International Journal of
Financial Studies

MDPI

Article

Financial Development and Economic Growth: Evidence from Low-Income Nations in the SADC Region

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Abstract: The study sought to examine the relationship between financial development and economic growth in low-income nations in the SADC region. Motivated by the observation that numerous states in the SADC region lack adequately developed financial systems, this investigation was undertaken. Many SADC states are low-income countries, and they remain financially underdeveloped, which could compromise their growth prospects. The analysis was quantitative in nature, and used panel data to achieve its objectives. The data period spanned from 2000 to 2022. The dynamic common correlated effects (DCCE) technique was used for estimation purposes. Results showed that there is a positive relationship between financial development and economic growth. The relationship was also found to be causal: financial development is not only a result of economic growth; it also influences growth. The evidence from the findings supports the notion that financial development is needed to increase the effectiveness of resource allocation and consequently promote growth. This calls on the governments in the countries under investigation to create environments that foster financial development.

Keywords: financial development; economic growth; financial system; finance-induced turmoil; capital accumulation; low-income countries

Citation: Mlambo, Courage. 2024. Financial Development and Economic Growth: Evidence from Low-Income Nations in the SADC Region. *International Journal of Financial Studies* 12: 62. https://doi.org/10.3390/ijfs12030062

Academic Editor: Zied Ftiti

Received: 16 October 2023
Revised: 7 May 2024
Accepted: 14 May 2024
Published: 27 June 2024

1. Introduction

There is a general consensus among researchers and policy makers that financial development promotes economic growth (Puatwoe and Piabuo 2017; António and Carmen 2018; Nguyen et al. 2022; Sulemana and Dramani 2022; Mbulawa and Chingoiro 2024). Financial sector development happens when financial tools, markets, and institutions reduce information enforcement and transaction costs and thereby improve how well the financial sector performs its essential economic activities (World Bank 2023). It is the creation and growth of financial establishments, instruments, and markets that promote huge investments and growth and contribute to the growth of the financial sector. Financial development promotes the most efficient use of cash and improves knowledge of prospective successful investments (Guru and Yadav 2019; Levine 2021; Lannquist and Tan 2023). In other words, the development of financial institutions facilitates the lowering of information acquisition, and this ensures that contracts and transactions are carried out efficiently. Financial development fosters economic growth through information acquisition, pooling savings, capital accumulation and optimizing the allocation of capital (World Bank 2023).

Financial development plays a substantial role in facilitating the acquisition of advanced technology thereby enhancing growth by efficiently mobilizing capital for investment schemes and administering judicious lending limitations (European Central Bank 2017; United Nations 2020; Li et al. 2024). Financial development implements an innovative structural adjustment, and it also expands financial access which instills dynamic efficiency in the economic system. The innovative structural adjustment in the financial system results in the lowering of information acquisition costs. Financial agreements, markets, and mediators were created in order to lower learning expenses, costs associated with contract

creation and finalization (Levine 1997). A well-developed financial system can boost the volume of financial transactions while lowering transaction costs, all of which lead to better capital allocation (Dolar and Meh 2002; Barnebeck and Tarp 2003; Agyei 2022). With a more developed financial sector, intermediaries will mobilize savings and allocate resources and provide credit. Easy access to credit makes capital readily available, thereby promoting economic growth.

Nevertheless, the financial sector is still underdeveloped in economically developing and low-income countries (LICs) despite the advantages brought about by financial development (Bist 2018). Low-income nations frequently establish and implement poor financial policies. Gerschenkron (1962) had, earlier, advanced the idea that the effect of financial development on economic growth is influenced by how economically backward a country is. According to Gerschenkron's argument, developed nations do not require an active financial system, whereas economically backward nations do. This shows that poor countries need to have a well-developed financial system in order to facilitate economic transactions and consequently, promote economic growth. Park (2015) maintains that studies have shown that financial development has a bigger and more significant influence on growth in developing countries than in developed countries. However, political unrest and corruption, according to Detragiache et al. (2005), are the main causes of the LICs' subpar financial structure. Due to the fact that LICs are notorious for having poor policy execution, efforts to increase financial development may not immediately produce benefits.

Moreover, some researchers view the link between financial development and economic expansion differently (Matei 2020). Early research (Lucas 1988; Chandavarkar 1992) came to the conclusion that "sustainable growth is not primarily supported by financial development". These studies were of the view that financial development comes about in response to economic expansion. In this view, financial development is not seen as "input" to economic expansion. Moreover, Shan (2005) claims that the 1997 Asian financial crisis "further questions the role of financial development in promoting economic growth" due to the financial markets' inability to efficiently distribute the substantial input of funds into fruitful schemes. Park (2015) also argues that the 2008 global financial crisis highlights how financial development may hinder economic growth. As a result, the healthy development of financial markets is necessary since economies have struggled to monitor and regulate the changing financial markets and keep up with financial innovation.

There are also cases where players in the financial system can distort the economy. For example in Zimbabwe, some major financial players such as Old Mutual were blamed by the government for manipulating and causing foreign currency instability in the country (Kuyedzwa 2020; Ndlovu and Marawanyika 2020; Smith 2020). In South Africa, the so-called "Forex Cartel case" saw banks being charged with conspiring illegally to engineer the rand-to-dollar exchange rate. The manipulation of the exchange rate had an effect on the rand's exchange rate, which in turn had an influence on a number of aspects of the local economy, including trade activities, domestic debt, foreign direct investment and firm balance sheets (Competition Commission 2024; Larkin 2023; Bulbulia 2023). This may indicate that financial development that is unregulated and unmonitored can hamper growth. Rajan (2006) stresses that the development of the financial institutions with different dimensions and appetites for risk can make the economy to be more subjected to the possibility of a 'financial-sector-induced turmoil'. It can thus be said that the financial system and its development may be a source of economic distress.

The foregoing discussion highlights the complex and multidimensional nature of the relationship between financial development and economic growth. However, the bulk of the literature seems to suggest that financial development is necessary for economic growth. Despite this, several SADC states do not have well developed financial systems. Many SADC states remain financially underdeveloped, and this might be threatening their possibilities for future growth (Papadavid et al. 2017). Countries like Zimbabwe, Lesotho, Eswatini, Zambia, Mozambique and Malawi belong to the low-income bracket and exhibit underdeveloped financial systems. In view of this, this study sought to examine the re-

lationship between financial development and economic growth in the SADC region. By examining this relationship, the study aimed to provide valuable insights for policymakers, economists, and stakeholders to better understand the dynamics of financial development and its impact on economic growth in the SADC region. This understanding could potentially inform policy decisions aimed at fostering sustainable economic development and financial stability across member states of the SADC.

2. Literature Review

2.1. Theoretical Framework

2.1.1. Patrick's Stages of Development Hypothesis

According to Patrick (1966), the stage of development of a nation affects the connection between financial development and growth. The theory is of the view that financial development initially stimulates growth, but as growth rises, this connection weakens, and growth begins to increase demand for financial services. Patrick (1966) came up with four hypotheses that sought to explain the connection between financial development and growth. The first hypothesis is the supply-leading hypothesis which holds the view that financial development promotes growth. The second hypothesis is the demand-following hypothesis which holds that view that growth influences financial development. The third hypothesis is the feed-back hypothesis which holds the view that the connection between financial development and growth runs in both directions. The fourth hypothesis is the neutrality hypothesis which states that there is no connection between financial development and growth. The stage of development hypothesis further states that the connection between financial development and growth relies on the level of development of an economy. The supply-leading concept will predominate in the early stages of growth because the financial system will be supplying the economy with cutting-edge financial services. After some time, as the economy propels financial innovation, the demand-following hypothesis assumes center stage (Dilek 2019).

2.1.2. AK Model

Pagano (1993) used the AK model to demonstrates the probable influences of financial development on growth in a closed economy. The AK model assumes that financial establishments are responsible for converting savings into productive investment schemes. Financial development influences growth through the following ways:

(i) The first path focuses on how effectively savings are allocated to investments. Banks are likely to grow more proficient at what they do as they engage in increased intermediation, which will result in a narrowing of the spread between their lending and borrowing rates (Bailliu 2000).

(ii) The second path entails the effective allocation of capital that can be realized through financial intermediation (Bailliu 2000). A vital function of a financial establishment is to efficiently distribute capital to those investment schemes where the marginal product of capital is greatest. An enhancement in the efficient distribution of capital transforms into increased growth, because it improves the overall productivity of capital. Financial establishments ensure that capital is invested in areas that have high returns and is taken off from areas with poor prospects.

(iii) Third, an efficient financial system lowers the costs incurred in handling transactions and other related expenses (Thiel 2000). The significance of the financial sector lies in its ability to reduce transaction costs that are associated with formalizing and concluding the borrower and lender relationship and contracts. A strong financial industry can lower transaction costs and boost the number of financial transactions, all of which lead to better capital allocation.

2.2. Empirical Literature

Shahbaz et al. (2013) showed that financial development and growth have a long-term link. Additionally, their data support a two-way causal relationship between financial

development and growth. The supply leading hypothesis of financial development by Hugh Patrick (1966) was validated by Odo et al. (2020) who demonstrated that there is a unidirectional causality running from financial development to economic growth in Nigeria and a bidirectional causality running from financial development to growth in South Africa. According to Nyasha et al. (2017), economic growth and financial development in Ethiopia Granger-cause one another over the short term. On the other hand, there is unidirectional Granger causation from financial development based on banks to economic growth over the long term. As previously noted, according to Nyasha and Odhiambo's (2017) analysis, a variety of variables have a role in the connection between economic growth and financial development. Nyasha and Odhiambo (2017) concluded that it is important to proceed with utmost caution when claiming that economic expansion invariably follows financial progress. For a sample of 35 nations spanning the years 1961–2015, Pradhan et al. (2018) demonstrate bidirectional causality between financial development and growth.

Guptha and Prabhakar (2018) conducted their experiment using the Toda–Yamamoto causality test. The findings from the study showed that the BRICS countries' financial and growth causal relationships are not all equal. Hasan (2018) examined the connection between financial development and growth in Indonesia. The data are analyzed using Granger causality and Johansen cointegration. The results suggest that economic growth and financial development have a long-term association. Opoku et al. (2019) carried out a study which was based on data from 47 African nations between 1980 and 2016. Results show that, while there is some evidence to support the feedback, supply-leading, and demand-following hypotheses, for the most part, the neutrality hypothesis is well supported. At the majority of frequency levels, financial development and growth occurred independently. The enormous contributions that financial development makes to economic growth in middle-income and high-income nations are also confirmed by Yang (2019).

For Saudi Arabia, Bogari (2019) evaluated the impact of financial development and the caliber of financial institutions on economic growth. Results provided significant evidence for the notion that Saudi Arabia's financial development promoted economic growth over the period 1990–2017. Kubanji et al. (2020) showed that the financial industry and the economy have a steady long-term relationship. The findings also demonstrated that there is no evidence of a reverse causal relationship between the financial sector index and the economy. Results from a study by Tran et al. (2020) support the effect of financial development on growth. Aimer (2021) used panel data for the upper-middle income countries from 1980 to 2017 and discovered unidirectional causality between economic growth and financial development in some countries, as well as unidirectional causality in some other countries.

Filfilan (2021) showed that the benefits of financial development on growth varied depending on a country's level of development and type of governance. According to the findings, financial development has no statistically significant impact on economic growth in low-income countries, but it does have a favorable impact in middle and high-income countries. Mtar and Belazreg (2021) showed a unidirectional association between innovation and financial development, trade and economic growth. The study comes to the conclusion that improved financial system regulation and high-quality finance are crucial elements in promoting economic growth. Bolukoglu (2022) used the IMF's financial development index to evaluate the multifaceted nature of financial development. The study showed that many financial indicators are inefficient in predicting economic growth in slow-growing nations. Economic growth and financial development have a positive, linear relationship, according to Nguyen et al. (2022). The study also discovered strong bidirectional Granger causation between financial development and growth. Almassri et al. (2023) used data from 1980 to 2019 to study the relationship between financial development and economic growth in Hong Kong. The empirical results point to a bidirectional association between financial development and economic growth in Hong Kong.

Some studies, however, cast doubt on these findings and reveal a non-monotone relationship between finance and growth (Arcand et al. 2015; Md and Wei 2018): financial

development unquestionably stimulates economic growth up to a certain point, but after that, this beneficial outcome disappears. This non-linearity, according to Rajan (2006), is caused by economies' increased ability to bear risk and actual risk-taking. By comparing private sector credit to GDP, Arcand et al. (2015) were able to determine the threshold point at which financial development has a negative effect on growth. They discover that the correlation between financial depth and economic growth is positive and robust for economies with small and intermediate financial sectors, but it starts to become negative when the share of private sector credit to GDP reaches between 80 and 100 percent. Samargandi et al. (2015) finds an inverted U-shape relationship between financial development and growth and concluded that an excessive amount of finance may have a negative effect on growth. Matei (2020) suggested that only in the short run does financial development have a favorable impact on economic growth. The study concluded that financial development has a beneficial impact on economic activity up to a certain point before the relationship turns negative.

3. Materials and Methods

3.1. Research Approach and Data Sources

The study was quantitative in nature, and it used secondary quantitative data to achieve its objectives. Secondary data for the period 2000 to 2022 was used for the study and this was sourced through the World Bank Development Indicators. The reason the study chose this period was due to data availability. The methodology for this study was adapted with some modifications from Pinshi and Kadeya (2020). For the estimation, the study employed the following specification of the model;

$$GDP_{i,t} = \beta_0 + \beta_1 FD_{i,t} + \beta_2 REM_{i,t} + \beta_2 EXP_{i,t} + \beta_3 AGR_{i,t} + \beta_4 FDI_{i,t} + \beta_5 INF_{i,t} + \beta_6 GE_{i,t} + \mu_{i,t} \quad (1)$$

where GDP is economic growth, FD is financial development index, REM is remittances, EXP is exports, AGR is agricultural production, FDI is foreign direct investment, INF is inflation, GE is general government final consumption expenditure and $\mu_{i,t}$ is the error term. The error term is a random variable with a mean of zero and should have constant variance across different individuals and time periods. The variables used in equation (i) are presented in Table 1.

Table 1. Summary of variables' description.

Variable	Description and Unit of Measurement	Source
GDP	Gross Domestic Product	World Bank
BM **	Broad Money	World Bank
FD	Financial Development Index	World Bank
REM	Remittances	World Bank
EXP	Exports	World Bank
FDI	Foreign Direct Investment	World Bank
INF	Inflation	World Bank
GE	General Government Final Consumption Expenditure	World Bank

** BM was added in this Table because it was used for robustness purposes. It was not part of the primary estimation model, hence is not included in Equation (1).

3.2. Estimation Techniques

3.2.1. Cross Dependence and Stationarity

Before putting unit roots, integrations, and estimations to the test, it is crucial to check for the presence of cross-sectional dependence (Hasan 2019). Cross-sectional dependence of the series or models should be verified in order to establish the panel unit root test to be employed. The estimation findings will be biased and inconsistent if the cross-sectional dependence in the panel is not taken into account (Pesaran 2004). The CD test created

by Pesaran (2004) was utilized to determine whether or not the variable series exhibit cross-sectional dependence. The Pesaran CD test statistics takes the following form:

$$\text{CD statistic} = \sqrt{\frac{2T}{N\,(N-1)}}\ \left(\sum_{i=1}^{N-1}\sum_{j=i+1}^{N}\sqrt{T_{ij}}\,\hat{\rho}_{i,j}\right) \quad (2)$$

where Tij = # (Ti ∩ Tj) (i.e., the number of common time-series observations between units i and j) (Hoyos and Sarafidis 2006). The null hypothesis is rejected and the cross-sectional dependency is concluded if a CD test statistic is higher than the critical value of the normal standard distribution at a given level of significance (Pesaran cited in Kumar et al. 2021).

The next step involved testing for unit root. The results of the cross-sectional dependence test determine the kind of unit root test that should be used in the study. For instance, the first-generation unit root tests are utilized if cross reliance is not identified, and the second-generation unit root tests are used if cross dependence is detected (Dal 2021; Bölükbaş et al. 2018). This study used second generation panel unit root because the cross-sectional dependence had been detected. The Pesaran's CADF test was used to test for unit root.

3.2.2. Cointegration Tests

In order to ascertain the presence of a long-term association between the variables, this study used the Westerlund (2007) cointegration test, which takes into account cross-sectional dependence. In a conditional panel error-correction model, the test is focused on determining if the error-correction term is equal to zero. The test concludes the existence of an error correction for group mean (G_τ and G_α) and for panel (P_τ and P_α). The WesterLund panel cointegration test was used to ascertain whether (or not) there was a long-term association between growth and financial development and other explanatory variables.

3.2.3. Dynamic Common Correlated Effects (DCCE)

Pesaran and Smith (1995) state that the conventional estimation techniques such as the GMM, random effects and fixed effects give contradictory results when there are endogeneity problems (this is brought on by heterogeneity). As a solution to the CSD and heterogeneity problems, Chudik and Pesaran (2015) created the DCCE methodology. The DCCE technique is able to account for a variety of crucial issues that other conventional techniques cannot address. The most important of these is the consideration of the cross-sectional dependence, which is achieved by taking the logs and averages of cross-sectional units (Chudik and Pesaran 2015). Secondly, it allows for heterogeneous slopes and dynamic common correlated effects (Ali et al. 2020). Thirdly, subject to structural breaks, it also performs well even when the cross-section dimension N is small, when variables are nonstationary, cointegrated or not (Keho 2020). The DCCE model takes the following form:

$$\Delta GDP_{it} = \alpha_i\,\Delta GDP_{it-1} + \delta_i \Delta X_{it} + \sum_{p=0}^{p_T}\gamma_{xip}\overline{X}_{t-p} + \sum_{p=0}^{p_T}\gamma_{yip}\overline{Y}_{t-p} + \mu_{it} \quad (3)$$

In this equation, the dependent variable and its lag are denoted by GDP_{it} and GDP_{it-1}. X_{it} shows a combination of other explanatory variables (FD, REM, EXP, AGR, FDI, INF and GE), PT represents lag of cross-sectional averages, μ_{it} represents the residual term, and i and t represent cross-sectional and time aspects, respectively. $\overline{Y}$ represents the means of the examined variables for the dependent variable and regressors and Δ is the first difference operator.

3.2.4. Causality: Dumitrescu and Hurlin Causality Test

Granger (1988) noted that if a set of variables are cointegrated, there must be a need to test the direction of causality. This prompted the current study to conduct a causality test. Moreover, several studies had earlier stated that the relationship between financial

development can run from both sides. The current study used the Dumitrescu and Hurlin (2012) test to test for causality. The Dumitrescu and Hurlin (2012) test is an extension of the Granger causality test. Granger (1969) developed a causality test for time series data. Consider x_t and y_t as two stationary series. The following model can then be used to examine whether x causes y:

$$y_t = \alpha + \sum_{k=1}^{K} \beta_k \, y_{t-k} + \sum_{k=1}^{K} \gamma_\kappa \, \chi_{t-\kappa} + \varepsilon_t \ldots \text{with t} = 1, \ldots \text{T} \quad (4)$$

The basic idea is that if past values of x are significant predictors of the current value of y even when past values of y have been included in the model, then x exerts a causal influence on y (Lopez and Weber 2017). Similar to Granger's (1969) causality test in a panel environment, Dumitrescu and Hurlin (2012) developed a bivariate testing method. The underlying regression is written as follows:

$$y_{it} = \alpha_i + \sum_{k=1}^{K} \beta_{ik} \, y_{i,t-k} + \sum_{k=1}^{K} \gamma_{i\kappa} \, \chi_{i,t-\kappa} + \varepsilon_{i,t} \ldots \text{with i} = 1, \ldots \text{N and t} = 1, \ldots \text{T} \quad (5)$$

where x_t and y_t are the observations of two stationary variables for individual i in period t. Coefficients are allowed to differ across individuals but are assumed to be time-invariant (Lopez and Weber 2017). The hypotheses of the test are as follows:

$$H_0 : \beta_{i1} = \cdots = \beta_{iK} = 0 \quad \forall_i = 1 \ldots\ldots\ldots\ldots\ldots, N$$

$$H_1 : \beta_{i1} = \cdots = \beta_{iK} = 0 \quad \forall_i = 1 \ldots\ldots\ldots\ldots\ldots, N$$

$$\beta_{i1} \neq 0 \; or \; \beta_{iK} \neq 0 \quad \forall_i = N_1 + 1, \ldots\ldots\ldots\ldots, N$$

When the null hypothesis is considered, it can be seen that there is no Granger causality relationship between variables for all units. In contrast, the alternative hypothesis represents at least one unit where there is evidence of Granger causality between variables (Dumitrescu and Hurlin 2012).

4. Results

4.1. Descriptive Statistics

Table 2 shows the descriptive statistics that were used to consider the properties of the series.

Table 2. Descriptive statistics.

	BM	REM	EXP	FD	FDINV	GDP
Mean	34.33	17.419	36.41	0.180	4.20	3.87
Median	24.54	12.56	35.34	0.143	1.61	4.18
Maximum	156.84	104.89	107.99	0.556	1.23	21.45
Minimum	3.24	30.45	10.63	0.135	1.345	0.234
Std Dev	27.20	20.69	22.77	0.123	1.27	4.64
Skewness	1.517	2.20	0.55	0.93	0.46	0.97
Kurtosis	5.33	7.90	3.38	3.17	23.71	7.08
Jarque-Bera	224.74	667.03	21.42	54.43	634.76	313.85
Prob	0.0000	0.0000	0.0000	0.0000	0.000	0.0000

Table 2 describes a statistical summary, including each factor's mean, max, min, and SD. High mean values were displayed on EXP and BM. These two values also exhibited high standard deviation values. The statistics also show that the variables were not normally distributed. This was shown by the Jarque Bera statistic which had significant p-values.

4.2. Slope Homogeneity

The slope homogeneity test results are reported in Table 3.

Table 3. Pesaran–Yamagata testing for slope heterogeneity.

Delta	*p*-Value
5.850	0.000
adj 6.491	0.000

Results displayed in Table 3 indicate that the null hypothesis of slope homogeneity is rejected in all cases because the probability values are smaller than 0.05. This means that heterogeneity is present, and the study should employ panel techniques that take into account the existence of heterogeneity.

4.3. Cross Sectional Dependence

The cross-sectional dependence test results are reported in Table 4.

Table 4. a: Pesaran CSD test (pre-estimation: FD). b: Pesaran CSD test (pre-estimation: GDP). c: Pesaran CSD test (post-estimation: GDP).

Variable	CD Test	*p*-Value	corr	Abs(corr)
		a		
FD	23.36	0.000	0.471	0.509
		b		
GDP	13.86	0.000	0.280	0.297
		c		
mg_res	9.25	0.000	0.189	0.235

Table 4a displays the pre-estimation cross-sectional dependence test that was performed on the main explanatory variable: financial development. The results demonstrate that the null hypothesis of cross-sectional independence is rejected at 1% significance level. This implies that the study had to take into account cross-sectional dependence in its estimation process. Another pre-estimation was carried out on the dependent variable: GDP. Results are displayed in Table 4b. The results show that the null hypothesis of cross-sectional independence is rejected at 1% significance level. This implies that the study had to take into account cross-sectional dependence in its estimation process. A post-estimation cross estimation was performed on the Mean Group residuals and results are shown in Table 4c.

Table 4c shows that the CD test statistic turned out to be 9.25 and the corresponding *p*-value was 0.000 which shows that at 1% level of significance, the study failed to reject the null hypothesis of cross-sectional independence. This result also suggests that the stationarity of the series should be investigated using second-generation panel unit root tests that take cross-sectional dependence into consideration.

4.4. Unit Root Test

After detecting cross sectional dependence, the next step was to test for unit root using a second-generation panel unit root. Results are shown in Table 5.

Results displayed in Table 5 show that three variables (REM, INF and GE) were stationary at levels. The other four variables were not stationary at levels. These variables were first differenced in order for them to become stationary. The fact that some variables were not stationary at levels prompted the study to perform a cointegration test.

Table 5. Pesaran's CADF test.

Variable	t-Bar	*p*-Value
REM	2.821	0.022
INF	−2.424	0.006
GDP	−0.660	0.255
EXP	−1.780	0.485
GE	−2.199	0.049
FDI	0.215	0.585

4.5. Cointegration Test

Table 6 shows the results of the Westerlund panel cointegration test.

Table 6. Westerlund cointegration test.

Statistic	Value	Z-Value	*p*-Value
Gt	−1.842	−1.645	0.050
Ga	−9.881	−2.776	0.003
Pt	−9.602	−4.588	0.000
Pa	−10.686	−6.250	0.000

The results of the Westerlund cointegration test show that the test statistics are statistically significant at the level of 1%. This result implied that the null hypothesis of no cointegration is rejected. It can thus be said that there is a long-term association between the variables. Given the results from the cointegration test, a dynamic common correlated effects technique is appropriate for estimation purposes.

4.6. Main Findings (Dynamic Common Correlated Effects)

This paper examines the empirical relationship between long-term growth and financial development. The empirical results for the model are presented in Table 7. Model 1 is the primary model for the study and model 2 is the secondary model which was used for robustness purposes.

The empirical results indicate that the coefficient for financial development (FD) is positive and significant at 5% level of significance. This finding is in line with the economic literature. According to the World Bank (2023), by raising the savings rate, mobilizing and pooling savings, producing information about investments, facilitating and encouraging the inflows of foreign capital, as well as optimizing the allocation of capital, financial development fosters economic growth through capital accumulation and technological advancement. The potential for impoverished households to engage in economic activities can be increased with access to money. Well-established financial institutions, such as banks and financial markets, play a significant role in connecting domestic savers and investors and disseminating information. In a study by Olayungbo and Quadri (2019), there was a positive relationship between financial development and economic growth. The relationship ran from financial development to growth. Results by Puatwoe and Piabuo (2017), Guru and Yadav (2019) and Alawadhi et al. (2021), Abbas et al. (2022) demonstrate a strong and considerable impact of financial development on economic growth for developing countries.

Table 7. Dynamic common correlated effects (MG).

Dependent Variable: ECONOMIC GROWTH		
VARIABLE	**MODEL 1**	**MODEL 2**
FD	0.1811 *** (0.0561)	
BM		−0.2156 *** 0.0364)
EXP	0.4103 *** (0.0808)	0.2603 *** (0.0296)
FDI	0.2351 (0.2180)	0.0840 ** (0.0399)
REM	0.4713 *** (0.0120)	0.4695 *** (0.0111)
INF	0.0841 ** (0.0393)	0.0674 (0.0844)
GE	−0.3580 *** (0.0412)	−0.2236 *** (0.0812)

Standard errors in parentheses.*** $p < 0.01$, ** $p < 0.05$.

The empirical results indicate that the coefficient for exports (EXP) is positive and significant at 5% level of significance for both models. This shows that exports contribute positively to economic growth. In particular, export growth boosts investment in industries where a nation has a competitive advantage, boosting national output and economic growth rates. An increase in exports boosts foreign exchange inflows and enables an increase in capital goods and service imports, both of which are crucial for boosting economic development and productivity. Numerous studies have demonstrated the export-led growth (ELG) hypothesis, which holds that exports have a favorable impact on economic growth through improved economies of scale, adoption of cutting-edge technology, and higher capacity utilization Kalaitzi and Chamberlain (2020). Mosikari and Eita (2020) offered evidence demonstrating that a rise in exports of three key export commodities will result in improved economic growth. Tivatyi et al. (2022) showed that there was a bidirectional causality between exports and growth for Botswana, Namibia, and Zimbabwe in the long run.

Foreign direct investment (FDI) is found to have a positive but insignificant relationship with economic growth in model 1. However, in model 2, the coefficient for FDI is positive and significant at 5% level of significance. This may suggest that FDI is an important component for economic growth in SADC countries. A similar result was found by Dinh et al. (2019), Sarker and Khan (2020) and Nguyen (2021). Benetrix et al. (2023) suggest that FDI has a positive association with growth in countries that experience high global value chain activity growth and have initial low levels of human capital or financial development. FDI can provide additional financial resources, physical assets, and human capital to the host economy, especially in sectors that are capital-intensive or require advanced technology and skills.

The empirical results indicate that the coefficient for remittances (REM) is positive and significant at 1% level of significance for both models. This shows that remittances contribute positively to economic growth. According to the World Bank (2022), remittances can impact growth positively via investment and access to credit. Specifically, in a typical developing country where labor supply is abundant but opportunities for formal employment are limited, remittances can help initiate self-employment. According to the United Nations (2019) and Adjei et al. (2020), for the least developed nations, remittances are sometimes the main source of foreign financing and a major driver of economic growth. Remittances can facilitate the growth of new small-scale businesses and foster entrepreneurship by relaxing credit constraints, which is common in the informal sector of developing countries. In a

study by Olayungbo and Quadri (2019), a positive relationship between remittances and growth was also found.

The coefficient of inflation (INF) is positive and significant at 5% for model 1 and insignificant for model 2. This suggests that inflation contributes positively to economic growth. This is consistent with a Keynesian view. The Keynesians contend that the demand for labor lowers unemployment while boosting economic growth, and as a result, there is a long-term positive link that leads to increased nominal wages and inflation as its byproducts (Mandeya and Sin-Yu 2021). However, these results need to be viewed with caution. High inflation rates can hurt economic growth. Some studies have shown that there is a certain level of inflation that is conducive to economic growth. In other words, economic growth is inflation-inducing below the inflation threshold. The study by Thanh (2015) finds that for inflation rates greater than 7.84%, which is the point at which inflation begins to impede economic growth, there is a statistically significant negative link between inflation and growth. These results imply that inflation must be kept at a specific level in order to support economic growth. Similarly, Ekinci et al. (2020) showed that observed that economic growth is impacted differently at low and high inflation levels. Their findings showed that the threshold value is 4,182% in inflation targeting countries. Below the threshold, the inflation-growth relationship is insignificant, and above the threshold, inflation affects economic growth negatively.

The results indicate that the coefficient for government expenditure (GE) is negative and significant at 5% level of significance. These results seem to be in line with the literature. However, it should be highlighted that according to economic theory, the government can have an impact on economic growth in one of two ways: either positively, by providing public goods and services in an efficient manner, or negatively through poor service delivery (Grossman 1990). Nguyen and Bui (2022) show that government expenditure had a negative impact on economic growth. However, the study showed that the interaction between government expenditure and corruption control can reduce the level of the negative impact of these two factors on economic growth. Butkiewicz and Yanikkaya (2011) stated that government expenditure has a negative impact on economic growth in more than 100 developed and developing countries. This impact is found very clearly in developing countries with ineffective governments. If public officials want to maximize private benefit, which can limit economic growth, the allocation of these government resources will be ineffective (d'Agostino et al. 2016; Montinola and Jackman 2002). This could be the case in the selected countries in this study. Several states such as Zimbabwe, Mozambique, and Angola have had their share of corruption in the public sector. This can distort the efficient allocation of public resources and consequently impede economic growth.

4.7. Robustness Checks (Model 2)

According to Smolo (2023), the relationship between growth and financial development depends on the proxy used, and hence, one needs to be careful when making conclusions. As such, in this section, the study interprets another indicator as a proxy for financial development. Model 2, displayed in Table 7 above, applied a different indicator of financial development: broad money (BM). However, the empirical results indicate that the coefficient for BM is negative and significant at 1% level of significance. This shows that money supply contributes negatively to economic growth. The results show that financial development has a negative impact on growth, but the magnitude of the effect varies depending on the financial development indicators used, the estimation method used, the frequency of the data, and the functional form of the relationship (Bist 2018).

Other studies have shown that broad money usually exhibits a negative relationship with economic growth. Adu et al. (2013) showed that credit to the private sector as a ratio to GDP causes the real GDP to increase, but an increase in broad money supply as a ratio to GDP causes real GDP to fall. As noted earlier, according to Nyasha and Odhiambo's (2017) analysis, a variety of variables have a role in the relationship between financial development and economic growth. Thus, it is important to proceed with utmost caution

when claiming that economic expansion invariably follows financial progress. Taivan and Nene (2016) also note that broad money might not be a good measure of financial development.

4.8. Causality

Results from the Dumitrescu and Hurlin (2012) Granger non-causality test are displayed in Table 8.

Table 8. Dumitrescu and Hurlin (2012) Granger non-causality test.

Null Hypothesis	W-Stat	Zbar-Stat	Zbar-Tilde
GDP does not homogeneously cause FD.	3.3570	5.2704	3.9546
		(0.0000)	(0.0001)
FD does not homogeneously cause GDP	2.4357	3.7984	3.0092
		(0.0001)	(0.0026)
GDP does not homogenously cause BM.	1.8146	1.8216	1.2117
		(0.0685)	(0.2256)
BM does not homogenously cause GDP	4.5599	7.9603	3.7984
		(0.0000)	(0.0000)

Table 8 shows that there is a bidirectional causality between FD and GDP in the relevant period for the panel of countries. This implies that GDP (economic growth) explains a variation in FD (financial development) with a feedback response where FD is instrumental in predicting GDP. This implies that financial development and economic growth are mutually or bi-directionally causal. Studies by Acaravci et al. (2009), Asafo-Adjei et al. (2021), Abbas et al. (2022) and Chiwira (2023) also showed that there is a bidirectional causality, which is also a combination of the supply-leading and demand-following hypotheses.

The results revealed that whereas there is no causality from GDP to BM (broad money), a unidirectional causal relationship was established. This relationship flows from BM to GDP without a feedback effect. Adusei (2013) used fully modified ordinary least squares (FMOLS) to analyze Ghana's financial development and economic growth between 1971 and 2010. They discovered that increasing the money supply inhibited economic growth. Gatawa et al. (2017) used VECM to examine the effects of the money supply and inflation on economic growth in Nigeria between 1973 and 2013. Their research revealed that interest rates and the general money supply were adversely related to economic growth.

5. Conclusions

The study aimed to explore the empirical connection between financial development and economic growth. Given that numerous Southern African Development Community (SADC) states are categorized as low-income countries and are characterized by financial underdevelopment, there is a concern that their growth potential may be compromised. Employing a quantitative approach, the analysis utilized panel data to fulfill its objectives. Estimation was conducted using the dynamic common correlated effect (DCCE) methodology. The findings indicated a positive association between financial development, as measured by the IMF's financial development index, and economic growth. This relationship was observed to be bidirectional, with financial development influencing economic growth and vice versa.

The study has effectively achieved its objectives, as it successfully tested the relationship between inflation and growth and identified a positive correlation between the two variables. The findings validate the notion that financial development is needed to achieve a more efficient allocation of resources and consequently promote growth. This calls on the governments in the countries under investigation to create environments that foster financial development. A well-regulated and bureaucracy-free environment is of tremendous benefit to financial development. In order for agents to have faith in the financial

system and for their economies to run smoothly, policymakers must recommit the state to carrying out tasks like properly regulating the financial sector. To achieve long-term economic growth, governments must enhance the financial sector and take the necessary steps to create a solid long-term link between financial development and economic growth.

Funding: This research received no external funding.

Informed Consent Statement: Not applicable.

Data Availability Statement: No new data were created.

Conflicts of Interest: The authors declare no conflicts of interest.

References

Abbas, Zaheer, Gul Afshan, and Ghulam Mustifa. 2022. The Effect of Financial Development on Economic Growth and Income Distribution: An Empirical Evidence from Lower-Middle and Upper-Middle-Income Countries. *Development Studies Research* 9: 117–28. [CrossRef]

Acaravci, Songul Kakilli, Ilhan Ozturk, and Ali Acaravci. 2009. Financial Development and Economic Growth: Liteature Survey and Empirical Evidence from Sub-Saharan African Countries. Available online: http://www.scielo.org.za/pdf/sajems/v12n1/02.pdf (accessed on 3 April 2023).

Adjei, Mavis, Yu Bo, Emmanuel Nketiah, Gibbson Adu-Gyamfi, and Bright Obuobi. 2020. The Effects of Remittances on Economic Growth in West Africa. *Journal of Human Resource and Sustainability Studies* 8: 312–29. [CrossRef]

Adu, George, George Marbuah, and Justice Mensah. 2013. Financial development and economic growth in Ghana: Does the measure of financial development matter? *Review of Development Finance* 3: 192–203. [CrossRef]

Adusei, Michael. 2013. Financial Development and Economic Growth: Evidence from Ghana. *The International Journal of Business and Finance Research* 7: 61.

Agyei, Kwasi. 2022. Financial Sector Development and Economic Development in Sub-Saharan Africa. Available online: https://www.amenet.eu/documents/thesis/T2022_04_Thesis-Kwasi-Agyei.pdf (accessed on 10 May 2023).

Aimer, Nagmi. 2021. The Direction of Causality between Economic Growth and Financial Development in Upper Middle-Income Countries. *Econder International Academic Journal* 5: 49–68. [CrossRef]

Alawadhi, Khuloud Mohammed, Nour Mansour Alshamali, and Mansour Mohamed Alshamali. 2021. Financial Development in Developing Countries and Its Impact on Economic Growth between 2008 and 2017. *Accounting and Finance Research* 10: 50–67. [CrossRef]

Ali, Sajid, Zulkornain Yusop, Shivee Ranjanee Kaliappan, and Lee Chin. 2020. Dynamic common correlated effects of trade openness, FDI, and institutional performance on environmental quality: Evidence from OIC countries. *Environmental Science and Pollution Research* 27: 11671–82. [CrossRef]

Almassri, Hamza, Huseyin Ozdeser, and Andisheh Saliminezhad. 2023. Revisiting the finance-growth nexus in Hong Kong: Fresh insights from nonparametric analysis. *Journal of Economic Studies* 50: 1073–86. [CrossRef]

António, Afonso, and Blanco-Arana Carmen. 2018. Financial development and economic growth: A study for OECD countries in the context of crisis. *REM Working Paper* 1: 046-2018. [CrossRef]

Arcand, Jean-Louis, Enrico Berkes, and Ugo Panizza. 2015. Too much finance? *Journal of Economic Growth* 20: 105–48. [CrossRef]

Asafo-Adjei, Emmanuel, Ebenezer Boateng, Zangina Isshaq, Anthony Adu-Asare Idun, Peterson Owusu, and Anokye M. Adam. 2021. Financial sector and economic growth amid external uncertainty shocks: Insights into emerging economies. *PLoS ONE* 16: e0259303. [CrossRef]

Bailliu, Jeannine N. 2000. *Private Capital Flows, Financial Development, and Economic Growth in Developing Countries*. Wellington: Bank of Canada.

Barnebeck, Andersen, and Finn Tarp. 2003. Financial Liberalization, Financial Development and Economic Growth in LDCs. Available online: https://onlinelibrary.wiley.com/doi/pdf/10.1002/jid.971 (accessed on 7 October 2023).

Benetrix, Agustin, Hayley Pallan, and Ugo Panizza. 2023. The Elusive Link Between FDI and Economic Growth. Available online: https://blogs.worldbank.org/developmenttalk/elusive-link-between-fdi-and-economic-growth (accessed on 7 October 2023).

Bist, Prasad. 2018. Financial development and economic growth: Evidence from a panel of 16 African and non-African low-income countries. *Cogent Economics & Finance* 6: 1449780. [CrossRef]

Bogari, Adel. 2019. The Financial Development and Economic Growth Nexus: The Role of Saudi Arabian Financial Institutions. *European Journal of Business and Management Research* 4: 6. [CrossRef]

Bolukoglu, Anil. 2022. Financial development and economic growth: A nonparametric analysis. Paper presented at the 24th RSEP International Conference on Economics, Finance & Business, Vienna, Austria, February 24–25.

Bölükbaş, Mehmed, Mehmet Hanefi Topal, and Hakan Hotunluoğlu. 2018. Testing Twin Deficits Hypothesis for Eu 27 and Turkey: A Panel Granger Causality Approach under Cross-Sectional Dependence. Available online: http://www.ipe.ro/rjef/rjef4_18/rjef4_2018p101-119.pdf (accessed on 7 October 2023).

Bulbulia, Tasneem. 2023. Commission welcomes Tribunal's ruling that banks must answer on currency manipulation allegations. *Engineering News*, March 31.
Butkiewicz, James L., and Halit Yanikkaya. 2011. Institutions and the impact of government spending on growth. *Journal of Applied Economics* 14: 319–41. [CrossRef]
Chandavarkar, Anand. 1992. Of Finance and Development: Negelected and Unsettled Questions. *World Development* 20: 133–42. [CrossRef]
Chiwira, Oscar. 2023. Examining the co-integrating relationship between financial development and economic growth. *International Journal of Research in Business and Social Science (2147-4478)* 12: 269–85. [CrossRef]
Chudik, Alexander, and M. Hashem Pesaran. 2015. Common correlated effects estimation of heterogeneous dynamic panel data models with weakly exogenous regressors. *Journal of Econometrics* 188: 393–420. [CrossRef]
Competition Commission. 2024. Commission Requests Leave to Appeal Cac Judgment in Case Against Banks Alleged to Have Colluded in The Rand/Dollar Currency Pair. Available online: https://www.compcom.co.za/wp-content/uploads/2024/02/Commission-Appeals-CAC-Decision-on-Forex-Cartel-Case-06-February-2024.pdf (accessed on 5 March 2024).
d'Agostino, Giorgio, J. Paul Dunne, and Luca Pieroni. 2016. Government spending, corruption and economic growth. *World Development* 84: 190–205. [CrossRef]
Dal, Sureyya. 2021. More Credits, Less Cash: A Panel Cointegration Approach. In *Linear and Non-Linear Financial Econometrics-Theory and Practice*. London: IntechOpen. [CrossRef]
Detragiache, Enrica, Gupta Poonam, and Tressel Thierry. 2005. *Finance in Lower-Income Countries: An Empirical Exploration*. IMF Working Paper 05/167. Washington, DC: International Monetary Fund.
Dilek, Durusu-Ciftci. 2019. The Finance-Growth Nexus in the High Performance Asian Economies: A Bootstrap Panel Causality Analysis. *Atatürk Üniversitesi İktisadi ve İdari Bilimler Dergisi* 33: 495–514.
Dinh, Trang Thi-Huyen, Duc Hong Vo, Anh The Vo, and Thang Cong Nguyen. 2019. Foreign Direct Investment and Economic Growth in the Short Run and Long Run: Empirical Evidence from Developing Countries. *Journal of Risk and Financial Management* 12: 176. [CrossRef]
Dolar, Veronika, and Césaire Meh. 2002. Financial Structure and Economic Growth: A Non Technical Survey. Bank of Canada Working Paper. Available online: https://www.bankofcanada.ca/wp-content/uploads/2010/02/wp02-24.pdf (accessed on 10 May 2023).
Dumitrescu, Elena-Ivona, and Christophe Hurlin. 2012. Testing for Granger Non-Causality in Heterogeneous Panels. *Economic Modelling* 29: 1450–1460. [CrossRef]
Ekinci, Ramazan, Osman Tüzün, and Fatih Ceylan. 2020. The relationship between inflation and economic growth: Experiences of some inflation targeting countries. *Financial Studies* 24: 6–20.
European Central Bank. 2017. Evidence on Finance and Economic Growth. Available online: https://www.ecb.europa.eu/pub/pdf/scpwps/ecb.wp2115.en.pdf (accessed on 10 May 2023).
Filfilan, Assef. 2021. The Effects of Financial Development and Governance Quality on Economic Growth: Evidence from Developed and Developing Countries. *Studies of Applied Economics* 40: 63–71. [CrossRef]
Gatawa, Nasiru M., Akinola Abdulgafar, and Muftau O. Olarinde. 2017. Impact of Money Supply and Inflation on Economic Growth in Nigeria. *IOSR Journal of Economics and Finance* 8: 26–37. [CrossRef]
Gerschenkron, A. 1962. *Economic Backwardness in Historical Perspective: A Book of Essays*. Cambridge: Belknap Press of Harvard University Press.
Granger, Clive W. J. 1969. Investigating Causal Relations by Econometric Models and Cross-Spectral Methods. *Econometrica* 37: 424–38. [CrossRef]
Granger, Clive W. J. 1988. Causality, cointegration, and control. *Journal of Economic Dynamics and Control* 12: 551–59. [CrossRef]
Grossman, Philip J. 1990. Government and growth: Cross-sectional evidence. *Public Choice* 65: 217–27. [CrossRef]
Guptha, Sivakiran, and Rao Prabhakar. 2018. The causal relationship between financial development and economic growth: An experience with BRICS economies. *Journal of Social and Economic Development* 20: 308–26. [CrossRef]
Guru, Kumar, and Inder Yadav. 2019. Financial development and economic growth: Panel evidence from BRICS. *Journal of Economics, Finance and Administrative Science* 24: 113–26. [CrossRef]
Hasan, Hafnida. 2018. Relationship between Financial Development and Economic Growth: Empirical Evidence in Indonesia. *International Journal of Economics and Finance* 10: 37–42. [CrossRef]
Hasan, M. Abu. 2019. Does globalization accelerate economic growth? South Asian experience using panel data. *Journal of Economic Structures* 8: 26. [CrossRef]
Hoyos, Rafael, and Vasilis Sarafidis. 2006. Testing for Cross-Sectional Dependence in Panel-Data Models. *The Stata Journal* 6: 482–96. [CrossRef]
Kalaitzi, Athanasia, and Trevor W. Chamberlain. 2020. Exports and Economic Growth: Some Evidence from the GCC. *International Advances in Economic Research* 26: 203–5. [CrossRef]
Keho, Yaya. 2020. Impact of Remittances on Financial Development: Revisiting the Evidence for ECOWAS Countries. *Theoretical Economics Letters* 10: 169–79. [CrossRef]
Kubanji, Tebogo, Biza-Khupe Simangaliso, and Mogotsinyana Mapharing. 2020. The Causality Relationship Between Financial Sector Profitability and the Botswana Economy. Paper presented at the 5th International Conference on Business Innovation and Growth, Gaborone, Botswana, July 9–11.

Kumar, Sunil, Nasibeh Zarei, and Mahmood Sabuni. 2021. An Empirical Analysis on Impact of Shanghai Cooperation Organisation (SCO) on Environment in Iran. *IOSR Journal of Humanities and Social Science (IOSR-JHSS)* 26: 7–15.
Kuyedzwa, C. 2020. Old Mutual: A Giant Entangled in Zimbabwe's Currency Woes. *News24*, July 28.
Lannquist, Ashley, and Brandon Tan. 2023. *Central Bank Digital Currency's Role in Promoting Financial Inclusion*. FinTech Notes. Washington, DC: International Monetary Fund. [CrossRef]
Larkin, P. 2023. Tribunal has nine banks in its crosshairs as it rules it can hear rand manipulation case. *IOL*, March 31.
Levine, Ross. 1997. Financial Development and Economic Growth: Views and Agenda. *Journal of Economic Literature* 35: 688–726. Available online: http://www.jstor.org/stable/2729790 (accessed on 10 May 2023).
Levine, Ross. 2021. *Finance, Growth, and Inequality*. Washington, DC: International Monetary Fund. [CrossRef]
Li, Chenggang, Gang Zhao, Keumseok Peter Koh, Zhenci Xu, Mu Yue, Weiyan Wang, Yuanyuan Tan, and Liang Wu. 2024. Impact of China's financial development on the sustainable development goals of the Belt and Road Initiative participating countries. *Humanities and Social Sciences Communications* 11: 294. [CrossRef]
Lopez, Luciano, and Sylvain Weber. 2017. Testing for Granger causality in panel data. *The Stata Journal* 17: 972–84. [CrossRef]
Lucas, Robert E., Jr. 1988. On the Mechanics of Economic Development. *Journal of Monetary Economics* 22: 3–42. [CrossRef]
Mandeya, Shelton, and Ho Sin-Yu. 2021. Inflation, inflation uncertainty and the economic growth nexus: An impact study of South Africa. *MethodsX* 8: 101501. [CrossRef]
Matei, Iuliana. 2020. Is financial development good for economic growth? Empirical insights from emerging European countries. *Quantitative Finance and Economics* 4: 653–78. [CrossRef]
Mbulawa, Strike, and Samuel Chingoiro. 2024. Financial development, institutional quality and economic growth in countries in sub-Saharan Africa (SSA). *International Journal of Business Ecosystem & Strategy (2687-2293)* 6: 51–62. [CrossRef]
Md, Qamruzzaman, and Jianguo Wei. 2018. Investigation of the asymmetric relationship between financial innovation, banking sector development, and economic growth. *Quantitative Finance and Economics* 2: 952–80. [CrossRef]
Montinola, Gabriella R., and Robert W. Jackman. 2002. Sources of corruption: A cross-country study. *British Journal of Political Science* 32: 147–70. [CrossRef]
Mosikari, Teboho Jeremiah, and Joel Hinaunye Eita. 2020. Modelling Asymmetric Relationship between Exports and Growth in a Developing Economy: Evidence from Namibia. *South African Journal of Economic and Management Sciences* 23: a2905. [CrossRef]
Mtar, Kais, and Walid Belazreg. 2021. On the nexus of innovation, trade openness, financial development and economic growth in European countries: New perspective from a GMM panel VAR approach. *International Journal of Finance & Economics* 28: 766–91. [CrossRef]
Ndlovu, Ray, and Godfrey Marawanyika. 2020. Old Mutual to Move Zimbabwe Listing as Currency War Escalates. *Bloomberg*, July 27.
Nguyen, Ha Minh, Quan Thai-Thuong Le, Chi Minh Ho, Thang Cong Nguyen, and Duc Hong Vo. 2022. Does financial development matter for economic growth in the emerging markets? *Borsa Istanbul Review* 22: 688–98. [CrossRef]
Nguyen, My-Linh Thi. 2021. Foreign direct investment and economic growth: The role of financial development. *Cogent Business & Management* 9: 2127193. [CrossRef]
Nguyen, My-Linh Thi, and Ngoc Toan Bui. 2022. Government expenditure and economic growth: Does the role of corruption control matter? *Heliyon* 8: 1–8. [CrossRef]
Nyasha, Sheilla, and Nicholas Odhiambo. 2017. Financial Development and Economic Growth Nexus: A Revisionist Approach. *Economic Notes* 47: 223–29. [CrossRef]
Nyasha, Sheilla, Yvonne Gwenhure, and Nicholas M. Odhiambo. 2017. The Dynamic Causal Linkage Between Financial Development and Economic Growth: Empirical Evidence from Ethiopia. *Economia Internazionale/International Economics, Camera di Commercio Industria Artigianato Agricoltura di Genova* 70: 73–102.
Odo, Stephen, BigBen Chukwuma Ogbonna, Promise E. Agbi, and Charity Anoke. 2020. Investigating the Causal Relationship between Financial Development and Economic Growth in Nigeria and South Africa. *IOSR Journal of Economics and Finance (IOSR-JEF)* 7: 75–81.
Olayungbo, David Oluseun, and Ahmod Quadri. 2019. Remittances, financial development and economic growth in sub-Saharan African countries: Evidence from a PMG-ARDL approach. *Financial Innovation* 5: 9. [CrossRef]
Opoku, Eric Evans Osei, Muazu Ibrahim, and Yakubu Awudu Sare. 2019. The causal relationship between financial development and economic growth in Africa. *International Review of Applied Economics* 33: 789–812. [CrossRef]
Pagano, Marco. 1993. Financial markets and growth: An overview. *European Economic Review* 37: 613–22. [CrossRef]
Papadavid, Phyllis, Johan Rewilak, and Natalie Bright. 2017. Financial Barriers to Economic Growth in Low Income Countries. Available online: https://assets.publishing.service.gov.uk/media/5c44b08d40f0b6171c714f3c/RiC-Finance-politics-and-growth.pdf (accessed on 12 May 2023).
Park, D. 2015. Is Finance Bad for Growth? Available online: https://www.brookings.edu/articles/is-finance-bad-for-growth/ (accessed on 3 June 2023).
Patrick, Hugh T. 1966. Financial development and economic growth in underdeveloped countries. *Economic Development and Cultural Change* 14: 174–89. [CrossRef]
Pesaran, M. Hashem, and Ron P. Smith. 1995. Estimating long-run relationships from dynamic heterogeneous panels. *Journal of Econometrics* 68: 79–113. [CrossRef]

Pesaran, M. Hashem. 2004. *General Diagnostic Tests for Cross Section Dependence in Panels*. Cambridge Working Papers in Economics 0435. Cambridge: Faculty of Economics, University of Cambridge.
Pinshi, Christian, and Anselme M. Kadeya. 2020. Financial Development and Economic Growth in the Democratic Republic of the Congo: Supply leading or Demand Following? Available online: https://hal.science/hal-02886686 (accessed on 10 June 2023).
Pradhan, Rudra P., Mak B. Arvin, Mahendhiran Nair, Sara E. Bennett, and John H. Hall. 2018. The dynamics between energy consumption patterns, financial sector development and economic growth in financial action task force (FATF) countries. *Energy* 159: 42–53. [CrossRef]
Puatwoe, Janice Tieguhong, and Serge Mandiefe Piabuo. 2017. Financial sector development and economic growth: Evidence from Cameroon. *Financial Innovation* 3: 25. [CrossRef]
Rajan, Raghuram. 2006. Has finance made the world Riskier? *European Financial Management* 12: 499–513. [CrossRef]
Samargandi, Nahla, Jan Fidrmuc, and Sugata Ghosh. 2015. Is the Relationship Between Financial Development and Economic Growth Monotonic? Evidence from a Sample of Middle-Income Countries. *World Development* 68: 66–81. [CrossRef]
Sarker, Bibhuti, and Farid Khan. 2020. Nexus between foreign direct investment and economic growth in Bangladesh: An augmented autoregressive distributed lag bounds testing approach. *Financial Innovation* 6: 10. Available online: https://jfin-swufe.springeropen.com/track/pdf/10.1186/s40854-019-0164-y.pdf (accessed on 10 June 2023). [CrossRef]
Shahbaz, Muhammad, Saleheen Khan, and Mohammad Iqbal Tahir. 2013. The dynamic links between energy consumption, economic growth, financial development and trade in China: Fresh evidence from multivariate framework analysis. *Energy Economics* 40: 8–21. [CrossRef]
Shan, Jordan. 2005. Does financial development 'lead' economic growth, a vector autoregression appraisal. *Applied Economics* 37: 1353–67. [CrossRef]
Smith, Elliot. 2020. Zimbabwe Could be Headed for Political Upheaval as Economic and Health Crises Spiral. *CNBC*, July 17.
Smolo, Edib. 2023. The Finance-Growth Nexus and the Role of Institutional Development: A Case Study of the Western Balkan Countries. In *Interdisciplinary Advances in Sustainable Development*. Edited by Tijana Tufek-Memišević, Maja Arslanagić-Kalajdžić and Naida Ademović. Cham: Springer International Publishing. Available online: https://repository.effatuniversity.edu.sa/handle/20.500.14131/468 (accessed on 16 November 2023).
Sulemana, Mahawiya, and John Bosco Dramani. 2022. Effect of financial sector development and institutions on economic growth in SSA. Does the peculiarities of regional blocs matter? *Journal of Sustainable Finance & Investment* 12: 1102–24. [CrossRef]
Taivan, Ariuna, and Gibson Nene. 2016. Financial development and economic growth: Evidence from southern African development community countries. *The Journal of Developing Areas* 50: 81–95. [CrossRef]
Thanh, Su Dinh. 2015. Threshold effects of inflation on growth in the ASEAN-5 countries: A Panel Smooth Transition Regression approach. *Journal of Economics Finance and Administrative Science* 20: 41–48. [CrossRef]
Thiel, Michael. 2000. Finance and Economic Growth—A Review of Theory and the Available Evidence. Available online: http://europa.eu.int/economy_finance (accessed on 20 April 2023).
Tivatyi, Kudzai Shamaine, Jian Min Shou, and Kodjo N'Souvi. 2022. Study on Import and Export-Led Economic Growth: Cases of Botswana, Namibia, South Africa, and Zimbabwe in Southern Africa. *Open Journal of Business and Management* 10: 670–700. [CrossRef]
Tran, Viet T., Yabibal M. Walle, and Helmut Herwartz. 2020. The impact of local financial development on firm growth in Vietnam: Does the level of corruption. *European Journal of Political Economy* 62: 2020. [CrossRef]
United Nations. 2019. Remittances Key to Helping World's Poorest Countries Reliably Finance Sustainable Development, Experts Stress as Preparatory Committee's First Session Concludes. Available online: https://press.un.org/en/2021/dev3441.doc.htm (accessed on 17 June 2023).
United Nations. 2020. *Financing for Sustainable Development Report 2020*. Department of Economic and Social Affairs 2 United Nations Plaza (DC2-2170). New York: United Nations.
Westerlund, Joakim. 2007. Testing for Error Correction in Panel Data. *Oxford Bulletin of Economics and Statistics* 69: 709–48. [CrossRef]
World Bank. 2022. Remittances Increase GDP with Potential Differential Impacts Across Countries. Available online: https://blogs.worldbank.org/peoplemove/remittances-increase-gdp-potential-differential-impacts-across-countries (accessed on 12 July 2023).
World Bank. 2023. Financial Development. Available online: https://www.worldbank.org/en/publication/gfdr/gfdr-2016/background/financial-development (accessed on 15 November 2023).
Yang, Fan. 2019. The impact of financial development on economic growth in middle-income countries. *Journal of International Financial Markets, Institutions and Money* 59: 74–89. [CrossRef]