



## **Debt Overhang versus Crowding Out Effects: Understanding the Impact of External Debts on Capital Formation in Theory**

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### **ABSTRACT**

This is a conceptual analysis of the relationships between external debt and capital formation geared towards a proper assessment and understanding the experiences of Sub-Saharan African (SSA) countries external debts experiences. The study established that debt in general and external debt in particular is a necessary evil that all economies survive with. During the five decades of external debt experiences in SSA, all indices have indicated adverse relationships amongst and between all variables of interest in these countries. Most important of the negative consequences was the debt overhang and crowding out effects and their attendant effects on the economies. The study has shown that it has negatively affected the positive development of capital formation being one of the essential macroeconomic variables for a sustained economic development.

**Keywords:** External Debts, Debt Overhang, Crowding Out Effects, Capital Formation

**JEL Classifications:** E60, H63, O55

### **1. INTRODUCTION**

It is generally agreed that the growth and development of any nation or economy cannot be fully understood without a closer look at the contribution of capital formation; while debt or borrowing meant to boost domestic savings is known to be vital for enhancing investment, financing development and economic growth in general and capital formation in particular. Thus capital formation is recognized as an important factor that determines the growth and development of any economy. In addition it is generally accepted that growth will only take off when the stock of capital has reached a certain threshold level. It is also believed that as the increased stock of capital leads to improvement in economics performance, savings continue to grow (Sachs, 2002). After a given level of growth in savings, capital will be strong enough to sustain a capital formation that will lead to a self-propelling economic growth.

The foregoing scenario is however hardly attained without foreign intervention in form of external funding (Hunt, 2007; Bakare, 2011). The idea behind this postulation is the “dual gap theory”

which says that “investment” as a purpose for “savings” needed external support in view of the insufficient domestic savings that will guarantee sustained economic growth and development (McKinnon, 1964). This study is therefore aimed at understanding the experiences of the Sub-Saharan Africa (SSA) economies on external debt *viz.* capital formation. Section two of this study will discuss both the theoretical and empirical literature, section three discusses the experiences of the Nigeria’s external debt and its effects on capital formation while the final section summarizes and concludes on the study showing that external debt experience of Nigeria has seriously negated the need for a better economy.

### **2. THEORETICAL REVIEW**

As earlier observed, developing economies in an attempt to accelerate economic development often rely on external sources to supplement the shortages of domestic investable capital resulting from poor domestic savings (Panizza, 2008). It is thus expected that developing countries need facilities from outside their countries to augment domestic savings (Pattillo et al., 2002; Ajab and Audu, 2006).

## 2.1. The Dual Gap Theory

According to Hunt (2007), underdeveloped economies face low and weak growth rates because of the inherent nature of under savings which is unable to provide financial support for investment in both private and public sectors of their economies. In other words savings and investment supports and sustains economic growth. Sachs (2002) opined that economic growth cannot be sustained and maintained unless the level of capital reaches a certain threshold point. Growth in capital and investment enhanced with foreign loans will stimulate automatic economics growth resulting from an increase in savings over time. The foregoing illustrates the concept of the dual gap theory.

Thus, external borrowing becomes a necessity. The most important consideration in contracting external debt is a simple and direct one; signing up for debt from abroad only when the funds can generate higher returns than the cost of funds when invested. It therefore follows that borrowing nations would be enhancing their productivity and national output through the investment facilitated by borrowed funds. The dual-gap concept refers to the function of foreign capital in the economic development process. The role of foreign capital here is that it permits developing countries to invest more than they can save domestically; which is a necessity resulting from deficits in internal savings (McKinnon, 1964).

In the same vein Were (2001) observed that the capacity of the difference between consumption and income in under developed economies has not been high enough due to the inadequacy of income resulting into low savings. Capital in the circumstance therefore need to be augmented by external funds to enhance investment and hopefully raise the degree of growth in the economies. It should be born in mind that such funds must be efficiently invested and profitably utilized. This will lead to countries successes in boosting their rates of growth. The reason for incessant dearth of capital in developing countries mostly originates from inadequate inflow of foreign exchange from outside to supplement local savings (Ajab and Audu, 2006).

## 2.2. The Financing Gap Theory

Generally, the idea of a financing gap has infested the developing countries which significantly encouraged the so called foreign borrowings. Financing gap is essentially the difference between the funds that are available from domestic sources and the total investment requirement; and one way of closing this gap is by borrowing from abroad. Easterly (1999) informed that the idea originated when Domar (1946) in a publication entitled “Capital Expansion, Rate of Growth, and Employment” where it was postulated that there would be a proportionate relationship between investment spending and the total growth of gross domestic product (GDP).

The financing gap idea resurfaced in the work of Rostow (1960); “The Stages of Economic Growth” postulating that for any country to move from being a less developed to a developed economy it needs to pass through a sequence of events, or stages. There exists a proportionate association between such investment and economic growth and development. Rostow deduced that the necessary condition for takeoff is that investment increases from

5% to 10% of profits which means that if a developing country does not have enough domestic resources for investment it must fill the gap with foreign aid or external debt.

Chenery and Strout (1966) augmented the Harrod-Domar financing gap model with an understanding of the need to have savings funded internally. National saving, in the event of an existing temporary shortfall between investment ability and saving ability can be supplemented by foreign aid. Self-refinancing occurs if a particular country has a high enough marginal saving rate; only then will a country be able to finance its investment out of its own saving. Some scholars observed that the model has proved to be amongst those generally employed theories in explaining growth phenomenon in economics (Efendi, 2001) and equally used in reaching at all financing requirements decisions by International Finance Institutions (IFIs) (Easterly, 1999).

## 2.3. Capital Formation Theories

While external debt is an important component of economic performance in the developing economies, capital formation is a sine qua non to profitable investments (Ugochukwu and Chinyere, 2013). These views were shared and supported by the work of Youpoulos and Nugent (1976) as affirmed by Bakare (2011). Capital formation corresponds to growth in the real assets of a country including interest in both public and commercial activities. It refers to the buildup or keeping of resources of value, growing of the value of wealth or more creation of same. Literature not quite long tends to confuse investment with capital formation (Ugochukwu et al., 2014; Ugochukwu and Chinyere, 2013). Investment by the public and government enterprises is what constitutes the gross public investment, while an investment with majority private interests represents the gross private investment in its domestic form. It has been widely established by economists that capital formation plays a vital function in economic growth modeling (Beddies, 1999; Ghura and Michael, 1996; Ghura, 1997).

The advancement of investment theories was related to Keynes models of growth theories. Subsequently the accelerator theory was born out of these models which perceive investment as a linear percentage of changes in productivity. Additionally the concept of irreversibility in investment has also been given significant consideration in the finance literature (Ugochukwu et al., 2014). Unfortunately however Walrasian theory of savings and capital accumulation as unique as it were was left out of the conventional economic literatures and theories. It is only referenced or quoted when criticizing its controversies.

Traceable to McKinnon (1973) the financial intermediation theory paid attention to the function of financial expansion and costly rates of interest in encouraging growth in underdeveloped economies (Akpokodje, 1998). Azam and Daubree (1997) established that non-government ventures have been the most robust and the most important funders to economic activities and growth in Kenya using the financial intermediation as underpinning theories just as serious linkages between capital formation and the frequency of growth have been ascertained by many empirical studies like, Collier and Gunning (1999), Ghura and Michael (1996), Khan and Reinhart (1990). Others that reconfirmed this assertion were

Herandez-Cata (2000), Ndikumana (2000), and Ben-David (1998). These studies were mostly piloted in Africa, Asia and Latin America with a beyond reasonable doubt proofs.

#### 2.4. The External Debt Effects Theories

Many studies were of the views that developing countries engaging in reasonable levels of borrowing are likely to improve in their economic growth (Wang, 2009). Such enhancement is believed to occur through capital formation and increase in output (Hameed et al., 2008). According to the traditional neo-classical model, debt increases transitional growth, since the model permits capital mobility, and the ability to involve foreign sources in both borrowing and lending. This provides capital-scarce countries with an incentive to get loan and invest since the marginal output of capital is greater than the global interest rate (Pattillo et al., 2002).

Studies have confirmed that foreign loans results into positive results especially as its affects economic growth but to a certain level only. After reaching a certain threshold level the effects of additional debt on the economy will gradually drop. The reason for this from the economist point of view is one-fold. Capital in underdeveloped economies is limited, and especially that these nations see an encouragement to sign for foreign loans meant for investment in as much as the return on capital is above their cost of funds (Pattillo et al., 2004).

#### 2.5. The Debt Overhang Theory

The literature field of economic growth *viz.*, external borrowing is awash with the perceived negative relationship between foreign debt and investment which consequently results into lower capital formation. Krugman (1988) defines this negative relationship as “debt overhang” where the potentials of repayment of outstanding facilities fall lower than the signed value. The study gave a straight forward definition of the problem of debt overhang as being the anticipated current value of any potential resource allocation that is not up to its outstanding loan. Several scholars have supported the theoretical case for debt overhang. Some of the studies include Krugman (1988) and Sachs (1988). Others like Greene and Villanueva (1991), Elbadawi et al. (1997) and Chowdhury (2001) reaffirmed this by coming up with ample proof that backs the debt overhang phenomenon.

In those economies with heavy indebtedness “debt overhang” is considered a leading cause of distortion and slowing down of economic growth (Sachs, 1989; Bulow and Rogoff, 1990). Economic growth slows down because these countries lose their pull on private investors. Additionally, servicing of debts exhausts up so much of the indebted country’s revenue to the extent that the potential of returning to growth paths is abridged (Levy-Livermore and Chowdhury, 1998). They suggested that even if structural adjustment programs are put in place by governments of these countries, adverse effects can still be felt on development of general economic performance. It should however be noted that debt overhang does not occur only when a country accumulates too much debt, it can also arise when country’s circumstances change, making it difficult to manage and discharge its stocks of debts. Such conditions may emerge because of adverse economic shocks or poor economic policies (Arslanalp and Henry, 2004); and

in these unfavorable circumstances, creditors loan portfolios will face heavier risks. The outcome would be panic among creditors who rush to cash their claims, and the withdrawal of interest from potential new credits.

#### 2.6. The Crowding Out Effects Theory

Crowding out effects usually occurs due to excessive real interest charges while the terms of trade of an overly indebted country become worsen while foreign credit markets may no longer be available. Claessens et al. (1996) identified the decline in investment as being the effect of a decrease in a country’s available assets for financing investment and macroeconomics activities. Reduction in nation’s capability of maintaining its debt resulting from the crowding out effect; and therefore, as it strives to meet some of its obligations, leaving little capital for domestic investment (Patenio and Agustina, 2007).

The philosophy behind the crowding out effects concept assumes that government debts expends a greater part of the national savings meant for investment due to increase in demand for savings while supply remains constant, the cost of money therefore increases. Crowding out effects sets in at a point when only government and its agencies would be able to borrow due to excessive interest charges. Individual entrepreneurs and firms are thus unable to compete and hence crowded out of the market. Economic growth is thus affected via the economies inability to generate enough capital for investment.

Clements et al. (2003) further confirmed the foregoing negative reviews and scenarios and the effects of excessive borrowings were further validated by this and other findings which relates that the adverse effects of foreign borrowing on economic growth can be observed through debt stock and flow of service payments facilities that most probably crowd out public investment. The findings of Taylor (1993) deduced that debt caused liquidity restraints is a resultant effect of decline in government expenditure due to the continuous servicing of outstanding debt stocks in excess of what the economy can contain. Karagol (2004) indicated that there is much interest from developing countries in the link between external loan and economic development since debt overhang has an impact on investment and thus economic growth. However, the cause and effect is not a simple matter to establish because clearly, debt overhang has a substantial influence on the rate of investment. Claessens et al. (1996) discuss debt overhang theory, showing that anticipated debt burden is an increasing aspect of a nation’s productivity.

As debt services grow, foreign creditors effectively remove many of the earnings accruable from investment within the local economy. Accompanying this removal is the total discouragement of new foreign investments (Clements et al., 2005; 2006). This will in no small measure directly hamper capital formation (Dijkstra and Hermes, 2001). In effect, debt servicing transfers wealth from the domestic arena to international arena thus creates certain dramatic multiplier accelerator effects that reduce the economy’s capacity to development while simultaneously enhancing its dependence on foreign debts (Metwally and Tamaschke, 1994).

### 3. EMPIRICAL REVIEW

Among the early literature on the association of foreign borrowing and economic advancement in Africa in general and Nigeria in particular was the work of Ajayi (1991). He investigated the external debt issue in Nigeria with the broad objectives of analyzing its origins and direction, accumulation and servicing; formatting the debt service ratios and modeling a debt feasibility path while creating suitable mapping out of policy inferences from the research findings.

Edo (2002) examined the determinants of foreign debt accumulation with specific attention on Nigeria and Morocco. He deduced that foreign loans servicing and accumulation has seriously and negatively impacted on the two countries and have severely and adversely affected investment. Thus the conclusion of the study was that macro variables like public spending negative balance in international trade and global interest rate were the major determinants of accumulation of foreign loans. The impact of the huge external debt stock, with its equally negative impact on the South African and Nigerian economies that have so many similarities in the field of economic development experiences was examined. Test results showed the negative effects of debt and its servicing costs on growth being clearly visible in both countries. Equally, external debt was revealed to have contributed positively to growth up to a point after which its impact becomes negative; thus confirming the existence of non-linearity effects or debt overhang (Adegbite et al., 2008).

Another study by Ajayi and Oke (2012) investigated the impact of the cost of foreign borrowing on Nigeria as a developing economy. Variables such as external debt services payment external reserves balance interest rate and foreign exchange rates were employed. Results from the study established a strong adverse relationship between foreign loan and the nation's income and per capita income. This study established that devaluation; belt tightening and substandard educational services were the resultant effects of the excessive external debt accumulation. Depending on these results therefore the study suggested that debt service obligations should not be endorsed to rise above external exchange income and that the loan contracted be invested in profitable ventures whose returns should be able to service these external debts.

#### 3.1. Capital Formation

Some empirical findings confirmed that capital formation has encouraging and important impact on economic growth in Nigeria. These findings corroborate the findings of Bakare (2011) and Orji and Mba (2011). While stock markets have had a positive impact on capital formation, both inflation rate and interest rate had an adverse impact on economic growth even though statistically insignificant. The result further confirms an elongated correlation amongst capital formation and economic growth in the country (Bakare, 2011).

A study by Ajao (2011) concluded that long-term capital formation in Nigeria was not found in the capital market alone but also via the marginal impact of market recapitalization and new issues. This result is linked with the findings of Sarkar (2006) which

concluded that there is absence of a relationship that is considered meaningful between the stock market capitalization and gross fixed capital formation. Orji and Mba (2011), on the other hand analyzed the correlation amongst Foreign Private Investment (FPI), capital formation and growth in the country employing the two-stage least squares estimation procedure. Accordingly, Adegbite et al. (2008), and Adekunle and Aderemi (2012) suggested that real domestic investment be made to increase the total capital stock in the economy. It is done by employing more capital-producing and income making assets. Physical assets principally add to the total capital stock, while improving financial growth necessitates higher rates of economic growth than reserves can afford.

#### 3.2. Debt Overhang

There have been a number of studies that tested the debt overhang theory, some of which include Borensztein (1990), Cohen (1993), Sachs (1989) and Warner (1992). Others are Pattillo et al. (2002), Clements et al. (2003), Elbadawi et al. (1997), Chowdhury (2004) and Fosu (2007). Not many studies, however, have concentrated on the channels through which borrowings influences economic growth in general and capital formation in particular. Pattillo et al. (2004) however concluded that the effects of external debt are felt majorly via total factor productivity and investment. While many studies paid specific attention to under developed countries, others focus on relatively low income economies. In all of these studies however debt overhang is understood to be the adverse additional effects of debt accumulation on economic growth which strongly reduces macroeconomic performance of an economy through deterrence resulting from the fear of future tax burden and macroeconomic volatility.

The adverse effects of foreign loans on investment, economic growth and development have been reemphasized by Were (2001), where she substantiates the presence or otherwise of the debt overhang phenomenon in Kenya. Additionally, however interest and administrative charges do not seem to adversely impact on economic growth but rather end up with another negativity in the form of crowding out effects on investment. Fosu (1999) was of the believe that in spite of the seemingly small and negligible impact on investment rate it is probable that foreign borrowing may negatively affects economic development via decreasing the capital output. This argument is in the same direction with the proposition of Hameed et al. (2008); where they argued and confirmed that the debt maintenance cost has adverse effects on the resultant output of principal and labor which ultimately leads to a decline in economic growth in Pakistan.

Several scholars have paid close attention to the theory of the debt overhang. Fosu (1996), found strong evidence in favor of the debt overhang effect by empirically investigating the phenomenon in 35 SSA nations. Interestingly however Hansen (2001) found no important adverse association amongst external debt and economics growth hence the total absence of debt overhang. This was in a case of 54 underdeveloped nations. So also were conclusions from the works of Savvides (1992), who proved that the ratio of borrowings to GDP had no substantial consequence on nation's economic development. On the other hand nevertheless robust proofs of debt overhang outcomes and consequences were

confirmed in Latin American economies (Kaminsky and Pereira, 1996) and similarly as in Deshpande (1997) for a selected set of 13 economies, just as in Elbadawi et al. (1997) who worked on a set of 99 underdeveloped economies.

Inconclusive findings were also many as in Dijkstra and Hermes (2001). When examining the debt-growth nexus, Pattillo et al. (2002) establish the existence of non-linear relationships in a set of 100 underdeveloped economies adopting quadratic equations and changing approaches to control for endogeneity. The study employed external debt taking into consideration the net present value together with the insignificant terms, identified a by far less overhang edge, of almost about 20% of GDP. Clements et al. (2003) virtually came to same conclusion. Following their own study of 2002, Pattillo et al. (2004) enforced a spline function with a disruption at the branded edge and let the task to have altered slopes for economies with diverse plans. These studies affirmed that highly indebted countries have inverse effects of excessive debt stock on growth.

Studying the economy of Nigeria subsequently, Iyoha (1997) confirmed a similar relationship, noting its deterrent in respect of investment in the economy. Furthermore, in a related study, Iyoha (1999) focused on SSA countries, adopting a simultaneous equation and simulation method. The results were the same. Excessive external debt was shown to discourage investment and hence depress economic growth. In continuation of his study of SSA, Iyoha (2000) reported that the ratio of foreign debt to gross national product was highly significant with a negative sign. In contrast, debt service negatively affects growth by the crowding out public investment and appears as statistically insignificant. Settlement of borrowed funds and contracted facilities is found to be associated with borrowing nation's economic growth rate. This was confirmed by a scientific examination of the debt overhang effects in Zimbabwe (Wijeweera et al., 2005). These scholars asserted that nations that suffer from debt overhang were those economies that found themselves on the wrong or bad side of the Laffer curve due to high debt accumulation resulting into debtors inability to service the debts as and at when due.

Supporting other scholars Deshpande (1997) assured that discouraging investment is one of the negative impacts of debt overhang. These effects he further asserts were felt in two simple ways; wholesome disincentive effect and adjustment actions adopted by these extremely indebted nations. Calvo (1998), on the other hand, related the problem of growth and debt to the problem of capital flight using a model with high debt associated with low growth which further relates to debt servicing and repayment.

Scenarios from various part of the world have confirmed and reasserted the statistically significant negative relationships between external borrowing and major macroeconomic variables and the general economic growth. The works of Ahmed and Shakur (2011) and Nawaz et al. (2012) from Pakistan observed the presence of protracted negative relationships amongst economic growth and external debt variables and unidirectional causativeness consecutively from GDP to foreign loans. Likewise other works from Pakistan reaffirm that debt service and cost of borrowings

were adversely associated with economic advancement (Hameed et al., 2008; Malik et al., 2010). In addition, Chowdhury (1994) also studied the dual association of foreign debt and economic advancement in two Asian economies. Results of his study showed a bidirectional relationship between accumulation of external debt and growth of the GDP, while there was no causal relationship between GDP growth rate and external debt accumulation.

Ezikwe and Mojekwu (2011) and Ezeabasili et al. (2011) were two studies in Nigeria in support of an adverse effect of debt on economic growth; and one way interconnection at the center of foreign debt interest charges and maintenance fees and economic growth as well as been statistically interdependent between foreign loan and economic development. Inconclusive outcomes have mostly been conveyed on the effects of foreign loans and economics growth and development. A causal relationship of FPI on external debt in Nigeria was examined by Ajisafe et al. (2006), where a two-way relationship was proven. Additionally, there are opinions in respect of the exactness of relationship between external debt and economic growth which became pronounced since the early 1980s.

### 3.3. Crowding Out Effects

It has been scientifically established that the negative effects of external debt was part of the causes or reasons that weaken non-public sector investment in the Philippines beyond 1982 (Yap, 1990; Borensztein, 1990). Data from Nigeria was used in order to analyze and confirm the existence of the crowding out effects by Iyoha (1997). This is in addition to confirming the debt overhang effects on the economy resulting from excessive debt servicing burden. The small level of investment in the economy was confirmed to be a resultant effect of debt overhang and crowding out. Ashinze and Onwioduokit (1996) also studied the result of external debts associating with economic growth on the Nigerian economy in Nigeria using a macro-economic modeling.

In the same perspective, Edo (2002) examined the foreign borrowing difficulties experienced by African countries using Morocco and Nigeria as case study. The study affirms that these debts have negatively affected investment seriously in these countries. Public expenditure, balance of payments and global interest rate were cited among the many determinants of debt accumulation in the studied countries. Measures were suggested in reducing these problems. Some of the measures were privatization, sustained export promotion, and reforming and expanding capital markets mostly in form of structural adjustment program.

The significance of this emanates from the fact that public spending may be a determining factor for a number of economics activities, with capital formation on the lead (Fosu, 2007). Borensztein (1990) outlined two different routes by which investment can be affected by foreign debt. These can be described as credit rationing and debt overhang. Using a simulation method, he found that, for heavily indebted poor countries, these two non-mutually exclusive effects are significant in explaining the significant decrease in investment in the 1980s. However, he also found that credit rationing to be more significant constraints to investment when compared to debt overhang.

#### 4. SUMMARY AND CONCLUSION

This is a theoretical review and analysis of the relationship between external debt and capital formation. It has been widely claimed that debt in general and external debt in particular is a necessary evil that all economies survive with. The results of various works in this direction have been of mixed outcomes. Most important of the negative consequences was the debt overhang and crowding out effects on investment and its attendant effects on the economy as a whole. The study has shown that it has negatively affected the positive development of capital formation being one of the most important macroeconomic variables for a sustained economic growth.

The work theoretically reviewed the concept of external debt and capital formation via its relationship with capital formation starting with the financing gap theory it was noted that generally, this idea has infested the developing countries which significantly encouraged the so called foreign borrowings and was defined as essentially the difference between the funds that are available from domestic sources and the total investment requirement; and one way of closing this gap is by borrowing from abroad. It was confirmed to have originated by Harrod-Domar in 1946. It was later expanded by Chenery and Strout in 1966. It has over the years established itself as a leading reference in explaining growth phenomenon in economics (Efendi, 2001) and equally used in reaching at all financing requirements decisions by IFIs (Easterly, 1999).

Having established the rationale for contracting external debt by the third world nations in general the work moved further to conceptualize the term capital formation. While external debt is an important component of economic performance in the developing economies, capital formation is a sine qua non to profitable investments. Capital formation corresponds to growth in the real assets of a country including interest in both public and commercial activities. It refers to the buildup or keeping of resources of value, growing of the value of wealth or more creation of same traceable to McKinnon (1973) the financial intermediation theory paid attention to the function of financial expansion and costly rates of interest in encouraging growth in underdeveloped economies.

From the foregoing therefore the good and bad sides were examined. In this regards many studies were of the views that developing countries engaging in reasonable levels of borrowing are likely to improve in their economic growth (Wang, 2009). Such enhancement is believed to occur through capital formation and increase in output (Hameed et al., 2008). According to the traditional neo-classical model, debt increases transitional growth, since the model permits capital mobility, and the ability to involve foreign sources in both borrowing and lending. This provides capital-scarce countries with an incentive to get loan and invest since the marginal output of capital is greater than the global interest rate (Pattillo et al., 2002).

On the other hand however several scholars have supported the theoretical case for debt overhang as one of the most important side effects of external debt. Some of the studies include

Krugman (1988) and Sachs (1988). In those economies with heavy indebtedness, “external debt overhang” is considered a leading cause of distortion and slowness of economic growth (Sachs, 1989; Bulow and Rogoff, 1990). Economic growth slows down because these countries lose their pull on private investors while servicing of debts exhausts up so much of the indebted country’s revenue to the extent that the potential of returning to growth paths is abridged (Levy-Livermore and Chowdhury, 1998). Next to debt overhang is the crowding out effect that has also been established to hold strong presence in the side effects of external debts. The theory is strongly supported by studies like Claessens et al. (1996) and Patenio and Agustina (2007). Philosophy behind the crowding out effects concept assumes that government debts expends a greater part of the national savings meant for investment due to increase in demand for savings while supply remains constant, the cost of money therefore increases.

From this review it has been established that among the early literature on the association of foreign borrowing and economic advancement in Africa in general and Nigeria in particular was the work of Ajayi (1991). He investigated the external debt issue in Nigeria with the broad objectives of analyzing its origins and direction, accumulation and servicing; formatting the debt service ratios and modeling a debt feasibility path while creating suitable mapping out of policy inferences from the research findings. Edo (2002) examined the determinants of foreign debt accumulation with specific attention on Nigeria and Morocco. He deduced that foreign loans servicing and accumulation has seriously and negatively impacted on the two countries and has severely and adversely affected investment. Sulaiman and Azeez (2012) examined the impact of foreign borrowing on the economic advancement of Nigeria.

On the other hand, empirical findings confirmed that capital formation has encouraging and important impact on economic growth in Nigeria. These findings collaborate the findings of Bakare (2011) and Orji and Mba (2011). The studies of Ghura and Michael (1996) and Ghura (1997) using econometric approach maintained that private capital formation has a long-lasting and more advantageous impact on economic growth rather than public capital formation due to its greater efficiency and less close association with corrupt practices. Accordingly, Adegbite et al. (2008) and Adegkunle and Aderemi (2012) suggested that real domestic investment be made to increase the total capital stock in the economy. It is done by employing more capital-producing and income making assets.

There have been a number of researches that tested the debt overhang theory. They include Borensztein (1990), Cohen (1993), Sachs (1989) and Warner (1992). Others are Pattillo et al. (2002), Clements et al. (2003), Elbadawi et al. (1997), Chowdhury (2004) and Fosu (2007). Not many studies, however, have concentrated on the channels through which borrowings influences economic growth in general and capital formation in particular. Pattillo et al. (2004) however concluded that the effects of external debt are felt majorly via total factor productivity and investment. Inconclusive findings were also many as in Dijkstra and Hermes (2001).

## REFERENCES

- Adegbite, E.O., Ayadi, F.S., Felix Ayadi, O. (2008), The impact of Nigeria's external debt on economic development. *International Journal of Emerging Markets*, 3(3), 285-301.
- Adekunle, K.A., Aderemi, A.K. (2012), Domestic investment, capital formation and population growth in Nigeria. *Developing Country Studies*, 2(7), 37-45.
- Adepoju, A.A., Salau, A.S., Obayelu, A.E. (2007), The effects of external debt management on sustainable economic growth and development: Lessons from Nigeria. *Munich Personal RePEc Archive (MPRA)*, Munich, 2147, 1-31.
- Ahmed, M., Shakur, M. (2011), Debt (a real hurdle in the economic growth of Pakistan): A time series analysis. *Foundation School of Liberal Arts and Sciences, Foundation University; Rawalpindi, Pakistan*.
- Ajab, A.A., Audu, I. (2006), External debt, investment and economic growth: Evidence from Nigeria. *Central Bank of Nigeria; Economic and Financial Review*, 44 (1), 81-113.
- Ajao, M.G. (2011), Stock market development, capital formation and growth in Nigeria. *International Journal of Current Research*, 33(6), 382-388.
- Ajayi, S.I. (1991), *Macroeconomic Approach to External Debt: The Case of Nigeria*. Nairobi Kenya: African Economic Research Consortium. 1991.
- Ajayi, L.B., Oke, M.O. (2012), Effect of external debt on economic growth and development of Nigeria. *International Journal of Business and Social Science*, 3(12), 297-304.
- Ajisafe, R.A., Nassar, M.L., Fatokun, O., Soile, O.I., Gidado, O.K. (2006), External debt and foreign private investment in Nigeria: A test for causality. *African Business Review*, 4(1), 1109-5609.
- Akpokodje, G. (1998), *Macroeconomic Policies and Private Investment in Nigeria*, in *Rekindling Investment for Economic Development in Nigeria*, by Ben E.
- Arslanalp, S., Henry, P.B. (2004), *Helping the poor to help themselves: Debt relief or Aid*. <http://www.gsbapps.stanford.edu/researchpapers/library/RP1838.pdf>.
- Ashinze, J.O., Onwioduokit, E.A. (1996), Economic growth and foreign debt: A case study of Nigeria. *CBN Economic and Financial Review*, 34, 523-40.
- Azam, J.P., Daubree, C. (1997), *Bypassing the State: Economic Growth in Kenya, 1964-90*. Paris: Development Centre, O.E.C.D.
- Bakare, A.S. (2011), A theoretical analysis of capital formation and growth in Nigeria. *Far East Journal of Psychology and Business*. 3(1), 12-24.
- Beddies, C. (1999), Investment, capital accumulation and growth: Some evidence from Gambia: 1964-1998; IMF Working Paper, 99/117, August.
- Ben-David, D. (1998), Convergence clubs and subsistence economies. *Journal of Development Economics*, 55, 155-171.
- Borensztein, E. (1990), Debt overhang, credit rationing and investment. *Journal of Development Economics*, 32, 315-335.
- Bulow, J., Rogoff, K. (1990), Cleaning up third-world debt without getting taken to the cleaners. *Journal of Economic Perspectives*, 4, 31-42.
- Calvo, G.A. (1998), Growth, debt and economic transformation: The capital flight problem. In: Cori-Celli, F., di Matteo, M., Hahn, F., editors. *New Theories in Growth and Development*. New York: St. Martin Press.
- Chenery, H.B., Strout, A. (1966), Foreign assistance and economic development. *American Economic Review*, 56(4), 678-733.
- Chowdhury, A.R. (2001), External debt and growth in developing countries: A sensitivity and causal analysis. Discussion Paper 95. World Institute for Development Economics Research (WIDER), United Nations University, Helsinki.
- Chowdhury, A.R. (2004), External debt, growth and the HIPC initiative: Is the country choice too narrow? In: Addison, T., Hansen, H., Tarp, F., editors. *Debt Relief for Poor Countries*. Ch. 8. New York: Palgrave Macmillan, 2004, 158-180.
- Chowdhury, K. (1994), A structural analysis of external debt and economic growth: Some evidence from selected countries in Asia and the Pacific. *Applied Economics*, 26, 1121-1131.
- Claessens, S., Detragiache, E., Kanbur, R., Wickham, P. (1996), *Analytical Aspects of the Debt Problems of Heavily Indebted Poor Countries*. Washington, DC: World Bank Policy Research Working Paper No. 1618, World Bank.
- Clements, B., Gupta, S., Inchauste, G. (2003), Fiscal policy for economic development: An overview. Available from: <http://www.imf.org/external/pubs/nft/2004/hcd/ch01.pdf>.
- Clements, B., Bhattacharya, R., Nguyen, T.Q. (2004), External debt, public investment, and growth in low-income countries. IMF Working Paper WP/03/249, International Monetary Fund. Available from: <http://www.mafhoum.com/press6/176E15.pdf>.
- Clements, B., Bhattacharya, R., Nguyen, T. (2005), *Can Debt Relief Boost Growth in Poor Countries?* Washington, DC: International Monetary Fund. Economic Issues. p34.
- ECOWAS Countries. Published Ph.D., Vienna University.
- Collier, P., Gunning, J.W. (1999), Explaining African economic performance. *Journal of Economic Literature*, 37, 64-111.
- Deshpande, A. (1997), The debt overhang and the disincentive to invest. *Journal of Development Economics*, 52, 169-187.
- Dijkstra, G., Hermes, N. (2001), The uncertainty of debt service payments and economic growth of highly indebted poor countries: Is there a case for debt relief? Available from: <http://www.mpra.ub.uni-muenchen.de/11427/1>.
- Domar, E. (1946), Capital expansion, rate of growth, and employment. *Econometrica*, 14, 137-147.
- Easterly, W. (1999), The ghost of financing gap: Testing the growth model used in the international financial institutions. *Journal of Development Economics*, 60(2), 423-438.
- Edo, S.E. (2002), The external debt problem in Africa: A comparative study of Nigeria and Morocco. *Africa Development Review*, 14(2), 221-236.
- Efendi, N. (2001), *External debt and growth of developing countries*. Ph. D. Thesis, University of Oklahoma, U.S.A.
- Elbadawi, I.A., Ndulu, B.J., Ndung'u, N. (1997), Debt overhang and economic growth in Sub-Saharan Africa. In: Iqbal, Z., Kanbur, R., editors. *External Finance for Low-income Countries*. Washington, DC: International Monetary Fund.
- Ezeabasili, V.N.O., Isu, H., Mojekwu, J.N. (2011), Nigeria's external debt and economic growth: An error correction approach. *International Journal of Business and Management*, 6(5), 156-170.
- Ezikwe, J.E., Mojekwu, J.N. (2011), The impact of external debt on macro-economic performance. *International Journal of Business and Management Tomorrow*, 1(2), 1-12.
- Fosu, A.K. (1996), The impact of external debt on economic growth in Sub-Saharan Africa. *Journal of Economic Development*, 12(1), 93-118.
- Fosu, A. K. (1999). The external debt burden and economic growth in the 1980s: Evidence from Sub-Saharan Africa. *Canadian Journal of Development Studies*, 20(2), 307-318.
- Fosu, A.K. (2007), The external debt-servicing constraint and public expenditure composition: Evidence from African economies. Helsinki, Research Paper No. 2007/36, UNU-WIDER.
- Ghura, D.T., Michael, H. (1996), *Growth in Sub-Saharan Africa*. Staff Papers, International Monetary Fund. p43.
- Ghura, D. (1997), Private investment and endogenous growth: Evidence from Cameroon. IMF Working Paper, 97/165.
- Greene, J., Villanueva, D. (1991), Private investment in developing. IMF

- Staff Papers, 38, 33-58.
- Hameed, A., Ashraf, H., Chaudhary, M.A. (2008), External debt and its impact on economic and business growth in Pakistan. *International Research Journal of Finance and Economics*, 20, 132-140.
- Hansen, H. (2001), The impact of aid and external debt on growth and investment: Insights from cross-country regression analysis. Presented at the Wider Conference on Debt Relief, United Nations University Helsinki, Finland.
- Herandez-Cata, E. (2000), Raising growth and investment in Sub-Saharan Africa: What can be done? Policy Discussion Paper: PDP/00/4. Washington, DC: International Monetary Fund.
- Hunt, S.D. (2007), Economic growth: Should policy focus on investment or dynamic competition? *European Business Review*, 19(4), 279-291.
- Iyoha, M.A. (1997), An economic study of debt overhang, debt reduction, investment and economic growth in Nigeria. NCEMA Monograph Series No. 8.
- Iyoha, M.A. (1999), External debt and economic growth in Sub-Saharan African countries: An econometric study. African Economic Research. Consortium Research Papers, No. 90. Nigeria: University of Benin.
- Iyoha, M. (2000), An econometric analysis of external debt and economic growth on Sub-Saharan African countries. In: Ajayi, S.I., Khan, M.S., editors. *External Debt and Capital Flight in Sub-Saharan Africa*. Washington, DC: International Monetary Fund.
- Karagol, E. (2004), *External Debt and Economic Growth Relationship Using Simultaneous Equations*. Turkey: University of Balikesir.
- Khan, M. S., & Reinhart, C. M. (1990). Private investment and economic growth in developing countries. *World Development*, 18(1), 19-27.
- Krugman, P. (1988), Financing vs. forgiving a debt overhang: Some analytical notes. *Journal of Development Economics*, 29, 253-268.
- Kaminsky, G. L., & Pereira, A. (1996). The debt crisis: Lessons of the 1980s for the 1990s. *Journal of Development Economics*, 50(1), 1-24.
- Levy-Livermore, A., Chowdhury, K. (1998), *Handbook on Globalization of the World Economy*. Cheltenham, UK: Edward Elgar Publishing Limited.
- Malik, S., Hayat, M.K., Hayat, M.U. (2010), External debt and economic growth: Empirical evidence from Pakistan. *International Research Journal of Finance and Economics*, 44, 88-97.
- McKinnon, R. (1964), Foreign exchange constraints in economic development and efficient aid allocation. *The Economic Journal*, 74(294), 388-409.
- McKinnon, R.I. (1973), *Money and Capital in Economic Development*. Washington, DC: Brookings Institution Press.
- Metwally, M., Tamaschke, R. (1994), The interaction among foreign debt, capital flows and growth; case studies. *Journal of Policy Modeling*, 16(6), 597-608.
- Nawaz M, Qureshi M and Awan N W (2012), Does External Debt Cause Economic Growth: A Case Study of Pakistan, *The Romanian Economic Journal*, 15(43), 131-144.
- Ndikumana, L. (2000), Financial determinants of domestic investment in Sub-Saharan Africa. *World Development*, 28(2), 381-400.
- Orji, A., Mba, P.N. (2011), Foreign private investment, capital formation and economic growth in Nigeria: A two stage least square approach. *Journal of Economics and Sustainable Development*, 2(2), 14-27.
- Panizza, U. (2008). Domestic and external public debt in developing countries. Paper presented at the United Nations Conference on Trade and Development (UNCTAD). Discussion Papers, 188. New York City.
- Patenio, J.A.S., Agustina, T. (2007), Economic growth and external debt servicing of the Philippines: 1981-2005: 10<sup>th</sup> National Convention on Statistics (NCS), October 1-2.
- Pattillo, C., Poirson, H., Ricci, L. (2002), *External Debt and Growth*. Working Paper, 02(69). Washington, DC: International Monetary Fund.
- Pattillo, C., Poirson, H., Ricci, L. (2004), What are the channels through which external debt affects growth? IMF Working Paper 04/15. Washington, DC.
- Rostow, W.W. (1960), *The Stages of Economic Growth: A Non-Communist Manifesto*. 3<sup>rd</sup> ed. New York: United State of America.
- Sachs, J. (1988), The debt overhang of developing countries. In: Calvo, A.G., Findlay, R., Kouri, P., de Macedo, J., editors. *Debt, Stabilization and Development: Essays in Memory of Carlos Diaz Alejandro*. Oxford: Basil Blackwell. p80-102.
- Sachs, J. (1989), *Developing Country Debt and the World Economy*. National Bureau of Economic Research. The University of Chicago. United State of America.
- Sachs, J. (2002), Resolving the debt crisis of low income countries. *Brooking Papers on Economic Activity*, 2002, 1-28.
- Sarkar, P. (2006). *Stock Market Development and Capital Accumulation in Less Developed Countries*., Kolkata, India: Mimeograph Jadavpur University.
- Savvides, A. (1992), Investment slowdown in developing countries during the 1980s: Debt overhang or foreign capital inflows. *Kyklos*, 45(3), 363-378.
- Narayan, P.K. (2005), Cointegration tests. *Applied Economics*, 37(17), 1979-1990.
- Taylor, L. (1993), *The Rocky Road to Reform: Adjustment, Income Distribution and Growth in the Developing World*. London: MIT Press.
- Ugochukwu, U.S., Chinyere, U.P. (2013), The impact of capital formation on the growth of Nigerian economy. *Research Journal of Finance and Accounting Research*, 4(9), 2222-2847.
- Ugochukwu, S., Judith, N., Edith, O. (2014), The impact of foreign direct investment on capital formation in Nigeria: A cointegration approach. *The International Journal of Finance and Management*, 2(2), 188-196.
- Wang, F. (2009), The effects of foreign borrowing policies on economic growth: Success or failure? *Journal of Economic Policy Reform*, 12(4), 273-284.
- Warner, A.M. (1992), Did the debt crisis cause the investment crisis? *The Quarterly Journal of Economic*, 107(4), 1161-1186.
- Were, M. (2001), The impact of external debt on economic growth and private, investments in Kenya: An Empirical Assessment. *Wider Development Conference on Debt Relief 17-18 August 2001*, Helsinki.
- Wijeweera, A., Dollery, B., Pathberiya, P. (2005), Economic growth and external debt servicing: A cointegration analysis of Sri Lanka. Working Paper Series in Economics. School of Economics; University of New England. p1442-2980.
- Yap, J.T. (1990), Assessment of External Debt Management in the Philippines. Working Paper Series No. 90-04, Philippines Institute for Development Studies.
- Yotopoulos, P., Nugent, J. (1976), *Economics of Development: Empirical investigations*. Harper and Row New York.