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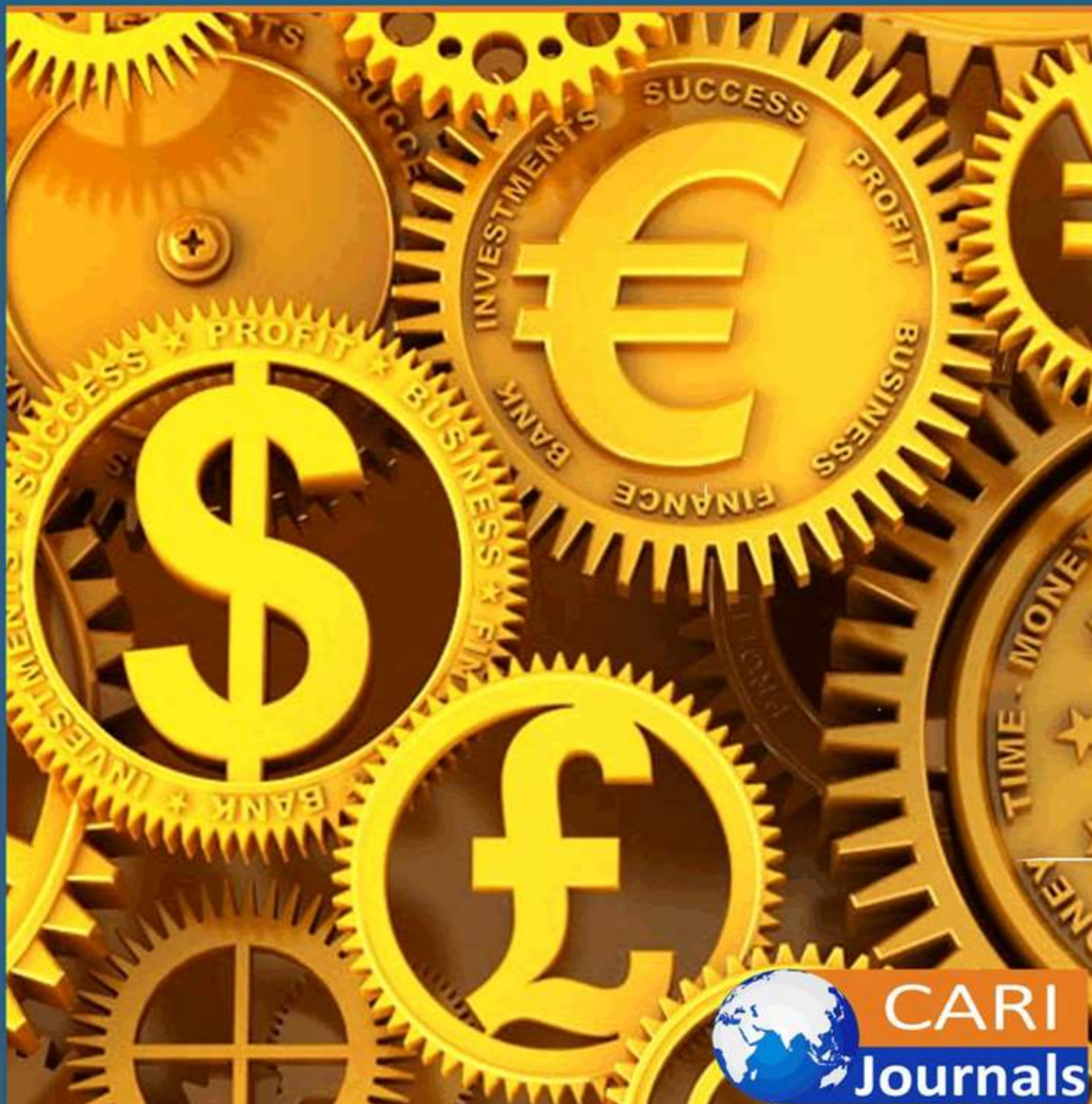

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An Investigation of the Relationship between Financial Sector Development and Economic Growth

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ABSTRACT

Purpose: This study investigated the relationship between financial sector development and economic growth in Zambia for the period 1978-2020.

Methodology: The study used domestic credit to the private sector, broad money and real interest rates to measure financial sector development. The Autoregressive Distributive Lag model was used as a method of estimation.

Findings: The study found that domestic credit to the private sector and interest rates were positively associated with economic growth in the short run, whereas broad money was negatively associated with economic growth in the short run. In the long run, only interest rates had a positive relationship with economic growth. Domestic credit to the private sector and broad money had negative and positive insignificant relationships with economic growth respectively. The bounds test confirmed the existence of cointegration among the study variables.

Unique Contribution to Theory, Practice and Policy: The findings imply that Zambia should focus not only on expanding financial aggregates but also on improving the quality and inclusiveness of financial intermediation. This includes enhancing access to credit for productive sectors, strengthening financial infrastructure and ensuring that monetary policy supports both stability and growth.

Keywords: *Domestic Credit, Interest Rates, Broad Money, Financial Sector Development, ARDL, Zambia.*

1.0 INTRODUCTION

The financial sector in an economy includes institutions, markets and the legal and regulatory framework which creates a platform for financial transactions (World Bank, 2022). The sector sets up a financial system that provides an efficient flow of funds from surplus spending units to deficit spending units. The ease with which transactions can be completed whether complex or simple for business, investment or payment of bills is a function of the financial sector infrastructure. Institutions under the financial sector include central banks, commercial banks, investment banks, microfinance institutions, brokerage firms, securities exchanges, insurance firms and pension firms. Financial Sector Development (FSD), therefore, is the improved efficiency and competitiveness of the sector. This involves enhanced choices of financial products and services, increased financial inclusion, diversified institutions operating in the sector, increased financial intermediation and the expansion in the regulation and stability of the sector (Bank of Zambia [BOZ], 2023).

The relationship between FSD and economic growth was first explained by Joseph Schumpeter who explained that services and products produced by the financial sector are important for economic growth (Schumpeter, 1912; Levine, 1997; Cevik, 2024). This relationship can also be said to be a bi-directional causal association. As Patrick (1966) and Kchikeche & Khallouk, 2021 highlighted, the first scenario is seen as when a nation faces economic growth, it is expected that the demand for financial services increases leading to FSD. This shows that lack of financial sector development is due to the lack of demand for financial services or products, thereby manifesting what is known as a demand following view. The second scenario which describes the supply leading view is a situation in which financial development occurs before economic growth by maximizing financial services through the extension of credit from surplus spending units to deficit spending units showing a supply of their services thereby inducing economic growth. The supply leading view interpreted that the transfer of resources from traditional sectors to modern sectors promoted and stimulated modern sectors leading to economic development (Patrick, 1966; Kchikeche & Khallouk, 2021). Some studies however, state that FSD has no impact on economic growth for instance (Lucas, 1988; Zang & Kim (2007) asserts that financial development is an overemphasized determinant of economic growth and that strategies aimed at directing resources towards the financial sector would be a waste of capital as it abstracts resources and attention from sectors that are of more relevance such as labour, tax reforms and productivity-based sectors.

Furthermore, FSD is widely regarded as a key mechanism through which economies mobilize savings, allocate capital more efficiently, diversify risk and reduce information and transaction costs, thereby supporting higher investment, technological progress and long-run economic growth (Levine, 1997; Khan & Senhadji, 2003). In this view, financial intermediaries and markets do not merely provide liquidity; they perform essential growth-enhancing functions such as monitoring firms, exerting corporate control and channeling resources toward more productive uses, which in

turn raise capital accumulation and innovation (Levine, 1997). Empirical studies further support this linkage, showing that the exogenous component of financial intermediary development is positively associated with economic growth, especially through improved productivity and more efficient intermediation (Beck, Levine & Loayza, & 2000; Azmeh & Al-Raeei, 2025; Nyasha & Odhiambo, 2018).

At the same time, the finance-growth relationship remains theoretically and empirically nuanced. While the supply-leading view argues that financial development stimulates innovation and growth, stating that financial systems expand in response to growth in the real economy (Schumpeter, 1912; McKinnon, 1973; Shaw, 1973; King & Levine, 1993; Beck, Levine & Loayza, 2000). Patrick's (1966) framework helps reconcile these positions by suggesting that finance may play a stronger catalytic role in the early stages of development, before gradually becoming more responsive to the demands generated by economic expansion. Thus, for a country such as Zambia, the relationship between financial development and economic growth is best understood as dynamic and potentially mutually reinforcing, depending on the structure, efficiency, and inclusiveness of the financial system (Phiri & Phiri, 2024)

1.1 Financial Sector in Zambia

A historical background of the Zambian Financial sector goes back to the early 1990s, a period in which the economy implemented liberal reforms. The liberalization of the economy led to an expansion of the financial sector which saw a proliferation of banks and non-banking institutions. In line with this, a Financial Sector Development Plan (FSDP) was set up aimed to strengthen the financial sector (Fundanga, 2011). Currently, Zambia's financial system is dominated by commercial banks as the main players in the sector. By the end of 2022, the banking sector comprised seventeen commercial banks, with five of these banks dominating the sector. These five banks alone make up 65 percent of the total sector assets and deposits (International Monetary Fund [IMF], 2023). In Zambia, most commercial banks are owned by large regional financial groups, with about two-thirds of total assets being foreign-owned. The Zambian government partially owns four commercial banks, which make up 29 percent of total sector assets. The remaining three banks are smaller and locally owned (IMF, 2023). The rest of the financial sector consists of various non-bank financial institutions, including pension funds, insurance companies, building societies, and many micro-finance institutions (IMF, 2023).

Zambia experiences low levels of financial intermediation, resulting in limited access to financial services and products in rural areas. Furthermore, Zambia faces a decline in the domestic credit to the private sector due to banks investing in seemingly low-risk, high-earning investments in government securities at the expense of intermediation of the private sector, dropping intermediation ratios from 52 percent in 2019 to about 36 percent currently (IMF, 2023). Ministry of Finance and National Planning ([MOFNP], 2024) reports that although Zambia has made notable progress in financial inclusion rising from 59.3 percent in 2015 to 69.4 percent in 2020,

with formal inclusion increasing from 38.2 percent to 61.3 percent, significant disparities persist, particularly between rural (56.9 percent) and urban areas (83.8 percent), alongside continued constraints in access to finance for MSMEs and other underserved groups, suggesting that the transmission of financial development to broad-based economic growth remains constrained and not yet fully realized. Pal & Bandyopadhyay (2022) argues that the shallow financial system of the country is caused by the narrow range of financial institutions dominated by commercial banks which brings in the problem of lack of diversification. In line with the above, this study seeks to empirically investigate the relationship between financial sector development and economic growth in Zambia.

2.0 LITERATURE REVIEW

2.1 Theoretical Literature

Schumpterian Growth Theory

This theory by Joseph Schumpeter explains that a well-functioning financial system fosters the creation of new ideas and technology through the provision of credit and funding that supports entrepreneurial activities. In this theory, Schumpeter (1911) talks about how credit impacts economic development by postulating that when credit expands, it affects income distribution and the formation of capital. Bank credit allows resources to be used in new ways and encourages innovation thereby bringing economic progress and development which are essential for capitalism proving that inflexible monetary policies can hinder growth. He then concluded that development involves introducing innovations into the production system.

Finance-Growth Theory

Levine (2004) argues that financial systems influence economic growth by improving the allocation of resources across time and space, primarily through their ability to mitigate market frictions such as information asymmetries, enforcement problems and transaction costs. He identifies five key functions through which financial systems affect savings, investment and overall economic performance. First, they facilitate the exchange of goods and services by providing payment and settlement mechanisms. Second, they mobilize and pool savings, thereby enabling the accumulation of capital for productive investment. Third, financial systems produce ex-ante information about investment opportunities, which enhances the efficient allocation of capital. Fourth, they facilitate trading, diversification and management of risk, allowing investors to undertake higher-return projects. Finally, they monitor investments and exert corporate governance, ensuring that funds are used efficiently and in line with agreed objectives. Improvements in these core functions enhance both savings mobilization and investment efficiency, ultimately promoting economic growth.

Consistent with this view, Levine (1999) further explains that financial instruments, markets and institutions reduce information and transaction costs, thereby influencing savings behaviour,

investment decisions, technological innovation and long-run economic growth. Importantly, this perspective emphasizes a functional approach to financial development focusing on what financial systems do rather than the specific institutions or instruments involved. It also recognizes the dynamic interaction between finance and growth, whereby changes in economic activity can, in turn, shape the evolution and structure of financial systems.

Financial Liberalization Theory

The financial liberalization theory, postulated by McKinnon (1973) & Shaw (1973) argues that government-imposed controls on the financial sector constrain savings mobilization, distort investment decisions and ultimately hinder economic growth. Such controls typically include interest rate ceilings, high reserve requirements, directed credit programmes and restrictions on capital flows. McKinnon (1973) & Shaw (1973) contend that these policies suppress real interest rates, discourage savings and lead to inefficient allocation of credit, often favouring less productive investments over more productive ones.

2.2 EMPIRICAL LITERATURE

Many studies have highlighted the relationship between economic growth and financial development with empirical evidence. Economic growth's interaction with the financial sector can be strongly empirically evidenced by Atje & Jovanovic (1993), who showed a direct relationship between economic development and stock markets. Using the Greenwood-Jovanic model Atje & Jovanovic (1993) they show growth effects of how financial intermediation leads to increase in the rate of return. Lervine & Zervos (1996) shows there is strong empirical evidence linking stock market development to long-term economic growth by using cross-country growth regressions indicating a positive and reliable association between the initial level of stock market development and long-term economic growth.

Rosalia (2013) examines how financial development influences economic growth in Latin America by trying to determine if there is evidence of the supply-leading phenomenon in the region. The financial sector is expected to impact economic growth positively by facilitating business transactions. To analyze this, she used growth equations with two different financial development indicators, employing the fixed effects model and instrumental variables to account for endogeneity. By comparing data from Latin American developing countries and OECD developed countries, she made meaningful comparisons. The results suggest that there is limited support for the supply-leading phenomenon in Latin America, indicating a case for the demand-following phenomenon instead. These findings differ slightly from those in developed countries, where more support for the supply-leading phenomenon is found. She then concluded that the two financial development indicators lead to opposite conclusions regarding the relationship between financial development and economic growth.

Urgaia (2015) examined the contribution of financial sector development to economic growth in East Africa over the period 1975-2014 using a dynamic panel Fully Modified Ordinary Least Squares (FMOLS) approach to estimate both short-run and long-run relationships. The study finds that fluctuations in financial development and economic growth are largely driven by their respective shocks in the long run, with the accumulated response of economic growth to financial sector development increasing over time. The results further provide evidence of both the supply-leading and demand-following hypotheses, indicating a bidirectional relationship in which financial sector development stimulates economic growth, while economic growth in turn promotes further financial sector development. The study therefore underscores the importance of financial sector reforms, enhanced financial inclusion, and the implementation of effective expansionary monetary policies to support sustained economic growth.

A recent empirical study by Phiri & Phiri (2024) examining the relationship between financial development and economic growth in 12 SADC countries over the period 2008–2020 employed panel data and the Autoregressive Distributed Lag (ARDL) model to investigate causality using data sourced from the World Bank, Penn World Tables, and national statistical agencies. The findings reveal the existence of bidirectional causality between financial development and economic growth, suggesting that both variables mutually reinforce each other in the region. While financial development is found to positively influence economic growth in the long run, short-run effects vary depending on other macroeconomic factors such as physical capital accumulation and government expenditure. Additionally, variables such as trade openness, life expectancy and population growth were found to significantly influence economic growth, highlighting the complex and multifaceted nature of development dynamics in the SADC region.

A study by Puatwoe & Piabuo (2017) examined how financial reforms influenced economic growth in Cameroon. While past reforms in Africa have shown mixed results, this research used data to analyze the connection. Using the ARDL model their analysis found that in the short term, some financial measures like money supply have a positive impact on growth, while others like deposits had a negative effect. However, in the long run, all the financial development indicators studied showed a positive and significant contribution to economic growth. This suggested that financial reforms in Cameroon are working in the long term and should be continued to further strengthen the financial sector and its role in economic growth.

Mwakalobo (2013) used annual time series data from 1988 to 2011 to examine the relationship between financial development, specifically the banking sector and stock market and future economic growth in Tanzania using the granger causality test. His study finds that measures of financial development such as domestic credit to the private sector and market capitalization have a positive and significant impact on future economic growth. Additionally, his study reveals that the banking sector contributes more significantly to the economic growth compared to the stock market in Tanzania. These findings support the notion that both the stock market and banking

sector play a crucial role in promoting efficient resource allocation and driving future economic growth in the country.

Furthermore, Olusegun et al (2013) explore the impact of FSD on economic growth in Nigeria. Their study highlighted concerns about the sector's inability to support the real sector and its focus on short-term lending instead of long-term investments that could boost the economy. The analysis used the Ordinary Least Squares regression method, with financial development measured by the ratio of liquidity liabilities to GDP, real interest rate and the ratio of credit to the private sector to GDP, while economic growth was measured by real GDP. Their findings indicate that only the real interest rate has a negative relationship, while the other explanatory variables are statistically insignificant. Besides, Odeniran & Udeaja (2010) used Granger causality tests in a VAR framework to examine the relationship between finance and economic growth from 1960 to 2009 in Nigeria. Three variables were similar to Olusegun et al (2013) and the fourth being growth in banks deposit liability to GDP, which were used as proxies for FSD. Their results showed a bidirectional causality between some of the financial development proxies and the economic growth variable. Additionally, the findings suggest that changes in output drive net domestic credit, indicating bidirectional causality. Based on these findings, the study just like Olusegun, et al., (2013), suggests that reforms in the Nigerian banking sector should not be the sole focus. Instead, there should be a coordinated approach that considers the development of both financial reforms and the real sector of the economy.

Ntalasha (2021) examined the 2017 National Financial Sector Development Policy, which laid a strong foundation for the overall development of the financial sector, with a specific focus on the banking sector in Zambia. The empirical findings indicate that there exists a negative long-term relationship between bank-based financial development and economic growth in Zambia. However, this negative impact should not discourage financial development-driven policies. Instead, continuous development in the financial market could potentially lead to more sustainable economic growth in the future.

Zombe & Seshamani (2014) employed the vector error correction model (VECM) to analyze the short-run and long-run dynamics to determine the relationship between financial development and economic growth in Zambia. The results demonstrate that the relationship between financial development, trade openness and economic growth varies depending on the chosen financial development indicator. In the short run, it was observed that economic growth and trade openness Granger caused financial development when using domestic credit to the private sector as the financial development indicator. Additionally, the study found a unidirectional relationship from trade openness to financial development, albeit negatively. However, when broad money is used as the indicator of financial development, they discovered no causal relationship among financial development, trade openness and economic growth. In the long run, it was determined that financial development and trade openness cause economic growth when broad money is used as

the financial development indicator. Conversely, economic growth and trade openness cause financial development when domestic credit to the private sector is used as a measure of financial development. However, in both cases, the causal link was weak, indicating that Zambia's financial sector is still in its early stages and exhibits some characteristics of financial repression.

3.0 METHODOLOGY

3.1 Data

The study employed a quantitative research approach and utilized time series data collected from the World Bank development indicators for the period 1978 to 2020.

3.2 Model Specification

To investigate the relationship between Financial Sector Development (FSD) and Economic Growth (EG), the mathematical relationship is shown as:

Equation 1

$$EG = F(FSD)$$

Where EG is economic growth and FSD is Financial Sector Development

The econometric model specified as a multivariate time series model and is shown below as:

Equation 2

$$\Delta GDP = \beta_0 + \beta_1 t + \beta_2 DCPS + \beta_3 M2 + \beta_4 INT + \mu$$

Where,

GDP = as a proxy of economic growth, DCPS= Domestic credit to Private Sector, M2 = Broad Money, INT = Interest Rate, μ = Stochastic Error Term, β_0 β_1 β_2 β_3 β_4 = model parameters.

The adopted model follows Puatwoe & Piabuo (2017) who employed Co-integration and Error Correction Models using an Autoregressive Distributive lag model. Thus, the model in this study is shown below.

Equation 3

$$\Delta GDP_t = \beta_0 + \sum_{i=1}^{n} \beta_1 \Delta GDP_{t-i} + \sum_{i=1}^{n} \beta_2 DCPS_{t-i} + \sum_{i=1}^{n} \beta_3 DCPS_{t-n} + \sum_{i=1}^{n} \beta_4 M2_{t-i} + \sum_{i=1}^{n} \beta_5 M2_{t-n} + \sum_{i=1}^{n} \beta_6 INT_{t-i} + \sum_{i=1}^{n} \beta_7 INT_{t-n} + \varepsilon t$$

3.3 STUDY FINDINGS

Table 1: Unit Root Tests

Variable	Order of Integration
ΔGross Domestic Product (GDP)	I(0)
Domestic Credit to Private Sector (DCPS)	I(1)
Broad Money (M2)	I(1)
Interest Rate (R)	I(1)

The table above shows the results of the unit root test. The results indicate a mixed order of integration among the variables used in the study. Specifically, Gross Domestic Product (GDP) is stationary at level, I(0), implying that it does not contain a unit root and its mean and variance are stable over time. In contrast, Domestic Credit to the Private Sector (DCPS), Broad Money (M2) and Interest Rate (R) are non-stationary at levels but become stationary after first differencing, indicating that they are integrated of order one, I(1).

This combination of I(0) and I(1) variables suggests that the series exhibit different stochastic properties, with some variables being inherently stable while others follow a stochastic trend. The presence of mixed integration orders validates the appropriateness of employing the Autoregressive Distributed Lag (ARDL) model, which is suitable for analyzing relationships among variables that are integrated of I(0) and I(1). Therefore, the results confirm that the dataset satisfies the preconditions for ARDL estimation and subsequent cointegration analysis.

Table 2: ARDL Bounds Test

VARIABLES	DCPS, M2, R	
F-Statistic Value	7.014355	
TEST CRITICAL VALUES	**LOWERBOUND**	**UPPERBOUND**
10%	2.01	3.1
5%	2.45	3.63
2.5%	2.87	4.16
1%	3.42	4.84

The Tables above show the results of the Bounds test for cointegration. As can be seen, the calculated F-statistic which is 7.242945 is greater than the upper bounds at all critical values. Thus, the null hypothesis of no long run relationship is rejected and we conclude that there exists cointegration among the variables.

Table 3: Long Run Estimates

VARIABLE	COEFFICIENT	STD. ERROR	T-STATISTIC	PROB
DCPS	-0.165524	0.296551	-0.558163	0.5806
M2	0.227869	0.135260	1.684680	0.1018
R	0.255742	0.058163	4.396593	0.0001**

** means P-value < 0.05

From the table above, the long-run ARDL results indicate that Domestic Credit to the Private Sector (DCPS) has a negative coefficient and is statistically insignificant at 5% level, suggesting that it does not have a meaningful long-run effect on economic growth. Broad Money (M2) exhibits a positive coefficient and is statistically insignificant at the 5% level, indicating that it has no meaningful long-run effect on economic growth. In contrast, the Interest Rate (R) has a positive and statistically significant effect, implying that it plays a significant role in influencing economic growth over the long run.

Table 4: Short Run Estimates

VARIABLE	COEFFICIENT	STD ERROR	T-STATISTIC	PROB
D(DCPS)	0.603887	0.277715	2.174485	0.0372**
D(M2)	-0.450774	0.163518	-2.756718	0.0096**
D(M2(-1))	-0.397142	0.173963	-2.282915	0.0292**
D(R)	0.187926	0.049978	3.760154	0.0007**
D (R (-1))	-0.130557	0.050535	-2.583501	0.0146**
CointEq (-1)	-0.714714	0.129018	-5.539657	0.0000**

** means P-value < 0.05

From the table above, the short-run ARDL results indicate that Domestic Credit to the Private Sector (DCPS) has a positive and statistically significant effect on economic growth, suggesting that increases in credit to the private sector stimulate growth in the short run. In contrast, Broad Money (M2) has a negative and significant effect both current and a one-period lag, indicating that short-run expansions in money supply may have contractionary or destabilizing effects on growth.

The Interest Rate (R) shows a positive and significant effect, while its lagged value is negative and significant, suggesting short-run fluctuations in interest rates have mixed effects on economic activity. The Error Correction Term (CointEq(-1)) is negative and highly significant, confirming the existence of a long-run relationship among the variables and indicating that approximately 71.5 percent of short-run deviations from equilibrium are corrected within one period.

3.4 DISCUSSION OF FINDING

The ARDL results indicate that the relationship between FSD and economic growth in Zambia is mixed across indicators and time horizons. Starting with Domestic Credit to the Private Sector (DCPS), the long-run coefficient is negative (-0.1655) and statistically insignificant at 5% level, suggesting that private sector credit does not exert a meaningful long-run impact on economic growth. This implies that increases in credit may not necessarily translate into productive investment or efficiency gains in the economy. The negative sign further suggests potential inefficiencies in credit allocation, possibly due to concentration in low-productivity sectors or limited access among key growth drivers such as Micro, Small and Medium Enterprises (MSMEs). This finding is consistent with evidence from the National Financial Inclusion Strategy II (NFIS II), which highlights persistent constraints in access to finance, particularly for rural populations, MSMEs, and underserved groups (MOFNP, 2024). In contrast to studies such as King & Levine (1993) and Levine et al. (2000), which find a positive relationship between private credit and growth, this result aligns more with recent literature suggesting that the finance-growth relationship can be weak or conditional in developing economies (Samargandi et al., 2015).

In the short run, however, DCPS exhibits a positive and statistically significant effect (0.6039), indicating that increases in private sector credit stimulate economic activity in the immediate term. This suggests that credit expansion may provide short-term liquidity and support consumption or working capital, even if it does not translate into sustained long-term growth. This short-run positive effect alongside long-run insignificance reflects a disconnect between credit expansion and productive investment, which is consistent with structural weaknesses in financial intermediation in developing economies (Khan & Senhadji, 2000). Additionally, the findings contrast with the results by Puatwoe & Piabuo, (2017) who found that domestic credit to the private sector had a positive significant effect on change in economic growth in the long run but a negative insignificant effect on economic growth in the short run in Cameroon.

The results for broad money (M2) show that the long-run coefficient is positive (0.2279) but statistically insignificant at the 5% level, indicating no meaningful relationship between FSD and economic growth. However, in the short run, M2 shows a negative and statistically significant effect both currently (-0.4508) and with a lag of one (-0.3971), implying that increases in liquidity may initially have contractionary or destabilising effects on growth. This may reflect inflationary pressures, inefficient transmission mechanisms, or the dominance of transactional rather than investment-driven financial expansion. The NFIS II supports the findings, noting that although

formal financial inclusion increased significantly, the use of traditional banking services declined while mobile money usage surged, suggesting that liquidity growth may not be effectively channelled into productive investment (MOFNP, 2024). This pattern is consistent with findings by Loayza & Ranciere (2006), who distinguish between positive long-run and negative short-run effects of financial development.

With respect to the interest rate (R), the results show a strong and statistically significant positive effect in the long run (0.2557), suggesting that interest rate dynamics play an important role in promoting economic growth over time. This may reflect the role of interest rates as a price signal that improves resource allocation, encourages savings and enhances financial intermediation efficiency. This finding is consistent with the McKinnon-Shaw hypothesis, which argues that financial liberalisation and market-determined interest rates promote growth by improving savings mobilisation and investment efficiency (McKinnon, 1973; Shaw, 1973). In the short run, interest rates exhibit mixed effects: the current effect is positive (0.1879) and significant, while the one period lagged effect is negative (-0.1306) and significant. This suggests that while higher interest rates may initially stabilise the economy or improve financial discipline, they may subsequently dampen investment due to increased borrowing costs. This pattern is consistent with monetary policy dynamics in Zambia, where tightening measures aimed at controlling inflation may have both stabilising and contractionary effects (BOZ, 2024).

The Error Correction Term (CointEq(-1)) is negative (-0.7147), statistically significant, confirming the existence of a long-run equilibrium relationship among the variables. The magnitude indicates that approximately 71.5 percent of short-run deviations from equilibrium are corrected within one period (within one year), implying a relatively fast speed of adjustment. This suggests that despite short-run fluctuations, the system converges strongly to its long-run path, reinforcing the validity of the ARDL model and the existence of cointegration among the variables.

Overall, the findings suggest that FSD in Zambia contributes to economic growth in a selective and uneven manner. These results are consistent with the NFIS II, which highlights that despite improvements in financial inclusion from 59.3 percent in 2015 to 69.4 percent in 2020 significant disparities remain across regions and population groups (MOFNP, 2024). The findings also align with the study by Phiri & Phiri (2024) on the relationship between financial development and economic growth in SADC region, which finds bidirectional causality and varying short-run and long-run effects, underscoring the complex nature of the finance-growth nexus.

3.5 CONCLUSION

The study examined the relationship between FSD and economic growth in Zambia. The findings reveal that DCPS has a positive effect with economic growth in the short run. On the other hand, DCPS does not affect economic growth in the long run. Broad money (M2) was found to have negative short-run effects, whereas, interest rate (R) was found to have a positive long-run effect,

although short-run dynamics revealed mixed effects. Overall, the findings are consistent with existing evidence highlighting persistent financial inclusion gaps, structural inefficiencies and uneven access to financial services in Zambia.

3.6 POLICY RECOMMENDATIONS

Based on the empirical findings, policy interventions should focus on enhancing the effectiveness of domestic credit to the private sector as a key component of financial sector development. The positive and significant short-run effect of domestic credit to the private sector indicates that credit expansion contributes to economic growth by supporting business activities, investment and consumption in the immediate term. However, the insignificant and negative long-run effect suggests that the growth benefits of credit are not sustained over time, possibly due to inefficiencies in credit allocation or limited financing of productive sectors. Therefore, policymakers should strengthen mechanisms that direct credit towards high-productivity sectors such as agriculture, manufacturing and SMEs, which have the potential to generate sustained economic growth and employment. Furthermore, given the significant role of interest rates in influencing economic growth, monetary authorities should maintain a stable and predictable interest rate environment that supports investment and private sector expansion while safeguarding macroeconomic stability. These measures would help ensure that financial sector development not only stimulates short-term economic activity but also contributes to sustainable long-term economic growth.

REFERENCES

Atje, R. & Jovanovic, B. (1993) Stock Markets and Development. European Economic Review 37(2-3), pp. 632-640. https://doi.org/10.1016/0014-2921(93)90053-D

Azmeh, C., & Al-Raeei, M. (2025). Financial development, research in finance, and economic growth. Cogent Economics & Finance, 13(1), 2448220. https://doi.org/10.1080/23322039.2024.2448220

Bank of Zambia. (2024). *Annual report 2024*. Lusaka: Bank of Zambia

Bank of Zambia (2023). Financial Sector Development. Lusaka: Bank of Zambia.

Beck, T., Levine, R., & Loayza, N. (2000). Finance and the Sources of Growth. Journal of financial economics, 58(1-2), 261-300. https://doi.org/10.1016/S0304-405X(00)00072-6

Cevik, S. (2024). Is Schumpeter right? Fintech and economic growth. Economics of Innovation and New Technology, 34(7), 1095-1106. https://doi.org/10.1080/10438599.2024.2413478

Fernandez, D. & Galetovic , A (1994). Schumpeter might be right- But why?. Explaining the relationship between Finance, Development and Growth, pp. 96-101.

Fundanga, M. C., 2011. The history and experiences of the financial sector. https://www.bis.org/review/r110307f.pdf

International Monetary Fund (2023). Zambia Selected Issues, Washington DC: IMF Publication Services.

Kchikeche, A., & Khallouk, O. (2021). On the nexus between economic growth and bank-based financial development: evidence from Morocco. Middle East Development Journal, 13(2), 245-264. https://doi.org/10.1080/17938120.2021.1930830

Khan, M. S., & Senhadji, A. S. (2003). Financial development and economic growth: A review and new evidence. Journal of African Economies, 12(suppl_2), ii89-ii110. https://doi.org/10.1093/jae/12.suppl_2.ii89

King, R. G., & Levine, R. (1993). Finance, entrepreneurship and growth. Journal of Monetary economics, 32(3), 513-542. https://doi.org/10.1016/0304-3932(93)90028-E

Levine, R (2004). Finance and Growth: Theory and Evidence, Cambridge: National Bureau of Economic Research.

Levine, R. (1999). Law, finance, and economic growth. Journal of financial Intermediation, 8(1-2), 8-35. https://doi.org/10.1006/jfin.1998.0255

Levine, R. (1997). Financial development and economic growth: views and agenda. Journal of economic literature, 35(2), 688-726. https://www.jstor.org/stable/2729790

Levine, R., Loayza, N., & Beck, T. (2000). The role of financial development in economic growth. Optimal Financial Structure for Namibia, 46(6). https://www.bon.com.na/CMSTemplates/Bon/Files/bon.com.na/bb/bb4b1702-a266-4ebc-9b3f-48b0ac170bbb.pdf#page=7

Levine, R., & Zervos, S. (1996). Stock market development and long-run growth. The world bank economic review, 10(2), 323-339. https://doi.org/10.1093/wber/10.2.323

Loayza, N. V., & Ranciere, R. (2006). Financial development, financial fragility, and growth. *Journal of money, credit and banking*, 1051-1076. https://www.jstor.org/stable/3838993

Lucas, R. E. (1988) On the mechanics of economic development. *Journal of Monetary Economics,* pp. 3-42.

Ministry of Finance and National Planning (2024). National Financial Inclusion Strategy II (2024–2028). Lusaka.

Mwakalobo, B. H. (2013). The impact of financial sector in the economic growth of Tanzania. Master's Thesis, KDI School of Public Policy and Management.

Ntalasha, L. (2021). The Impact of Financial Development on Economic Growth., Cavendish University Zambia.

Nyasha, S., & Odhiambo, N. M. (2018). Financial development and economic growth nexus: A revisionist approach. Economic Notes: Review of Banking, Finance and Monetary Economics, 47(1), 223-229. https://doi.org/10.1111/ecno.12101

Odeniran, S. O. & Udeaja, E. A. (2010). Financial Sector Development and Economic Growth (Empirical Evidence on Nigeria). *Economic and Financial Review,* 48(2).

Olusegun, A. A., Ganiyu, S. A. & Oluseyi, A. A. (2013). Impact Of Financial Sector Development On Nigerian Economic Growth. *American Journal on Business Management,* 2(4), pp. 347-356. https://doi.org/10.11634/216796061706361

Pal, S., & Bandyopadhyay, I. (2022). Impact of financial inclusion on economic growth, financial development, financial efficiency, financial stability, and profitability: an international evidence. SN Business & Economics, 2(9), 139

Patrick, H. T. (1966). Financial Development and Economic Growth in Underdeveloped Countries. *Economic Development and Cultural Change,* pp. 174-189.

Phiri, C. & Phiri, G. (2024). Relationship between financial development and economic growth: Evidence from 12 SADC countries. American Journal of Economies, 8(2), 40–55. https://doi.org/10.47672/aje.2109

Puatwoe, J. T., & Piabuo, S. M. (2017). Financial sector development and economic growth: evidence from Cameroon. Financial Innovation, 3(1), 25. https://doi.org/10.1186/s40854-017-0073-x%0A

Rosalia, M. R. G. (2013). Impact of Financial Development on Economic growth. https://thesis.eur.nl/pub/13609/341129-Rosalia.pdf

Samargandi, N., Fidrmuc, J., & Ghosh, S. (2015). Is the relationship between financial development and economic growth monotonic? Evidence from a sample of middle-income countries. World development, 68, 66-81. https://doi.org/10.1016/j.worlddev.2014.11.010

Schumpeter, J. (1911), The Theory of Economic Development: An Inquiry into Profits, Capital, Credit, Interest and Business Cycle, Cambridge Mass: Harvard University Press.

Schumpeter, J. (1912). *Theorie der Wirtschaftlichen Entwicklung (the theory of economic development).* Leipzig: Dunker and Hublot.

Shaw, E. S. (1973). Financial deepening in economic development. New York: Oxford University Press.

Urgaia, W. R. (2015*).* The contribution of financial sector development for economic growth in East Africa. Addis Ababa, Addis Ababa University. https://doi.org/10.11114/aef.v3i2.1251

World Bank (2022). Financial Development. Washington, DC https://www.worldbank.org/en/publication/gfdr/gfdr-2016/background/financial-development

WORLD BANK (2023). World Bank and OECD GDP estimates. https://data.worldbank.org/indicator/GC.DOD.TOTL.GD.ZS

Zang, H., & Kim, Y. C. (2007). Does financial development precede growth? Robinson and Lucas might be right. Applied Economics Letters, 14(1), 15-19. https://doi.org/10.1080/13504850500425469

Zombe, C., & Seshamani, V. (2014). Financial development, trade openness, and economic growth in Zambia. Journal of Modern Accounting and Auditing, 10(7).