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# Analysis of the Relationship between Fiscal Deficits and Debt Accumulation in Zambia

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**Abstract**
Zambia has experienced structural deficits for decades and these have been viewed as the main cause of debt accumulation. Despite heavy investment in infrastructure and other sectors, the country faces low revenue relative to rising cost of debt.

**Objective**: to establish whether deficit financing is the cause of high debt in Zambia.

**Method**: Using secondary data and an archival strategy, data was analyzed through a mixed research choice which required both qualitative and quantitative data to be presented together. This involved using descriptive and analytical approaches.

**Findings**: It was found that Zambia cannot survive without borrowing and this is the main cause of debt accumulation as investment do not adequately contribute towards covering debt servicing costs. The country's reliance on copper exports is the main reason for continuous deficits as no alternatives are sought to diversify the economy. In addition, Zambia generates growth which is not sufficient to cover the debt servicing burden.

**Conclusions and Recommendations**: They study concluded that Zambia needs to control it's key resource, mining, to ensure that proceeds are maximized and invested into agriculture and in boosting the manufacturing sector. The country needs to focus on generating the fiscal surplus of 1.32 of GDP to make the debt ratio of 60 percent to be sustainable.

**Keywords**: fiscal deficit/ surplus, deficit financing, low revenue, mixed-method.

## Introduction

Many countries in the world have ambitions such as achieving economic growth and development to improve the welfare of citizens. Zambia has since independence made strides to develop infrastructure to easy lives of rural and urban citizens but this has not been achieved without accessing debt finance. The cause for borrowing originated from declining revenue in the early 1970s making the budget inadequate to meet capital projects costs such as roads, bridges, schools and health centres, among others (Saungweme and Odhiambo, 2018).

Countries can always continue borrowing and running budget deficits in order to afford huge projects infrastructure development, otherwise these cannot be achieved from tax revenue. Zambia's need for infrastructure development remains high because of most underdeveloped areas of the country . As the level of debt increases, the cost of servicing interest and retiring loan principal becomes expensive relative to the budget. This is especially where debt finance was not allocated to productive sectors to enhance growth could contribute to debt servicing costs (Hilton, 2021).

Apart from high interest rates, some of the factors which contributed to declining revenue include the impact of the droughts of 2014-2015 season (Smith, Davies & Chinzara, 2016), the infestation of the crops by army worms in 2016-2017 season (National Assembly of Zambia, 2017). These disrupted the fiscal health of the country due to crop failure and high power shortages making it impossible for the country to avoid borrowing to meet the budget. The COVID-19 pandemic completely ravaged Zambia's economy (Napo, 2022) and the world economy, and created a combination of financial, debt, economic crises and high inflation (Forbes, 2023; Market Watch, 2022).

**Background**

Since independence in 1964, Zambia experiences an increasing demand for more infrastructure development due to increasing population making the existing facilities insufficient. Initially, the country in the late 1960s had a healthy economy due to booms in the mining sector and favourable price of copper on the world market. Zambia was one of the wealthy economies on the continent at that time because of high revenue, fiscal surplus and strong exchange rate against the pound and the US dollar (Siyanga, 2018). However, the oil crisis of 1973 coupled with the drop in the copper price in 1975 effected the change from a strong currency to a weak one and from fiscal surpluses to fiscal deficits (IMFelibrary). These all happened when the country had increased it's borrowing for infrastructure development which included the Tanzania-Zambia railway and oil pipe lines, the Mulungushi textiles, and other major infrastructure (Brautigam, 2021). The situation did not improve in the 1980s as the government continued borrowing to meet the budget.

In the 1990s, attempts were made to introduce the cash budget and a reduction in public expenditure which led to qualifying for the HIPC program (Saungweme & Odhiambo, 2018). The country experienced the lowest debt levels after the debt relief of 60 percent of total debt in 2005 (Calabrese, 2021) but this opened up an opportunity to start borrowing. As from 2009 moderate borrowing was done but the highest debt accumulation was witnessed from 2012 to 2015 (Kalikeka et al, 2019). This appetite for more debt was driven by the desire for more infrastructure development and partly by an attractive economic growth rate averaging 7 percent (Smith, Davies & Chinzara, 2016).

**Literature Review**

Defining a fiscal deficit: A fiscal deficit can have different definitions but in Zambia it is simply a negative fiscal balance. Hyman (1997) defined a deficit as "the lack of public revenue to finance investment and current expenditure that prompts the state to meet these through internal or external loans in order to achieve economic and social goals". This can be simplified as an increase of public expenditure over revenue in a fiscal year. Zambia uses deficit financing to support it's budget and this is the main cause of debt.

The use of deficit financing has proved useful in many countries for large capital investments. This is especially essential where domestic revenue prove insufficient forcing the country to access foreign debt (Gazali,2020). These investments should be expected to spar economic growth and improve living standards of citizens.

The size of a deficit depends on the country's capacity to use funds in the productive sectors to ensure that the funds are able to produce higher growth than interest rates on loans. Japan is an example of a country which has used deficits as a major source of meeting public expenditure in the past thirty years (FitchRatings, 2022). Similarly, the US relies on most private local banks, corporations and wealthy individuals for most of its debt (Oxford Research Encyclopedia, 2019). These countries benefit from interest differentials and have the capacity to reduce the foreign exchange risk as the loans are denominated in the local currency. Further, local borrowing is easier to manipulate through financial repression and surprise inflation (Reinhart, Reinhart & Sbransia, 2015).

Whilst use of deficits has been successful in most developed countries, it has been a cause of rising debt in most developing countries. Zambia has seen its debt increase in the last decade because of large fiscal deficits (Estevao, Robinson & Sommer, 2019) and higher debt servicing interest rates than economic growth rates.

**Difference in the use of deficits by countries are due to two major factors:**
**Frugality:** Frugality refers to how a country takes advantage of deficit spending by being efficient and cost conscious. Argandona (2010) likened frugality to a virtue that determines the value of decisions in a society. This is linked to aspects of behaviour towards spending and saving. For example, Germany and Japan government's are able to use local borrowing from the wealthy and lend funds to industries which boost production. This is because the investment is able to earn higher return than the cost of bond servicing. The government is thus able to generate differential revenue (Reis, 2022).

**Imprudence:** Most developing countries are not cost efficient in applying debt funds. This is particularly the case that results in less or no value creation from borrowed funds. Imprudence is synonymous to not being mindful in spending or extravagance (Quora.com) but Musonda (2020) referred this to wrong investment choices. It is Why Turner (2015) advised to invest debt funds into businesses which give higher returns than the required return by investors. These include investment into manufacturing of goods and services rather than into social infrastructure and consumption.
Despite the success of deficit financing in developed countries, the practice is that it involves getting funds from the wealthy and lending it to investors to benefit from differential interest. The problem is that developed countries record low growth. For example, Japan records mediocre growth close to 1 or 2 percent (FitchRatings, 2022) but needs to keep interest rates lower than this growth rate. It is thus a disincentive to lenders but the advantage is that there are more competing local lenders than in poor countries.
The paradox of deficit-debt relationship raises two concerns, being using debt finance to invest in order to grow the economy and the need to service the liability. However, the use of budget deficits depends on the government's school of thought and can be categorized into three:

Ricardians (1951) argue that deficit financing will have the same impact on the economy as tax charges. They added that debt issuance is an indication of plans to raise taxes in future. They thus coined the Ricardian Equivalence Hypothesis which states that debt and taxes are equal sources of financing in the short-term. However, the difference only appears in the long-term because of the need to pay interest on debt.

In contrast to Ricardians, the Neo Classical argue that budget deficits are detrimental to the economy because it encourages consumption expenditure and have long-term impact such as raising taxes on future generations.

Keynesian group (1936) argue against the Ricardian and other classic theorists and state that deficits have adverse effect on the economy where actors have a short-term view (Nguyen, 2013). They argued that budget deficits result into increased income, welfare and consumption. They further stated that deficit financing increases income presently against the present low tax burden and injection of these funds in the economy can have a multiplier effect as demand increases and consumption rises. This is the view taken by the Zambian authorities.

Zambia rarely records a fiscal surplus and mainly depends on borrowing to finance Public expenditure. With a high GDP growth of 7 percent in 2012, the country anticipated subsequent years of higher growth and decided to reboot the economy with more debt in 2012, 2014 and 2015 (Kalikeka et al, 2019). However, from the year 2013 to 2020 the country experienced declining growth rates in the range of 3-4 percent against foreign interest rates of 8.97 percent (Brautigam, 2021) and local bonds averaging 25 percent (BOZ, 2023). This led the country's huge debts to grow and the situation was worsened by the COVID-19 pandemic which completely eroded the fiscal capacity and made Zambia the first African country to default in the pandemic era (Komminoth, 2022).

While debt finance is proved useful in countries in that it enables poor countries like Zambia to afford huge projects, it also has negative impact on the socio-economic activities. The IMF (2001) and Nguyen (2013) indicated adverse effects on:

Investment: High deficits force the government to raise tax rates and interest rates in order to raise more revenue. This action normally reduces income of citizens and also pushes the cost of borrowing beyond the capacity of local investors. In the long-term, investment declines. Zambia is one of the countries with the high cost of doing business because of high rates of interest, difficult regulation, among other obstacles (Lusaka Times, 2022).

Living standards: high deficits raise taxes and thus reduce income of citizens. Zambia is currently experiencing high cost of living due to high taxes and removal of subsidies. The situation is even difficult due to high government borrowing from the public resulting into little money in circulation and prohibitive borrowing rates from the financial institutions. The current lending rates are ranging between 25 to around 40 percent (BOZ, 2023, May).

Inflation: high levels of deficit can prompt the government to use money printing commonly known as 'fiat money' to meet expenditure. Where these funds are injected into production, they may add value and have a multiplier effect on the economy. However, where funds are used on consumption, this increases inflation and deteriorates the value of the local currency. Money injected into the economy may dilute the purchasing power of the currency where it is not supported by the production capacity of the society. Cash issuance is considered a debt on government (Hassan, Ahmed & Thabet, 2022). This is why (Badia, Medas, Gupta & Xiang, 2020) stated that "debt is not free".

Foreign direct investment: high deficits signal that the country's budget management is poor and that the country's capacity to raise revenue are low. This may scare foreign investors and deprive the country of needed resources to meet it's objectives.
Economic prosperity: where deficits are invested in long-term profitable projects, it can add to the country's revenue, cover debt servicing and help to reduce past deficits (Reis, 2022). However, where it used in immediate consumption or short-term projects, this cannot generate income in the long-term and may lead into future public debt (Gazali, 2020). This is why Turner (2015) suggested to invest into production and not into consumption or infrastructure development. Zambia used most of debt was injected into social infrastructure such as bridges, schools and health facilities which do not generate revenue and these contributed to rising debt servicing costs.
Because of the various problems caused by deficit financing, it is now worth to find out the necessary ways through which it can be used to sustain the fiscal health of the economy and also to manage debt obligations. This leads to the following objectives:
RO1: to relate deficit financing to public debt accumulation in Zambia
RO2: to discover the impact of deficits on macroeconomic stability.
RO3: to determine the level of deficits needed to sustain public debt.
RO4: to establish ways of reducing fiscal deficits.

**Methods**

The study uses descriptive statistics to analyze secondary data collected from the Ministry of Finance and National Planning (MFNP) and the Bank of Zambia. This was a cross-sectional snap research aimed at finding out whether deficit financing has contributed to debt accumulation. The population sample covers data for the period 2002 to 2021. The nature of data is quantitative and contains qualitative data which is also essential in understanding the financial data. Data was collected through an archival strategy which allows looking into past records including findings of other researchers (Ham-Baloyi & Jordan, 2016). Quantitative and Qualitative data was presented together as this is permitted in a mixed research (Creswell, 2013). The researchers used a mixed choice to derive benefits from the two data types in order to meet research objectives.
Conceptual Framework
The objective is to establish whether fiscal deficits causes debt accumulation in Zambia. This relationship can be represented as below (Figure1). The figure indicates that both fiscal deficit and debt accumulation have adverse effects on macroeconomic variables such as economic growth, interest rates and inflation rates.

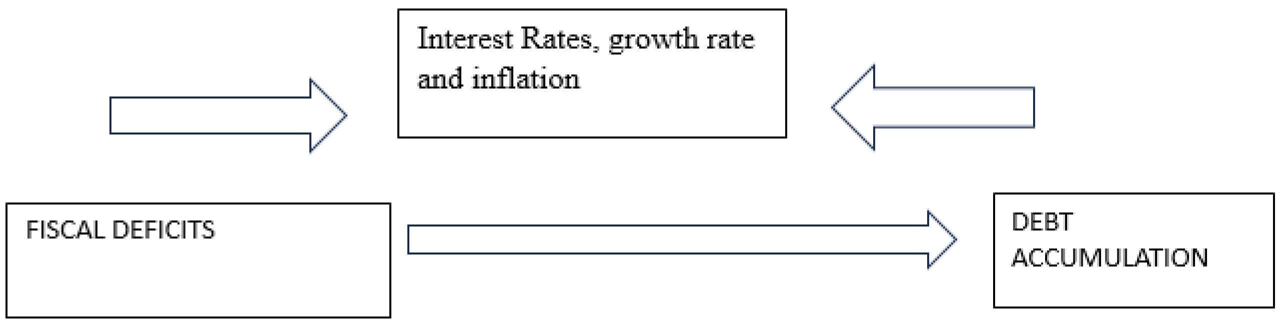


Figure 1. Relationship between fiscal deficits and debt accumulation

**Results**

RO1: to relate deficit financing to public debt accumulation in Zambia

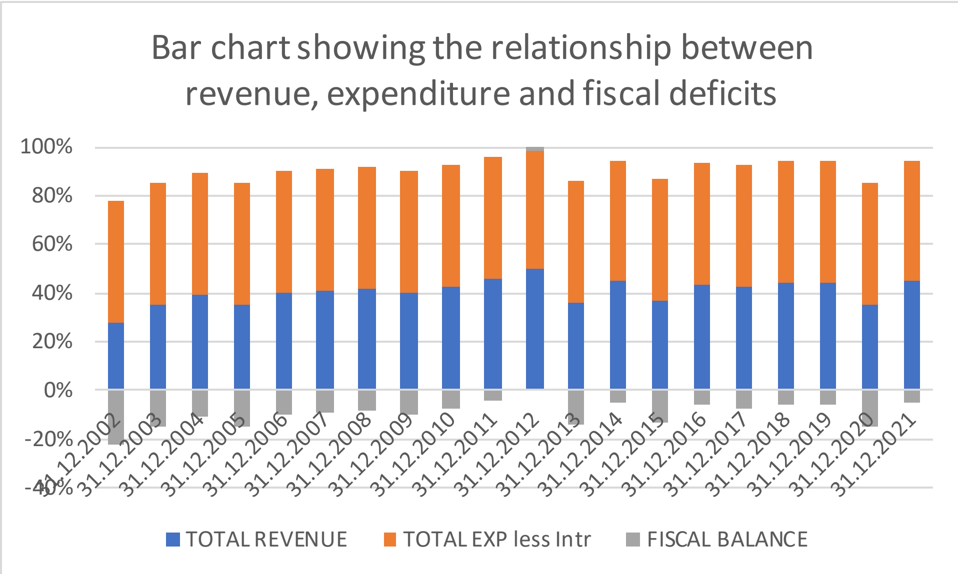


Figure 2: Public revenue, expenditure and fiscal balance: Source MFNP, (Authors workings).

RO2: to discover the impact of deficits on macroeconomic stability.
Macroeconomic stability is a prerequisite for debt sustainability (ERF World Bank Webinar, 2020). High deficits in Zambia have been the cause of debt crises because of failure to generate surpluses needed to eliminate past deficits. Zambia creates structural deficits which eventually increase the debt burden. The consequences of high debt are adverse to the economy and it's impact has been noticed in high debt servicing costs taking major portion of the budget (Policy Monitoring and Research Centre, 2022) the risk of fiscal adjustment and the restructuring process which has adversely affected the economy by slowing economic activities due to the process dragging over three years now and no ultimate conclusion has been reached with private lenders (Reuters, 2023).

Further, it has been difficult for the country to access further credit after a default prolonged negotiations with creditors. These factors have affected the Zambian economy in that growth has stored at below 3 percent, inflation has climbed to around 10.3 percent as of July 2023 (zamstats.gov.zm), the cost of living has gone up and poverty levels have escalated, and the Kwacha exchange rate remains high at 19 kwacha per US dollar (Bank of Zambia, 2023: Aug 2) despite easing of the pandemic.

Zambia, however, remains hopeful after the restructuring of the USD$6.3 billion which relieves the country from the tight repayment schedule as this sum has been suspended for three years while repayment plan indicates the twenty year period (Bloomberg, 2023). The expectations are that borrowing will reduce and more efforts will be directed towards improving liquidity in the economy to be used in enhancing capacity to carry a lower debt burden in future. This should help in reducing the deficit financing and debt accumulation and enable the country to use generated resources into the economy.

RO3: to determine the level of deficits needed to sustain public debt.
Here, the objective requires to find the fiscal deficit needed to be compatible to the SADC recommended debt threshold of 60 percent of GDP (Mbandlwa, 2020). Ogbeifun and Shobande (2020) referred this to a relationship between public debt and fiscal balance.

This can be obtained from the debt ratio to fiscal balance ratio ( Frankel, 2019; Bohn, 1998).

b= d/(I - gy) Equation (1)

Where b is public debt to GDP in year t; d is fiscal deficit to GDP in the year t; gy is growth rate of GDP; and i is the average interest rate.

The required deficit can be derived as:

d= b (i - gy). (2)

Given that d is 60 percent, GDP growth is at 3.8 percent (World Bank,2022), and i at 6 percent (CNBC,2023), deficit to GDP ratio will be:

d= 60%(6% - 3.8%)= 0.6 X (2.2)= 1.32

Therefore, Zambia requires a fiscal surplus to GDP ratio of 1.32 in order to make the debt sustainable.

RO4: to establish ways of reducing fiscal deficits.

There are various ways available for the country to avoid excessive borrowing and thus reducing the fiscal balance. Looking at the past experiences of highly unsustainable deficits and high debt levels, it is indication of high fiscal problems. To address this, pioneers of debt sustainability suggested methods of reducing deficits to make debt sustainable. Domar (1944) indicated that the country needs a record of higher growth than interest rates. Hamilton and Flavin (1986) suggested generation of a budget surplus to take care of intertemporal budget constraints. Bohn (1998) indicated that growth over interest choice was not absolute solution to sort out debt sustainability problems as the decision was dependent on the state of the economy and government choices. Bohn emphasized that government exercises economics of control by being pro-cyclical in recessions. This view aligns with the post Keynesian theories of economics of control (Lowe, 1965; Lerner, 1944). Zambia in this case runs pro-cyclical policies because its economy is weak and vulnerable and the country has no choice (Carneiro, Nguyen & Odawara, 2016). In order to escape from this situation, the country needs long-term measures which include:

Diversification: Diversifying the economy from dependence on copper exports which make up 75 percent of the country's revenue (Pearce et al, 2022).

Control mineral wealth: This is needed to ensure that proceeds are maximized and invested in sustainable sectors such as the agricultural sector, the energy sector and manufacturing sector.

Reform the tax structure to ensure that the extractive industries pay a fair share of taxes, improve tax extraction from various sources (Oloruntoba, 2022).

Reduce local interest rates: low interest rates encourage borrowing for investment needed to contribute towards growth. The current interest rates are too high to enable the poor majority to afford them.

Create local millionaires: having wealthy citizens is one way to make the country secure with more foreign currency. For example, the US, Japan, and other developed countries borrow more money from local citizens (FitchRatings, 2022).

Investment in Commercial projects: use of deficit financing to finance well evaluated projects that can earn higher return to sustain debt servicing and also contribute to economic growth (Hilton, 2021).

**Discussions**

RO1: figure 2 indicates that the country relied on deficit financing for the period 2002 to 2021. It only managed to break even in the year 2012. The excess of expenditure continued from the year 2013 to 2021. There was a rise in fiscal deficit in 2020 due to the need to finance control of the COVID-19 pandemic and this was against declined revenue caused by economic lockdowns.

RO2: Nguyen (2013) indicated adverse effects of deficits to include:

Hurting Investment: High deficits force the government to raise tax rates and interest rates in order to raise more revenue. Zambia in this respect has removed subsidies on fuel, electricity and is on the verge of stripping the farmers input support program. These measures though aimed at saving government funds they are likely to be injurious on the economy as this action normally reduces income of citizens. High government borrowing has pushed borrowing rates from bank high beyond the capacity of majority poor Zambians. In the long-term, the country will face a decline in investment

Economic growth: Zambian economic growth has stored at below 3 percent in 2023. This is attributed to the longstanding debt restructuring process. It is, however, expected that economic activities will resume since the major portion of the debt burden of USD$6.3 billion has been restructured (Bloomberg, 2023). However, the economy, just like other vulnerable countries, will need time to recover. This will also depend on the authorities commitment to drive the countries economy into prosperity through effective Economic policies that will need using debt to generate growth and in the long-term reduce borrowing as the country generates adequate surpluses (Mankiw, 2017)..

High inflation: High inflation is not good for the country because of the difficult in planning as it affects the value of the currency. Zambia is unable to shield itself from the global inflation because it highly depends on imports. This deters the country to build reserves because it runs on the trade deficits that incapacitate generating more revenue to create a fiscal surplus. Growing population is currently providing demand to foreign investors and yet citizens require government to provide amenities such as health facilities and schools which are not cheap to provide. This is putting a toil on government as the revenue base continues to be limited.

RO3: Zambia needs a fiscal surplus to GDP ratio of 1.32 to make debt sustainable. It is a surplus and not a deficit because the country's growth rate is much lower than the interest rates on debt.

RO4: Zambia must aim at generating budget the surplus through the following measures:

Agriculture sector- This sector has immense natural resources with a growing population. This means that the country can harness these resources by increasing production in the sustainable sectors such as agriculture which has huge potential to diversify the economy. The current high demand of agricultural output locally and in neighboring countries such as DR Congo, Angola Kenya and other countries is indication of the opportunity that the country can take to increase output.

Reduce local interest rates: low interest rates encourage borrowing for investment needed to contribute towards growth. The current interest rates are too high to enable the poor majority to afford them. Lessons may be taken from countries issuing lower interest rates and even interest free loans to local citizens to encourage local investment. For example, Hungary has the lowest lending rates in the world at 1.96 percent as per 2022 report (theglobaleconomy.com).

Create local millionaires: having wealthy citizens is one way to make the country secure with more foreign currency. For example, the US, Japan, and other developed countries borrow more money from local citizens (FitchRatings, 2022). In Switzerland citizens prefer a tax increase to foreign borrowing because citizens are wealthy and are prepared to sacrifice to avoid the consequences of foreign debt (Economic Raven, 2021).

Reform the tax structure to ensure that the extractive industries pay a fair share of taxes, improve tax extraction from various sources (Oloruntoba, 2022). The other measure may require to reduce taxes on citizen's income to increase consumption and raise taxes on the wealthy such as property transfer taxes, carbon emission taxes and taxes on luxuries (Deloitte, 2022).

## Conclusions, Practical Implications and Recommendations

**Conclusions**: Zambia generates growth but it is not enough to avoid debt accumulation. The country must therefore focus on generating a fiscal surplus and this requires gaining control of strategic assets like the mineral extractive industry in order to maximize collection of revenue. The country can use mining proceeds to invest in agriculture, energy and the manufacturing sectors which are sustainable and this will diversify the economy. The target fiscal surplus to GDP ratio of 1.32 is needed to sustain public debt to GDP ratio at the level of 60 percent. Other ways to reduce fiscal deficits in include creating local millionaires to act as first lenders before accessing foreign debt, reduce lending rates to boost economic activities and investment necessary to widen the tax base, and reforming the tax structure in order to collect correct taxes over the long-term.

**Practical Implications**: The above conclusions mean that the country needs to change putting much emphasis on growth generation only because history indicates that Zambia records economic growth but it is not sufficient to cover debt servicing. In order to avoid perpetual deficit financing, attention must be paid to increasing fiscal surplus and this requires the authorities to prioritize citizens in policy formulation. This approach will involve improvement in access to credit crucial for local investment. Considering that Zambian citizen population is composed of the poor majority, this requires reduction of lending rates to ensure that the majority access credit finance. This, however, will need streamlining the financial system with government programs and the cost to be born by government.

**Recommendations**: The country needs to focus on generating fiscal surplus which is crucial to reduce borrowing and is consistent with suggestions from Hamilton and Flavin (1986).
Zambia must use periods of economic growth to build reserves to be used in difficult economic times. These may help to avoid borrowing which is a costly.
Since debt servicing allocation is a political decision, the authorities need to exercise economics of control (Bohn, 1998; Lerner (1944), citing in Forstater, 2014) by avoiding the deficit to accumulate and deepen over time. This may also require fixing a rate of fiscal deficit to GDP, the method commonly known as the 'golden rule' (Hamad & Abarahim, 2022).

## References

1. Which country has the lowest lending rates? https://www.theglobaleconomy.com Reuters (2023).Zambia's bondholders see debt restructure deal in coming weeks. June 27.
2. Annual inflation rate, July 2022 – July 2023. https://www.zamstats.gov.zm Bank of Zambia (2023). Kwacha exchange rate against the UD dollar. https://www.boz.zm Bloomberg (2023). Zambia's Debt Deal with China is a Landmark Moment. June 25.
3. Hamad, M.K., & Abarahim, K.D. (2022). Analyzing and measuring the relationship between the Golden Rule of financial discipline and the Federal Budget Deficit in Iraq for the period (2004-2020). *Journal of Business and Management Studies*, ISSN:2709-0876, DOI:10.32996/jbms.
4. Economic Raven (2021).The economy of Switzerland, unraveling Swiss Economy. *Economic Raven*, February 13. YouTube.

5. Bohn, H. (1998). "The Behaviour of U.S. Public Debt and Deficits ". *Quarterly Journal of Economics*, 113(3), 949-963.
6. Hamilton, J.D & Flavin, M.A. (1986). "On the limitations of Government Borrowing: A Framework for Empirical Testing". *American Economic Review*, 76(4), 808-819.
7. Forstater, M (2014). An Institutionist Post Keynesian Methodology of Economic Policy with an Application to full employment. Working Paper 18, University of Missouri, Kansas City.
8. Hilton,K.S. (2021). Public Debt and economic growth. Contemporary evidence from a developing country. *Asian Journal of Economics and Banking*, 5(2). Emerald Insight.
9. Bank of Zambia (2023). Monetary Policy Committee Statement. BOZ. February 15.
10. ERF-World Bank Webinar (2020). Macroeconomic Fragility and Debt-data transparency. *ERF Official*, May 21.
11. Market Watch (2022). "High debts and stagflation have set the stage for the mother of all financial crises". Economy and Politics. Dec 3.
12. Napo, S. (2022).Assessing public debt sustainability under COVID-19 uncertainty: Evidence from Cote d'Ivoire. *African Development Review*. Wiley.
13. National Assembly of Zambia (2017). Fall army worms or stock borer and red locusts. The Ministry of Agriculture. https://www.parliament.gov.zm/node/62.
14. Nguyen, T.Q. (2013). Reducing the budget deficit sustainably in Vietnam: Pathway to 2020. The International Academic Forum, The Asian Conference on Sustainability, Energy and the Environment. https://www.iafor.org
15. Reis, R. (2022). The Fiscal Revenue from Public Borrowing. London School of Economics (LSE).
16. Komminoth, L. (2022). Deal to resolve Zambia's Debt Crisis "likely". Finance and Services, *African Business*, June 16.
17. Smith, G., Davies, F., & Chinzara, Z. (2016). Beating the slow down: Reducing fiscal vulnerabilities for economic recovery. *Microeconomics and Fiscal Management*, World Bank.
18. Gazali, M.(2020). Budget Deficit and Debt: Descriptive analysis of Indonesia's case. *International Conference on Management, Accounting and Economy* (ICMAE).
19. Siyanga, M. (2018). Does Public Debt spur or hinder economic growth in Zambia?' Graduate School of Business, *University of Cape Town*.
20. Deloitte (2022). Zambia Budget 2023 Tax Card: Looking towards growth.
21. Pearce, A., Chibuta, C., Chiwele, K. & Williams, S. (2022). Zambia's road to economic recovery through growth, jobs and stability. Policy Brief.2022ord Research Encyclopedia (2019). History of credit in America. https://www.oxfordre.com
22. Lusaka Times (2022). Address the high cost of doing business in Zambia, Government told. Nov 23. https://www.lusakatimes.com
23. Oloruntoba, O. S.(2022)."Back to the well ?" Untangling the new debt accumulation, COVID-19 and social crisis in Africa.
24. Saungweme, T. & Odhiambo, N. (2018). The dynamics of public debt in Zambia: A critical review. Euro Economics, 3(37).
25. Brautigam, D. (2021). How Zambia and China co-created a Debt "Tragedy of the Commons".John Hopkins School of Advanced International Studies. Working Paper 51.
26. Calabrese, L (2021). Borrowing for infrastructure: An unavoidable challenge. ODI., http://odi.org/en/insight.

27. Kalikeka, M., Nalishebo, S., & Muleya, F. B (2019). Towards 2022: Options for paying back Zambia's Eurobond. *Zambia Institute for policy analysis and research* (ZIPAR), Working Paper 37.
28. Ogbeifun, L & Shobande, O.A (2020). Debt sustainability and the fiscal reaction function: evidence from MIST countries. *Future Business Journal*, *Springer* 6(1),1-8.
29. Carneiro, G.F., Nguyen, H. & Odawara, R. (2016). Do rich and poor countries have different approaches to counter-cyclical spending? Understanding Macroeconomic volatility Part 2. *Latin American and Caribbean*, World Bank Blogs.
30. FitchRatings (2022). Japan's latest stimulus still consistent with debt stabilization. Nov 9.
31. Reinhart, M., Reinhart, V & Rogoff, K. (2015). Dealing with debt. *Journal of International Economics*, Elsevier. DOI: 10.1016/j.jinteco.2014.11.001
32. Forbes (2022). A storm is Brewing: Steve Forbes warns that a "Big Financial Crisis" is coming. What's ahead? Forbes, July 14.
33. Estevao, M., Robinson, D., & Sommer, M. (2019). Joint World Bank-IMF debt sustainability analysis. *International Development Association (IDA)*, IMF Zambia.
34. Argandona, A. (2010). Frugality. IESE Business School, University of Navarra. Working Paper 873, July.
35. https://www.quora.com. What is the opposite of frugality?
36. Musonda, F (2020). 'The impact of public debt and debt servicing on economic growth of Zambia'. *Cavendish University*, Zambia.
37. Mbandlwa, Z (2020). The impact of Public Economics to Public Debt: A case of Southern African Development Countries (SADC). Transylvanian Review, 27(50). Durban University of Technology (DUT).
38. Turner, A. (2015)." Between debt and the devil: Money, Credit and fixing global Finance". Supporting Economic Transformation (SET), Princeton University Press, ODI 24/11.
39. Policy Monitoring and Research Centre (2022). Zambia's road to economic recovery. Policy Brief.
40. Ham-Baloyi, W., & Jordan, P. (2016). 'Systematic Review as a Research Method in Post-graduate nu rsing education'. *Nelson Mandela Metropolitan University*, Health SA Gersondheid, 21:120-228.
41. Hassan, M.Y., Ahmed, A.N.,& Thabet, A.W. (2022). Analysis of the relationship between the interna l public debt and the budget deficit in Iraq for the period from 2010-2020. Social Science Journal, 12 (2).
42. Badia,M.M., Medas, P., Gupta, P., Xiang,Y. (2020). "Debt is not free". IMF Working Paper, W/20/1.
43. Mankiw, N. G. (2017). Macroeconomics, 7th Edition. Worths Publishers. USA.