

Integration, Inclusion, Development in the Financial Sector and Economic Growth Nexus in SADC: Empirical Review

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Authors' contributions

This work was carried out by all authors. All authors designed the study. Author OC carried out the literature review and wrote the first draft of the manuscript. All authors read and approved the final manuscript.

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ABSTRACT

Aims: The study examines the relationship between financial development, integration, inclusion and economic growth.

Study Design: Empirical literature review.

Place and Duration of Study: Southern African Development Community (SADC), January 1980 to December 2011.

Conclusion: Empirical evidence suggests mixed effect of financial integration and inclusion on economic growth. While some studies argue that financial integration has positive impact on economic growth, others state that financial integration has a negative impact on economic growth. On the other hand, some studies consider sound financial development to be a pre-requisite for financial integration to have positive impact on economic growth. Financial inclusion is believed to

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have a positive or negative impact on economic growth. Some studies ascertain that the positive growth impact from the financial inclusion does not hold in economies characterised by low financial development. Literature reveals that the direction of causality between financial development and economic growth is uncertain. The SADC region present a unique sample of countries where a lot of initiatives have been taken to embrace financial integration, inclusion and development through, for example, strategic plans, policy frameworks, protocols declarations, charters, as well as memoranda of understanding. In the SADC region, Botswana, Mauritius, Namibia and South Africa are the most banked countries. The types of financial intermediaries across SADC member states include central banks, commercial banks, money lenders, unit trust companies, pension funds, non-bank deposit-taking institutions, foreign exchange dealers, mutual banks, stockbroking firms and primary dealers. Countries with no stock exchanges are Angola, Democratic Republic of Congo, Lesotho as well as Madagascar. South Africa exerts some influence on the financial sector performance in the region.

Keywords: SADC; financial development; integration; inclusion; economic growth.

1. INTRODUCTION

The importance of the financial sector to economic growth has been a topic of great contention and inquisitiveness among economists. The work excludes robust analysis of financial inclusion and integration in the context of financial sector development. In developing countries, majority of the population remain excluded from the financial sector development products.

The proliferation of stock exchanges and aggressive move towards financial liberalization indicate that a number of countries may now be considering stock exchanges and banking sector as catalysts of a wider strategy for developing national and even regional economies (Odhiambo [1]; Athanasios and Antonios [2]). There has been a notable interest in understanding the relationship between financial development and economic growth [Habidullah and End [3]; Gries et al. [4]; Vazadakis and Adamopoulos [5] and as well as Reserve Bank of Malawi [6]). In fact, the relationship between financial development and economic growth can be traced back to Schumpeter [7]. The study highlights the possibility that financial institutions could actively encourage innovation and growth by identifying and funding productive investments. Following the contribution by Schumpeter [7], theoretical discussions on the role that financial intermediaries plays in economic growth have occupied a key position in economic literature.

There is broad consensus that many factors influence a country's economic growth and provide the most profound platform for economic

growth (Kagochi et al. [8]).¹ However, for the vast majority of the developing countries, especially in Sub-Saharan Africa (SSA), these factors are yet to be realized with a majority of their population living in meager subsistence levels (Sunde [9]).

1.1 Financial Development and Economic Growth

Theoretically and empirically, there is some extensive evidence that financial development and economic growth are causatives². The conclusions have been categorized into three main hypotheses namely; finance-led growth, growth led and feedback.

1.1.1 Finance-led growth hypothesis

There is broad consensus that finance leads to growth.³ This strand of literature popularised by Schumpeter [7], suggests that well-functioning financial intermediaries are important for technical innovation and the implementation of innovative products. A developed financial sector improves the efficiency and effectiveness of financial institutions and also promotes financial innovations within the sector. This further promotes economic growth. Furthermore, the works of McKinnon [10] and Shaw [11] strengthen the supply-leading hypothesis and stimulate further inquiries regarding how financial

¹ These factors include internal government policies, political stability, domestic capital formation, development of human capital, banking infrastructure, export policies, foreign direct investment and foreign aid.

² See studies by McKinnon [10], Shaw [11], Romer [12], King and Levine, 1993, Neelankavi et al., 2009 as well as Kagochi et al [8], Odhiambo [1].

³The Finance-led Growth is also known as the Supply-leading hypothesis.

development can lead to economic growth. The study by King and Levine [13] provides empirical evidence on the supply-leading hypothesis. The study, using a cross-section regression for 80 countries, finds a strong and robust correlation between financial development indicators and the economic growth indicator. Other empirical studies in support of this hypothesis include De Gregorio and Guidotti [14], Choe and Moosa [15], Christopoulos and Tsionas [16], Habibullah and End [3], Eita and Jordan [17] as well as Kenani and Fujio [18]. Amongst those who contradicted the supply-leading hypothesis are proponents of the growth-led hypothesis which is discussed in the next subsection.

1.1.2 Growth-led hypothesis

Contrary to the supply-leading hypothesis, Robinson [19] argues that development of the financial system follows expansion of the real sector. This second possibility is referred to as the demand-following hypothesis or the growth-led hypothesis. In line with this alternative hypothesis, Kuznets [20] and Goldsmith [21] posit that the expansion of the real sector stimulates the creation of the modern financial institutions, their financial assets and liabilities and related financial services. This follows from an increased demand for these services by savers and investors in the real economy. Jung [22] provides empirical evidence in a Vector Autoregressive (VAR) analysis for 56 countries. Further, (Romer, [12]) argues that stock markets take a passive and permissive role since their establishment and development is responsive to economic growth rather than responsible for growth. Atje and Jovanovic [23], Demetriades and Hussein [24], Odhiambo [25] as well as Daniela and Caprioli [26], provide further evidence of the supply- leading hypothesis.

1.1.3 Feedback hypothesis

Another school of thought, “Feedback” hypothesis, asserts that there is a bi-directional or two-way causal relationship between financial growth and economic performance. Patrick [27], inferring from the Japanese industrialization, reconciles the growth-led and finance-led growth hypothesis by arguing that the causal link between financial development and economic growth changes over time. He argues that a country with well-developed financial markets could promote high economic growth through technological changes, product and service innovation. The hive of economic activity then creates high demand on financial arrangement

and services. As the financial markets respond to these demands, these changes further stimulate higher economic growth. Calderon and Liu [28] find existence of bi-directional causality between finance and growth in a sample of 109 countries. Shan and Morris [29], Apergis et al., [30] as well as Onuonga [31] also support the bi-directional hypothesis.

1.2 Financial Integration and Economic Growth

The increasing level of financial globalization⁴ and incidence of financial crises in recent times has drawn the attention of economists and policymakers to the macroeconomic implications of unrestricted capital flows to developing countries (see Bekaert et al. [32], Osada and Saito, [33] and Chen and Quang [34]). Although neoclassical theory predicts potential benefits of financial integration, empirical evidence of the real benefits on long term macroeconomic growth remains highly controversial (Prasad et al. [35]). Some of the works support a positive relationship between financial integration and economic growth and some of the studies contradict this assertion as presented below.

1.2.1 Positive relationship between financial integration and economic growth

The standard open economy neoclassical-Solow model provides the foremost and lasting argument for capital account liberalization and financial integration (La Marca [36]). It postulates that financial integration will cause the natural flow of funds from the capital-abundant developed economies to the capital-scarce developing economies which would ultimately lead to an “unconditional” convergence in portfolio (asset) returns, capital intensity, technology and per capita incomes.

Bailliu [37] examines private capital flows and economic growth in developing countries using a dynamic panel-data methodology for a cross-section of 40 countries from 1975-95. The results of the study suggests that capital inflows foster economic growth beyond any effect on investment rate but only for countries that have some level of financial development. The study observes that capital flows adversely affects growth in countries with poorly developed banking sectors. Quinn et al. [38] use a cross-

⁴ Here, financial globalization is meant to be the absence of restrictions to international financial transactions. Henceforth, will equivalently refer to it as financial integration or financial openness.

section of 58 countries to investigate the relationship between capital account liberalization and economic growth. Their study confirms the assertion that, capital account liberalization has a direct effect on economic growth for advanced industrial democracies but not for emerging market democracies. The study by Sedik and Sun [39] finds evidence that capital account liberalization is associated with higher GDP per capita growth and lower inflation. Klein and Olivei [40], Levine [41] and Bekaert et al. [32] also support the positive effect of financial integration on economic growth.

1.2.2 Negative relationship between financial integration and economic growth

Grilli and Milesi-Ferretti [42] study the effects and determinants of capital controls in a cross-section of about 58 countries. The study concludes that capital controls, current account restrictions and the use of various currencies are associated with higher inflation rates and lower real interest rates. They also find that a capital account controls have no correlation with economic growth. Similarly, Kraay [43] investigates the effects of capital account liberalization on macroeconomic determinants for a cross-section of countries made up of developed and developing economies. He acknowledges the benefits of capital account liberalization as noted in economic literature. However, the study suggests that capital account liberalization has negligible or no impact on growth, investment and inflation.

Edwards [44] ascertains that capital account openness in an economy with a low level of financial development may have a negative effect on economic growth. The negative relation was also supported by Edison et al. [45] as well as Eichengreen and Leblang [46].

1.2.3 Mixed or weak relationship between financial integration and economic growth

Some studies, for instance, Grilli and Milesi-Ferretti [42] Kraay, [43], Rodrik, [47], Ahmed, [48] as well as Mougani, [49] find that financial liberalization does not affect growth. Study by Osada and Saito [33] asserts that countries with developed domestic financial systems tend to use external funds more effectively. On the whole, they conclude that countries with better institutions and developed financial systems are more likely to reap benefits from increasing

Foreign Direct Investment (FDI) and equity liabilities. Ahmed [48] also observes that financial integration has enhanced economic growth through indirect channels such as facilitating the development of domestic financial markets and products (see also Edison et al. [45] and Lane and Milesi-Ferretti [50]).

1.3 Financial Inclusion and Economic Growth

Central banks and other policymaking bodies from across the globe are increasingly pursuing financial inclusion because of its contribution to financial stability, a strong financial sector, overall economic growth, as well as poverty reduction (Jack and Tavneet [51], Rui and Melecky [52], World Bank [53,54]). However, financial inclusion is a cross-cutting national economic development issue that requires the participation and cooperation of many government ministries, the private sector and civil society players (Gregory and Ball [55]).

The degree of financial intermediation is not only positively correlated with economic growth, but it is generally believed to causally impact economic growth (Levine [56], Pasali [57]). The main mechanism for doing so are generally lower transaction costs and better distribution of capital and risk across the economy. Bruhn and Love [58] proved that rapid opening of branches and in-store banking in Banco region, Mexico had a significant impact on the region's economy.

Study by Demetriades and Law [59] ascertains that the positive growth impact from the financial intermediation does not hold in economies with weak institutional framework. Weak institutional framework includes poor or nonexistent financial regulation and extremely high inflation environments (Rouessau and Watchtel [60], Loayza and Rancieri [61]).

2. SADC AND ITS OBJECTIVE

Africa has multiple regional groupings which are described as Regional Economic Communities (REC) and are seen as pillars of Africa Economic Community (AEC). Within each bloc may be another subgroup. Apart from Economic Community of West African States (ECOWAS) and Southern African Development Community (SADC), REC includes East African Community (EAC), Community of Sahel-Saharan States (CEN-SAD), Economic Community of Central African States (ECCAS) and Intergovernmental Authority on Development (IGAD). The

subgroups include Common Monetary Area (CMA), West African Monetary Union (WAMU), Economic and Monetary Community of Central Africa (CEMAC) and Southern African Customs Union (SACU). However, this study is focused on SADC. The choice of this bloc is dictated by SADC being almost three times of average per capita income of Sub-Saharan Africa (SSA), with Seychelles out performing all member states regional blocs in SSA. The average per capita income of Seychelles is US\$10721.1 against US\$2289.8 of SADC and US\$819.8 for SSA (World Bank 2012). The economic performance, integration and inclusion levels of the region present wide disparities among the member states. Lastly, the availability of data led to the choice of SADC.

SADC, which was formed in April, 1980, evolved from the Southern African Development Co-ordination Conference (SADCC), by the governments of southern African countries of Angola, Botswana, Lesotho, Malawi, Mozambique, Swaziland, Tanzania, Zambia and Zimbabwe. SADC has grown to include South Africa, Madagascar, Mauritius, the Democratic Republic of Congo, Namibia, and the Seychelles in a fifteen-member regional integrated trade group. SADC has 5 low income state members and 10 middle-income state members. Of the 10 middle-income state members, 5 are upper-middle-income, Table 1. The main objective of SADC, among other things, is to achieve sustainable economic growth, alleviate poverty and enhance the standard and quality of life of the people in SADC.

The community is endowed with huge minerals deposits, precious and base metals, and fertile

and arable land that produce a wide range of agriculture products. The region roughly accounts for half of the GDP of SSA and has four out of the five richest economies in SSA (World Bank [62]).

Economic growth has been identified as a key to eradicating poverty in SADC and achieving prosperity in the region. The SADC Finance and Investment Protocol (FIP) seeks to foster harmonisation of the financial and investment policies of the SADC Member States in order to make them consistent with the objectives of SADC and ensure that any changes to financial and investment policies in one Member State do not necessitate undesirable adjustments in others. This objective would be achieved through the facilitation of regional integration, cooperation and coordination within the finance and investment sectors with the aim of diversifying and expanding the productive sectors of the economy and enhancing trade in the region to achieve sustainable economic development and growth as well as the eradication of poverty [63].

The sub-section discusses overview of financial inclusion, integration and developments in banking sector and stock markets in SADC.

2.1 Overview of Financial Inclusion in SADC

In the SADC region, Botswana, Mauritius, Namibia and South Africa are the most banked countries in terms of the criteria that measure use and thus have the greatest access to banking services (Schoombee [64], Table 2).

Table 1. Income groups of SADC member states

Country	Income group	Average per capita GDP (2005 US\$)(1990-2010)
Angola	Lower middle income	1572.2
Botswana	Upper middle income	4608.3
Democratic Republic of Congo	Lower middle income	160.9
Lesotho	Lower middle income	656.3
Madagascar	Low income	283.3
Malawi	Low income	214.1
Mauritius	Upper middle income	4458.1
Mozambique	Low income	257.3
Namibia	Upper middle income	3226.9
Seychelles	Upper middle income	10721.1
South Africa	Upper middle income	4946.4
Swaziland	Lower middle income	2213.4
Tanzania	Low income	334.0
Zambia	Lower middle income	622.3
Zimbabwe	Low income	577.4

Source: World Bank [62]

These countries also represent four of the five upper- middle-income members of SADC (the other being the Seychelles) which, based on their level of development, would be expected to be the most banked.

World Bank [65] indicates that throughout the world, SADC included, government-owned post offices are used extensively to provide banking services. Of the 142 countries surveyed, 70% had government-owned post offices. However, Schoombee [66] argues that governments need only to create an enabling environment and provide incentives for the financial sector to flourish. For instance, governments should ensure a stable and competitive macroeconomic environment, and give incentives for financial institutions to undertake high-cost business such as lending to the poor by providing guarantees for possible loan defaults.

2.2 Overview of Financial Integration in SADC

SADC is in the process of finalising a draft Regional Industrialization Strategy and Roadmap that provides the framework for major economic and technological transformations at the national and regional levels within the context of deepening regional integration (All Africa Global Media [67]). The strategy and roadmap, whose drafting was spearheaded by a team of regional

and national consultants appointed by the SADC Secretariat, aims to accelerate the growing momentum towards strengthening the comparative and competitive advantages of the economies of the region. The interim report identifies industrialization, competitiveness and regional integration as three main pillars on which the strategy should be anchored.

2.3 Overview of Banking Sector and Stock Market Developments in SADC

While all SADC countries have both money and capital markets, they are at various stages of development. The types of financial intermediaries across SADC member states include central banks, commercial banks, money lenders, unit trust companies, pension funds, non-bank deposit-taking institutions, foreign exchange dealers, mutual banks, stockbroking firms and primary dealers, Appendix 1. Furthermore, some markets in SADC countries are more liquid than others.

The overall financial sector activities using credit to the private sector as percentage of GDP as well as credit by the banking sector as percentage of GDP for the period 1990-2012 reveals that the average credit of SADC for that period does not only fall below SSA standards but also other developing economies of Latin America and Caribbean as well as East Asia and Pacific (World Bank [62]). However,

Table 2. Measures of access to and use of banking services (2008, 2009)

Country	Year	Access/Availability			Use		
		ATMs* per 1000 km ²	ATM*s per 100000 adults	Branches per 100000 adults	Deposit accounts per 1000 adults	Loan accounts per 1000 adults	At least one banking product (% of adult population)
Angola	2008			5.5			
Botswana	2009	0.5	21.5	8.0	479	212	41
Democratic Republic of Congo (DRC)	2008			0.3	6		
Lesotho	2009	2.7	6.7	2.1	254	39	
Madagascar	2008			1.0	34	21	
Malawi	2009	2.2	2.7	2.2	163	17	19
Mauritius	2009	187.7	39.1	20.1	2109	479	
Mozambique	2009	0.8	5.1	2.9	141		11.8
Namibia	2009	0.5	30.5	7.3	758	210	45.3
South Africa	2009	14.6	52.4	8.0	839		60
Swaziland	2009	7.6	18.7	2.9	236	70	
Tanzania	2009	0.9	3.4	1.8			8.7
Zambia	2009	0.6	6.4	3.6	28	18	13.9
Zimbabwe	2009	1.5	7.8	6.3	144	21	

Source: Adapted from Scoombee [64]

Table 3. Restrictions on current and capital account transactions in the SADC region

Country	Exchange control on current account (CA) transactions	Restrictions on capital account transactions
Angola	Almost all CA transactions have been liberalized	Restrictions on investment in sectors such as defence and security
Botswana	Exchange controls abolished in February 1999. Guidelines for monitoring and controlling foreign exchange exposure limits for commercial banks.	Full capital account convertibility
DRC	No restrictions on current account transactions. Forms are required only for record purposes.	No restrictions on capital account transactions, but reasons must be provided for transactions more than US\$ 10 million.
Lesotho	No controls on current account transactions	Limited reforms on capital account transactions from June 2003.
Malawi	No exchange control on the current account.	Both inward and outward direct and portfolio investments require prior approval.
Mauritius	Current account is fully convertible	No restrictions on capital account transactions.
Mozambique	No restrictions on exports of goods. Registration required with Customs,	Capital transactions are subject to approval of the central bank.
Namibia	No restrictions on the current account	No restriction on capital from non-residents for investments; corporate entities are allowed to invest offshore
Seychelles	All restrictions on current account transactions were Removed	There are no restrictions on capital account Transactions
South Africa	No restrictions on current account transactions	There are no restrictions on inward investment and dis-investment by non- residents
Tanzania	No restrictions	Limited movement to and from the country
Zambia	Liberalised since 1992	Repeal of the Exchange Control Act in 1994
Zimbabwe	Fully liberalized	Partially liberalized

Source: SADC financial systems: Structures, policies and markets [68]

South Africa financial sector performance in terms of these measures reveals that it is more than twice the SSA average for the period and this is followed by Mauritius and Seychelles whose financial sector activities on the average make more than half of economic activity for the period 1990-2012. South Africa exerts some influence on the financial sector performance in the region, Table 4.

SADC has the most developed stock markets in SSA where most economies have basically bank-based financial systems. There are 11 (eleven) stock exchanges in the region with South Africa having the highly developed and sophisticated market, Table 5. Countries with no stock exchanges are Angola, Democratic Republic of Congo, Lesotho as well as Madagascar.

3. CONCEPTUAL FRAMEWORK

Fig. 1 shows a summarized mind map of the problem statement.

Fig. 1 shows a web of possible relationship between financial integration, inclusion,

development and economic growth. 1, 2 and 3 show initial effect of financial inclusion, integration and development on economic growth respectively. 4, 5 and 6 show reverse causality, from economic growth to financial development, inclusion and integration respectively. 7 and 8 show feedback effect between financial development and financial inclusion. 9 and 10 also show feedback effect between financial development and financial integration. 11 shows contribution of financial integration to financial inclusion.

Financial integration can affect economic growth directly and indirectly through financial development [Mougani [49], Lane, P. R and Milesi-Ferretti, G. M [50]]. Financial development can affect economic growth either directly and or indirectly through financial inclusion and financial integration. Financial inclusion is perceived to be a catalyst of financial development and financial integration on economic growth. Reverse relationships are possible between and amongst financial development, integration, inclusion and economic growth.

Table 4. Banking sector development in the SADC region

Country	Average bank credit to private sector to GDP (%) (1980-2011)	Average bank assets to bank assets and central bank assets (%) (1990-2011)	Bank deposits to GDP (%) (1980-2011)	Interest rate spread (2000-2012)	M2 % GDP (1990-2012)
Angola	6.62	67.23	14.58	32.85	24.93
Botswana	14.27	99.20	23.46	6.52	33.91
Democratic Republic of Congo	6.40	44.06	9.46	34.70	12.69
Lesotho	13.08	81.11	34.14	9.01	36.33
Madagascar	12.77	65.12	13.24	23.22	21.75
Malawi	8.67	62.53	14.4	21.62	20.38
Mauritius	46.33	97.48	62.64	7.72	85.66
Mozambique	12.69	86.96	20.80	8.43	29.29
Namibia	46.88	95.95	42.86	5.47	42.45
Seychelles	14.75	77.96	51.85	7.16	73.88
South Africa	58.07	97.43	50.50	4.15	63.03
Swaziland	17.56	97.97	22.23	6.57	23.54
Tanzania	6.86	72.30	13.92	9.75	24.56
Zambia	6.78	37.69	15.32	15.28	20.18
Zimbabwe	14.13	67.51	19.29	197.04	47.63

Source: World Bank [63]

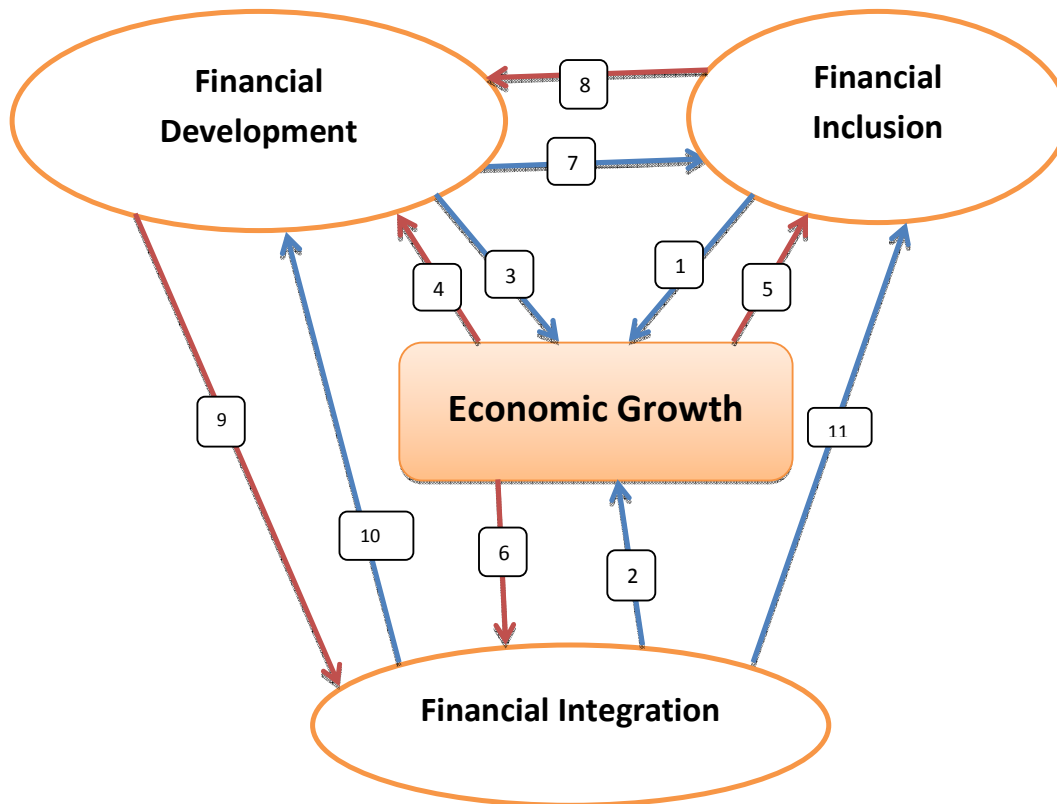


Fig. 1. Flow of financial integration, inclusion, development and economic growth

Table 5. Stock market development in the SADC region, (1980 – 2011)

Country	Year established	Stock market capitalisation to GDP (%)	Stock market total value traded to GDP (%)	Stock market turnover Ratio (%)
Angola	No Stock Exchange			
Botswana	1989	20.63	0.78	5.54
Democratic Republic of Congo	No Stock Exchange			
Lesotho	No Stock Exchange			
Madagascar	No Stock Exchange			
Malawi	1996	17.06	0.55	3.38
Mauritius	1988	36.99	2,14	5.99
Mozambique	1999			
Namibia	1992	6.95	0.16	2.40
Seychelles	Est 2012			
South Africa	1887	161.76	53.67	32.05
Swaziland	1990	10.49	0.08	1.00
Tanzania	1998	4.03	0.14	4.69
Zambia	1994	10.57	0.37	4.04
Zimbabwe	1896	73.37	49.39	9.33

Source: World Bank [62]

4. PROXIES OF FINANCIAL DEVELOPMENT, INTEGRATION AND INCLUSION

4.1 Financial Development and Economic Growth

Economic growth is proxied by Real Gross Domestic Product Per Capita (RGDPPC). Financial development is split into banking sector and stock market development. Banking sector development is proxied by Bank Credit to Private Sector (BCP), Domestic Credit to Private Sector (DCP), Bank Deposits (BD), Liquid Liabilities (LL), Real Interest Rate (RIR) and Trade Ratio (TR). Stock market development is proxied by Stock Market Size (SMS), Stock Market Liquidity (SML).

The first measure of banking sector development, bank credit to private sector, is measured as bank credit to private sector divided by Gross Domestic Product (GDP). This proxy, according to Beck et al. [69], is superior to other measures of financial sector development because it excludes credit to the public sector and better reflects the extent of efficient resources allocation. It is based on the assumption that private sector are more productive than the public sector when it comes

to the utilization of funds.⁵ The second measure, domestic credit to private sector, includes both credits of deposit money banks and other financial institutions. The third measure, bank deposits, is measured by bank deposits divided by GDP. The ratio of bank deposits to GDP provides an illustrations of the extent to which local savings are being effectively mobilised. The fourth measure is liquidity liability. This measurement of financial deepening is usually represented by M2 or M3. It has been used for example by the World Bank [70,71]. Other measures include real interest rate which is measured by the bank lending rate deflated by the CPI and the trade openness trade ratio measured as a ratio of import plus export divided by nominal GDP.⁶

Liquid liabilities measurement has been widely criticised by Demetriades and Hussein [24], Luintel and Khan [72] and Liang and Teng [73]. They observe that the proxy of banking sector development through the ratio of broad money (M2) nominal GDP is simply the measure of the extent to which financial transaction are

⁵ Both Beck et al. [69] indicated that it is better to use bank credit to private sector as a proxy of financial indicator since it excludes credit to public sector.

⁶ International trade as a factor has been widely used by many researchers in their studies on financial development and economic growth relationship among which include: Beck, [75], Beck and Levine [76], Chang, and Levine [71].

monetised rather than the function of the financial system such as saving mobilisation and efficient allocation of resources as presented in the theoretical models. Ang and McKibbin [74] explain that there is no broad consensus among economists as to which of the proxies of banking sector development is the best measurement and more so, these proxies are highly correlated. Therefore, it may be necessary to construct an index through the principal component analysis (PCA) in order to reduce the effect of multicollinearity.

The stock market development is proxied by Turnover Ratio (TR), Total Value of Shares Traded (TVST) and Market Capitalisation (MC). The first measure of stock market development, TR, is measured as the ratio of the value of total shares traded to average real market capitalization. The second measure, TVST, is measured as total shares traded on the stock market exchange to GDP. The third measure, MC, is measured as the value of listed shares to GDP

TR serves as the main indicator for stock market development in this study. The remaining two variables, TVST and MC serve as alternative measures in order to allow for the robustness check.

4.2 Financial Integration

Financial integration is proxied by portfolio equity flows. Other proxies for financial integration can be considered.

4.3 Financial Inclusion

Financial inclusion is proxied by composite index that incorporates various banking sector variables to reflect the level of accessibility/availability and usage of banking services in SADC. The accessibility/availability dimension refers to the physical ability to easily reach a point of service.

Proxies of accessibility/availability indicators are the number of automated teller machines (ATMs) and financial institutions' branches in SADC. That is, number of ATMs and branches per 1,000 km square or per 100 000 adult population. Proxies of internet and cell phone banking, which is becoming pronounced, need to be considered. The usage dimension measures the use of financial services. This is usually proxied by volume of credit and deposit relative to GDP,

percentage of adults with at least one regulated deposit (loan) account, number of regulated loan (deposit) accounts per 100 000 adults, number of households depositors (borrowers) per 100 000 adults and loans or deposits per head.

5. CONCLUSION

The study has examined the empirical literature on the impact of financial development, integration and inclusion on economic growth. It also looked at the overview of financial development, integration and inclusion in SADC. Empirical evidence suggests mixed effect of financial integration and inclusion on economic growth. It also concludes that the direction of causality between financial development and economic growth is uncertain. The study reveals that in the SADC region, Botswana, Mauritius, Namibia and South Africa are the most banked countries. The types of financial intermediaries across SADC member states include central banks, commercial banks, money lenders, unit trust companies, pension funds, non-bank deposit-taking institutions, foreign exchange dealers, mutual banks, stockbroking firms and primary dealers. South Africa exerts some influence on the financial sector performance in the region. Countries with no stock exchanges are Angola, Democratic Republic of Congo, Lesotho as well as Madagascar. The study recommends that countries considering financial development, integration and inclusion with the sole objective of increasing economic growth should prioritize empirical tests and ensure existence of enabling economic, social and political environment.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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APPENDIX

Appendix 1. Types of financial intermediaries in SADC economies

Country	Money and capital markets	Instruments	Financial intermediaries
Angola	Yes	Treasury bills, central bank TBC bills, Treasury	22 banks, including 4 state banks and micro-credit
Botswana	Capital market not broad based. Bond market; money markets	Bank of Botswana Certificates; bonds and shares	7 Banking institutions
DRC	Money market comprising banker's and interbank markets	Short-terms loans; permanent facility; commercial paper	18 Banks of deposits, 17 private and 1 mixed capital bank
Lesotho	Money market still developing; Capital market not yet active.	Money market instruments include various deposits, Treasury bills and central bank paper; Treasury bonds still being developed	8 financial intermediaries, including the Central Bank, 4 banks, money lenders, unit trusts (collective investment schemes) and insurance companies.
Malawi	Money and capital markets	MM: Treasury bills, REPOS, BA, Commercial paper, savings bond, term deposits; CM: shares, government local registered stocks, promissory notes	MM: Commercial banks, finance houses, savings and credit institutions, institutional investors and discount house. Capital market: 4 stockbrokers on the Malawi Stock Exchange, with 14 listed companies
Mauritius	Money and capital markets exist	MM: Treasury bills/Bank of Mauritius Bills/Notes and other Government Securities; CM: Shares, Treasury Notes, Inflation-linked bonds, benchmark Bonds	CB, banks, non-bank deposit taking institutions, money changers, foreign exchange dealers, etc.
Mozambique	Interbank money market; capital stock market	TBs, Central bank bills, standing facilities, reserve requirements, repo and reverse repo, Treasury Bonds (T- bonds); corporate bonds and equities.	Central bank and Commercial banks
Namibia	Interbank money market; stock exchange	MM: demand and savings deposits, notice and fixed deposits, NCDs; Capital market: shares, government stock, bills, debentures and bonds of	Central banks, 4 commercial banks, other banking institutions, non-bank financial institutions, NSX

Seychelles	Money market and capital market	Money market driven by TBs, Reverse repurchase agreements, Deposit Auction Arrangements; Capital market: government Bonds	Banks, non-bank deposit taking institutions, foreign exchange dealers, Development Bank, insurance companies, pension funds, investment companies and trusts, housing finance company
South Africa	Money and capital markets	MM: TBs and govt. bonds with less than 12 months, BA, promissory notes, commercial paper of banks, corporates, and public corporations, NCDs; Capital market – government bonds, bonds of public corporations and public entities, corporate bonds and shares.	Registered banks, mutual banks, local branches of foreign banks, bond exchange trading members, bond exchange broking members, primary dealers
Swaziland	Money and capital markets	Treasury bills, central bank bills, Bas, NCDs; debentures and bonds, equities, unit trusts	Commercial banks and the central bank; Swaziland Stock Brokers, African Alliance of Swaziland
Tanzania	Money market since 1993;	Treasury bills, Treasury bonds,	MM : Deposit money banks, insurance companies, pension funds, non-bank fin institutions, dealers and
Zambia	Money and capital markets	Treasury bills, commercial paper, term deposits and repos; govt. bonds	Commercial banks, non-bank fin. Institutions and non-bank public, authorised dealers.
Zimbabwe	Money and capital markets	TBs, central bank paper, parastatal paper guaranteed by government, NCDs, bills of exchange; shares, debentures, government bonds, public enterprises bonds, local government bonds	Deposit money banks, other banking institutions, non-bank financial institutions, stock-broking firms, insurance companies, pension funds

Source: SADC Financial Systems: Structures, Policies and Markets. September 2012.

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