

External Debt Dynamics and Economic Growth in a Fragile State: The Case of South Sudan

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Abstract

This study evaluated the effect of external debt stock on the economic growth of South Sudan for the period 2013–2018. A case study research design was adopted, employing both quantitative and qualitative approaches. Data were collected from 60 respondents drawn from government departments, financial institutions, and academia using structured questionnaires and interview guides. Descriptive statistics were used to analyze the data using SPSS. The findings revealed that 63.3% of respondents acknowledged that South Sudan carries external debts exceeding US\$1.4 billion, while 71.6% confirmed the country has very low foreign exchange reserves. Furthermore, 81.6% of respondents agreed that South Sudan faces external payment difficulties attributable to its growing debt stock. The study also found that the bulk of externally borrowed funds (83.3%) was channeled to defense rather than productive sectors such as agriculture (41.7%), health (35%), and education (30%). Regarding determinants of economic growth, respondents identified human capital (88.3%), government policies (83.3%), inflation management (78.3%), sustainable fiscal policy (75%), and physical capital (71.7%) as the most important factors. The study concludes that an unsustainable external debt stock has adversely affected South Sudan's economic growth by constraining foreign reserves, limiting access to long-term financing, and diverting resources from productive investment. The study recommends that the government establish an optimal balance between external and domestic debt, stabilize the exchange rate, redirect borrowed funds toward growth-enhancing sectors, and adopt prudential fiscal management measures.

Keywords: External Debt Stock, Economic Growth, Debt Overhang, Fragile State, South Sudan

Introduction

External debt remains a critical source of development finance for many low-income countries (LICs) that face chronic shortfalls in domestic savings and limited capacity to generate foreign exchange (Edet-Nkpubre, 2023). The rationale for external borrowing is grounded in the two-gap model originally proposed by Chenery and Bruno (1962), which identifies two fundamental constraints on economic growth in developing countries: the savings gap, which limits the ability to finance domestic investment, and the foreign exchange gap, which restricts the capacity to import essential capital goods and intermediate inputs. External borrowing bridges these gaps by supplementing domestic resources, financing fiscal deficits, and facilitating investments that would otherwise be impossible given domestic resource constraints (Chenery & Strout, 1966).

When judiciously utilised, external borrowing can accelerate investment in infrastructure, health, and education, thereby promoting economic growth and poverty reduction. However, when external debt stocks accumulate beyond sustainable thresholds, the consequences for economic growth can be severe, manifesting through the debt overhang effect, crowding

out of productive investment, macroeconomic instability, and reduced access to international capital markets (Akram, 2017; Edo et al., 2020). The distinction between productive and unproductive external borrowing is therefore central to understanding the debt-growth nexus: countries that channel borrowed resources toward investments with returns exceeding the cost of borrowing are likely to benefit from external debt, while those that use borrowed funds for consumption, military expenditure, or purposes that do not generate economic returns face the prospect of an ever-deepening debt crisis.

The global debt landscape has shifted dramatically in recent decades. According to the International Monetary Fund (IMF, 2023), over 60 percent of low-income developing countries are currently at high risk of or already in debt distress, a situation that has been compounded by the COVID-19 pandemic, rising global interest rates, commodity price volatility, and the effects of climate change on agricultural output. Sub-Saharan Africa (SSA) has been particularly affected, with average public debt-to-GDP ratios rising from approximately 32% in 2012 to over 56% by 2022 (World Bank, 2023). The debt stock of

many SSA countries has grown not only in absolute terms but also relative to their capacity to service obligations, raising fundamental questions about the long-term sustainability of external borrowing in the region.

The historical evolution of the global debt crisis provides important context for understanding contemporary challenges. The debt crisis of the 1980s, which originated in the oil price shocks of 1973 and 1979, demonstrated how rapidly external debt could escalate when commodity-dependent economies faced adverse terms-of-trade shocks combined with rising international interest rates. Indebtedness among developing countries rose from US\$130 billion in 1973 to US\$662 billion by 1982, with many countries unable to service their obligations (Federal Deposit Insurance Corporation, 1996). The subsequent decades saw repeated cycles of debt accumulation, crisis, and partial resolution through initiatives such as the Heavily Indebted Poor Countries (HIPC) Initiative and the Multilateral Debt Relief Initiative (MDRI). Despite these efforts, many developing countries have returned to elevated debt levels, suggesting that the structural drivers of unsustainable borrowing remain unresolved.

South Sudan, the world's youngest nation, presents a particularly acute case of debt vulnerability. Since gaining independence in July 2011, the country has been heavily reliant on oil revenues, which account for approximately 60% of GDP and more than 95% of government revenues (African Economic Outlook, 2018). The outbreak of civil conflict in December 2013, combined with a sharp decline in global oil prices from \$110 per barrel in 2014 to approximately \$50 by 2017, triggered a severe and prolonged economic contraction. Real GDP contracted by 5.3% in 2015, 13.1% in 2016, and a further 6.1% in 2017 (African Economic Outlook, 2018). The South Sudan Pound depreciated from SSP 2.95 to over SSP 170 per US dollar between December 2014 and October 2017, consumer price inflation reached 88.5% year-on-year by June 2018, and the budget deficit peaked at 25.2% of GDP in 2016.

Against this backdrop of economic collapse, the government's external debt stock grew rapidly from near zero at independence to over US\$1.4 billion by 2018, raising serious concerns about debt sustainability and its impact on economic growth. The concept of external debt stock refers to the total outstanding amount of disbursed and undisbursed external obligations owed by residents of a country to non-residents at any given point in time (IMF, 2020). Unlike debt service, which measures periodic outflows of principal and interest, the debt stock captures the cumulative burden that constrains a country's fiscal space, borrowing capacity, and creditworthiness. For South Sudan, a rapidly rising debt stock relative to GDP and export revenues signals a growing vulnerability that may discourage private investment, erode macroeconomic stability, and reduce long-term growth prospects through the mechanisms described by the debt overhang hypothesis.

This study therefore sought to determine the effect of external debt stock on the economic growth of South Sudan during the period 2013–2018. The study contributes to the growing body

of literature on debt and growth in fragile and conflict-affected states, a context that remains underexplored in empirical research despite its growing policy relevance.

Statement of the Problem

South Sudan emerged as an independent state in July 2011 with virtually no external debt, having separated from Sudan at a time when the parent state carried a substantial debt burden that was not apportioned to the new country. However, within a span of seven years, South Sudan accumulated external debts exceeding US\$1.4 billion (IMF, 2018). This rapid accumulation occurred during a period of severe economic contraction, civil conflict, collapsing oil revenues, and hyperinflation, creating a dangerous mismatch between the country's debt obligations and its capacity to generate the economic output and export earnings needed for repayment.

The consequences of this rising debt stock have been far-reaching and deeply damaging to the economy. International reserves declined to near exhaustion, severely constraining the country's ability to access long-term external financing on either concessional or commercial terms (World Bank, 2019). Without adequate reserves, the country cannot provide the import cover or foreign exchange buffers that international lenders and investors require as a precondition for extending credit, effectively cutting off a critical channel of development finance.

The macroeconomic consequences have been equally devastating. The South Sudan Pound (SSP) depreciated from SSP 2.95 to the US dollar in December 2014 to over SSP 170 by October 2017, representing a loss of more than 98% of its value. This depreciation fuelled hyperinflation that peaked at 88.5% year-on-year by June 2018, eroding household purchasing power, destroying savings, and deepening poverty. The budget deficit reached 25.2% of GDP in 2016, financed largely through Central Bank borrowing, which further compounded debt accumulation, money supply growth, and currency depreciation in a vicious spiral of fiscal and monetary instability.

Perhaps most critically, government expenditures remained heavily skewed toward defence and security, which absorbed over 70% of the total budget during the study period, while combined expenditure on health and education amounted to approximately 6% of total government spending (African Economic Outlook, 2018). This pattern raises fundamental questions about whether externally borrowed funds were being deployed productively that is, in ways that would generate the economic returns needed to service the growing debt stock or whether they were financing consumption and military operations that would deepen rather than resolve the debt burden.

Despite the severity of these challenges, limited empirical research has examined the specific effect of external debt stock on economic growth in South Sudan. Most existing studies on the external debt-growth nexus in Africa have focused on larger and more data-rich economies such as Nigeria, Kenya,

Tanzania, and Ghana (Edo et al., 2020; Were, 2001; Asogwa, 2014). The few studies that have addressed South Sudan have been limited to macroeconomic assessments by multilateral institutions rather than primary empirical research. This study addresses this critical gap by providing primary evidence on the debt-growth nexus in one of the world's most fragile and conflict-affected states.

Purpose of the Study

The purpose of this study was to critically examine the relationship between external debt accumulation and the domestic economic performance of South Sudan during its formative post-independence years. By analyzing the period between 2013 and 2018, the research sought to determine whether external borrowing served as a catalyst for infrastructure and development or acted as a constraint on growth due to debt-servicing burdens. Ultimately, the study aimed to provide evidence-based insights into debt sustainability and fiscal management within the unique institutional context of a fragile, conflict-affected state.

Objective of the Study

This study sought to examine the effect of external debt dynamics on the economic growth in a fragile state of South Sudan (2013–2018).

Literature Review

Theoretical Framework

The theoretical foundation for the relationship between external debt stock and economic growth is rooted primarily in the debt overhang hypothesis, the crowding-out effect, and the Debt Laffer Curve framework. Each of these theoretical perspectives provides a distinct but complementary mechanism through which accumulated external debt can impede economic growth in developing countries.

The debt overhang hypothesis, first formally articulated by Krugman (1988) and Sachs (1989), posits that when a country's accumulated debt stock exceeds its expected capacity to repay, the anticipated debt service payments act as an implicit tax on future output, thereby discouraging both domestic and foreign investment. The logic is straightforward: if a significant share of any increase in output will be claimed by external creditors through higher debt service payments, the effective return on investment is reduced, making new investment less attractive. Investors both domestic entrepreneurs and foreign capital providers become reluctant to commit resources to an economy where the returns are likely to be captured by creditors rather than by the investors themselves (Claessens & Diwan, 1990). Savvides (1992) confirmed this mechanism empirically, using data from 43 less developed countries and finding that the debt overhang had a significant negative effect on investment rates.

The crowding-out effect provides a complementary channel through which external debt stock affects growth. As government debt service obligations increase in response to a growing debt stock, fewer fiscal resources are available for productive public investment in infrastructure, health, education, and other growth-enhancing sectors (Agenor &

Montiel, 2018). This mechanism is particularly damaging in low-income countries where the government plays a catalytic role in providing the public goods and infrastructure that attract private investment and promote economic diversification. When fiscal space is consumed by debt service obligations and defence expenditure, as in the case of South Sudan, the government's ability to perform this catalytic function is severely compromised.

Calvo (1998) extended the theoretical framework by linking high debt stocks to capital flight. He argued that the higher distortionary tax burden required to service a large debt stock reduces the rate of return on capital, driving investors to seek more favourable returns in other countries. This capital flight further reduces the domestic investment base, creating a self-reinforcing cycle of debt accumulation, capital outflow, and declining growth. For fragile states like South Sudan, where institutional safeguards against capital flight are weak, this mechanism is particularly relevant.

The Debt Laffer Curve framework, popularised by Pattillo et al. (2002), provides an integrative perspective by suggesting that the relationship between external debt and economic growth is non-linear. At low to moderate levels, external debt can promote growth by financing productive investment that would otherwise be impossible given domestic resource constraints. However, beyond a certain threshold, additional debt accumulation becomes counterproductive, as the negative effects of the debt overhang, crowding out, and capital flight begin to outweigh the benefits of additional borrowing.

Pattillo et al. (2002) estimated this threshold at approximately 35–40% of GDP or 160–170% of exports, beyond which each additional percentage point of debt is associated with reduced per capita growth. This framework is particularly relevant to South Sudan, where debt accumulated rapidly during a period of economic contraction, suggesting that the threshold was likely breached early in the study period.

Corden (1989) further contributed to the theoretical understanding by highlighting the implications of debt overhang for economic reform. He argued that a large debt stock may create disincentive effects for the state to carry out structural reforms such as trade liberalisation and fiscal adjustment, because the benefits of such reforms would accrue primarily to creditors through increased debt service capacity rather than to the domestic economy. This reform-inhibiting effect of the debt overhang suggests that the negative growth consequences extend beyond the direct investment and fiscal channels to include broader institutional and policy deterioration.

Empirical Literature

Recent empirical studies have largely confirmed the negative relationship between high external debt stocks and economic growth in developing countries, although the specific channels and magnitudes vary across contexts. Akram (2017) examined the impact of public debt on economic growth and investment in South Asian countries using panel data for the period 1975–2014 and found that external debt had a significant negative

effect on economic growth, with the relationship being mediated primarily through reduced investment and capital formation. The study also found evidence of a non-linear relationship consistent with the Debt Laffer Curve, with the negative growth effect intensifying beyond moderate debt-to-GDP thresholds.

Edo et al. (2020) conducted one of the most comprehensive recent studies of the debt-growth relationship in sub-Saharan Africa, using a panel of 44 countries over the period 2000–2018. Their findings confirmed that external debt stock had a statistically significant negative impact on GDP growth across the region, with the effect being more pronounced in countries with weaker institutional frameworks and higher dependence on commodity exports. Importantly, they found that the negative effect of external debt was compounded by declining export performance, creating a dual impediment to growth that is particularly relevant to the South Sudanese context.

Edet-Nkpubre (2023) investigated the relationship between external debt and economic growth in Nigeria using time series data from 1990 to 2020. The study employed the Autoregressive Distributed Lag (ARDL) approach and found that external debt stock exerted a significant negative effect on real GDP growth in both the short and long run. The negative effect was particularly pronounced when debt service obligations exceeded 20% of export revenues, suggesting a threshold effect consistent with the Debt Laffer Curve framework. The study also found that the productive use of borrowed funds specifically, channelling debt-financed expenditure toward infrastructure and human capital could partially offset the negative growth effects of debt accumulation.

Saungweme and Odhiambo (2020) conducted a comprehensive systematic review of 37 empirical studies on the relationship between government debt and economic growth in sub-Saharan Africa. The review found that the majority of studies reported a negative association between external debt accumulation and economic growth, particularly in countries with weak institutional frameworks, limited export diversification, and high dependence on commodity revenues. However, they noted that a minority of studies found positive or insignificant effects, typically in contexts where borrowed funds were effectively channelled toward productive investment and where institutional quality was relatively high.

Deshpande (1997) examined the debt overhang hypothesis through an empirical analysis of investment experience in 13 severely indebted countries over the period 1971–1991. The study found that external debt exercised a consistently negative effect on investment, with the relationship turning more strongly negative in the post-1983 period when the global debt crisis intensified. The author concluded that the adjustment measures applied by severely indebted countries had themselves contributed to the investment crisis, creating a policy trap in which debt-induced austerity further reduced the capacity for growth.

In the East African context, Asogwa (2014) examined debt sustainability in Tanzania and found that rising debt-to-GDP ratios were associated with declining investment and growth, particularly when the debt stock grew faster than the economy's productive capacity. For South Sudan specifically, limited formal econometric studies exist due to the country's short post-independence history and severe data constraints. However, reports from the IMF (2018) and the World Bank (2019) consistently highlight the adverse macroeconomic consequences of the country's rapidly growing debt stock, including depleted foreign reserves, currency depreciation, inflationary pressures, and severely constrained fiscal space for development expenditure.

The literature therefore provides strong and converging theoretical and empirical grounds for expecting that South Sudan's rapidly accumulated external debt stock has negatively affected its economic growth during the study period. The combination of conflict, commodity dependence, institutional fragility, and unproductive use of borrowed funds creates conditions under which the debt overhang, crowding out, and capital flight mechanisms are all likely to be operative.

Despite the extensive empirical evidence on the negative impact of external debt on economic growth, most existing studies focus predominantly on broad regional or country-specific analyses without adequately addressing the unique institutional, political, and socio-economic contexts of fragile states like South Sudan. For instance, while Akram (2017) and Edo et al. (2020) provide valuable insights into the debt-growth nexus in South Asia and sub-Saharan Africa respectively, they do not explore how conflict, political instability, and weak governance influence the effectiveness of debt use and its subsequent impact on growth. This omission leaves a significant gap in understanding the specific channels through which external debt affects economic performance in highly fragile settings, where institutional capacity is often severely compromised.

Furthermore, many of the reviewed studies, such as Edet-Nkpubre (2023) and Saungweme and Odhiambo (2020), emphasize the importance of debt management and the productive use of borrowed funds but fall short of analyzing the micro-level mechanisms and sectoral allocations that determine whether debt leads to growth or stagnation. Particularly for South Sudan, where data limitations hinder detailed sectoral analysis, there is a paucity of research examining how different types of public expenditure financed by external debt such as infrastructure, social services, or military spending affect economic performance. This gap is crucial because the impact of debt is likely contingent on how borrowed resources are allocated and managed within the country's fragile institutional framework.

Additionally, while the debt overhang hypothesis and the threshold effects (as discussed by Edet-Nkpubre, 2023) are well-documented, there remains limited exploration of the dynamic interaction between external debt and macroeconomic

instability in conflict-affected states like South Sudan. Existing literature largely treats debt accumulation and economic growth as static or linear relationships, neglecting the potential feedback loops and nonlinearities driven by internal conflict, currency volatility, and external shocks. This oversight hampers the development of context-specific policy recommendations, underscoring the need for more nuanced, model-based analyses that incorporate the complex interplay of political, economic, and security factors influencing debt sustainability and growth in fragile states.

Research Methodology

Research Design

The study adopted a case study research design, employing both quantitative and qualitative approaches. The case study design was selected because it allows for an in-depth examination of the external debt-growth nexus within the specific context of South Sudan, capturing the unique institutional, political, and economic factors that shape the relationship. The mixed-methods approach was chosen to leverage the complementary strengths of quantitative data (which provides generalisable statistical patterns) and qualitative data (which provides depth of understanding and contextual explanation). A cross-sectional survey was conducted, allowing for the collection of information from various categories of respondents within the same time period (Amin, 2005).

Target Population and Sample

The study was conducted in Juba, the capital of South Sudan, where most government institutions including the Central Bank and the National Ministry of Finance are headquartered. The target population comprised government officials in economic and financial departments, financial sector professionals, academicians with expertise in economics and public finance, and opinion leaders knowledgeable about the country's external debt and macroeconomic conditions.

Using the Krejcie and Morgan (1970) sampling framework, a sample of 60 respondents was drawn from an access population of 85. The sampling strategy employed a combination of simple random sampling and purposive sampling: 45 respondents were drawn through simple random sampling from the Ministry of Finance and Planning (across the Directorate of Macroeconomic Planning and Aid Co-ordination, the Debt Management Unit, the Directorate of Accounts, and the Directorate of Budgets), while 15 respondents were selected through purposive sampling from the Ministry of Petroleum (3), academia (7), and community opinion leaders (5). Purposive sampling was used for the latter groups to ensure the inclusion of respondents with specialised knowledge relevant to the study objectives.

Data Collection

Primary data were collected through two instruments. First, structured questionnaires containing Likert-scale items (ranging from Strongly Agree to Strongly Disagree on a five-point scale) and open-ended questions were administered to all 60 respondents. The questionnaire was organised into

sections covering demographic characteristics, determinants of economic growth, external debt indicators, sectoral allocation of borrowed funds, and strategies for enhancing economic growth. Second, interview guides were administered to key informants including Director Generals, heads of departments, academicians, and opinion leaders to obtain in-depth qualitative information on the impact of external debt stock on economic growth.

Secondary data were obtained from IMF reports, World Bank publications, African Economic Outlook reports, Ministry of Finance and Planning documents, and other relevant government and institutional sources. These secondary sources provided contextual macroeconomic data including GDP figures, debt stock data, inflation rates, exchange rates, and budgetary allocations that complemented the primary survey data.

Validity and Reliability

The Content Validity Index (CVI) was used to assess instrument validity. These involved judges scoring the relevance of the questionnaire items in relation to the study variables, with a consensus judgment given on each variable. For the instrument to be accepted as valid, the average CVI was required to be 0.7 or above (Amin, 2005). Internal consistency and reliability of the instrument were measured using Cronbach's alpha coefficient, with only variables achieving an alpha coefficient value of 0.7 or above accepted for analysis, consistent with accepted standards for social science research (Amin, 2005). A pilot study using 10% of the sample size was conducted prior to full data collection to identify and resolve any issues with the instrument.

Data Analysis

Quantitative data were analysed using descriptive statistics including frequencies, percentages, and means, computed with the SPSS statistical software package. Mean scores were used to show the level of agreement and disagreement among responses, with lower mean scores indicating stronger agreement on the five-point Likert scale. Qualitative data from interviews were analysed thematically: responses were organised by theme, coded, and presented in narrative form to complement and enrich the quantitative findings. The combination of quantitative and qualitative analysis provided a comprehensive picture of the effect of external debt stock on economic growth in South Sudan.

Results and Discussion

Demographic Characteristics of Respondents

The demographic profile of the respondents is presented in Table 1. Understanding the characteristics of the respondents is important for assessing the reliability and representativeness of the data collected. The majority of respondents were male (73.3%), reflecting the gender composition of the public sector in South Sudan. Most respondents held degree-level qualifications (73.3%), were aged 26–40 years (46.7%), had more than six years of professional experience (81.5%), served as senior staff (62.7%), and were employed in government (80%).

Table 1: Demographic Characteristics of Respondents

Characteristic	Category	Frequency	Percent
Sex	Male	44	73.3
	Female	16	26.7
Education	Degree	44	73.3
	Diploma	7	11.7
	Certificate	3	5.0
	None	6	10.0
Age	26–40 years	28	46.7
	Above 40 years	16	26.7
	21–25 years	10	16.7
	15–20 years	6	10.0
Experience	Over 6 years	44	81.5
	4–6 years	4	7.4
	1–3 years	6	11.1
Occupation	Government employee	48	80.0
	NGO employed	3	5.0
	Self-employed	3	5.0
	Not employed	6	10.0
Position	Senior staff	32	62.7
	Middle staff	8	15.7
	Junior staff	11	21.6

Source: Primary data (2019)

This demographic profile is significant because it indicates that the respondents were well-educated, experienced professionals occupying positions that would expose them to information and decision-making processes related to external debt and economic management. Their responses therefore carry a reasonable degree of informed authority on the study variables.

Respondents' Perceptions on External Debt Stock of South Sudan

Table 2 presents the respondents' assessment of key indicators related to South Sudan's external debt stock. These indicators capture different dimensions of debt stock sustainability and its consequences for the economy.

Table 2: Respondents' Views on External Debt Stock Indicators

Indicator	SA%	A%	UD%	D%	SD%	Mean
External debt exceeds US\$1.4 billion	11.7	20.0	31.7	16.7	20.0	3.13
International reserves near exhaustion	20.0	26.7	33.3	10.0	—	2.37
Very low foreign exchange reserves	38.3	33.3	6.7	16.7	—	2.37
Facing external payment difficulties	43.3	38.3	6.7	11.7	—	2.02
External debt exceeding thresholds	38.3	33.3	6.7	16.7	—	1.87

Source: Primary data (2019)

The findings indicate strong and consistent respondent agreement that South Sudan's external debt stock has reached unsustainable levels with severe consequences for the economy. The strongest consensus was recorded on the indicator that South Sudan's external debt currently exceeds sustainability thresholds, with 75.4% of respondents agreeing (mean = 1.87). This is followed closely by the finding that 81.6% of respondents agreed that South Sudan faces external payment difficulties (mean = 2.02), and 71.6% confirmed that the country has very low foreign exchange reserves (mean = 2.37). These three findings together paint a picture of a country in severe debt distress, where the accumulated debt stock

has exceeded the economy's capacity to service it, depleted the foreign exchange reserves needed for economic stability, and created persistent difficulties in meeting external payment obligations.

However, opinion was more divided on the specific claim that total external debt exceeds US\$1.4 billion, with only 31.7% agreeing and 36.7% disagreeing (mean = 3.13). This divergence likely reflects limited public access to precise debt stock figures rather than disagreement about the severity of the debt problem per se. South Sudan's statistical infrastructure is underdeveloped, and detailed debt data may not be widely

disseminated beyond specialised units within the Ministry of Finance. The fact that respondents showed strong consensus on the consequences of the debt stock (payment difficulties, depleted reserves, breached thresholds) while disagreeing about the precise magnitude suggests that the qualitative reality of unsustainable debt is widely recognised even where precise quantitative data are not available.

These findings are strongly consistent with the debt overhang hypothesis Krugman (1988) and Sachs (1989), which predicts that when a country's debt stock exceeds its expected repayment capacity, the resulting uncertainty discourages investment, depletes reserves, and constrains access to new financing. The results also align with the empirical findings of Edo et al. (2020), who reported that external debt stocks in sub-Saharan African countries had exceeded sustainable thresholds in many cases, leading to depleted reserves, macroeconomic instability, and reduced growth. Similarly, Edet-Nkpubre (2023) found that the negative growth effects of external debt in Nigeria were most pronounced when debt sustainability indicators breached critical thresholds, consistent with the pattern observed in South Sudan.

Allocation of Externally Borrowed Funds

The study further examined how externally borrowed funds were allocated across government sectors, as the productivity of debt-financed expenditure is a critical determinant of whether external borrowing supports or hinders economic growth. The findings are presented in Table 3.

Table 3: Government Sectors Utilising Externally Borrowed Funds

Sector	Yes (%)	No (%)
Defence	83.3	16.7
Agriculture	41.7	58.3
Health	35.0	65.0
Roads and Infrastructure	30.0	70.0
Education	30.0	70.0
Sports and Games	28.3	71.7
Tourism	23.3	76.7

Source: Primary data (2019)

The findings reveal a striking and deeply problematic pattern in the allocation of externally borrowed funds. An overwhelming 83.3% of respondents confirmed that borrowed funds were primarily channelled to the defence sector, making it by far the largest recipient of debt-financed expenditure. In contrast, the productive sectors that are widely recognised as drivers of economic growth received significantly less: agriculture (41.7%), health (35%), roads and infrastructure (30%), and education (30%). Tourism (23.3%) and sports (28.3%) received the least attention.

This pattern of debt-financed expenditure raises serious and fundamental concerns about the productivity of South Sudan's external borrowing. The growth-cum-debt model posits that external borrowing can promote growth only when

the borrowed funds generate economic returns that exceed the cost of borrowing (Avramovic, 1964). A debt stock that finances defence rather than growth-enhancing sectors such as agriculture, education, and infrastructure is unlikely to generate the economic returns needed to service the debt, thereby deepening the debt overhang rather than resolving it. This finding is consistent with Corden (1989), who argued that when borrowed funds are used for purposes that do not generate economic returns, the debt overhang effect is amplified because the economy lacks the productive base to grow out of its debt burden.

The finding is also consistent with Edet-Nkpubre (2023), who argued that unproductive use of borrowed funds is a key driver of the negative debt-growth relationship in developing countries, and with Ndikumana and Boyce (2019), who found that African countries where borrowed funds were diverted to unproductive uses experienced both higher capital flight and lower growth. The implication for South Sudan is clear: the current composition of debt-financed expenditure is not only failing to promote growth but is actively deepening the debt crisis by increasing liabilities without expanding the productive base.

Determinants of Economic Growth

Respondents were also asked to assess the relative importance of various determinants of economic growth for South Sudan. The results are presented in Table 4.

Table 4: Determinants of Economic Growth

Determinant	Agree %	Disagree %	Mean
Human capital	88.3	5.0	1.72
Government policies	83.3	11.7	1.97
Inflation management	78.3	16.7	2.47
Efficient financial systems	78.3	10.0	1.85
Sustainable fiscal policy	75.0	13.4	2.13
Physical capital	71.7	21.7	2.48
Higher government savings	68.3	5.0	1.93
Political stability	63.3	23.4	2.87
Technological progress	63.3	23.4	1.87
Consumption and investment	60.0	26.7	2.40
Government spending on health/education	51.7	35.0	2.95
Geography	51.7	35.0	2.83

Source: Primary data (2019)

Human capital was rated as the most important determinant of economic growth, with 88.3% of respondents agreeing and a mean of 1.72 indicating very strong consensus. This was followed by government policies (83.3%, mean = 1.97), inflation management (78.3%, mean = 2.47), efficient financial

systems (78.3%, mean = 1.85), and sustainable fiscal policy (75.0%, mean = 2.13). Physical capital (71.7%), higher government savings (68.3%), political stability (63.3%), and technological progress (63.3%) were also identified as important determinants.

These findings are consistent with the broader empirical literature on growth determinants in developing countries. Fischer (1992) found that human capital, investment, and macroeconomic stability were positively and significantly associated with economic growth in SSA countries, while Easterly and Levine (1997) identified low schooling, political instability, underdeveloped financial systems, and high government deficits as key factors explaining Africa's poor growth performance. Barro (2003) similarly found that years of schooling, the rule of law, and trade openness were positively associated with growth, while government consumption, inflation, and fertility rates were negatively associated.

The strong consensus on human capital and government policies as drivers of growth contrasts sharply with the finding that only 30% of borrowed funds are directed to education and only 35% to health, underscoring a critical misalignment between acknowledged growth priorities and actual debt-financed expenditure patterns. This misalignment reinforces the crowding-out argument advanced by Agenor and Montiel (2018), wherein the combination of debt service obligations and security-oriented fiscal priorities redirects fiscal resources away from the very growth-enhancing public investments that respondents identify as most important for South Sudan's economic development.

Strategies for Enhancing Economic Growth

Respondents identified several strategies for enhancing economic growth in South Sudan. Technological progress was rated highest (88.3% agreement), followed by improving government and institutional efficiency (85%), creating political stability (81.7%), developing favourable public policies (76.7%), capital accumulation (75.1%), increasing government expenditure on health, education, infrastructure, and security (75%), private and public investment (70%), and investing in human capital (63%). These findings collectively point toward a strong respondent preference for productive investment, institutional strengthening, and macroeconomic stabilisation precisely the areas where unsustainable external debt stock and its associated fiscal burden create the greatest constraints.

The emphasis on technological progress (88.3%) as the leading strategy for enhancing growth is particularly noteworthy given South Sudan's current technological deficit. The country's infrastructure for technological adoption is severely underdeveloped, with limited internet connectivity, unreliable electricity supply, and virtually no domestic research and development capacity. Addressing these gaps requires substantial investment in telecommunications infrastructure, energy generation, and technical education—all of which demand fiscal resources that are currently absorbed by debt service obligations and defence expenditure. This finding

therefore reinforces the central argument that the unsustainable debt stock, by constraining fiscal space for productive investment, indirectly undermines the country's capacity to adopt the very growth strategies that respondents identify as most important.

Similarly, the strong emphasis on improving government and institutional efficiency (85%) reflects an awareness that weak governance and institutional capacity have compounded the negative effects of debt accumulation. South Sudan's public financial management systems are among the weakest in the world, with limited capacity for debt recording, monitoring, and reporting (World Bank, 2019). This institutional weakness means that the government lacks the technical capacity to effectively manage its debt portfolio, negotiate favourable terms with creditors, or ensure that borrowed funds are directed toward their intended productive purposes. Strengthening these institutional foundations is therefore a prerequisite for breaking the cycle of unproductive borrowing and declining growth.

The priority accorded to political stability (81.7%) underscores the fundamental reality that South Sudan's debt crisis cannot be resolved in isolation from its political and security challenges. The civil conflict that erupted in December 2013 was the primary driver of the economic collapse that necessitated much of the external borrowing, and the ongoing instability continues to deter investment, disrupt production, and divert fiscal resources toward defence. Respondents' recognition of political stability as a critical growth-enhancing strategy suggests that a comprehensive approach to debt sustainability must address the underlying political and security dynamics, not merely the financial dimensions of the crisis.

Conclusions

This study has established that external debt stock has adversely affected the economic growth of South Sudan during the period 2013–2018. The rapid accumulation of debt, from near zero at independence in 2011 to over US\$1.4 billion by 2018, occurred against a backdrop of civil conflict, collapsing oil revenues, and severe macroeconomic instability. The study found strong and consistent consensus among respondents that South Sudan faces external payment difficulties (81.6% agreement), its debt stock exceeds internationally recognised sustainability thresholds (75.4%), and foreign exchange reserves have declined to critically low levels (71.6%).

The unproductive allocation of borrowed funds predominantly to the defence sector (83.3%) rather than to agriculture (41.7%), health (35%), education (30%), or infrastructure (30%) has compounded the problem by failing to generate the economic returns necessary to service the growing debt obligations. This pattern is consistent with the debt overhang hypothesis and the crowding-out effect documented extensively in the theoretical and empirical literature on developing countries.

The study also revealed a significant misalignment between the growth priorities identified by respondents human capital (88.3%), government policies (83.3%), and fiscal sustainability

(75%) and the actual allocation of debt-financed expenditure, which overwhelmingly favours defence over productive investment. This misalignment suggests that the negative growth effects of the debt stock operate not only through the direct mechanisms of debt overhang and crowding out but also through an indirect mechanism whereby the fiscal pressures created by debt accumulation prevent the government from implementing the very policies and investments that respondents identify as essential for growth.

The findings therefore confirm that an unsustainable external debt stock acts as a significant and multifaceted constraint on economic growth in South Sudan, operating through depleted foreign reserves, limited access to financing, macroeconomic instability, crowding out of productive investment, and misallocation of fiscal resources.

Recommendations

Based on the findings and conclusions of this study, the following recommendations are advanced for the Government of South Sudan and its development partners:

First, the government should establish and adopt an optimal balance between external and domestic debt to maintain steady economic growth. This requires developing a comprehensive medium-term debt management strategy with clear borrowing limits anchored to GDP and export revenue projections, consistent with internationally recognised sustainability thresholds established by the IMF-World Bank Debt Sustainability Framework.

Second, exchange rate stabilisation should be prioritised as a central component of debt management. The severe depreciation of the South Sudan Pound has significantly increased the domestic currency cost of the external debt stock, compounding the fiscal burden and fuelling inflation. Measures to stabilise the exchange rate including reducing reliance on Central Bank deficit financing, improving export performance, and building foreign exchange reserves would reduce the real burden of the existing debt stock.

Third, future external borrowing should be rigorously directed toward productive and growth-enhancing sectors, particularly agriculture, education, health, and infrastructure, rather than defence and security. Given that only 4.5% of South Sudan's arable land is currently cultivated despite 70% being suitable for agriculture, debt-financed agricultural modernisation programmes could simultaneously promote food security, generate export revenues, and improve the country's debt-servicing capacity.

Fourth, prudential fiscal management measures, including expenditure rationalisation, improved domestic revenue mobilisation, and enhanced transparency in public financial management, are required to reduce reliance on external borrowing and to ensure that a greater proportion of both tax revenues and borrowed funds is channelled toward productive investment.

Fifth, the government should actively engage with bilateral and multilateral creditors to explore options for debt relief and restructuring that would bring the external debt stock within sustainable limits, freeing fiscal resources for the productive investment that is essential for long-term economic recovery and growth.

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