Financial Intermediation and Fixed Capital Formation in Zimbabwe

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Abstract

Business sustainability is heavily constrained by the shortage of affordable finance of adequate duration and quality. This affects producers and traders' capacity to reorganize their production and exchange systems to attain dynamic competitiveness. Ensuring sufficient and cost-effective high-quality finance in the nation facilitates financial intermediation. The traditional method of channelling and allocating financial resources in an economy has predominantly been carried out by the banking sector. Notably, the level of intermediation had been largely lower than the expected especially during the Covid-19 era implicating as serious problem of disintermediation. This study analyses the impact of financial intermediation on capital formation in Zimbabwe using Autoregressive Distributive Lag (ARDL) model from the first quarter of 2011 to the fourth quarter of 2020. The study finds that the financial intermediation process in the country remains largely weak to enable gross fixed capital formation which facilitates business sustainability. Financial disintermediation by banks is also reducing business sustainability. Several initiatives are suggested to alleviate financial restrictions within the country. One significant proposal involves enhancing competition in the banking sector by further liberalizing it. This is aimed at reducing the cost of credit, fostering financial innovation, and promoting increased credit circulation.

1. INTRODUCTION

Money neutrality is central to the Classical economics in macroeconomic management. The school of thought highlighted the idea that money is neutral, implying that it has no impact on the real sector involved in producing goods. In contrast, in his influential work "The General Theory," Keynes demonstrated that money significantly influences actual economic activities (Stamp, 1931). By 1930, he emphasized the crucial role of the banking sector in economic growth. Since the development of the general theory, economists have been certain that finance plays a critical role in the development of the real sector. Subsequent debates revolved around whether finance precedes or follows the development of the real sector. Levine (1997) established that the financial sector leads to productivity growth and natural economic development.

In Zimbabwe, the importance of finance cannot be overlooked. Sufficient and top-notch financing available at an affordable expense for the nation guarantees financial intermediation. Financial intermediation is the mechanism through which financial institutions direct funds from those with excess funds to businesses and consumers. This process is predominantly influenced by the arrangement and behavior of financial institutions (Myerson, 1995), which has consequences for determining the activities that receive funding. Such determinations play a crucial role in influencing productivity and the long-term viability of businesses.

The Zimbabwean economy is at a drastic juncture in its development. On the one hand, the currency has been on a downward trend, depreciating by over 5,000 percent in three years, leading to a high preference for the United States dollar for domestic transactions. The exchange rate fell from ZWL$2.5: USD1 as of March 2019 (RBZ, 2019) to ZWL$142: USD1 in March 2022 (RBZ, 2022). Classical international monetary institutions, that is, the World Bank and the International Monetary Fund (IMF), are not willing to advance bailouts (Chitongo et al., 2020) due to long-standing legacy debts leading to the government resorting to domestic sources of finance imposing a threat of crowding out private investment. The government setting a repressive policy of 200 percent interest rate (Bloomberg, 2022) in a bid to curb speculative borrowing fueled by exchange rate management policies, which facilitate arbitrageur activities. On the other hand, the economy is characterized by many business opportunities characterized by the mushrooming of small to medium enterprises, most of which are informal. More than 60 percent of the economy is accounted for in the informal sector (Sakarombe, 2020).

The Zimbabwean economy has become entwined in the worldwide pattern of growing financial liberalization and market accessibility, mirroring conventional viewpoints on economic operations. Like advanced economies and prominent emerging markets, the drive for increased competition, pursuing higher returns, establishing business footholds in regional and international markets, achieving economies of scale, portfolio diversification, and embracing technological innovation propels financial liberalization and cross-border capital movements in Zimbabwe.

A significant consideration is the degree to which the financial intermediation process, both in terms of quality and quantity, can alleviate the financial limitations experienced by producers, marketers, and workers. This holds crucial importance as the financing aspect is a significant constraint affecting the expansion and transformation of businesses. This study focuses on assessing how financial intermediation influences capital formation in Zimbabwe. The primary objective is to understand the impact of financial intermediation on the facilitation or hindrance of capital formation, thereby affecting the sustainability of businesses. This inquiry is vital because theoretical frameworks and empirical evidence from fieldwork suggest that financial intermediation plays a substantial role in shaping capital formation, particularly in business investments within agriculture, industry, and services.

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2. LITERATURE REVIEW

2.1. Financial intermediation in Zimbabwe

Financial intermediation encompasses all the channels through which financial resources are directed from surplus economic agents to deficit agents to support business and consumption activities. To better understand this, exploring the distinctions between classical intermediaries and direct financiers is beneficial. Classical intermediaries, such as commercial banks, credit unions, and insurance companies, gather deposits from savers, pool them, and then lend them to firms and households (Moro-Visconti, 2021). On the other hand, direct finance, involving market-based institutions like stock markets, bond issuers, and venture capital funds, provides financing directly to those in need without intermediaries (Lessambo, 2022). Both theory and empirical evidence demonstrate that the composition of the financial system, specifically the relative significance of direct versus intermediary finance, impacts investment. This influence arises from the fact that these two types of financiers prefer different activities based on risk profiles, and the age of the business, and assign varying importance to factors like reputation and collateral compared to the potential viability of the project.

In recent years, financial progress has been characterized by increased financial innovation and deeper financial markets. From an innovative perspective, several new products, such as mutual funds, stocks, and trust funds, have been introduced to the market. However, the Zimbabwean economy witnessed the collapse of modern financial institutions such as merchant banks, discount houses, and other money market institutions. However, there is a pop-up of investment banks and venture capital funds. Capital markets remain primarily dominated by a few large companies that apprehend the efficient market hypothesis outcomes, inadequate secondary trading on stock markets as Finsec is finding its ground on the market, and a preference for debt finance by some of the larger companies. As a result, the financial framework primarily relies on intermediaries rather than markets. Nevertheless, while the structure is significant, the effectiveness and quality of financial intermediation have the potential to compensate for structural considerations in numerous instances. Given that financial intermediation in Zimbabwe is primarily bank-based, the study concentrates on the main trends in the banking sector. At a broader level, Zimbabwe has been experiencing a contraction in financial sector activities starting from a high base. As Figure 1 shows, financial deepening, as measured crudely by the financial sector's contribution to GDP, increased somewhat from 2010 to 2018.
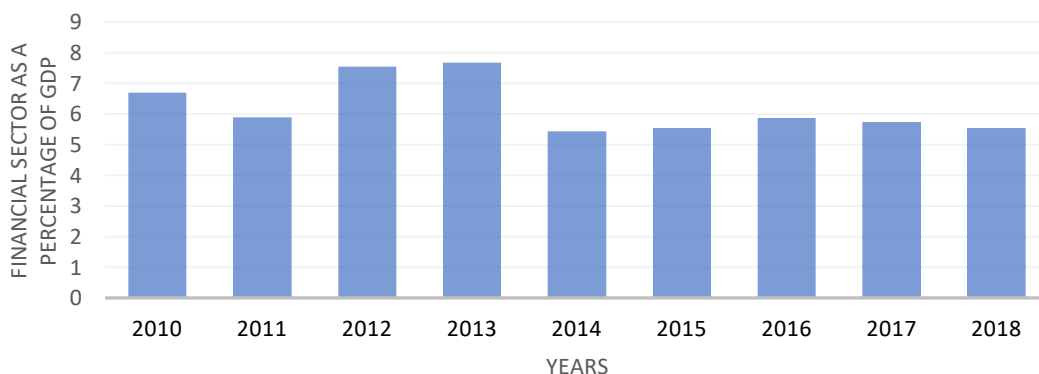

FIGURE 1. Financial sector contribution to GDP

Note: compiled by authors

The banking sector is highly oligopolistic with five banking controlling more than 50 percent of the market. Moreover, liquidity preference ratios, which represent the ratio of narrow money supply to the broad money stock, pose a significant limitation on financing. This is due to the fact that elevated liquidity preference ratios indicate a greater public preference for cash, checking accounts, and other liquid instruments, leading to a reduced level of converting bank liabilities into long-term financing. Somewhat, liquidity preference seem to be too high to encourage business investment. Households seem to have a strong preference for liquid instruments to maintain their levels of consumption.

Figure 2 illustrates that the average liquidity preference for Zimbabwe was relatively elevated, reaching around 70 percent during the period from 2011 to 2019.
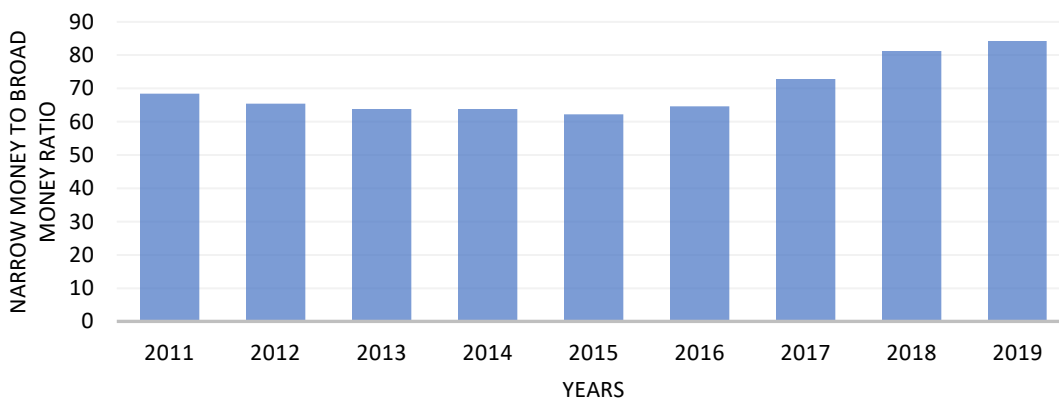

FIGURE 2. Narrow Money to Broad Money Ratio

Note: compiled by authors

Crucially, the process of intermediation can be examined by considering both the financial cost and non-price/cost elements, encompassing the volume and excellence of finance, competition and concentration within the sector, and institutional structures, among other factors. The interplay of these elements ultimately shapes the efficiency and efficacy of intermediation and influences its capacity to drive business investment and sustainability.

2.2. The cost, quantum and quality of finance in Zimbabwe

Zimbabwean enterprises face ongoing limitations and difficulties related to the expense, quantity, and quality of financing required for maintaining operations, expanding, upgrading, and restructuring to meet competition and explore new markets. Additionally, the significance of finance quantity and quality is accentuated in an era of globalization, where the competitiveness of production relies not only on factor productivity and technical efficiency but also on the quality of financial intermediation.

Given the substantial reliance on commercial bank funding by businesses, the most tangible aspect of financial costs is the interest rate on loans, advances, and overdrafts. This is further compounded by elevated bank charges (Gwatiring, 2020) and fees for various services (Ntini et al., 2022). The interest rate on loans is comparatively high on an international scale, preventing business investment, particularly for small enterprises (Pasara, Makochekanwa, and Dunga, 2021). The high cost of finance reflects some level of financial fragmentation, insufficient competition, marked by oligopolistic tendencies in the banking system, relatively high average

operational costs due to limited business volumes resulting from the constrained minimum efficient scale (size) of financial institutions, and macroeconomic challenges in the country.

The broad interest rate spreads in the banking sector, representing the difference between interest rates on loans and overdrafts and those paid on deposits, serve as a clear indicator of financial inefficiency and the elevated cost of finance for businesses. Decomposing the interest rate spread is valuable, as it reveals several aspects. It signals the risk and expectation of borrower default, efficiency and market power levels in the banking system, inflation, liquidity, exchange rate, and institutional risks, as well as the favorability of the regulatory regime and taxation of the banking system, especially by monetary authorities.

Several theories seeking to explain the investment behaviour of business firms and governments exist in the literature. These include the marginal efficiency of capital hypothesis, the Accelerator theory of investment, and Tobin Q's investment theory.

The Marginal Efficiency of Capital Hypothesis is a Keynesian concept that stipulates the rate of discount, which equates the present value of net expected revenue from an investment of capital to its cost. The idea plays a significant role in the Keynesian theory of investment by explaining that the level of investment is determined by the marginal efficiency of capital relative to the interest rate (Timlin, 2019). If the marginal efficiency rate is higher than the interest rate, investment will be stimulated; if not, investment will be discouraged. This concept is based on the ordinary mathematical technique of computing the present value of a given series of returns discounted at a specified discount rate.

The Accelerator theory of investment suggests that as demand or income increases in an economy, so does the investment made by firms Benedictow and Hammersland, 2020). Furthermore, accelerator theory indicates that when demand levels result in excess demand, firms have two choices of how to meet demand. It is either to raise prices to cause demand to drop or to increase investment to match demand. The theory proposes that most companies choose to increase production, thus increasing their profits. The thesis further explains how this growth attracts more investors, accelerating growth.

The Tobin Q-Theory of investment arose from fundamental shortcomings in both the accelerator theory and the neoclassical theory of investment. One key issue with these theories is the implicit assumption that the capital stock adjustment to its desired level is instantaneous and complete in each period. To address this, an adjustment cost function was introduced to the optimization problem, as proposed by Treadway in 1969. The second issue is the neoclassical and accelerator theories' lack of consideration for expectations. Brainard and Tobin addressed these problems in 1968. In 1969, Tobin formulated the Tobin Q-Theory of investments, asserting that investment decisions are made until the market value of assets equals the replacement cost of assets.

Additionally, the neoclassical theory can be made logically equivalent to the Q-theory by incorporating a marginal adjustment cost function into the profit function. The Q-theory of investment, as proposed by Brainard and Tobin (1968) and Tobin (1969), is, in some respects, reminiscent of ideas put forth by Keynes in 1936. Keynes, for instance, argued that stock markets guide investors, stating, "There is no sense in building up a new enterprise at a cost greater than at which an existing one can be purchased" (Baddeley, 2003).

Scholars have proposed several theories on financial intermediation, with the formal introduction of the theory by Goldsmith (1969) and Shaw (1973). Their work identified the financial environment, comprising both money and capital markets, as playing a crucial role in economic development. As part of economic development services, financial institutions offer loanable funds to deficit units. The loanable fund theory, an enhanced theory of interest rates, supports the assistance of financial intermediation. According to this theory, interest rates are determined by the demand for and supply of loanable funds, where higher demand leads to higher

interest rates relative to the supply of money. The equilibrium interest rates are negotiated by both surplus and deficit unit agents. Loanable funds, therefore, serve as a form of financial intermediation that fosters capital formation in countries like Zimbabwe.

While no studies have explored the relationship between financial intermediation and fixed capital formation in Zimbabwe, there are related studies from other regions. Existing studies investigated the impact of capital formation on the growth of the Nigerian economy. Findings suggested a positive and significant influence of capital formation on economic development in Nigeria. Similarly, Ezirim, Torbira, and Amuzie (2016) studied the financial intermediation of insurance companies and capital formation in Nigeria, revealing a relationship between intermediation and capital formation. In Cameroon, Forgha, Sama, and Aquilas (2016) explored financial intermediation, domestic investment, and economic growth, finding no causality flow from financial intermediation to GDP.

In Nigeria, Adeniyi, Adeyinka, and Babayaro (2019) examined insurance companies and the efficiency of financial intermediation, showing a positive correlation among the variables. Yakubu, Abokor, and Balay (2021) re-examined the impact of financial intermediation on real sector growth in Turkey, indicating positive short-run and long-run effects. While these studies are related, the scope and variables in this work are different. As a result, the findings from this study may vary, contributing to the enrichment of the body of knowledge.

3. METHODOLOGY AND DATA

The methodology was formulated based on the theoretical principles of the Loanable Funds Theory (LFT). According to this theory, when there is an increased demand for loanable funds, interest rates rise in relation to the available supply of funds. Both surplus unit and deficit unit agents engage in negotiations to establish an equilibrium interest rate. This theory is closely connected to financial intermediation, as financial intermediation plays a crucial role in rejuvenating capital accumulation. Therefore, the theory inherently establishes a connection between sectoral financial intermediation and the potential for capital formation in Zimbabwe.

The model can be presented as follows (1):

$$GCF_t = \alpha_0 + \beta_1 CBD_t + \beta_2 LTDR_t + \beta_3 NIY/IY_t + \beta_4 IRS_t + \varepsilon_t \qquad (1)$$

Where GSF represents the Gross Fixed Capital Formation, measuring business sustainability; CBD represents Commercial bank deposits as a percentage of GDP; LTDR represents Loan-to-deposit ratio to measure the propensity to intermediate; NIY/IY represents non-interest income to interest income ratio to measure the level of disintermediation; and IRS represents the interest rate spread (the difference between lending rate and deposit rate) variable. IRS can also reflect the level of competition as high spread shows market power in the market (Moore and Craigwell, 2002). Equation (1) was estimated using the Autoregressive Distributed Lag (ARDL) method.

The ARDL model is a dynamic single regression equation designed to forecast the values of the dependent variable using both the current values and the lagged values of the explanatory variable. This method allows for the simultaneous estimation of short-run and long-run coefficients, alleviates the need for determining the integration order, is particularly suitable for application on small sample sizes, and is adaptable to variables with different optimal lag lengths. Prior to conducting the estimation, an examination of the time series properties of interest was carried out through unit root tests and correlation analysis. This preliminary step is crucial because the ARDL model is applicable only when none of the variables has an integration order of 2, i.e., I (2).

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The ARDL specification requires that all variables be endogenous as presented below (2):

$$\Delta GDF_t = \alpha_0 + \sum_{j=1}^{p} \theta_j \Delta GCF_{t-j} + \sum_{j=0}^{q} \vartheta_j \Delta CBD_{t-j} + \sum_{j=0}^{q} \varphi_j \Delta LTDR_{t-j} +$$
$$\sum_{j=0}^{q} \tau_j \Delta NYI/IY_{t-j} + \sum_{j=0}^{q} \omega_j \Delta IRS_{t-j} + \beta_0 GCF_{t-j} + \beta_1 CBD_{t-j} + \beta_2 LTDR_{t-j} +$$
$$\beta_3 NIY/IY_{t-j} + \beta_4 IRS_{t-j} + \varepsilon_t \qquad (2)$$

The short-term effects are captured by the differenced terms, while the variables in their original levels account for the long-term effects. The F-test is employed to examine the presence of a long-term relationship as it assesses the collective significance of lagged levels of the involved variables. Pesaran et al. (2001) introduced two sets of asymptotic critical values for the F-test: the lower critical bound and the upper critical bound. The lower critical bound assumes that all variables are integrated of order zero (I(0)), indicating no cointegrating relationship among the variables. On the other hand, the upper bound assumes that all variables are integrated of order one (I(1)), signifying cointegration among the variables. If a long-term cointegrating relationship is established, then an error correction model must be estimated to determine the short-term coefficients. The specifications of an ARDL error correction model are given below (3):

$$\Delta GCF_t = \alpha_0 + \sum_{j=1}^{p} \theta_j \Delta GCF_{t-j} + \sum_{j=0}^{q} \vartheta_j \Delta CBD_{t-j} + \sum_{j=0}^{q} \varphi_j \Delta LTDR_{t-j} + \sum_{j=0}^{q} \tau_j \Delta NYI/$$
$$IY_{t-j} + \sum_{j=0}^{q} \omega_j \Delta IRS_{t-j_1} + \pi_4 ECT_{t-1} \qquad (3)$$

The residuals from the estimation of the long-run model (2) are used to derive the ECT term which is the error correction term. Data used were on a quarterly basis from 2011 to 2020. Data on all variables were collected from the Reserve Bank of Zimbabwe except for Gross Capital Formation (GCF) which were collected from the World Bank database. The GDP and GCP data were spliced to match the quarterly series intervals.

4. ANALYSIS AND RESULTS

The data shows that the mean gross fixed capital formation (GCF) is 13.96 while the average commercial bank deposit ratio to GDP (CBD) is 14.751. Loan to deposit ratio (LTDR), Non-interest income to interest income ratio (NIY/NY) and Interest rate spread (IRS) have 61.456, 51.83 and 40.003 as their respective averages. Table 1 contains the descriptive statistics of the variables employed by the study.

TABLE 1. Descriptive Statistics

	GCF	CBD	LTDR	NIY/IY	IRS
Mean	13.9649442	14.751	61.456	51.83	40.003
Median	11.9478569	15.20	56.56	46.78	38.54
Maximum	24.5772602	40.00	98.567	93.67	59.93
Minimum	2.00044127	4.00	18.760	40.67	12.34
Observations	40	40	40	40	40
Note: compiled by authors					

However, it negatively relates with NIY/IY and IRS. Such relationships are expected and concur with theory, though the coefficients present a weak relationship.

Table 2 has the correlation results of the variables. There exists a positive relationship between the measure of business sustainability (GCF) and the first two variables, CBD and LTDR.

TABLE 2. Correlations Matrix

	GCF	CBD	LTDR	NIY/IY	IRS
GCF	1				
CBD	0.135	1			
LTDR	0.236	0.402	1		
NIY/IY	-0.050	-0.656	-0.098	1	
IRS	-0.347	-0.525	-0.281	-0.478	1
Note: compiled by authors					

The Augmented Dickey-Fuller test was employed where all series were found to be integrated of order one I (1) at 1 percent level. The results of the stationarity tests are presented in Table 3.

TABLE 3. Stationarity Results

Variable	Level	Result	1st Difference	Result
GCF	-1.409 (0.240)	Non-stationary	-6.070*** (0.000)	Stationary
CBD	0.222 (0.056)	Non-stationary	-7.500*** (0.001)	Stationary
LTDR	0.433 (0.793)	Non-stationary	-8.003*** (0.000)	Stationary
NIY/IY	-2.005 (0.106)	Non-stationary	-4.021*** (0.001)	Stationary
IRS	-1.900 (0.182)	Non-stationary	-9.053*** (0.000)	Stationary
***represents statistically significant at 1 percent level, figures in parenthesis are probability *Note:* compiled by authors				

The Akaike Information Criteria (AIC) was used to select the optimal lag length for estimation. After specifying the ARDL (GCF: CBD; LTDR; NIY/IY; IRS), the optimal lag length established is (1, 1, 3, 1, 3). The study used the F-Bounds cointegration test to check for the existence of a long-term relationship between real money demand and its determinants. The results of the ARDL model confirmed the existence of long run relationship. This is because the outcomes of bounds test for co-integration reveal the existence of long-run relationship at 1% level, given the F-statistic value of 8.441 which are over the Pesaran critical value of I(1) 5.68 at 1% level of significance. The results are presented in Table 4.

TABLE 4. F-Bounds Test Results

Model	Non-Linear ARDL	
Test Statistic	Value	k
F-Statistic	8.441***	5
Critical Value Bounds		
Significance	I(0) Bound	I(1) Bound
10%	2.26	3.35
5%	2.62	4.18
1%	3.41	5.68
***represents statistically significant at 1 percent level *Note:* compiled by authors		

The long run results from the ARDL reveal that commercial bank deposits (CBD) and Loan to deposit ratio (LTDR) are positively related to business sustainability in Zimbabwe. Nonetheless, non-interest income to income ratio (NIY/NY) as a proxy for financial disintermediation and interest rate spread (IRS) as it measures competitiveness are negatively

related to business sustainability in Zimbabwe. As banks get more deposits and increase their advances, economic agents increase their investment in fixed capital formation. However, a rise in financial disintermediation and the difference between the deposit rate and the lending rate discourages creation of fixed capital formation in the economy. Although, this resonates with the Loanable Funds economic theory, the coefficients are economically weak as they are largely below zero in absolute terms. The only coefficient that is mostly economically significant is the measure of financial disintermediation (NIY/IY). A significant reduction in business sustainability is being driven by disintermediation activities which banks are sometimes concentrating on.

Results in Table 5 represent estimations of the ARDL model.

TABLE 5. The Linear ARDL Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Short-run Results				
D(GCF)	0.0105***	0.0012	8.7500	0.0000
D(CBD)	0.0003***	0.0001	3.000	0.0045
D(LTDR)	0.3924	0.3432	1.1435	0.2735
D(LTDR(-1))	0.0988	0.4155	0.2377	0.8158
D(LTDR(-2))	1.0009***	0.3643	2.7475	0.0009
D(NIY/IY)	-70.8800**	30.7801	-2.3028	0.0134
D(IRS)	-0.0000***	0.0000	-6.2742	0.0000
D(IRS(-1))	-0.0000	0.0000	-0.5468	0.5938
D(IRS(-2))	0.0000***	0.0000	3.0367	0.0095
CointEq(-1)	-0.4179***	0.1399	-4.4159	0.0007
Long Run Results				
CBD	0.0000***	0.0000	-5.7212	0.0001
LTDR	0.0000***	0.0000	5.5705	0.0001
NIY/IY	-88.5479***	14.599	6.0655	0.0000
IRS	-0.0000***	0.0000	-3.6887	0.0027
C	-2079.0717***	345.2559	-6.0218	0.0000
***represents statistically significant at 1 percent level ** represents 5 percent while * represents 10 percent level. *Note:* compiled by authors				

The short run results for the ARDL model reveal that the error correction term is negative and statistically significant. The ECT term is -0.4179 with an interpretation that about 42 percent of the disequilibrium in business sustainability in the long run is corrected for in the next quarter. This is a low rate of adjustment towards the equilibrium since it is below 50 percent. Consistent with the long run results, lagged variables included on the explanatory parameters have same coefficients signs and they are also economically weak.

The diagnostic results in Table 7 and the stability results in Figure 1 reflect the goodness of fit of the estimated model. The model was satisfactorily specified with an R-squared in excess of 80 percent. The estimated CUSUM tests' values presented in Figure 1 are within critical values. Therefore, a stable model is assured.

In Table 7 there are presented diagnostic results for the Non-linear ARDL Model.

TABLE 7. Diagnostic Tests

Diagnostic Test	Non-Linear ARDL
Adjusted R-squared	0.8292
F-Statistic	9.9071 (0.0001)
S.E. of Regression	0.6276
Squared Residual Sum	4.7259
DW	2.3470
J B Normality Test	0.4133 (0.8133)
Breusch-Godfrey Correlation LM Test:	1.1879 (0.3445)
Note: compiled by authors	

In Figure 1 there are presented stability results for the Non-linear ARDL Model.
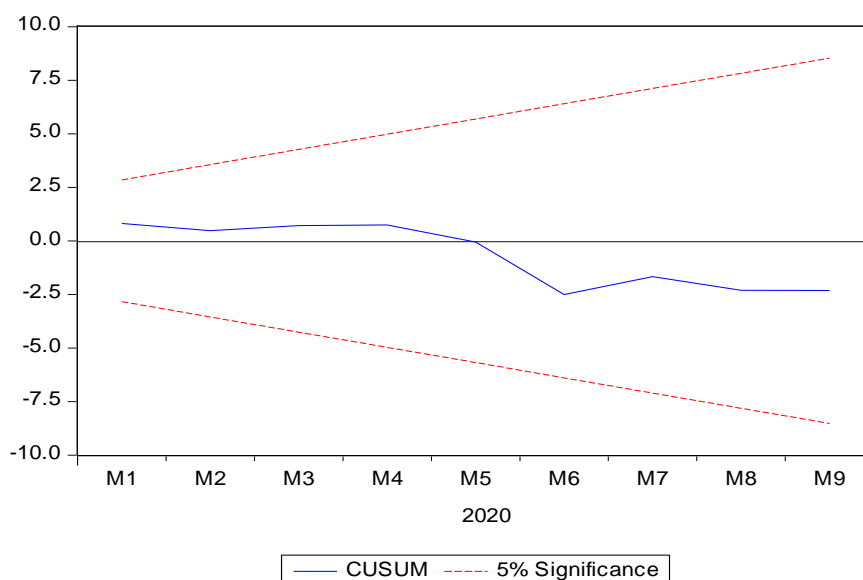
FIGURE 1. Stability Results: Non-linear ARDL Model

Note: compiled by authors

5. CONCLUSIONS

The quantity and quality of finance remains one of the most important constraints on business sustainability in Zimbabwe. Intermediation continues to be driven largely by commercial banks and, given the oligopolistic market structure, the cost of finance remains high as the interest spread is large thus making the supply, quality and maturity inadequate for many businesses. This study analyses the impact of financial intermediation on capital formation in Zimbabwe using Autoregressive Distributive Lag (ARDL) model from the first quarter of 2011 to the fourth quarter of 2021. The study finds that the financial intermediation process in the country remains largely weak to meet the requirements of sustaining business operations. An indication of financial disintermediation was found to be regressive on the fixed capital formation. This affirms the reality that Zimbabwean businesses are consistently hindered and confronted by the challenges associated with the cost, quantity, and quality of financing required for day-to-day operations, expansion, upgrading, and restructuring to effectively compete and explore new markets.

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Additionally, the volume and quality of financial resources are particularly crucial in an era of globalization, where the competitiveness of production depends not only on factor productivity and technical efficiency but also significantly on the quality of financial intermediation. To address these financial constraints in the country, several measures are proposed. A key recommendation involves fostering increased competition within the banking sector through further liberalization. This initiative aims to reduce the cost of credit, stimulate financial innovation, and promote a more substantial flow of credit.

References

1. Adeniyi, D.J., Adeyinka, A.J., & Babayaro, I. (2019). Insurance Companies and the Efficiency of Financial Intermediation in Nigeria. *American International Journal of Economics and Finance Research*, *1*(1), 21-33. https://doi.org/10.46545/AIJEFR.V1I1.59

2. Baddeley, M.C. (2003). Adjustment costs and q theory. In Investment, 92-108. Palgrave, London. https://doi.org/10.1007/978-1-4039-1864-2_8

3. Benedictow, A., & Hammersland, R. (2020). A financial accelerator in the business sector of a macro-econometric model of a small open economy. *Economic systems*, *44*(1), 100731. https://doi.org/10.1016/j.ecosys.2019.100731

4. Bloomberg, 2022. World's Most Aggressive Central Bank Raises Key Rate to Available online: https://www.bloomberg.com/news/articles/2022-06-27/world-s-most-aggressivecentral-bank-raises-key-rate-to-200

5. Brainard, W.C. & Tobin, J. (1968). Pitfalls in financial model building. *The American Economic Review*, *58*(2), 99-122.

6. Chitongo, L., Chikunya, P., & Marango, T. (2020). Do economic blueprints work? Evaluating the prospects and challenges of Zimbabwe's Transitional Stabilisation Programme. *African Journal of Governance and Development*, *9*(1), 7-20. Available online: https://hdl.handle.net/10520/EJC-1ef237d9bb

7. Ezirim, C.B., Torbira, L.L., & Amuzie, A.E. (2016). Financial Intermediation by Insurance Companies and Capital Formation: Theory and Empirical Evidence from Nigeria. *International Journal of Business, Accounting, & Finance*, *10*(2), 37-55.

8. Forgha, N.G., Sama, M.C., & Aquilas, N.A. (2016). An econometric investigation into financial intermediation, domestic investment, and economic growth in Cameroon. *Journal of Finance and Economics*, 4(1), 1-9. https://doi.org/10.12691/jfe-4-1-1

9. Goldsmith, R. W. (1969). *Financial Structure and Development.* New Haven, CT, Yale University Press.

10. Gwatiringa, P.T. (2020). Banking sector profitability through investigation of financial performance indicators: the case of Zimbabwe. *IOSR Journal of Business and Management (IOSR-JBM),* 22(7), 22-30. https://doi.org/10.9790/487X-2207072230

11. Stamp, J. C. (1931). Mr. Keynes' Treatise on Money. The Economic Journal, 41(162), 241–249. https://doi.org/10.2307/2223701

12. Lessambo, F.I. (2022). Project Financing and Direct Conventional Financing. *In International Project Finance*, 11-18. Palgrave Macmillan, Cham. https://doi.org/10.1007/978-3-030-96390-3_2

13. Levine, R. (1997). Financial development and economic growth: views and agenda. *Journal of Economic Literature*, *35*(2), 688-726.

14. Moore, W., & Craigwell, R. (2002). Market power and interest rate spreads in the Caribbean. *International Review of Applied Economics*, *16*(4), 391-405. https://doi.org/10.1080/02692170210161138

15. Moro-Visconti, R. (2021). From Informal Financial Intermediaries to Micro Fin Tech Valuation. *In Startup Valuation,* 281-295. Palgrave Macmillan, Cham. https://doi.org/10.1007/978-3-030-71608-0_11

16. Myerson, R.B. (1995). Analysis of democratic institutions: structure, conduct and performance. *Journal of Economic Perspectives, 9*(1), 77-89. https://doi.org/10.1257/JEP.9.1.77

17. Ntini, P., Ndlovu, M.J., Shava, G., Charumbira, J., & Sibanda, B. (2022). Consumer Acceptance of Online Banking in Zimbabwe: An Extension of the Technology Acceptance Model. *Indiana Journal of Humanities and Social Sciences*, *3*(3), 28 - 44.
18. Pasara, M.T., Makochekanwa, A., & Dunga, S.H. (2021). The Role of Savings and Credit Cooperatives (SACCOs) on Financial Inclusion in Zimbabwe. *Journal of Business and Management*, *9*(1), 47-60. https://doi.org/10.15604/EJBM.2021.09.01.004
19. Pesaran, M.H., Shin, Y., & Smith, R.J. (2001). Bounds testing approaches to the analysis of level relationships. Journal of applied econometrics, 16(3), 289-326. https://doi.org/10.1002/JAE.616
20. Reserve Bank of Zimbabwe (2019). International Banking and Portfolio Management Report. Available online: https://www.rbz.co.zw/ (accessed on 1 April 2023)
21. Reserve Bank of Zimbabwe (2022). International Banking and Portfolio Management Report. Available online: https://www.rbz.co.zw/documents/Exchange_Rates/2022/March/Rates-31-March
22. Sakarombe, U. (2020). Integrating Informal Economy into Official Economy in Southern Africa: Identifying Barriers and Possible Solutions. *Tanzanian Economic Review*, 10(1). https://doi.org/10.56279/ter.v10i1.58
23. Shaw, E. S. (1973). *Financial Deepening in Economic Development*. Oxford University Press, New York. https://doi.org/10.2307/2978421
24. Timlin, M.F. (2019). XI. The Marginal Efficiency of Capital and the Investment Functions. *In Keynesian Economics*, 141-151. University of Toronto Press. https://doi.org/10.3138/9781487584337-013
25. Tobin, J. (1968). Notes on optimal monetary growth. *Journal of Political Economy, 76*(4), 833-859.
26. Treadway, A.B. (1969). On rational entrepreneurial behaviour and the demand for investment. The *Review of Economic Studies, 36*(2), 227-239. https://doi.org/10.2307/2296839
27. Yakubu, I.N., Abokor, A.H., & Balay, I.G. (2021). Re-examining the impact of financial intermediation on economic growth: evidence from Turkey. *Journal of Economics and Development, 23*(2), 116-127 https://doi.org/10.1108/JED-09-2020-0139

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