression equations shows that no important exogenous variable is omitted from the models for this study.

Autocorrelation exists in all the three regression equations because the Durbin Watson statistic is not equal to 2.0. In these equations, the residuals are positively autocorrelated because the Durbin Watson Statistic is less than 2.0 but the autocorrelation is not strong because the Durbin Watson Statistic is approximately equals to 2.0. So, the researcher has not omitted important explanatory variables and there is no mis-specification of the mathematical form of the models.

In conclusion, results of the above analysis may be summarized as follows:

i) Gross domestic investment was found to be an increasing

function of gross domestic product over the review period.

ii) The real cost of borrowing (the real lending rates) has a negative but an insignificant impact on gross domestic investment.

iii) Interest rates liberalization does not have a negative impact on gross domestic investment as usually claimed.

iv) Rather, the non-interest rates structural adjustment reform policies have negative and significant impact on gross domestic investment in Nigeria.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND POLICY RECOMMENDATIONS

5.1 SUMMARY

Gross domestic savings is a significant determinant of gross domestic investment in Nigeria and gross domestic investment has a direct relationship with economic growth.

In this thesis, the impact of interest rates regulation and deregulation on the key variables (savings, investment and economic growth) in Nigerian economy have been analyzed. It shows that interest rates regulation reduces the amount of savings which can be transmitted into investment and therefore has negative impact on economic growth. It also shows that interest rates deregulation ensures adequate mobilization of savings, investment expansion and economic growth.

In this thesis also, the impact of non-interest rates structural adjustment reform policies on investment expenditures in Nigeria have been analyzed. It shows that there is support for the position that the non-interest rates structural adjustment reform policies have a negative and significant impact on gross domestic investment in Nigeria.

From the analysis of regression results, real GDP has a positive and significant impact on gross domestic investment. On the other hand, real lending rates has a negative but an insignificant impact on investment expenditures in Nigeria.

The study shows that real gross domestic investment exhibits a downward trend in Nigeria over time. Explanations

to the negative growth trend in gross domestic investment are then provided. Uncertainty in business environment resulting from changes in inflation rates, inconsistency in interest rate policy, fluctuations of naira exchange rates, government crisis, strikes and riots is identified as factor that undermine investment expenditures in Nigeria. A decrease in savings resulting from a decrease in real per capita income due to a decrease in real GDP and increase in population; conspicuous consumption; poor policies by development institutions and planning authorities; high dependency ratio due to increase in birth rate and the increase in the number of people unemployed; non-interest rates structural adjustment reform policies; inaccessibility of savings institutions; poor incentives given by the banks; decrease in the number of financial institutions in recent years due to banks distress; and lack of confidence in the banking system due to incessant bank failures and loss to depositors is also another factor that leads to a negative growth trend of gross domestic investment in Nigeria.

5.2 CONCLUSIONS

Since savings is the bedrock of economic growth, ensuring adequate savings is a condition necessary for investment expansion and economic growth in Nigeria.

One would also expect investment expenditures to increase if the uncertainty in Nigerian economy are minimized and a

stable economic and political environments that lead to the emergence of a conducive investment climate are put in place.

From the analysis of the regression results, the following policy conclusions are made. First, since real GDP has a positive and significant impact on gross domestic investment, ensuring adequate income is a necessary condition for investment expansion. Second, since interest rates liberalization does not have a negative impact on gross domestic investment, savings mobilization can be encouraged and economic growth achieved if interest rates are deregulated. Third, the non-interest rates structural adjustment reform policies in so far it has a negative impact on gross domestic savings, gross domestic investment and economic growth, should be discouraged.

One should also expect an increase in gross domestic savings, investment and economic growth if all the savings constraints discussed above are removed and the number of financial institutions increased.

4.5 POLICY RECOMMENDATIONS

To eliminate or reduce the uncertainty in Nigerian economy resulting from political instability, the following policy recommendations are made.

First government crisis in Nigeria can be eliminated if the regional and religious differences are no longer used as criteria of appointing or electing people into public offices.

Nigerians should be taught at all levels of education the need for national unity. Also, appointment of candidates to hold public offices should be based on individual's past records, experiences, knowledge, honesty and performance.

Second, since the basic cause of the riots especially in the oil producing areas of Nigeria is the unwillingness or inability of the company operating in those areas to provide the social amenities needed by the people in the areas, the indigenes of those areas should be educated in the seminars, workshops and public lectures that it is socially irresponsible of the company operating in their areas to provide social amenities for them. They should be taught that the objective of those companies is not the provision of social amenities but to continue in production of goods and services that will enable them to meet the needs of the people in their areas of operations and to realize adequate profits from the sales of their products. The indigenes of those areas should be educated that it is the responsibility of the government to provide the necessary social amenities that are needed by them through the tax revenue paid by the company operating in their areas. Since the other causes of the riots are the destruction of farm lands, infrastructures nd air polutions, the company operating in those areas should be made to compensate the people in the areas for the lost they incurred as a result of the production activities of the company.

Third, to avoid strikes, the employers of labour, either in the private or public sector must ensure that the basic needs of their employees are met. Employees must be guaranteed of job security through re-training; must be given adequate health care, fringe benefits and remuneration; must be promoted and given leave of absence when they are due and their salaries must be reviewed when it is appropriate. An efficient and effective personnel management is all that is required to keep industrial peace that will enable the workers to keep the wheels of the machine of the industries rolling.

The fluctuations in the naira exchange rates, the changes in interest rates and the changes in inflation rates are variables that constitute economic instability and they can be stabilized by controlling inflation rates. In order to stabilize inflation rates, the government should manipulate the instruments of fiscal and monetary policies. The abandonment of the deregulation of the non-interest rates structural adjustment reform policies is also recommended in order to control inflation rates, thereby stabilizing the naira exchange rates and interest rates.

To solve the problem of investment contraction resulting from a decrease in savings mobilization, this thesis provides the following policy recommendations.

Given that domestic savings is very low presently, foreign savings inflow should be allowed and encouraged to support domestic investment - even if they help in part to

finance consumption. The increase in domestic investment which this policy entails will lead to an increase in GDP which will in turn lead to an increase in domestic savings. Inflow of foreign savings can be encouraged by creating enabling environment for foreign direct investment and creating a sound financial system for effective mobilization of financial savings.

The abandonment of interest rates deregulation in 1994 is not a welcome change because it does not give room for competition within the banking industry. For competition to hold each bank must independently determine its own deposit and lending rates according to market conditions. Subsequent movements in the bank's rate must also be in accordance with changes in the market conditions. The market conditions will thus compel each bank to offer competitive and independently determined, interest rates to depositors and borrowers. The drive to mobilize savings within the confines of competition will lead to an increase in deposit rates. The increase in deposit rates, all things being equal will lead to an increase in financial savings. The need to guide the banking industry towards competitive behaviours in interest rates determination forms the basis of the current interest rate policy.

The removal of subsidies, privatization of public enterprises and deregulation of foreign exchange market should be de-emphasized by government so far they have a negative effect on gross domestic savings.

Even if the real GDP increases and the rapid increase in population is not checked, the real per capita income will not rise and savings will be constrained. In order to ensure that the real per capita income rises as the real GDP rises, it is necessary to limit the rapid increase in population through preventive checks such as late marriages, self restrain during marriage life, celibacy and the use of contraceptive. All these measures will go a long way in increasing the real per capita income and gross domestic savings. Birth control will also reduce the number of dependants per family. The decrease in the number of dependants per family will reduce the negative effect of dependency ratio on income and savings. Another way of reducing dependency ratio is to increase employment. This can be done through the expansion of capacity and the full utilization of existing ones; by abandoning quotalization as a criteria for employment; by abandoning privatization of public enterprises; and the use of monetary policy through the manipulation of the bank rate, open market operation and selective credit control measures. As employment increased, income and savings will also increase.

It is also important to stress that any meaningful savings mobilization require equal participation of the teaming populace. Thus, enlightment campaigns which would bring the financial institutions to the door steps of the savers should be encouraged. One of such is the mobile saving banks.

Furthermore, the activities of the new innovation in the financial system in the establishment of peoples bank and community banks which are mainly savings banks should focus more attention on the rural areas.

Concentration of the peoples Bank and community Banks branches in the urban in preference to the rural hinterland goes contrary to their founding objectives of bringing banking services closer to the low-income people. The Central Bank of Nigeria could in its capacity as the monitoring authority ensure strict adherence to the objectives.

This is important if any meaningful benefits are to be derived from the schemes by the low-income group.

It is noticed that banks rendered poor banking services to their customers because of lack of facilitating tools and over employment of unskilled labour. Henceforth the facilitating tools necessary for banks, such as computers should be made mandatory for them. Secondly, the employment of historians, archaeologists, biologists, geographers, etc. as general managers, accountants, treasury officers, cashiers, etc. in the banks should be stopped. These groups of people because they do not adequately understand the intricacies in the banking system, cause unnecessary delays in the banks that discourage banking habit. The economists, business administrators, accountants and professional bankers should henceforth be the only categories of people that should work in the banks. Employment of people to positions in the banks

should be based on qualifications and experience; and not whom you know.

The monetary authority must ensure that banks remain solvent at all time. Solvency is important because it helps to avoid the consequences of bank failure. Such consequences include the loss to depositors and the loss of confidence in the banking system.

Before 1997 budget speech, the initial capital requirement for merchant and commercial banks was N40 and N50 million respectively. The minimum paid - up capital of both commercial and merchant banks was increased to a uniform level of N500 million in 1997 (See 1997 Budget Address). This measure was considered necessary to check the distress then witnessed in the banking system. In other words, the law was made to ensure solvency in the banking system. The establishment of the Nigeria Deposit Insurance Corporation (NDIC) is an administrative step to ensure that banks remain solvent.

But the truth of the matter in Nigeria is that many banks do not meet up the statutory minimum paid-up capital before they are allowed to go into operation. For example, the paid-up capital by Commercial Trust Bank Nigeria Limited was N10 million while Wemba Bank PLC, Universal Trust Bank of Nigeria Limited, to mention but a few, have a paid-up capital of N20 million each as at December 1990 (NDIC, 1990).

The momentary authority should always ensure that law governing the operations of the banks are not waved for them.

For the interest of the depositors in the failed banks, it is not enough that the federal government of Nigeria should fish out and punished the culprits of such banks, but the NDIC inconjunction with the CBN must arrange how and when the money of the depositors in the failed banks should be paid back to them. If this is not done, it means that the depositors will loss their money to the banks and so long people loss their deposits to banks, so will people continue to loss their confidence in the banking system.

It is worth emphasizing that a vibrant and sustainable economic growth can only be guaranteed if all the necessary policies put in place to increase gross domestic investment are implemented with vigour and fervour.

Further study on the effect of interest rate policy on domestic debt service, inflation and exchange rates is recommended so as to foster a better understanding of the macroeconomic environment. Similarly, the effect of profit as determinant of investment cited in the literature needs to be investigated.

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APPENDIX A

GROSS DOMESTIC PRODUCT (N' BILLIONS)

YEAR	GROSS DOMESTIC PRODUCT AT CURRENT MARKET PRICES	REAL GROSS DOMESSTIC PRODUCT (BILLIONS OF 1985 NAIRA)
1973	12.25	90.07
1974	19.60	127.27
1975	22.95	110.87
1976	28.61	111.76
1977	33.59	113.48
1978	36.05	104.49
1979	42.91	111.45
1980	50.90	120.33
1981	50.75	99.12
1982	51.95	94.28
1983	57.14	84.15
1984	63.61	67.10
1985	72.36	72.36
1986	73.06	69.32
1987	108.88	93.78
1988	145.24	80.15
1989	230.15	84.40
1990	285.04	97.22
1991	338.13	102.18
1992	529.52	110.69
1993	821.92	96.36

$$\text{Real GDP} = \frac{\text{Nominal GDP}}{\text{Consumer Price Index}} \times 100$$

Sources:

(1) CBN: Statistical Bulletin, Vol. 5, No. 1, June 1994.

(2) National Accounts Statistics: Analysis of Main Aggregates, 1986, United Nations, New York, 1989.

(3) The World Bank: The World Tables, 1994.

APPENDIX B

GROSS DOMESTIC INVESTMENT (N' BILLIONS)

YEAR	COMPOSITE CONSUMER PRICE INDEX 1985 = 100	GROSS DOMESTIC INVESTMENT AT CURRENT MARKET PRICES	REAL GDI (BILLIONS OF 1985 NAIRA)
1973	13.6	2.75	20.22
1974	15.4	3.33	21.62
1975	20.7	5.79	27.97
1976	25.6	9.01	35.20
1977	29.6	9.51	32.13
1978	34.5	9.93	28.78
1979	38.5	9.48	24.62
1980	42.3	11.31	26.74
1981	51.2	11.82	23.09
1982	55.1	10.39	18.86
1983	67.9	8.42	12.40
1984	94.8	6.06	6.39
1985	100.0	6.49	6.49
1986	105.4	11.01	10.45
1987	116.1	14.91	12.84
1988	181.2	19.56	10.79
1989	272.7	32.42	11.89
1990	293.2	41.73	14.23
1991	330.2	55.19	16.68
1992	478.4	96.34	20.14
1993	853.0	104.75	12.28

$$\text{Real GDI} = \frac{\text{Nominal GDI}}{\text{Consumer Price Index}} \times 100$$

Sources:
(1) The World Bank: The World Tables, 1994
(2) CBN: Statistical Bulletin, Vol. 5, No. 1, June, 1994.