OVERRATED? THE IMPACT OF OIL REVENUE ON NIGERIA’S CREDITWORTHINESS, DEBT PROFILE & SUSTAINABILITY, 1973-2004

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ABSTRACT

One of the biggest challenges for an oil-producing country is how to use its oil wealth strategically to promote sustainable development. Almost fifty years after oil was discovered at Oloibiri in South Eastern Nigeria and after the country’s mostly-bitter romance with creditor organizations: How do we assess the debt crisis in which Nigeria found itself? What are the lessons to be learned? Certainly, these are some of the most important questions to be studied as the country embarks with a clean slate with private and bilateral lenders after the long sought-after debt restructuring deal that came in April 2006.

This thesis analyzes the lessons to be learned from Nigeria’s debt history, looking especially at the phenomenon of oil-led spending and borrowing that occurred during 1973-2004. Its objective is to determine whether Nigeria received a higher credit-rating than its domestic and macroeconomic fundamentals would have otherwise justified due to its oil revenues, and whether the debt-repayment crisis arose because oil windfalls from the early 1980s were not used to retire its debt.

Key Words: External Debt, Creditworthiness, Debt-servicing capacity

1 Thank you to my advisor, Dr. Nick Hope, for your thought-provoking ideas and careful insights. Thanks also to Dr. Geoffrey Rothwell and Christine Holbo for your additional advice and editorial consultation. Lastly, thanks to all my friends and family for your unfaltering support throughout this long but exciting learning experience. This one’s for you!
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I. INTRODUCTION

The government of an oil-exporting country is confronted with significant uncertainty relating to its export earning and fiscal revenues. Supply and demand in the oil market are both highly inelastic in the short run, with the result that even small shocks can have large effects on price. The unpredictability regarding oil revenues, which stems from uncertainties about such issues as the future trend in oil prices, the size of the oil reserves, and the cost of extraction is problematic for both short-run and long-run management of the economy. In the 1970s, the Organization for Petroleum Exporting Countries (OPEC) made great efforts to manage oil price volatility by fixing the reference price for crude oil. However, OPEC’s pricing policies (which were more subject to political influences than economic ones) and supply mismanagement have meant that it has ceased to be an effective instrument for steering world oil markets and for stabilizing the price of oil\(^2\).

Non-sustainability of the revenue path of oil-exporting countries makes government planning for growth and development extremely unreliable. Just as an increase in uncertainty would typically lead a consumer to make more conservative consumption decisions, uncertainty about oil wealth would lead a government, for precautionary reasons, to adopt a more conservative fiscal policy than it would if these factors were known with certainty (Barnett & Ossowski, p. 2). However, Nigeria did not follow this expected route of fiscal caution. Instead, in the period 1973-1985, the response to increasing oil revenues of the 1970s was to spend more on

\(^2\) The price hikes of 1970s and 1980s were caused principally by external political events rather than by policy design on the part of OPEC. The first oil-price shock occurred when OPEC’s Arab oil-producers decided to use oil as a political instrument with which to exert pressure on the US and the West during the Arab-Israeli War of 1973 (Chalabi, p.4)
consumption and lofty ‘white-elephant projects’\(^3\), which led to the country having to borrow against future oil income. Thereafter, its response to its accumulated debts in the during 1986-2005 was to service its debt without attempting to retire its obligations permanently.

There is no one entity solely responsible for the debt crisis Nigeria found itself in by the early 1980s: not the Nigerian government, the banks, nor the creditor governments. Instead, it is important to recognize that the responsibility is widely shared. “Counterfactual history – what would have been but for the policies that were pursued – is always problematic, and no more so than when there are many variables with which to contend” (Stiglitz, p.1). Yet, the disparity between the success and failures of oil-producing countries is so large that it calls for explanation. Nigeria’s case is unique in many aspects, but also somewhat typical of the oil producer experience with debt accumulation. However, there are a number of lessons to be learned from investigating Nigeria’s debt history. These results are of interest for a number of reasons.

One major obstacle for Nigeria’s economic development over the last two decades has been its crippling debt overhang\(^4\). In April 2006, Nigeria ordered a final debt repayment to rich lending nations, completing Africa’s biggest debt relief deal. This and other debt restructuring agreements in the last year have reduced Nigeria’s external debt to only 6% of its GDP. But the interest in Nigeria's debt has not dissipated since the Paris Club deal. On the contrary, now that the whole process has been completed, analysts (both international and local) are enabled to assess fully its possibilities. Some analysts have said that the successful completion of this deal would help redeem Nigeria’s reputation in international financial circles, and prevent a repeat debt crisis. Others believe that, because of Nigeria’s oil dependence, the country could face the same pattern

\(^3\) Large-scale ‘iconic’ projects designed to boost economic activity, symbolize government achievement and lift regional profile.

\(^4\) ‘Debt overhang’ is defined as a condition where outstanding debt is so large that investment will be inefficiently low without sizeable debt or debt service reduction (Claessens and Daiwan, 1989).
of debt accumulation and mismanagement that heralded calls for debt relief in the first place. Additionally, the sharp increase in oil prices since 2004 prompts several more questions about the prospects for the future of oil prices and how oil exporters such as Nigeria should be using additional revenues.

The current scenario of low debt levels and high oil prices (and revenues) mean that Nigeria’s financial position is quite similar to what it was in the 1970s. Hence, determining the policy steps that should have been taken in the past could shape opinion about how to manage the country’s new borrowing to avoid a debt crisis similar to the one from which it has just emerged.

This paper seeks to analyze how Nigeria’s policies mishandled its oil windfalls and debt accumulation. Dividing Nigeria’s debt history into two major periods (1973-1985 and 1986-2004), it conducts two separate analyses:

1) To what the degree was Nigeria’s fundamental creditworthiness over-estimated during 1973-1985, allowing it to accumulate more debt than it otherwise could sustain; and

2) To what extent should Nigeria’s oil revenues have been used to reduce its net foreign liabilities, and perhaps accumulate net foreign assets during 1986-2004.

The paper will proceed in five parts. Section 2 briefly reviews the empirical literature on country creditworthiness and Nigeria’s debt crisis. Section 3 examines the background and scope of Nigeria’s debt problem; section 4 investigates two hypotheses about Nigeria’s debt history in both periods, using longitudinal ; and section 5 offers concluding thoughts on lessons learned and the implications for Nigeria’s current debt and macroeconomic situation.

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5 In the early 70s, Nigeria experienced a revenue boom from high oil prices and its foreign reserves increased dramatically from $623 million in 1973 to $5.7 billion in 1974.
II. LITERATURE REVIEW

The primary focus of this paper is to explore the role of Nigeria’s oil windfalls in its external debt history, and more specifically to explore how the country’s creditworthiness (debt sustainability) and subsequent borrowing evolved over 1973-1986 in relation to its oil revenues. The secondary focus is to explore whether Nigeria’s strategy of not retiring its external debt with its oil revenues during 1986-2004 was indeed optimal.

The literature that attempts to explain creditworthiness is instructive in examining Nigeria’s situation along these lines. This literature review therefore begins by examining existing theoretical approaches to the determinants of creditworthiness and empirical investigations of creditworthiness indicators. It then briefly reviews the literature on debt sustainability, particularly from the debt capacity perspective. The focus will thereafter be narrowed to consider literature on Nigeria’s debt crisis and the aspects that have previously been researched.

A. COUNTRY CREDITWORTHINESS

Measuring country creditworthiness has been a very difficult task and the standards for doing so have evolved considerably in the last 30 years, as economists have gradually developed more sophisticated ways of evaluating creditworthiness. The empirical literature on country risk in international banking has focused on explaining actual creditworthiness. The factors that actually determine the debt-servicing capacity of a country are subject to various analyses. Two

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6 There are two perspectives considered when evaluating the sustainability of foreign debt. One relates sustainability to debt capacity problems, involving a disruption of normal debtor-creditor relations in which the debtor is unable or unwilling to honour debt service obligations as they come due. The other perspective considers the problem that occurs when a country’s foreign debt burden is so large as to adversely affect economic development (regardless of whether it is serviced in full or not) (Hjertholm, p. 7)
different theoretical approaches have been used to model country default risk. The debt-service capacity approach regards default as arising out of an unintended deterioration in the borrowing country’s capacity to service its debt. In this approach, the probability of default is a function of the unsustainability of a given level of external debt, either as a matter of short-term illiquidity, or of long-run insolvency, which is reflected in liquidity problems (Haque, Kumar, Mark & Mathieson, p. 12). Within this framework, country risk is viewed as a function of various financial and economic country parameters. By contrast, the cost-benefit approach views the rescheduling (or default) of external debt as a deliberate (rational) choice of the country based on an assessment of the costs and benefits of rescheduling or repudiation. The country may “prefer repudiation over repayment, in spite of its possible long-term negative effects (e.g. the country’s exclusion from certain capital markets, reputation damage)” (Alexe, Hammer, Kogan, and Lejeune, p. 2). Since this thesis is less concerned with the latter approach, the literature review excludes contributions that advocate repudiation.

Feder and Just (1977) conducted one of the early quantitative analyses of a country’s ability to honor its debt service obligations during a given time period, i.e. its debt-servicing capacity. They utilized logit analysis to investigate various economic variables that determine the debt-servicing capacity of 41 borrowing countries that represented 85 percent of the total outstanding debt for all developing countries during the 1965-1972 period. The variables they found to be statistically significant are: the debt-service ratio (ratio of debt service to exports); amortization to debt ratio; per capita GNP; ratio of reserves to imports; average rate of export

\[
P(X) = \frac{e^{B'X}}{1 + e^{B'X}}
\]

where \( P \) denotes the probability of rescheduling; \( e \) is the exponential operator; \( X \) is a vector of fixed coefficients serving as weights. Thus, the function \( P(X) \) is a transformation of the weighted sum \( B'X \) and \( P(X) \) is bounded between the values 0 and 1 as \( B'X \) ranges over the entire real line. The probability \( P(X) \) increases with higher values of an indicator if the corresponding \( B \) coefficient is positive, and it declines with higher values of a given indicator if the relevant \( B \) coefficient is negative.

\( ^7 \)
growth; and the ratio of capital inflows to debt service.

Feder, Just, and Ross (1981) further developed the approach to predict debt-servicing capacity by using more accurate data and adding explanatory variables that allow for medium- and long-run projections. They found that only three of these variables have a significant impact in the second-order approximation, namely, the debt-service ratio, the reserve/import ratio, and the ratio of commercial foreign exchange inflows to debt-service payments. They emphasized that their method is a not a substitute for a thorough country analysis that takes into account non-quantifiable (but important) factors such as the internal and external political situation, governmental priorities, and the competence of the economic leadership. They concluded their approach by suggesting that an objective composite index of debt-servicing capacity might be a better method for assessing the proper balance between expected foreign exchange earnings and obligations.

Feder and Uy (1984) attempted to explain cross-sectional and inter-temporal variation in credit ratings based on Institutional Investor data. They utilized logit analysis to estimate the effect of various variables. Although they obtained satisfactory results, showing that all variables are statistically significant, they emphasized that such estimates necessarily employ a ceteris paribus assumption, which prevents a realistic assessment of the effects generated by policy changes (Feder & Uy, p. 134). Therefore, Feder and Uy (1985) developed a dynamic simulation model of a hypothetical economy, which allowed for the analysis of changes in variables and creditworthiness over time within a system that maintains accounting identities and behavioural

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8 The previous (1977) study omitted private (non-guaranteed) external debt mostly due to lack of data regarding such debt.
9 The data pertained to a cross section of 55 countries within the period 1979-1983. The basic methodology is to apply logistic transformation to the creditworthiness rankings and then use regression analysis. Nine economic explanatory variables are considered: debt/GNP; reserves/imports; average export growth rate; GDP growth; terms of trade; concentration of exports; GNP per capita; oil exporter dummy; and dummy for countries with debt servicing difficulties. An explanatory variable to capture political risk, in the form of a dummy for political turmoil, is also included in some of the regressions.
constraints. Their results suggest that a higher GDP growth rate, holding export growth constant, improves the initial creditworthiness rating, but as it entails heavier borrowing to provide resources for increased investment, it could reduce creditworthiness in subsequent periods. Increases in the rate of growth of exports (if sustained over the long run) have a highly significant positive effect on creditworthiness. This effect was found to be much larger than the “static” effect of export growth, and is due to the fact that an acceleration in export revenue growth reduces borrowing requirements in every period, thus generating lower debt/GDP ratios, which improve creditworthiness further (Feder & Uy, p.149).

Kharas (1984) addressed the inherent difficulty in analyzing debt-income ratios. He traced out this ratio over time for two characteristic paths of domestic capital and debt, as shown in Figure 1 below. In both cases, the debt-income ratio will tend to rise over time, but in the creditworthy case it will stabilize and retreat back toward zero, while in the uncreditworthy case it will explode upward.

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A two-gap model (which assumes that growth is constrained by an effective trade gap) was used, with 15 behavioural equations and identities. Given initial values and other parameter values, the model simulates the evolution over time of an economy, by generating the time profile of exports, imports, reserves, GNP, external debt, and consumption. This profile was then used to calculate the indicators that served as explanatory variables in the creditworthiness equation.
Furthermore, he argued that a measure of the speed of rise of the debt-income ratio is unlikely to be an effective distinguishing indicator because of empirical problems in identifying the true trend path given cyclical fluctuations caused by random shocks. A second feature he noted was that in the relevant range for an early-warning signal, use of the level of debt-income ratio is insufficient to distinguish between creditworthy and uncreditworthy cases. This implies that a country may continue on an unstable path for some time before the inherent problems are fully perceived (Kharas, p. 422).

Brewer and Rivoli (1990) departed from most previous studies of country creditworthiness in international banking in their focus on the effect of political instability in determining creditworthiness, while still considering the impact of some economic variables. The explanatory variables included several measures of political instability and armed conflict, but only two economic variables: the ratio of current account to GNP, and external debt to GNP. Their findings show that while the frequency of governmental regime change, as a proxy for political stability, is significant, two other variables proxying the degree of armed conflict and political legitimacy are not statistically significant. Their results also show that it is feasible to develop quantitative indicators of the various dimensions of political instability that can be included along with economic variables in models of country risk (Brewer & Rivoli, p. 366). Brewer and Rivoli’s paper attempted to fill in the gaps in the existing methodology by introducing endogenous factors to the determinants of creditworthiness.

Their sample consists of the 30 most heavily indebted developing countries observed over 1967-86. Their measure of governmental regime stability is the frequency of change in political leadership. They examine the frequency of change in (1) the head of government, and (2) the governing group, over a period. The governing group refers to a political party, civilian regime, or military government.
Another factor affecting country creditworthiness was noted in a study by Haque, Kumar, Mark, and Mathieson (1996). This study looked at the strong influence that a country’s export profile has on its credit rating. They investigated the domestic economic variables influencing a country’s credit rating and find the most important to be the ratio of reserves to imports, the ratio of the current account balance to GDP, GDP growth, and inflation. They also found that country ratings are affected by the structure of exports (e.g. fuel products as opposed to manufactured products, dependence on a single export). In addition, they found that increases in the level of international interest rates adversely affect all developing country ratings independently of the quality of the countries’ domestic economic fundamentals.

Their study (as well as many of the studies cited above) is based on the economic content of creditworthiness ratings for developing countries compiled by Institutional Investor, Euromoney, and The Economic Intelligence Unit, and so is limited in that it does not reflect the criteria used by individual banks and multilateral institutions. Additionally, the credit ratings issued by these compiling agencies are usually used by investors as a minimum credit-rating standard that borrowing countries must meet and not as a clear-cut indicator of a country’s creditworthiness. Nonetheless, these rating agencies’ criteria for creditworthiness ratings are good proxies for country creditworthiness. The methodology for this thesis draws upon the findings from the existing literature in that it uses some of the economic variables found to be statistically significant to track Nigeria’s creditworthiness throughout its debt accumulation years.

Cohen (1991) departed from existing approaches to measuring country creditworthiness by developing a formula for analyzing a country’s solvency. He proposes a solvency index based on his argument that “solvency need not require the eventual full repayment of all debt”, and that, rather, “what is required is that a country’s debt accumulation does not outstrip its capacity to
make future repayments and the capacity of lenders to make future loans” (Cohen, “Private lending”, p. 89). He also argues that solvency, therefore, cannot be defined independently of the growth rates of lender and borrower countries, nor of the interest rate at which past debts accumulate. Cohen extends Samuelson’s ‘overlapping generations’ model\textsuperscript{12} to define the solvency index as the fraction \( b \) of the country’s exports that would allow the debt to be repaid. It is this index \( b \) that the country must calculate before deciding whether to repudiate or honor its debt. And it is on this basis of an optimum amount \( b^* \) that creditors will decide on the maximum amount of credit they are prepared to extend (Cohen, p. 113). Though Cohen’s analysis of solvency does not address the question of what determines perceived and actual country risk, it is useful in answering the very limited question, “under what conditions would an international bank continue to be willing to hold the debt of a country” (Cohen and Katseli, p. 158). This thesis attempts to apply Cohen’s methodology to Nigeria’s debt profile in order to explain why creditors did not consider Nigeria insolvent throughout its debt crisis of the 1990s.

B. SUSTAINABILITY OF FOREIGN DEBT

From a theoretical perspective, the issue of debt capacity can be approached from two angles. The first attempts to identify the amount of money a country should borrow, given the terms and conditions attached to the money available, that is, what is the optimal level of debt? The other, non-optimising, approach addresses the looser notion of the feasibility of the borrowing process, specifically the sustainability of particular debt situations and policies in light of the expected growth path of the economy (Hjertholm, p. 7). The original non-optimizing approach was advanced within the framework of the ‘growth-cum-debt’ literature [Avramovic, 1964; King, 1968; Solomon, 1977]. The basic argument is that a country will maintain its

\textsuperscript{12} Shown in appendix.
capacity to service debt provided that additions to its debt over time contribute sufficiently to growth. One single condition has emerged from this literature, namely that solvency over time requires the growth rate of output to equal or exceed the cost of borrowing, measured by the rate of interest.

The second generation of growth-cum-debt models that appeared after the debt crisis in the 1980s (McDonald, 1982; Hernandez-Cata, 1988) pointed out the gaps in the methodology of the previously existing literature. McDonald (1982) notes that the growth-cum-debt models, despite their merit of summarizing the complexities of the debt-growth mechanics into a simple condition, suffer from conceptual problems relating to their theoretical underpinning and rigidity of basic assumptions. By not considering the external sector of the borrower’s economy, the models are silent on the transformation problem that arises from the ‘original sin’ syndrome, a phenomenon that occurs when external financing is made available to a country in foreign currency. As a result of the debt having to be repaid in foreign currency, the savings surplus of the country must therefore be converted into foreign exchange.

By contrast, the ‘debt dynamics’ approach directly addresses the issue of a borrowing country’s external solvency. “Since debts have to be serviced with foreign exchange, the value of exports gives a more accurate impression of income than for example GDP, as it relates more directly to debt-servicing ability” (Hjertholm, p.10). Thus, the key condition that emerges from the debt dynamics approach is that for the borrower to maintain debt-service capacity, the rate of growth of exports must equal or exceed the rate of interest on borrowed funds. Hernandez-Cata (1988) adds the following conditions for debt sustainability:

1) The marginal domestic savings rate, $s_d$, should exceed the investment ratio required by the target growth rate, $I^*$, i.e. $s_d > I^*$, so that debt will eventually begin to decline;
2) The marginal product of capital, \( f_k \), should exceed the cost of borrowing, i.e. \( f_k > r^* \).

As in the case of the first generation growth-cum-debt model, the debt dynamics framework also suffers from a number of conceptual shortcomings, the most important being that it assumes a time-invariant growth path for exports and the rate of interest. In reality, “both variables will follow complicated time paths, and the assumption is certainly at odds with the experience of most low-income borrowers” (Hjertholm, p.10). This limits the use of the debt dynamics approach for empirically assessing the sustainability of a borrower’s debt path. Yet in spite of the limitations of the growth-cum-debt and debt dynamic frameworks, together they provide important insights into the conditions maintaining external debt sustainability.

C. NIGERIA’S EXTERNAL DEBT CRISIS

Most studies of external debt in Africa appear to have focused on regions, especially the Sub-Sahara, which tended to give little attention to the peculiarity of individual countries. Furthermore, other studies dwell on country groupings based on certain characteristics (e.g. oil-exporting countries) or inter-country comparison.

Edo (2002) analyzes the African debt problem, with particular reference to Nigeria and Morocco, and finds that fiscal expenditure, balance of payments and global interest rate\(^{13}\) are the crucial factors in explaining the accumulation of external debt in the two countries. One of his policy suggestions is a sustained export promotion programme that would generate increases in foreign earnings needed to service the debt. He also suggests that both countries should restructure and develop their capital markets to reduce exposure to the vagaries of the global interest rate.

Moss, Standley, and Birdsall (2004) use the World Bank’s IDA (International

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\(^{13}\) The average international interest rate.
Development Association) eligibility criteria to assess whether Nigeria has a case for the reclassification of her notional blend status and IDA eligibility. They find that Nigeria qualifies as IDA-only based on its low-income level and lack of creditworthiness. In general, IDA defines creditworthiness as “the ability to service new external debt at market interest rates over the long term”; however, according to the World Bank, “good policy performance is a necessary…condition for creditworthiness” (Moss, Standley, and Birdsall, p. 5). Moss, Standley, and Birdsall argue that Nigeria is one of the cases where the interaction of the policy performance criterion and the creditworthiness criterion are creating a circular trap. They point out that, on the one hand, Nigeria was once able to access the IBRD and private capital markets, but has lost that access largely because of its poor policy performance; but that, at the same time, the World Bank’s insistence on “good policy performance, among the evidence of which should be creditworthiness” as the criterion for IDA-only eligibility suggests that there is an ex-ante decision that Nigeria cannot qualify for IDA-only status no matter what it does in terms of improving policy.

Using a multivariate model set up on two different panels to analyze available relevant data for 31 years (1970-2001), Omotoye, Sharma, Ngassam and Eseonu (2006) investigate the factors contributing to Nigeria’s debt crisis. The research framework attempts to evaluate the role played by Nigeria’s past administrations in the evolution of the crisis. In doing their analysis, they experiment with different dependent and independent variables. After experimenting with

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14 IDA-eligibility is intended to give access to credit to those countries unable to tap into private markets. Conferring IDA-only status on a country is a signal to donors and creditors that a country faces special development challenges and should be considered in a different light from other developing countries. In practice, the international aid system allocates extra benefits to countries deemed IDA-only and denies some of those benefits to countries classified as otherwise (Moss, Standley, and Birdsall, p.1). IDA credits have no interest charge (but carry a small service charge, currently 0.75 percent on funds paid out) and repayments are stretched over 35 to 40 years, including a 10-year grace period.

15 In selecting variables, they take the following into account: first, variables that, from either a theoretical or hypothetical standpoint, are expected to have some kind of impact on the country’s external debt situation. Second,
several dependent variables, they run a regression from two panels, basing them on two selected dependent variables: the ratio of annual change in the debt-to-GNI ratio and the debt-service ratio. While one panel uncovers terms of trade, privatization, and political/leadership factors as the most important factors driving the crisis, the second points to inflation, privatization, political/leadership factors, terms of trade, and non-petroleum revenue as having the most significant explanatory power. Their findings reveal that “the roots of Nigeria’s debt crisis are traceable not only to domestic economic conditions and uncontrollable external factors, but also the lack of uniformity and congruence in policies favoured by different administrations” (Omotoye, Sharma, Ngassam and Eseonu, p.607).

Using cross-national time-series analysis in a statistical model of debt burdens, Kretzmann and Nooruddin (2005) examine the relationship between oil and debt and find that increasing oil production is associated with increasing debt; the more dependent on oil exports a country is, the deeper in debt it tends to be; and that increasing oil exports improves the ability of developing countries to service their debts, while at the same time increasing their total debt. They build a statistical model to explain the size of a country’s external debt to GDP ratio and its debt-service to GDP ratio. The main explanatory variable is its oil production, which is measured in the annual level of crude oil production (in units of 1000 metric tons). The authors perform a case study specifically on Nigeria, and conclude that large debts were generated as a result of fiscal irresponsibility and over-generous credit induced by the promise of oil.

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16 Originally, the included fourteen explanatory variables in their model and use the Principal Component Analysis (PCA) method to reduce the original variable set to a smaller set of uncorrelated principal components. Thereafter, they grouped the original fourteen variables into a smaller set of components that retain a maximum of information contained in the original set. From each principal component, they picked the variable with the highest factor loading. When a variable appears more than once under a principal component, they simply drop the variable after the first occurrence. They later picked ten variables with the highest factor loadings and used them as inputs in their multivariate regression model (Omotoye, Sharma, Ngassam and Eseonu, p.613).
D. CONCLUSION

The standards used to measure creditworthiness have evolved over time as economists have noticed gaps in the literature and attempted to address them and as the test of time has shed light on the appropriateness of lending criteria of the past. The first section of this literature review has looked at the metrics that have been applied to measure country creditworthiness as economists recognized the gaps in methodology. The second section has studied how Nigeria accumulated debt throughout its oil boom years.

Although a number of previous empirical studies have examined factors that affect debt crises across countries over time, and some have compared countries, not many have looked at Nigeria’s debt problem specifically. Of those that have tried to investigate the various factors that contributed to Nigeria’s debt crisis, none have focused on the actual creditworthiness of Nigeria during its debt accumulation years, looking at the distinctive changes in the country’s economic conditions. This thesis does not attempt to investigate the statistical significance of the indicators used to determine Nigeria’s creditworthiness, but rather to analyze their impact on the debt crisis. Overall, though the literature on Nigeria’s debt crisis is narrow and limited, it offers insights to the major issues involved and provides a valuable foundation for analyzing Nigeria’s debt history.
III. NIGERIA’S EXTERNAL DEBT PROBLEM

A. Origin & Sources

For many years there has been little agreement over the exact scale and composition of Nigeria’s external debt stock\(^\text{17}\). The origin of Nigeria's external debt dates back to 1958, when a sum of US$28 million was contracted for railway construction. Between 1958 and 1977, the resort to foreign debt was minimal, as debts contracted during the period were the concessional debts from bilateral and multilateral sources with longer repayment periods and lower interest rates. From 1978, following the collapse of oil prices, which exerted considerable pressure on government finances, Nigeria was unable to shift gears in the face of changing economic fortunes and adopted a policy of deficit financing. It became necessary to borrow for balance of payments support and project financing. The first major borrowing of US$1 billion, referred to as the "jumbo loan" was contracted from the international capital market (ICM) in 1978, increasing the total external debt stock to US$2.2 billion. Thereafter, the borrowing epidemic continued with the entry of state governments into external loan contractual obligations. While the share of loans from bilateral and multilateral sources declined substantially, borrowing from private sources at stiffer rates increased considerably. Thus, the debt stock grew rapidly from $3.4 billion in 1980 to $17.3 billion in 1985 and $32.9 billion in 1990 (Ogbe, p. 10).

Nigeria’s external debt stock has been heavily skewed by the Paris Club of creditors, to which the country owes 80% of its external debt. This is mainly publicly guaranteed private sector debt (guaranteed by the export credit agency of country in which these commercial creditors operate) that crystallized into official bilateral debt.

\(^{17}\) In particular, internal Nigerian debt figures typically differed from those reported by the international financial institutions, partly as a result of differences in reporting by Paris Club creditors and the government (Okonjo-Iweala, Soludo and Muhtar 2003).
IV. HYPOTHESES ABOUT NIGERIA’S DEBT HISTORY

“Nigeria's sizeable debt stock was based not on heavy borrowing, but on relatively small disbursements in the 1980s and then the accumulated effects of arrears, penalties, and accrued interest built up during the 15 years of military rule (1984-99)” [Nigeria DMO website]

According to Nigeria’s Debt Management Office (DMO), numerous factors contributed to the increased size of Nigeria's external debt, which by end-2003, stood at US$32.9 billion. The major factors include the “rapid growth of public expenditure, particularly that on capital projects, borrowing from the international community at non-concessional interest rates, decline in oil earnings from the late 1970s and the dependence on imports, which contributed to the emergence of trade arrears.”

The two hypotheses that follow have been developed to address Nigeria’s debt history in its two major periods: the first addresses how the debt was accumulated (1973-1985), and the second addresses how the debt was managed (1986-2004).

A. HYPOTHESIS 1: NIGERIA’S CREDITWORTHINESS WAS OVERRATED RELATIVE TO ITS ECONOMIC FUNDAMENTALS.

This section of the paper argues that the presence of proven oil reserves in an era of increasing oil prices gave Nigeria a perceived credit-rating far higher than its domestic and macroeconomic fundamentals would have otherwise justified during 1973-1985. In other words, Nigeria was not growing fast enough (creating sufficient debt-servicing capacity) to justify the amounts the government borrowed.
Background

1973-1985 was the period of Nigeria’s Third and Fourth National Development Plans, which were launched against a background of abundant financial resources following sharp increases in both the price of crude oil (1973-74) and Nigeria’s level of production. In nine months from late 1973 to mid-1974, the government’s “oil revenues almost quintupled because of much higher prices, greater production, and an increase in its share of the oil revenues through greater public ownership and higher taxes and royalties” (Gelb, p. 239). The unusually favorable financial circumstances that the country found itself in during the early 1970s generated optimism both locally and internationally. The response of the government to the unexpected windfall was to expand the economy through public spending. As the government embarked on elaborate post-civil war reconstruction plans, it looked externally for additional funding. Nigeria’s creditworthiness abroad was automatically enhanced by the era of high (yet volatile) prices of crude oil in which it found itself.

From 1973-1974, private banks found themselves overwhelmed by petrodollars from the highly profitable oil-producing countries. From 1974 to 1980, great pressure fell on the global banking community to recycle huge sums of money flowing from the oil-exporting (developing and OPEC members) countries on to oil-deficit countries, in order to avoid a recession. Banks were eager to put this capital into productive use (by converting this windfall into more profits). They offered very low (real) interest loans to developing countries, and seemed to discount the impact on the capacities of the borrowers to service their debts should the prices of their export commodities decline significantly or should the world economy take a turn for the worse. More generally, at each stage of the emerging debt crisis, the central banks, finance ministries, and bank regulators in the United States and other major creditor countries did little to moderate the pace of
international lending by the banks. Indeed, each time a problem arose that might discourage this activity, governments acted to restore confidence in the markets and to make the world safe for more lending (Lissakers, p. 163). Some argue that this eagerness to lend on the part of Western governments, international financial institutions and commercial and regional development banks was premised more on politics than economics. As Cambridge economist, Noreena Hertz asserts, the Cold War was a time when “loans to countries and regions shot up in direct proportion to their perceived geopolitical influence or ideological loyalties and when loans were used as a means of securing powerful allegiance and ensuring political stability” (Hertz, p.3).

In the mid 1970s, the interest earned on foreign loans was substantially higher than on domestic loans. Undoubtedly, the collective behaviour of the world banking community after the first and second oil shocks reflected insufficient attention to the efficiency of the projects they were financing and to the soundness of the economic policies of the debtor countries whose balance-of-payments deficits they were helping to meet. This was in part due to the limited time available during the rush of events for the bankers, governments, and international institutions to think through the ramifications of such large-scale, unprecedented, and urgent borrowing and lending and to relate these to changing trends in terms of trade, interest rates, and financial flows and investment (Samuels, p.24); but it was also partly due to the Cold War interests taking precedence over the viability of the projects for which these loans were acquired and the feasibility of repayment.
Analyses

Domestic economic performance is measured in terms of a country’s rate of growth and its rate of inflation (Haque, Kumar, Mark & Mathieson, p. 17). In the early 1980s, the creditworthiness of developing countries like Nigeria was dramatically impaired both by adverse developments of their oil revenues, debt-service obligations, and their rates of growth. In order to assess Nigeria’s actual creditworthiness during the period 1973-1985, this paper analyzes trends in some key economic variables that can serve as indicators of future liquidity and solvency problems:

1. Oil Revenues
2. Differential between rate of GDP growth and real interest rate of the Dollar
3. Debt Indicators

It then compares the trends in these variables that proxy debt-servicing capacity, with annual disbursements to the government to investigate whether these disbursements responded to deteriorating creditworthiness.

1) Oil Revenues

This sub-section analyzes the trend in annual disbursements to Nigeria against that of oil revenues. Using annual disbursements as a proxy for perceived creditworthiness, analysis of the data shows that increased oil revenues improved Nigeria’s creditworthiness among private creditors, giving the country access to vast amounts of capital at relatively low interest rates. Multilateral and bilateral lending was less responsive to changes in the oil revenues.

It all started with the 1973-74 oil price rise, which fundamentally altered the relation of the oil-producing countries to the international economic system. Oil producers were elevated to a distinct status among developing countries – in political influence, in trade matters, and in access
to foreign capital (Gelb, p.7). The oil windfalls increased their access to government revenues, private income and foreign exchange.

Nigeria’s leaders suddenly found themselves with vast new resources that could be used to accomplish their economic, political and social objectives (Gelb, p.241). Public capital spending accelerated rapidly, resulting in a substantial deficit that was financed by drawing down reserves accumulated in 1973 and 1974, and by expanding the money supply through relatively modest borrowing. Initially, in the early 1970s, the main source of external finance for Nigeria was official multilateral and bilateral creditors, though this was relatively small scale lending at concessional rates. Figure 2 below shows official disbursements (i.e. multilateral and bilateral lending) to Nigeria were unresponsive to the trend in oil revenues.

![Official Disbursements vs Oil Revenues (1973-1985)](image)

Figure 2: Official Disbursements against Oil Revenues

Between 1973 and 1975, multilateral and bilateral lending rose gradually, mainly for infrastructure projects. However, in the late 1970s, as commercial borrowing became the more attractive option to the Nigerian government, official disbursements did not grow as much - bilateral disbursements actually decreased between 1975 and 1978. This was because,
in the 1970s, developing countries like Nigeria avoided the conditions attached to multilateral lending, and instead preferred to borrow condition-free from commercial banks in the international capital market, which were more than willing to lend. However, by the 1980s, banks had grown wary of lending to Nigeria, and the World Bank, the International Monetary Fund (IMF) and regional development banks had to step in with ‘rescue packages’ to ensure that Nigeria could at least keep up with its interest payments. By this time, conditions set by these multilaterals were unavoidable because of the country’s poor economic and policy performance. This explains the increased multilateral and bilateral disbursements to Nigeria despite the falling oil revenues of the early 1980s. The majority of Nigeria’s external public debt was accumulated in the 1980-86 period, during the civilian Shagari and military Babangida administrations, when the debt stock (including late interest) increased five-fold from US$5 billion to US$25 billion.

Figure 3: Private Disbursements against Oil Revenues

18 All data on disbursements are from the Global Development Finance database, and oil revenue data were obtained from Dr. Christine Scheiber of Stanford University’s Center on Democracy, Development and the Rule of Law.
Figure 3 above shows how private disbursements responded to the trends in oil revenues, with a tendency to lag behind oil revenue growth. Though annual private disbursements did not exceed US$20 million between 1973 and 1977, they did increase by 52% as oil revenues soared during that period. By the late 70s and into the early 80s, the major source of disbursements had become private creditors. As the Nigerian government’s oil revenues rose because of much higher oil prices and greater production between 1976 and 1980, annual disbursements continued to increase rapidly. This external borrowing was leveraged against the country’s present and future oil proceeds so that, by the time oil revenues began to decline in the early 1980s, annual disbursements from private creditors still remained at all-time highs. Oil export receipts declined by over 50 percent between 1980 and 1982 (from US$24.9 billion to US$11.9 billion), but in that period, private disbursements grew by almost 200%. This signified the general excess of confidence in Nigeria’s repayment on international debts at the time, because of its large reserves of undiscovered oil. It is only after 1982 that private disbursements started to fall (by 62% between 1982 and 1985) in response to falling oil revenues.

2) **Differential between rate of GDP growth and real interest rate of the Dollar**

The influence of a country’s external position on its creditworthiness is measured in terms of the scale of its existing obligations and the factors affecting its ability to service these obligations. The differential between the real rate of growth of a country’s GDP and the real interest rate of the Dollar provides a critical indicator of a country’s ability to meet its debt obligations.

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19Private creditors include bond holders, commercial banks (loans from private banks and other private financial institutions), and other private creditors (loans from manufacturers, exporters, and other suppliers of goods, and bank credits covered by a guarantee of an export credit agency. [‘Sources and Definitions’ section of the Global Development Finance Country Tables Book (1998)]. These loans had medium-term maturities with higher and variable interest rates.

20Oil prices almost tripled, as Forcados ($/bbl) rose from 12.87 in 1976 to 36.98 in 1980, a 187% increase.

21Due to the drop in international oil prices from $39 per barrel in early 1981 to $29 in early 1983 and $27 in 1984 (Hartland-Thunberg, p. 12) and smaller export volumes.
interest rate of the major currency (U.S. dollar) is thought to be a good indicator of a country’s creditworthiness (i.e. its debt-servicing capacity) (Trichet, p.132). A country would be considered fully creditworthy if its rate of growth was always strictly higher than the international interest rate (Cohen, “Private Lending” p. 86). If the real output of an economy is growing less rapidly than the real burden of past debt, this should register as a fall in creditworthiness.

Table 1 below shows results from calculating this differential for Nigeria and registers the visible fall in the creditworthiness of Nigeria in the 1973-1985 period. The differential is mainly positive during the 1970s but becomes negative at the beginning of the 1980s.

<table>
<thead>
<tr>
<th>Year</th>
<th>Real Rate of Growth of GDP</th>
<th>Real Interest Rate of US Dollar</th>
<th>Differential (GDP growth minus real interest rate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>73</td>
<td>5.4</td>
<td>0.0</td>
<td>5.4</td>
</tr>
<tr>
<td>74</td>
<td>11.2</td>
<td>-1.8</td>
<td>13.0</td>
</tr>
<tr>
<td>75</td>
<td>-5.2</td>
<td>-1.1</td>
<td>-4.1</td>
</tr>
<tr>
<td>76</td>
<td>9.0</td>
<td>0.2</td>
<td>8.8</td>
</tr>
<tr>
<td>77</td>
<td>6.0</td>
<td>-1.2</td>
<td>7.2</td>
</tr>
<tr>
<td>78</td>
<td>-5.8</td>
<td>-1.1</td>
<td>-4.7</td>
</tr>
<tr>
<td>79</td>
<td>6.7</td>
<td>-2.1</td>
<td>8.9</td>
</tr>
<tr>
<td>80</td>
<td>4.2</td>
<td>0.8</td>
<td>3.4</td>
</tr>
<tr>
<td>81</td>
<td>-13.1</td>
<td>7.4</td>
<td>-20.5</td>
</tr>
<tr>
<td>82</td>
<td>-0.2</td>
<td>8.4</td>
<td>-8.6</td>
</tr>
<tr>
<td>83</td>
<td>-5.3</td>
<td>5.3</td>
<td>-10.6</td>
</tr>
<tr>
<td>84</td>
<td>-4.8</td>
<td>6.3</td>
<td>-11.1</td>
</tr>
<tr>
<td>85</td>
<td>9.7</td>
<td>4.3</td>
<td>5.4</td>
</tr>
</tbody>
</table>

Table 1: Differential between rate of growth of GDP and real interest rate of US Dollar

The 1970s were marked by low interest rates and high growth rates in oil-exporting countries like Nigeria. Real exchange rates appreciated sharply relative to the dollar, which weakened during the first oil shock. The dollar began to recover strongly during the second oil shock with the adoption of a tight monetary policy after 1979 (Gelb, p. 80). In 1979, the combination of the appreciating dollar and higher real U.S. interest rates resulted in a switch to a positive real foreign interest rate. In the early 80s, as the real interest rate of the dollar shot up

\[ \text{Using Federal Funds rate – Inflation rate (CPI % change)} \]
and oil prices fell, Nigeria’s rate of GDP growth declined, causing the differential to become large and negative. This shift from negative to positive real rates of interest and dollar appreciation were key factors in precipitating Nigeria’s debt crisis, as debt service and the burden of debt relative to export earnings and national income rose to very high levels.

In 1981, when the rate of growth of GDP fell to -13% and the real interest rate of the US dollar rose to 7.4% (giving a differential of -20.5), total debt service paid in that year reached its highest level at $1.8 billion, and grew by almost 20% in the following year. This would indicate that Nigeria’s actual creditworthiness in that year had fallen drastically, but the response of the ICM was to disburse even more loans to the Nigerian government, at the time headed by the Shagari civilian administration. The following year, 1982, saw a 70% increase in PPG disbursements from private creditors.

Another trend highlighted by Table 1 is the volatility of Nigeria’s GDP growth rate as a result of the country’s growing dependence on oil exports. Figure 4 below contrasts the rate of growth of Nigeria’s GDP with the growth of its debt stock.

23 See Appendix for a breakdown of disbursements to Nigeria by administration.
Due to the fluctuation of oil prices during the entire period and partly due to the Dutch Disease\textsuperscript{24} effect on the non-oil component of Nigeria’s GDP\textsuperscript{25}, real GDP growth was relatively unstable, peaking at 11% in 1974 and reaching an all-time low of -13% in 1981. Throughout most of the period, the growth rate of external debt oscillated with a lag behind GDP growth, suggesting that higher GDP growth rates were followed by growth in the country’s debt stock. The period in question may be divided into four phases:

- 1973-77 was the upswing of the first oil boom. Domestic prices rose sharply as real exchange rates appreciated and import costs rose (Gelb, p.127). As resources (from oil revenues as well as from external borrowing) were allocated to construction and service sectors, growth peaked in 1974 and 1976. As GDP growth turned negative (-5%) in 1974-75, debt stock growth also turned negative, with the total debt stock falling by 20% in 1976.

\textsuperscript{24} The Dutch Disease refers to a situation in which a booming export sector increases the relative price of non tradable goods and services, thus hurting the rest of the tradable goods sector.

\textsuperscript{25} Export-oriented agriculture declined from 42% of total exports in 1970 to less than 3% in 1985. The loss of competitiveness in agriculture was accelerated by the decline in the price of agricultural goods relative to the export price of oil by 80% between 1970 and 1980 (Nyatepe-Coo, p. 329).
• 1977-1979 was the downturn of the first boom. As income and spending slackened, growth rates of real output fell sharply but inflation actually accelerated slightly. This period provides the first experience of asymmetric macroeconomic adjustment; by the start of the second boom in 1979, inflation was higher and growth lower than in 1973 and 1974 (Gelb, 129). The growth in debt stock also fell during this period.

• 1979-1981 was the second boom, which was not the result of an OPEC initiative; rather, it was the result of panic among oil buyers in countries highly dependent on oil imports (Hartland-Thunberg, p.4). It was smaller and more abrupt than the first one, as indicated by the GDP growth rate, which fell from 6.7% in 1979 to -13% in 1981. Debt stock growth rate went from 22% in 1979 to 43% in 1980, as private creditors equated increased oil revenues to increased creditworthiness. However, as the short-lived boom reached a downturn, the debt stock growth rate fell to 28% in 1981.

• 1981-85 marked the downturn of the second boom. During these years, Nigeria continued to borrow, but in contrast to the 1970s, its borrowing was for the purpose of maintaining consumption, not for increasing exports. Both oil and non-oil output fell sharply in 1982 and 1983, contributing to the negative GDP growth rates of those years.

By the mid-1980s, the debt crises in Latin America had brought to the fore the importance of sound debt and liquidity management, and private creditors began to pay closer attention to the macroeconomic fundamentals of borrowing countries.

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26 Fearing for the security of their oil supplies, Germany and Japan, among others, started to purchase oil in the spot market despite the fact that their oil inventories at the time were ample. Increased demand caused spot prices to rise, and OPEC countries then raised their official prices, trailing the spot price upward (Hartland-Thunberg, p.4).

3) **Debt Indicators**

This sub-section analyzes the trend in annual disbursements to Nigeria against that of commonly-used debt indicators and finds that creditors failed to recognize the worsening debt situation of the country as disbursements continued to flow into the country despite its increasing debt burden.

The scale of a country’s external payment obligations is usually measured by the ratio of its external debt-to-GDP. The higher the ratio of debt to GDP, the higher would be the threat of a sudden liquidity crisis. Hence the lower the country’s credit rating should be. However, international convention states that external debt must be paid back in the currency borrowed (usually a convertible or reserve currency); therefore, the only way a country such as Nigeria can repay its debt is through expanding its export-earning capacity in order to generate foreign currency (US dollars). As a result, the more commonly used indicator of repayment capacity of developing countries is the debt-to-exports ratio. In any given period, export earnings provide the basis for debt repayments since GDP (or GNP) would have to be converted to dollars in order to service external debt.²⁸

Another traditional indicator of creditworthiness is the debt-service ratio, which relates debt service requirements to export income. “The higher the ratio of debt service to exports of goods and services, the greater will be the likelihood that in the event of a sever decline in export earnings the country will no longer be able to meet debt-service obligations” (Ngassam, p.8).

Figure 5 below shows the trend in the major debt indicators, particularly the increasing likelihood of short-term liquidity problems (and hence, debt-service difficulties) towards the end of the

²⁸ It is only in the very long run, if one assumes that the factors of production are perfectly mobile, that GNP might give a reliable measure. In the short run, consider the following problem: assume that the exchange rate of the country is artificially over-valued. Then the GNP, when measured in dollars, will also be artificially inflated, even though the prospects of dollar earnings might be reduced (Cohen, p. 146).
Throughout the 1970s, Nigeria’s external debt as percentage of gross national income (EDT/GNI) remained steady -- below 20% -- as the price Nigeria received for its oil increased steadily in those years. In the 1980s, Nigeria’s EDT/GNI rose quite dramatically - from 14.6% in 1980 to 68% in 1985.\textsuperscript{29} As expected, this trend was similar for Nigeria’s debt-to-exports ratio (EDT/XGS), which remained low in the early 1970s but began to rise steadily in the later part of that decade. However, a gap emerged between debt-to-GNI and the debt-to-export ratio in 1977 and continued to grow in the early 1980s. This was due to a fall in the value of Nigeria’s exports (annual growth of exports became negative in the early 80s due to a decline in oil production). “Growth of merchandise exports (mainly crude petroleum) declined by an average of 6 per cent a year between 1981 and 1986” (Omotoye, p.2).

By the early 1980s, the fundamentals that supported Nigeria’s debt-repayment capacity

\textsuperscript{29} By 1990, this figure had more than doubled, rising to 131%.
had begun to erode, as evidenced by the deterioration of its main debt indicators. Using the
criterion now applied to other low-income countries under the HIPC program,\footnote{Under the present Enhanced HIPC Initiative (HIPC II), the sustainability target for the debt-to-export ratio is set at the uniform value of 150 percent. This means that if an eligible country, after having been helped through traditional debt relief mechanisms, is still expected to have a present value of debt-to-exports above 150 percent, it qualifies for HIPC assistance.} i.e. a debt stock to export ratio exceeding 150%, \textit{ex post} we can observe that Nigeria’s debt was excessively high throughout the 1980s and 1990s. In 1983, the country’s total debt amounted to 161% of the value of its exports of goods and services and the value of debt service was 24% of exports.

As Nigerian exports sank to historically low levels in the late 1980s and the country’s total debt stock increased,\footnote{Between 1985 and 1989, total debt stock increased by 62% while exports fell by 364%.} the debt-to-export ratio reached its highest level of 412% in 1986. However, total long-term disbursements to the Babangida military administration remained relatively high although they were decreasing throughout the late 1980s.

**Summary of Findings**

The analysis in the above section has shown that Nigeria’s dependence on oil prices and revenue flow has been a critical factor in accelerating its debt accumulation, both in its poor fiscal discipline and consequent borrowing choices, as well as in its access to external finance via its perceived creditworthiness. As a result, from the early 1980s, the accumulation of external debt was not appropriately matched by progress in economic growth, to the extent that surplus domestic resources were becoming available for servicing debt, and ultimately for repaying the debt.
B. HYPOTHESIS II: NIGERIA’S DEBT UNSUSTAINABILITY RESULTED FROM FAILURE TO RETIRE ITS DEBT.

This section of the paper seeks to determine whether a more suitable alternative use of Nigeria’s oil windfalls would have been to reduce its net foreign liabilities, and perhaps even accumulate net assets. It argues that Nigeria’s failure to use its oil windfalls from previous oil booms to retire much of its debt and accumulate net foreign assets led to its debt unsustainability. The first sub-section conducts a longitudinal analysis of the evolution of Nigeria’s external debt composition and repayments over the period 1986-2004 in order to determine whether the country’s external debt burden by the end of the period was a result of its failure to retire its debt. Findings from this section highlight the vast amounts of resources Nigeria spent on interest payments. These resources could have been alternatively used to permanently liberate the country from its creditors. The following sub-section calculates Nigeria’s solvency index during the period to determine what percent of its exports was required in those years to remain solvent. The findings show that Nigeria’s actual debt service was in most years greater than the index. This could perhaps explain why creditors refused to declare Nigeria insolvent and grant it debt relief.

Background

By 1985, Nigeria had borrowed almost $20bn from a combination of the Paris Club, commercial creditors, multilateral and other bilateral creditors. Poor fiscal discipline led to a build-up in debt arrears, and a series of debt restructuring programmes. Most creditors agreed to these restructuring programmes through the early 1990s, enabling Nigeria to repay some of its debt to commercial and non-Paris Club bilateral creditors. However, because of Nigeria’s political problems, the Paris Club would not restructure the debt owed, and the amount owed
ballooned to $30.4bn by the end of 2004 (UBS EMEA report, p.12). Table 2 below offers a close look at the chronology of Nigeria’s external debt, broken down by type of creditor, from 1985 to the final 2006 rescheduling.

<table>
<thead>
<tr>
<th>Type of Creditor</th>
<th>1985</th>
<th>1992</th>
<th>2004</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paris Club creditors</td>
<td>7.8</td>
<td>16.4</td>
<td>30.8</td>
<td>0.0</td>
</tr>
<tr>
<td>Other bilateral creditors</td>
<td>1.9</td>
<td>1.2</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Commercial creditors</td>
<td>7.8</td>
<td>5.4</td>
<td>2.7</td>
<td>2.5</td>
</tr>
<tr>
<td>Multilateral creditors</td>
<td>1.3</td>
<td>4.5</td>
<td>2.9</td>
<td>2.9</td>
</tr>
<tr>
<td>Other private creditors</td>
<td></td>
<td></td>
<td>0.7</td>
<td>0.6</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>18.8</strong></td>
<td><strong>27.5</strong></td>
<td><strong>37.1</strong></td>
<td><strong>6.0</strong></td>
</tr>
</tbody>
</table>

Source: UBS EMEA Economic Perspectives

Though disbursements to Nigeria continued till the early 1990s, much of the increase of the external debt since 1985 was due to the high and variable interest rates on ICM loans capitalizing the interest which could not be paid on the existing debt stock. A snapshot look at 1985 reveals that it would have taken the Nigerian government a payment of $7.8 billion to rid itself of its Paris club debt. Export earnings in that same year totaled $13.5 billion\(^{32}\). Since 1985, Nigeria has paid Paris Club creditors US$11.6 billion in debt service, an amount that could have been avoided, had it chosen to retire its debt at the time. Even so, by 2004 Paris Club debt stood at US$14 billion higher than the amount in 1992 – not because of new loans but because Nigeria was unable – or unwilling (as happened during the years of the 1990’s military dictatorships) - to

\(^{32}\) This argument does not factor in the trade-off a country faces between spending on growth and poverty reduction or paying its creditors.
meet the full costs of servicing its debts over the years and therefore accumulated massive arrears and penalties\textsuperscript{33}.

1) **Interest Payments**

Figure 6 below illustrates the effect of Nigeria’s borrowing from the international community at non-concessional interest rates, interest payments to private creditors became the major part of its total long-term interest payments throughout the 1980s and 1990s.

- 1986-1992: Interest payments on external debt to private creditors increased rapidly during the early 1980s, but in 1986, Nigeria made its first trip to the Paris Club and successfully rescheduled US$7 billion debt in arrears. This led to a large drop in interest payments in 1986 but Nigeria’s debt-service obligations still continued to grow

\textsuperscript{33} The increase in multilateral debt during the 1985-1992 period was due to the multilateral institutions’ support to Nigeria during the Babangida and Abacha regimes\textsuperscript{33}.  

36
throughout the late 1980s. The sharp fall in long-term interest payments in 1992 was as a result of a Brady Bond exchange concluded by the country’s London Club creditors in which their claims were written down by 60 percent.

- 1993-2004: Payments to the Paris Club dropped well below the scheduled amount after the substantial payment in 1992, so that total private interest payments fell to levels experienced in the early 1980s. Though the Paris Club extended no new credit, accumulation of arrears on non-rescheduled debt still left Nigeria making hundreds of millions of dollars in annual interest payments. At the same time, new disbursements kept coming in from multilateral creditors throughout this period.

Figure 7 below plots Nigeria’s total principal repayments due against the actual payments payment it made each year throughout 1980-2004.

![Figure 7: Principal Payments due against Interest Payments made](image)

By the late 1980s, Nigeria had difficulties keeping abreast of its principal repayments. From 1983, restrictions on access to foreign exchange led to the accumulation of arrears and
the successive rescheduling of trade credits and commercial bank debt. “Nigeria also agreed to several nonconcessional reschedulings with Paris Club creditors in 1986, 1989 and 1991 during Stand-By Arrangements\textsuperscript{34} with the IMF, rescheduling in total US$14 billion of arrears and eligible medium- and long-term debts” (DMO website). In the context of continued weak oil prices and the authorities’ mismanagement of the debt, reschedulings were followed by renewed arrears accumulation as total principal repayments were consistently well below principal repayments due throughout the 1990s.

On average, on all its debts, Nigeria has paid around half of its external debt service due every year. However, because only a small amount of Paris Club debt\textsuperscript{35} is Official Development Assistance (ODA) debt (loans given to eligible poor countries at concessional interest rates - valued at US$680 million) and an overwhelming 98 percent is commercial (charged at market rates of interest - US$30.1 billion), Nigeria’s debt quickly ballooned out of control. This was exacerbated after 1992, “when the Paris Club creditors refused to negotiate a debt workout for political reasons, compounded by adverse exchange rate changes” (Oddone, p.2). This led to rising interest payments; as a result, less than two percent of the increase in the debt stock since 1992 represents new borrowing. Figure 8 below shows how Nigeria’s interest-service ratios evolved during the 1980s and 1990s and highlights the magnitude of resources expended on simply servicing debts.

\textsuperscript{34} Stand-by arrangements are a means of providing more flexible financing for countries facing balance-of-payments difficulties or expecting them over the near term. Instead of providing currencies on a direct purchase basis, the IMF agrees to stand ready to provide the recipient country with up to a given amount of currencies, at the country’s request, normally over the period of one year.

\textsuperscript{35} Paris Club debt made up 83\% of Nigeria’s total external debt stock by the end of 2003. (See Appendix for a detailed breakdown). Therefore, the trends in Nigeria’s debt service can be closely approximated (and explained) by what went on with its Paris Club debt.
The interest-to-export ratio is significantly higher than the interest-to-GDP ratio because export earnings provide the basis for debt-service capacity.

- Amidst falling oil revenues, Nigeria’s interest-to-export ratio rose rapidly throughout the 1980s so that by 1988, the government was spending 21% of its export earnings solely on interest payments on its external debt.

- As oil revenues picked up during the 1990s, the interest-service ratios improved, but this was because the government was not meeting its obligations (see Figure 7 above).

According to the DMO, about US$42 billion has been paid since 1970 to the Paris Club as interests and penalties on $13.5 billion loans. Nigeria, like other oil economies during the windfall decades, wanted to use its oil revenue to spur growth, development and economic diversification and to increase the degree of national control over key economic sectors. In years where oil revenues (and therefore foreign reserves) were high, if Nigeria had chosen the ‘permanent exit’ option – paying off its principal and interest on loans- it would have been able
to retire its debt and all the penalties that ensued from its delinquency in the later years. However, if the money borrowed in the 1970s had been transmitted into higher productivity (in the form of higher non-oil GDP growth), the burden of subsequent interest payments of the 1980s and 1990s would not have been so great. Indeed, a debt crisis would not have occurred at all.

2) Nigeria’s Solvency Index

External debt and reserves affect a country’s external vulnerability through their impact on the country’s ability to discharge non-domestic obligations. To obtain an idea of the magnitude of the transfers implied by Nigeria’s debt-to-export ratios, as background for assessing the sustainability of its debt, we can conveniently make use of the following formula developed by Cohen (1985). It describes the constant fraction of exports, b, to be transferred (interest after net debt inflows), if the debt stock is to satisfy the solvency condition that the value of debt goes to zero\(^36\). In other words, b defines the repayment stream which keeps the debt-to-export ratio constant as is suggested by the two-stage growth model. It is the index b that the country must calculate before deciding whether to repudiate or honour its debt. And it is on the basis of an optimum amount \(b^*\) that creditors will decide on the maximum amount of credit they are prepared to extend (Cohen, “Private Lending”, p. 103).

\[
b = \frac{(r-n)D}{X_{t+1}}
\]

where \(r\) is the (constant) interest rate, \(n\) the growth rate of exports \(X\), and \(D\) the inherited debt stock measured in net present value terms. \(X_{t+1}\) is next year’s exports.

\(^{36}\) If the growth rate exceeds the interest rate on a country’s debt, no payments on the debt are necessary to ensure a declining debt-to-exports (or debt-to-GDP) ratio (chapter on Debt-Related Indicators in “Debt and Reserve Related Indicators,” prepared by the Policy Department and Review Department of the IMF).
Results – Solvency Index

<table>
<thead>
<tr>
<th>Year</th>
<th>86</th>
<th>87</th>
<th>88</th>
<th>89</th>
<th>90</th>
<th>91</th>
<th>92</th>
<th>93</th>
<th>94</th>
<th>95</th>
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<th>98</th>
<th>99</th>
<th>00</th>
<th>01</th>
<th>02</th>
<th>03</th>
</tr>
</thead>
<tbody>
<tr>
<td>b-statistic</td>
<td>23</td>
<td>35</td>
<td>11</td>
<td>11</td>
<td>17</td>
<td>5</td>
<td>7</td>
<td>12</td>
<td>14</td>
<td>26</td>
<td>17</td>
<td>6</td>
<td>3</td>
<td>19</td>
<td>20</td>
<td>10</td>
<td>11</td>
<td>38</td>
</tr>
<tr>
<td>Debt service ratio</td>
<td>38</td>
<td>14</td>
<td>30</td>
<td>25</td>
<td>23</td>
<td>22</td>
<td>29</td>
<td>13</td>
<td>18</td>
<td>14</td>
<td>14</td>
<td>8</td>
<td>11</td>
<td>7</td>
<td>8</td>
<td>12</td>
<td>8</td>
<td>6</td>
</tr>
</tbody>
</table>

Table 3: b-statistic (%) for Nigeria against the actual debt service that occurred in 1986-2003

Cohen (1991) proposes the following: “Almost always” the cost of debt repayment will absorb less than 15% of the debtor nation’s exports; “most” adjustments are in the range of 6% to 15% (Cohen, “Private Lending” p.108).

Nigeria’s volatile export growth rate is responsible for the oscillating solvency indices calculated throughout the period. The high debt-to-exports ratio of the mid to late 1980s led to the high b-statistic calculated for those years. In 1986, 23 percent of export earnings needed to be transferred in order to stabilize the debt ratio (and to be declared solvent). That same year, 38% of the country’s export earnings was paid in debt service obligations. The solvency index is substantially below this for the reason that: in order to stay solvent, a country need repay neither the principal nor even the interest falling due (Cohen, “How to Evaluate” p.148).

As Nigeria’s export earnings improved in the late 1980s and early 1990s and as debt rescheduling took place more often, the share of its exports that had to be transferred to creditors in order to be declared solvent was in most years, less than 15%. It is important to note that this solvency index does not factor in the trade-off a country faces between spending on growth and poverty reduction or paying its creditors.
Summary of Findings

Findings from the above analysis show that Nigeria’s external debt of $30.5 billion did not arise from massive over-borrowing (which declined from the mid-1980s onwards), but mostly from accrued arrears, penalties, interest, and export credit defaults accumulated by military regimes of the 1980s and 1990s. Director of Nigeria’s DMO points out that in 2000 when Nigeria was going to reschedule its debts with the Paris Club, the DMO found that of the $21 billion that was being rescheduled, about 24% was penalties and 22% was interest. If Nigeria had used its oil revenues to retire its debt, it would have been able to avoid the subsequent penalties that compounded and eventually led to its debt crisis. This would have allowed the country to become a net asset generator rather than a net liability generator.

And perhaps if it had followed the Norwegian government’s example of viewing oil revenues as a temporary, collectively owned windfall that, instead of spurring consumption today, could be used to insulate the country from the storms of the global economy (Gross, 10/29/04) or to spread the benefits more evenly over a generation or more, Nigeria would not have found itself in the debt quagmire that eventually occurred.

DATA

This study differs from previous work in its exclusive concentration on Nigeria’s actual creditworthiness during the period of its major debt accumulation (1973-1985) and the period of its debt crisis (1986-2004). Data was collected from three main sources. The World Bank’s Global Development Finance database provides historical and current data on the debt and financial flows of individual countries. The Economic Intelligence Unit (EIU) Country Database includes figures on interest payments and current account balances. Supplemental data was also

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37 In 2005; Economic Intelligence Unit 2005.
collected from the *Nigerian Debt Management Office*, the *Central Bank of Nigeria* and the World Bank’s *World Development Indicators* databases.

**V. CONCLUDING THOUGHTS**

**A. Note On Corruption**

It is important to note that this thesis does not deal with the development effects that arose out of the Nigerian government mistakes in handling their oil wealth, such as corruption, failure to mobilize domestic resources through taxation, etc. This thesis has attempted to analyze Nigeria’s debt problem at face value, however, it must be acknowledged that the roots of Nigeria’s debt crisis are traceable not only to domestic economic conditions, sub-optimal policies and external factors, but also to the corruption of past administrations. Successive administrations appear to have favored “policies that would prolong their stay in power, but not necessarily policies that would benefit the nation the most; hence the flagrant abuse of authority, visible especially in fiscal management” (Omotoye, p.607). Where funds were not stolen outrightly, they were simply inefficiently managed - used for white-elephant projects that were inadequately planned and rarely completed. An expansion of this research would take into account the role of political factors and corruption in Nigeria’s debt decisions and outcomes.

**B. Conclusion**

This paper examines Nigeria’s debt history in two major periods: the 1973-1975 period of debt accumulation amidst rising oil revenues and the 1986-2004 period of debt crisis. Within the period of debt accumulation, it conducts an analysis of Nigeria’s creditworthiness against the
amounts it borrowed from private and official creditors. The findings show that Nigeria still
continued to receive large annual disbursements from private creditors even as its actual
creditworthiness (as determined by the differential between its real GDP growth rate and the real
interest rate of the dollar, and by its debt-burden indicators) fell towards the end of the period.
Within the period of debt crisis, this paper examines the evolution of Nigeria’s interest-service
ratio and total interest payments and shows that \textit{ex post}, efficient debt management decisions
would have involved the use of Nigeria’s oil revenues to retire its debt.

Nigeria has been offered a new lease on life – according to former Finance Minister,
Ngozi Okonjo-Iweala, “at least N100 billion would be available from annual debt servicing
arrangements to spend on key development areas like health, education, roads and water”
(Okonjo-Iweala, “Free From Debt Trap?”). The country is in a very similar position, both in its
financial and debt profiles, as it was during the first oil boom. The findings of this paper imply
that the currently high oil prices are playing a significant role in enhancing Nigeria’s perceived
creditworthiness in the ICM, and the fact that its debt burden is currently almost non-existent is
also contributing to the country’s attractiveness to creditors.

It is important that the Nigerian government does not embark on a spending spree
financed by external borrowing as it did in the 1970s and 1980s, but that it spends cautiously and
effectively. Oil revenues account for upward of 80% of consolidated government revenue. The
more recent rise in the international oil price has facilitated revenue collection and an increase in
government spending, and in order to avoid the volatility of the past, the government has created
an oil stabilization fund called the Excess Crude Reserve Account (ECRA). The fund was
established in 2004 as part of the proposed Fiscal Responsibility Bill, and is administered by the
Central Bank of Nigeria. All revenue collected that exceeds budgeted estimates in excess of fairly
prudent oil price (an average of $40/bbl and production of 2.5mbpd is assumed in the 2007 budget) and production forecasts are placed in the ECRA. Nigeria has also posted impressive non-oil growth. The expansion of the non-oil sector, in fact, has surpassed the growth within the petroleum industry, growing by 8.6% in 2005 and an estimated additional 8.2% for 2006 (IMF 2007, 24).^39^

Although Nigeria has succeeded in relieving itself of most of its external debt, one source of a potential return to high debt is its budding relationship with China. Nigeria has signed a $4 billion line of credit with the Chinese government, $1.5 billion of which has been earmarked for the construction and renovation of railroads^40^ (Heller, p. 71). According to Mansur Muktar, the Director General of Nigeria’s DMO, “the current policy is to limit borrowing to concessionary resources”. However, state governments are still incurring commercial debts without necessarily going through the federal government, despite attempts to stop this (Muktar, DMO website). The development in Nigeria’s debt and its oil revenues requires that it begin to manage its resources prudently, looking to the lessons from the past to shape its future strategy of debt management and fiscal discipline.

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^38^ It should be noted that the fund has been used not only as a restraint on government spending, but also as a stabilizing force in the event of shortfalls—in 2006, when security problems meant that the oil industry did not meet its projected daily production, the government withdrew funds from the account in order to meet the budget shortfall^38^ (Okogu, 2007).


^40^ In the agreements it signed for Paris Club relief and with the IMF under the Policy Support Instrument, Nigeria agreed that it would not assume any new debt on a non-concessional basis. The terms of the line of credit are unknown, but it is believed to be non-concessional (IMF, 2007, p.11).
APPENDIX 1: DEBT DEFINITIONS

Disbursements (DIS) are drawings on loan commitments during the year specified.

Total Debt Stocks (EDT) is the sum of public, publicly guaranteed, and private non-guaranteed long-term debt, use of IMF credit, and short-term debt.

Interest Payments are the amounts of interest paid in foreign currency, goods, or services in the year specified.

Principal repayments are the amounts of principal (amortization) paid in foreign currency, goods, or services in the year specified.

Private non-guaranteed debt (PNG) comprises long-term external obligations of private debtors that are not guaranteed for repayment by a public entity.

Public and publicly guaranteed debt (PPG) comprises long-term external obligations of public debtors, including the national government, political subdivisions (or an agency of either), and autonomous public bodies, and external obligations of private debtors that are guaranteed for repayment by a public entity.

Total Debt Service paid (TDS) is debt service payments on total long-term debt (public and publicly guaranteed and private non-guaranteed), use of IMF credit, and interest on short-term debt.

EDT/XGS is total external debt to exports of goods and services (including workers’ remittances).

EDT/GNI is total external debt to gross national income.

TDS/XGS, also called the debt service ratio, is total debt service to exports of goods and services (including workers’ remittances).
*INT/XGS*, also called the interest service ratio, is total interest payments to exports of goods and services (including workers’ remittances).

**APPENDIX 2: Samuelson’s Overlapping Generations Model**

The model consists of a closed economy in which all private agents are finitely-lived, while the government lives forever.

$r$ is the *real* rate of interest, and $n$ the rate of growth of the economy.

2 cases can occur:

(a) The rate of interest is *above* the rate of growth of the economy.

(b) The rate of interest is *below* the rate of growth of the economy.

In Case (a), it can be shown that an asset can only be worth its fundamental value (the discounted value of the dividends), i.e. the debt matches the discounted value of the repayment. Hence Case (a), when applied to a country’s debt, requires that the present value of the debt in the future declines with the planning horizon.

In Case (b), the government issues new debt and always refinances it (the debt grows at the interest rate); and since the rate of interest is below (equal to) the rate of growth of the economy, the debt is a declining (constant fraction) of GDP. Then the debt will not explode relative to GDP.

Simply by replacing the GDP and its growth rate $n$ by the stream of currency earnings of an indebted country, we can now compare this rate to the international interest rate $r$ applicable to the debt. If $r < n$, then the country’s wealth is, in present value terms, infinite and there is no solvency problem: any fraction, however small, of its revenues can repay any level of initial debt in finite time; this is the equivalent of Case (b) above.

If $r > n$, however, the country’s wealth is finite and the level of the debt must be compared, as in Case (a), to the value of wealth if a situation of insolvency is to be avoided.
APPENDIX 3: NIGERIA’S EXTERNAL DEBT PROFILE

Table 1: Nigeria’s External Creditors, end 2003

<table>
<thead>
<tr>
<th>Creditor</th>
<th>Debt Stock [US$ bn]</th>
<th>Share of Total (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>UK</td>
<td>7.0</td>
<td>21%</td>
</tr>
<tr>
<td>France</td>
<td>5.6</td>
<td>17%</td>
</tr>
<tr>
<td>Germany</td>
<td>4.6</td>
<td>14%</td>
</tr>
<tr>
<td>Japan</td>
<td>4.2</td>
<td>13%</td>
</tr>
<tr>
<td>Italy</td>
<td>1.8</td>
<td>6%</td>
</tr>
<tr>
<td>Netherlands</td>
<td>1.4</td>
<td>4%</td>
</tr>
<tr>
<td>USA</td>
<td>0.9</td>
<td>3%</td>
</tr>
<tr>
<td>Other Paris Club</td>
<td>1.9</td>
<td>6%</td>
</tr>
<tr>
<td><strong>Total Paris Club</strong></td>
<td><strong>27.5</strong></td>
<td><strong>83%</strong></td>
</tr>
<tr>
<td>Multilateral Creditors</td>
<td>3.0</td>
<td>9%</td>
</tr>
<tr>
<td>Private Creditors</td>
<td>2.4</td>
<td>7%</td>
</tr>
<tr>
<td>Other Bilateral Creditors</td>
<td>0.1</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Total Debt Stock</strong></td>
<td><strong>32.9</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Source: Nigerian Debt Management Office

Source: Debt Management Office
Source: 2005 Global Development Finance Database
REFERENCE LIST


Chalabi, Fadhil. 1999. “OPEC & the struggle to control Oil Prices”, Columbia University Journal of International Affairs


**DATA SOURCES**


International Financial Statistics Database

