MCom

The Impact of Development Finance Institutions on Economic Growth: A case of South Africa

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by

Chester N Zikhali

ZKHCHE001

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Supervisor: Assoc./Prof. Latif Alhassan

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ABSTRACT

The relationship between financial development and economic growth remains a crucial subject of exploration in the academic world. Although several therioes and studies have been conducted to assess casuality between these two economic indicator proxies, the results remain inconclusive as to whether financial development causes economic growth or the opposite is true. Furthermore, the link between development finance institutions and economic growth is yet to receive empirical examination in emerging markets such as South Africa. Since the emancipation of South African country from apartheid the government embarked on several strategies to boost economic growth, one of which is the outlay of funds from the fiscus to development finance institutions to boost capital formation, which in turn results in growth. Whether or not these institutions and the extensions they make results in economic growth is subject to research.

This study explores the long and short run effect of development finance institutions extensions on economic growth in South Africa from 1995 to 2018. It utilises annual aggregated development finance institutions extensions and real GDP as proxies for DFIs development and economic growth respectively. The study employs the autoregressive distributed lag (ARDL) bounds tests approach to co-integration developed by (M. Hashem Pesaran, Shin, & Smith, 2001) to determine the relationship between development finance committments development and economic growth, along with Augmented Dickey-Fuller tests and Philip Perron tests to test for unit roots on the data. The data was obtained from SADC statistics, World Bank, South African Reserve Bank, Open Source Capital and OECD library.

The results of the study found evidence to support a deterministic relationship between the DFIs development and economic growth after controlling for trade openness and stock market development. The long run effect of DFI_E on economic growth revealed that DFIs extensions show significant influence on economic growth in South Africa. It therefore recommendeds that South Africa's policy makers should focus on policies that allow proliferation and ease of capital movements for international DFIs in the country. Additionally, the study recommends that the South African government increase its funding to domestic DFIs from the fiscus to enhance economic growth.

ACKNOWLEDGEMENTS

Firstly, I would like to thank the Almighty for giving me the strength, wisdom, courage, knowledge, and spirit of perseverance to get through this arduous journey.

To my dear Mother, Mercy, thank you for your consistent love and support. Thank you for believing in me and allowing me the opportunity to tackle. To my Grand Mother, Ellen , thank you for believing in me even when I did not, constantly reminding me that I am world-class. I forever value your encouragement to pursue academic excellence and raising me to be the excellent gentleman I am today. Thank you for allowing me to pursue my dreams, " Don't be afraid to dream, its free" and for also believing in them.

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GLOSSARY OF TERMS

DFIs	Development Finance Institutions
DFI_E	Development Finance Institutions Extensions
SMKT	Stock Market Capitalisation
GDP	Gross Domestic Product
TO	Trade Openness
ARDL	Autoregressive distributed lag
ADF	Augmented Dickey Fuller test
P.P	Philip Perron test
IDC	Industrial Development Corporation
DBSA	Development Bank of Southern Africa
LADBSA	Land and Agricultural Development Bank of South Africa

CHAPTER 1

Introduction

1.1 Background to the Study

Development finance institutions play an integral role in the South African financial system because they ensure investment in areas where the market fails to invest sufficiently. DFIs have a key role to play in realizing the government's key priority areas. DFIs also played a pivotal role in brazil as they provided countercyclical lending to absorb the financial crisis's impact and turn around their economy from then. The Brazilian Development Bank used countercyclical lending to create new jobs; protect existing jobs; expanding infrastructure, especially in underdeveloped areas; and build new industries. DFIs also enable an enterprise and industry environment, identify and develop strategic and longer-term profitable sectors, and steer long-term industrialization. According to Harrod and Domar (1946) 's economic growth model, infrastructure development plays a significant role in economic growth, and DFIs help expand infrastructure development; by doing so, they also promote and advance their country's national interests in the international arena, they also play a part in institutional capacity building, provide leadership in development coalitions, serve as model corporate citizens and ultimately lead to economic growth. It is these critical roles that DFIs play that motivate the South African Government's budget to consist of large sums of capital advanced to DFIs; They also rely mainly on donor funding, which is heavily based on outcomes. The big-budget allocations to DFIs by Government pose a valuable question as to whether the that taxpayers' money is utilized in an efficient manner. What will most likely benefit the taxpayer is economic growth, and an important question is whether is this budget allocation to DFIs has n impact on economic growth? Are the donors financing DFIs realizing the outcome on economic growth that they seek in funding DFIs? Of interest, has been the link between DFIs development and economic growth. Do Development finance institutions matter for economic growth?

The question of DFIs impacting economic growth has been of great interest in the scholarly domain. Therefore, this study's primary purpose is to explore the causal link between DFIs development and South Africa's economic growth. This section contains the basis of the study, research problem and issues, research goals and hypothesis, literature review, methodology, research scope, and organization of the study as well the justification of the study

Investment is a key macroeconomic variable necessary for countries' economic growth and development Harrod and Domar (1946). Aubry (2018) asserts that DFIs provide financing and technical expertise for deals where the private sector will not invest, thereby bringing capital and skills to underserved markets. Due to their development mandate, DFIs can offer loan pricing and tenors that might be uneconomical for a private sector investor. These long tenors are often critical to infrastructure projects that can form the basis of future development in these markets. Although this may create a crowding-out effect on the private sector, DFIs are careful not to do so. The world bank internalized the process by first considering what policy interventions could be made in an investment country to de-risk the opportunity for private-only investment and therefore minimize any market distortions. Thus, they are assuring the private sector that financial returns are possible. If a DFI makes money in an emerging sector or region, private enterprises and investments are more likely to follow. This is a critical role that DFIs play as they act as private capital accumulation agents that ultimately drive economic growth, as propounded by Solow (1956).

Mobilization of private and long-term capital (investment) results in increased capital stock, resulting in growth in the overall size of the economy Solow (1956); thus, development finance institutions should be considered an essential conduit the mobilization of capital and for economic growth.

The rise and sprouting out of DFIs in South Africa has been raising expectations on the country's economic situation. Khadiagala (2015) suggests development finance institutions promote sustainable economic growth and boost the contribution developmental outcomes in South Africa. As the country faces rampant unemployment rates, including a very high youth unemployment rate at 53%, constantly decreasing economic growth rate, and downgrades in investment ratings, there has never been such a time as this to question the impact of development finance institutions in the economy. Several researchers such as Qobo & Soko (2015) suggest that some emerging markets such as those in South America and Asia are

gaining ground from DFIs through their impact on capital allocation to sectors that are crucial easy. However, does this' improvement lead to sustainable economic growth?

According to the World Economic Forum's (WEF) Global Competitiveness Index 2016/2017 edition, South Africa attracted major foreign direct investment (FDI) in the past as global corporations saw the country as a gateway to Africa through its stock exchange, the JSE, which ranks first out of 138 nations. This trend has now come to an end, and FDI into South Africa has been declining since 2015 WEF (2017). This calls for reforms in different driving economic transformation methods, and the need for more robust and resilient development finance institutions is pertinent.

However, in South Africa, the role development finance institutions play in economic growth has received little attention. Research has mainly focused on financial deepening and banking development as well as a focus on FDI and portfolio investments on the JSE, and most of these have been panel studies lacking robustness hence the need to conduct more robust research focusing on DFI development and measure its impact and contribution to economic growth. Banks have been the main focus for financing. However, DFIs have recently stepped up to fund long-term ventures that commercial banks are unable to finance or are unwilling to do so Ndlovu (2017). As a result, the nation must monitor how its policies impact these organizations and their mandates. DFIs should promote efficient financing of infrastructure projects through efficient allocation of capital and private sector capital accumulation, which induces economic growth.

According to Levine et al. (2014), a stable financial system serves as a medium for long-term economic development.; thus, relatively developed development finance institutions such as South Africa have to be coupled with reasonably sustainable economic growth. Therefore, policymakers must be careful on policies that affect the well-functioning of development finance institutions and emphasize them as a critical macro-economic tool. Therefore, understanding the relationship between the DFIs and economic growth variables is essential and must be empirically shown.

1.2 Research problem and research questions

In financial development and economic growth literature Srinivasan (2016), Chinweoke et.al (2014), Khadiagala (2015) the relationship between development finance institutions and economic growth has not received adequate attention in South Africa. Development finance institutions in South Africa are fairly developed as they have a bigger mandate now not only in South Africa but Southern Africa, particularly in the case of (IDC) and (DBSA) and are one of the largest in Africa, but it is not yet clear whether their development results in economic growth or is itself a result of economic growth. The relationship between DFIs extensions and economic growth is of paramount importance within the South African context as local DFIs often raise capital from the fiscus. The decisions by policy makers and government to outlay tax revenues to these institutions should fall on the premise of actual based evidence that DFIs are impacting growth, which is what this study seeks to address. The nexus has received little attention, and there isn't much literature on DFIs operating on the African continent's impact. There is a relevant need to shed more light on the finance-growth nexus; paying attention to development finance institutions' financial development measures has motivated this study. South Africa's economic growth improved dramatically with the transition to democracy and has been reasonably robust and stable throughout the democratic era; The South African economy grew at 3.2 percent a year on average from 1994 to 2012 S.A. Government (2014). However, the period 2013 to present 2020 has seen a downturn in economic prosperity as unemployment grips the economy and recent GDP contractions. Judging from these facts, one would reckon that the growth of the development finance institutions and their mandates also means that the economy is also growing significantly driven by high levels of investment in stocks and lending by DFIs hence it would be of great interest to investigate whether the DFI growth and bailouts that have been seen to occur in South Africa have impacted economic growth. The study seeks to answer the following research question;

1. Do the advances by DFIs have an impact on economic growth?

1.3 Objective of the research and hypothesis

1.3.1 Primary objective

This study's primary objective was to examine the impact of development finance institutions on South Africa's economic growth. The specific objectives were;

1. To examine the impact of credit advances by DFIs on economic growth in South Africa

1.3.2 Statement hypothesis

The study will examine the following hypotheses

Null Hypothesis: DFI development positively impacts economic growth

Alternative Hypothesis: DFI development has no impact on economic growth

1.4 The Study's justification and scope

Few studies have been conducted in South Africa on the relationship between development finance sector development and economic growth; hence, this research will add to the current empirical literature on the effect of development finance sector development on economic growth. Studies that have been conducted on development finance institution development paid a lot of attention to determining the causality of DFI credit and economic development and socio-economic results. Still, in this study, we will explore with specificity to economic growth and put in control measures such as banking development and stock market development. This will help uncover whether the economy is being driven by DFI credit, stock market or private sector credit, so the study is looking at the impact of the DFI credit or stock market as a proxy and the banking sector efficiency as a control measure.

This research will aid policymakers in deciding on short- and long-term growth strategies, as well as stabilization policies. Hence, government and reserve bank policymakers need to be well informed on how development finance institutions operate and their effects on economic activities.

South Africa has been seen to have fruition of development finance institutions as well as massive budget allocations and changes to DFI mandates, particularly for the DBSA and the IDC, which brings us to a question that, has this development, proliferation, and budget allocations in the development finance sector impacted economic growth. As a result, this research will assist us in determining the true driver of economic growth in South Africa, thus assisting us in answering the larger question that prompted this research.

1.5 Scope of the Study

This research aimed to investigate the impact of DFI credit or DFI portfolio investments on South Africa's economic growth (1995-2018). This was when the country experienced economic prosperity and subjective deterioration in both decades since the year 2000. The research will use all registered development finance institutions in South Africa as of 31 December 2018.

1.6 Organization of the Study

This study was divided into five chapters. Chapter one is the Introductory Chapter that introduces the whole dissertation giving the background of the study and specifies the dissertation's parameters. Chapter two covers literature review used to support and give contrasting views of this study to others. Chapter Three presents the research methodology covering research design and instruments to be used in this dissertation. Chapter Four covers presentation, analysis, and discussion of results that were drawn from the research. Chapter Five summarizes research findings, conclusions, results, and recommendations drawn from the analysis.

CHAPTER 2

Literature Review

2.1 Introduction

New growth theorists suggest that the development and functional efficiency of financial markets facilitates sustainable economic growth. Thus, the link between financial development and economic growth has been a great debate in the academic literature. Many researchers believe that there still exists a great dichotomy regarding the role of financial intermediaries in facilitating sustainable economic growth in the long-term. In this section, we will take a deep insightful look at the theories propounded by various researchers and theorists to explain and have a better understating of how this relationship works. We are going focus mainly on the positive factors that are of the view that there is a relationship between stock market development and economic growth. Our primary focus to measure this relationship dwells on credit advances by DFIs. The theoretical structure that speaks to the essence and direction of the relationship between DFIs development and economic growth is examined in the first section. The second section summarizes previous research on the relationship between DFIs development and economic growth, while the third section evaluates both theoretical and empirical literature. The primary goal of this research is to look into the connection between DFIs development and economic growth. Despite this, the theoretical literature is presented in the sense of financial growth due to the lack of theories explicitly for DFI development.

2.2 Definition of terms

Development finances institutions – The OECD (2019) defines DFIs as specialized development banks or subsidiaries set up to support private sector development in developing countries. They are usually majority-owned by national governments and source their capital from national or international development funds or benefit from government guarantees. This ensures their creditworthiness, enabling them to raise large amounts of money on global capital markets and provide financing on very competitive terms.

Gross domestic product is the economy's overall value of goods and services. According to Mohr et al. (2008), it is one of the most significant indicators of economic growth. Economic growth, according to Amadeo (2018), is described as an increase in the production of goods and services over time. The calculation eliminates the effects of inflation in order to be precise.

As a result, we can confirm that an increase in gross domestic product indicates economic growth.

DFI credit advances – This refers to the amount of money advanced (Lending) by DFIs in different sectors of the economy

2.3 An overview of DFIs in South Africa

There are four main DFIs in South Africa; Industrial Development Corporation (IDC), Development Bank of South Africa (DBSA), National Empowerment Fund (NEF) and Land and Agricultural Development Bank of South Africa (LADBSA or Land Bank).

2.3.1 Industrial Development Corporation (IDC): The IDC funds projects in Africa that have a "high impact and labor-intensive" nature, such as mining, manufacturing, and infrastructure. The effect of the IDC is assessed using development scorecards that monitor youth ownership, female ownership, black ownership, rural implications, and environmental impacts. Since extractives make up a large part of the IDC's portfolio, the IDC has placed a premium on ongoing private-sector growth in mining communities after the mines have run their course. It has also introduced special programs to help SMEs become more integrated into the supply chains of larger companies. The IDC is a state-owned, self-financing national DFI that lends to entrepreneurs and companies in competitive industries Global Impact Investing Network (2015).

2.3.2 Development Bank of South Africa (DBSA): According to the Global Impact Investing network (2015) the DBSA was founded with a pan-SADC (Southern Africa Development Community) mandate to accelerate sustainable economic development, with a focus on social and economic infrastructure. Several significant ventures in the fields of oil, healthcare, water, and education have been sponsored or co-founded by it.

2.3.3 National Empowerment Fund (NEF): Through promoting and financing black entrepreneurs and black-owned companies, the NEF catalyzes Black Economic Empowerment. The NEF invests in a wide range of businesses, from early-stage start-ups and franchises to multi-million dollar ventures. Unlike several conventional DFIs, the NEF has a "drop-in" storefront where entrepreneurs can apply for funding in person. The NEF runs numerous in-house incubation and technical assistance services since it works with early-stage entrepreneurs

rather than other DFIs. NEF support is only available to black South Africans or companies that are majority black-owned in South Africa. The NEF has created special programs to support female entrepreneurs as part of this mandate.

2.3.4 Land and Agricultural Development Bank of South Africa (LADBSA or Land Bank): South African agribusinesses and farmers have access to financing through the Land Bank. It is the oldest financial institution in Africa, having been founded in 1912. The Land Bank supports agricultural and rural growth in a variety of ways, from major commercial farming ventures to projects that help new entrants from underserved communities get into the industry. Despite its strong development emphasis, the Land Bank does not strictly meet the existing concept of a DFI, which is a government-funded entity that invests exclusively in companies or ventures because of its deposit-taking and retail banking services. It is one of the region's most well-known development financiers, having disbursed nearly USD 13 billion in loans over the last five years.

In addition to the big four above, there are small and sector-specific focused DFIs such as the **National Housing Finance Corporation (NHFC),** which was set up with a mandate to ensure that every South African with a regular source of income can gain access to finance, to acquire and improve a home of his or her own.

Khula Enterprise Finance is committed to the growth and long-term viability of small businesses in South Africa. Via a network of alliances, it provides small and medium enterprises (SMEs) with financing, mentoring, and small business space. It promotes the long-term growth of SMEs while maintaining Khula's financial viability.

Independent Development Trust (IDT) was given the task of assisting the government in achieving its social order of reducing poverty and enhancing the quality of life of poor rural communities. It has developed a reputation as a development program delivery organization that focuses on development preparation, implementation, and coordination of government programs.

National Youth Development Agency (NYDA)' s mandate is to: advance youth development through guidance and support to initiatives across sectors of society and spheres of government; establish and organize the country's Integrated Youth Development Plan and Strategy; and

advance youth development through guidance and support to initiatives across sectors of society and spheres of government.

National Urban Reconstruction and Housing Agency (Nurcha) supports the government's plan to house all South Africans in long-term housing. Nurcha provides bridging funding to builders and developers working on low-income and low-cost housing, community services, and infrastructure projects.

Rural Housing Loan Fund (RHLF) ‘s The company's main business is to provide low-income families with loans for additional housing through intermediaries. People are at the center of the total housing operation. The RHLF's main goal is to help low-income families in rural areas gain access to credit so that they can use their self-help, savings, and local creativity to gradually create and develop their shelter.

South African Microfinance Apex Fund (Samaf) is charged with making affordable financing available to micro, small, and survivalist companies so that they can expand their income and asset base. Samaf's main goal is to alleviate poverty and unemployment by extending financial services deeper and wider into rural and peri-urban areas.

Micro Agriculture Finance Scheme of South Africa (Mafisa) was created for economically active poor people as a micro and retail agricultural financial scheme. Mafisa enables affordable and long-term access to financial services through a select group of institutions. The institution provides advances to target groups, individuals, farmers, and other groups, as well as savings and banking facilities at licensed financial institutions.

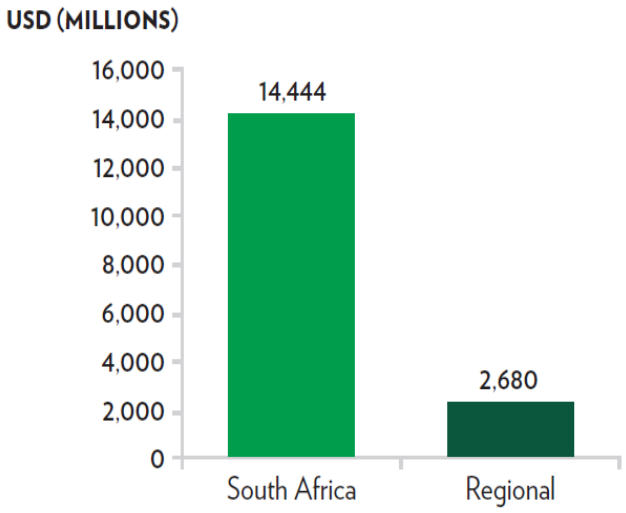
Table 2. 1 South Africa's DFIs Establishment and Total Assets

		Year established	Total Assets (R'000 000)
Industrial Development Corporation	IDC	1940	109 631
Development Bank of South Africa	DBSA	1983	89 700
National Empowerment Fund	NEF	2005	4 121
Land and Agricultural Development Bank of South Africa	LADBSA or Land Bank	1912	46 200
National Housing Finance Corporation	NHFC	1996	6 ,276 26
Khula Enterprise Finance		1996	-
Independent Development Trust	IDT	1990	1 950 522
National Youth Development Agency	NYDA	2008	152 ,753
National Urban Reconstruction and Housing Agency	Nurcha	2013	592, 025
Rural Housing Loan Fund	RHLF	1996	666, 846
South African Microfinance Apex Fund	Samaf	2006	-
Micro Agriculture Finance Scheme of South Africa	Mafisa	2004	-

Source: www.gcis.gov.za

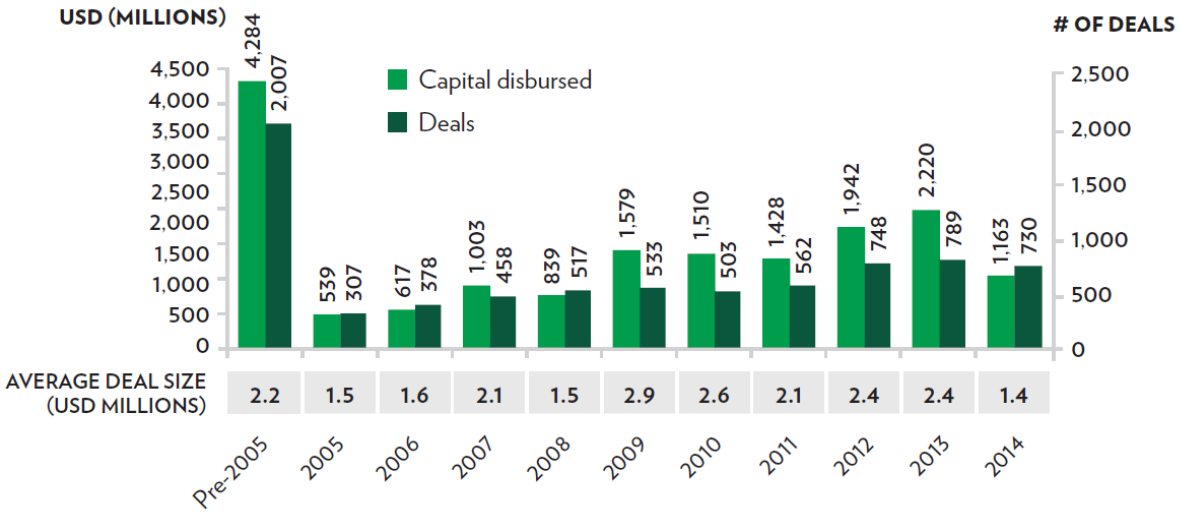
These DFIs, although they have now increased their mandates overtime to invest not only in South Africa but other regions on the continent, they are mainly disbursing capital still in South Africa. Figure 1 below illustrates this, and Figure 2 shows a snapshot of local DFI investments over time.

Figure 2. 1: South Africa - Based DFI Disbursement By Destination



Source Open Capital research & Global Impact Investing Network (2015)

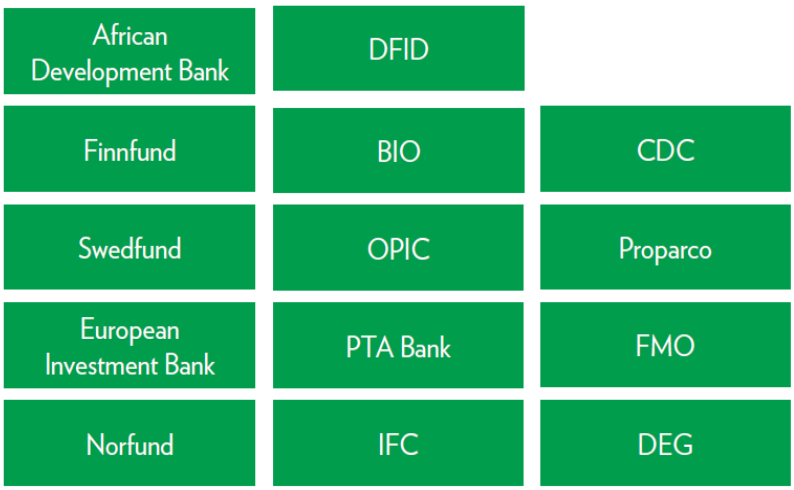
Figure 2. 2: South Africa-based DFI investments over time



Source Open Capital research & Global Impact Investing Network (2015)

International DFIs investments have increased in the country over time since apartheid as well. Most of these Multilateral institutions are headquartered in South Africa to invest and using the country as a launching pad for exploring the rest Sub Saharan Africa. This is partially because South Africa has a very welcoming environment to foreign investments and is among the top countries globally with ease to do business, ranked 39th by the World Bank and the International Financial Cooperation.

Figure 2.3: Sample of International DFIs doing business in South Africa

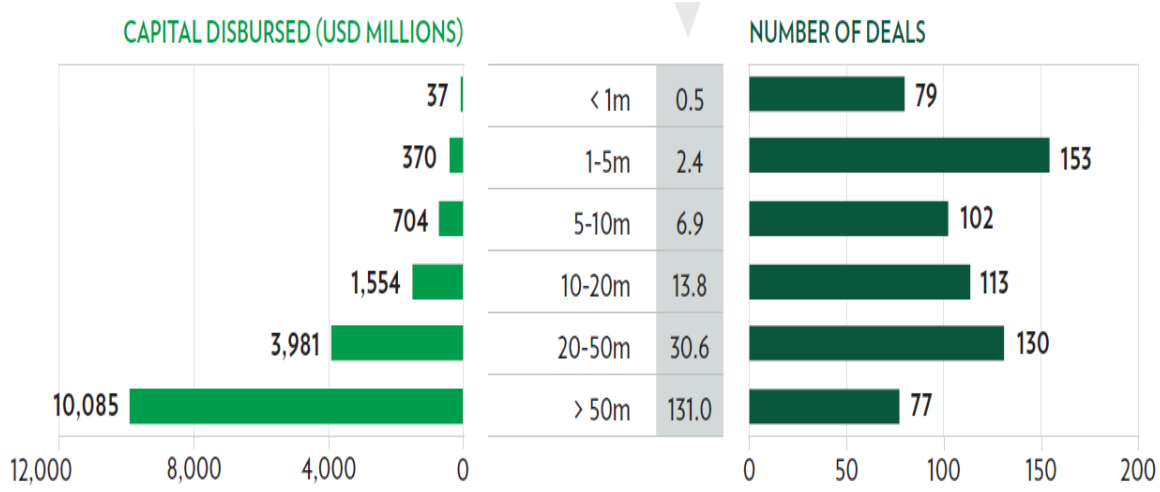


Source Global Impact Investing Network (2015)

International DFIs are heavily invested in the Southern African region, with 60 percent of their deal size ranging from USD 50 million and above (see figure 4). Due to the region and South Africa's constant need for energy DFIs' heavy investment in this sector resulted in large deals from DFIs with such projects easily exceeding USD 100 million. Hydro energy projects are very capital intensive hence the large deal size to curb the South African economy's energy shortage. Despite these large transactions, the majority of DFI investments range from $1 million to $10 million, and are typically made to local banks with a strong presence that are seen as less risky than newer projects. Since domestic DFIs in South Africa have minimal data, graphing their transactions by size is impossible, which limits the research presented here. Foreign DFIs discuss or calculate average transaction sizes.

Average transaction size USD millions

Figure 2. 4: International DFI investments by deal size

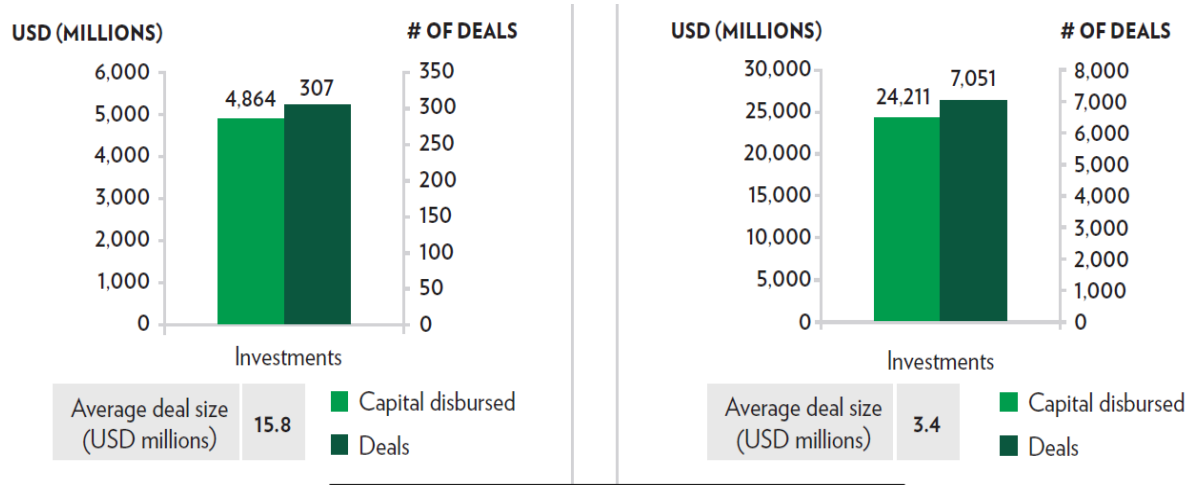


Source Global Impact Investing Network (2015)

In Southern Africa, South Africa has the single largest impact capital market. South Africa has received nearly three-quarters (74%) of all impact capital disbursed in the area, totaling USD 4.9 billion in non-DFI capital and more than USD 24.2 billion in DFI capital. This is nearly 15 times the amount deployed in Zambia, which is the region's second-largest recipient of impact money.

Figure 5 below shows Non- DFI impact investments and DFI impact investment to the left and right, respectively.

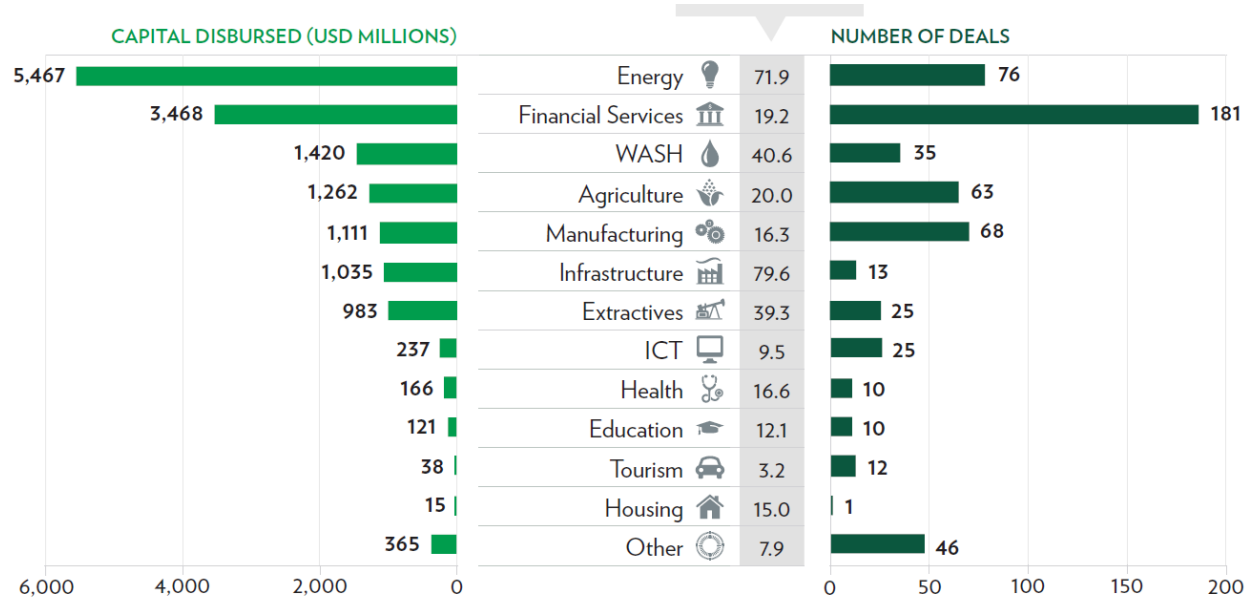
Figure 2. 5: Non-DFI Impact Investments vs. DFI Impact Investments



Source Global Impact Investing Network (2015)

According to the GIIN, the financial sector has received more transactions than any other industry, accounting for about 30% of its commitments. Contrary to the large transaction sizes in the energy sector. Due to the government's strong presence in specific critical industries such as health care, education, and housing, this presents a challenge for the DFIs to impact these sectors heavily; hence, they have only registered about two percent of commitments from international DFIs.

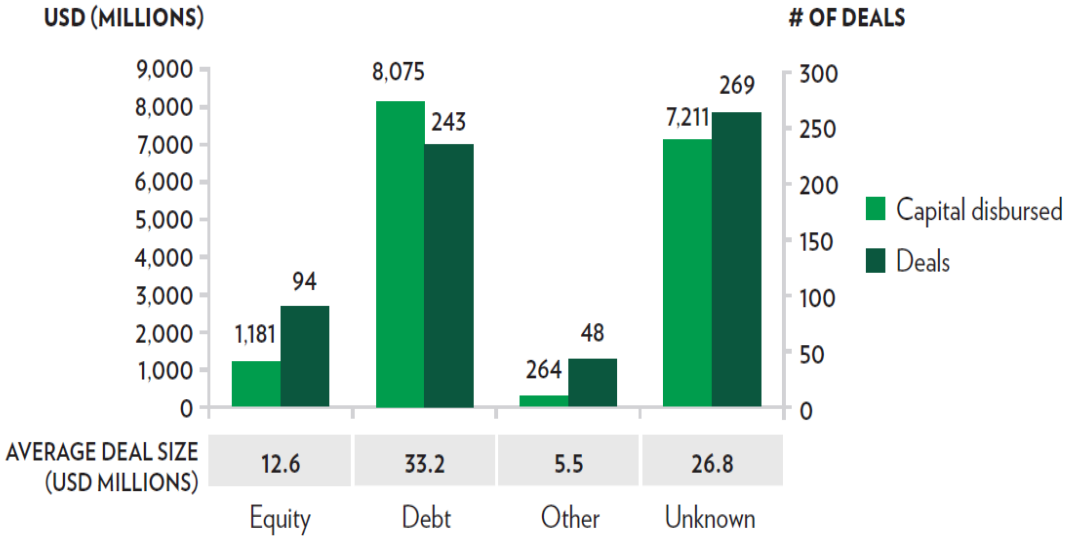
Figure 2. 6: DFI direct investments by sector



Source Global Impact Investing Network (2015)

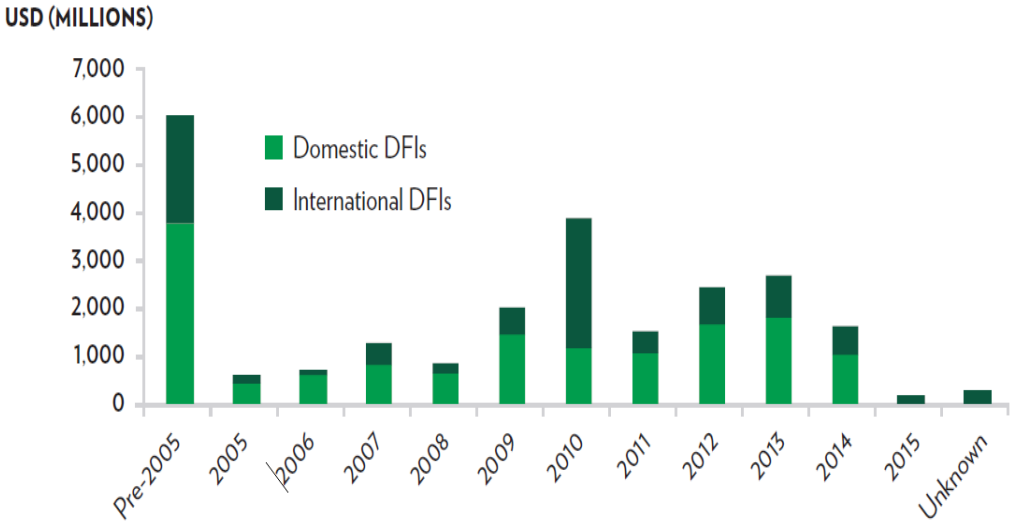
DFIs invest by utilizing a range of instruments ranging from equities to debt and venture capital. It is important to note that because of the nature of the projects funded, which are essentially infrastructure transactions, DFIs tend to favor debt instruments as project finance deals are highly leveraged and require less equity. Figure 7 below shows the different types of tools that DFIs use to finance impact investments. Nonetheless, some DFIs have carved out a niche for themselves by acquiring minority stakes in companies (usually medium-sized) and offering experience, industry intelligence, and technical assistance in addition to funding.

Figure 2. 7: DFI investments by instrument type in South Africa



Source Global Impact Investing Network (2015)

Figure 2. 8: Total international DFI investments vs. domestic DFI investments South Africa



Source Global Impact Investing Network (2015)

2.4 Theoretical overview: finance and economic growth nexus

The key financial development hypotheses on growth covered in this section are the "demand following hypothesis," "supply leading hypothesis and reciprocal hypothesis," and "growth indifference hypothesis." The aim of this study is to see if these major theories can explain the possible relation between financial development (DFIs) and economic growth. In addition, the reviews discuss the debate about the causality of financial creation and economic growth, as well as bank versus market-based financial structures.

2.4.1 Demand - following hypothesis

The 'demand following hypothesis Robinson (1952) and Romer (1990) propounded is probably the best-known financial development model. The 'demand following hypothesis' states that the growth of the real economy increases demand for financial services, and that an expanding economy generates demand for financial services. The essence of this theory, according to Adayleh (2018), is that financial development is a result of economic growth, which means that every new financial institution is a response to demand for these institutions from savers and investors in the real economy. In other words, any growth in the real sector would increase demand for financial services, resulting in their growth, according to Lawal et al. (2016). Darrat et al. (2010). Well-known pioneers such as Arestis et al., (n.d.), Patrick (1966), Shaw and Gurley (1967), and Stigliz (1967) have all advocated this theory (1994).

2.4.2 Supply-leading hypothesis

According to Patrick (1966) quoted by Latif & Fiador (2014), the 'supply leading hypothesis' claims that well-developed financial markets allow for efficient transfer of funds from surplus to deficit spending units, thereby boosting growth. The cost of collecting information is minimized by financial systems, allowing for more efficient resource utilization. This will make information on investment portfolio performance more available, as well as fund transfers between deficit and surplus spending units and risk diversification. These financial system functions aid in resource optimization, resulting in increased investments and development.

2.4.3 Reciprocal hypothesis

The reciprocal hypothesis revealed that E.G. and F.D. are cointegrated, implying that E.G. and F.D. trigger each other. This shared causality between growth economic and F.D. can be explained as follows: A well-functioning financial system can stimulate, for example, by introducing new innovative products and services, which raises demand for this new financial instrument in the real sector, and the financial industry's response to this demand leads to growth. Odedokun (1996); Luintel and Khan (1999), Biackburn et al. (2005), Kyophilavong et al. (2014), Lawal et al. (2014) all backed up Marashdeh and Al-theory Malkawi's (2016).

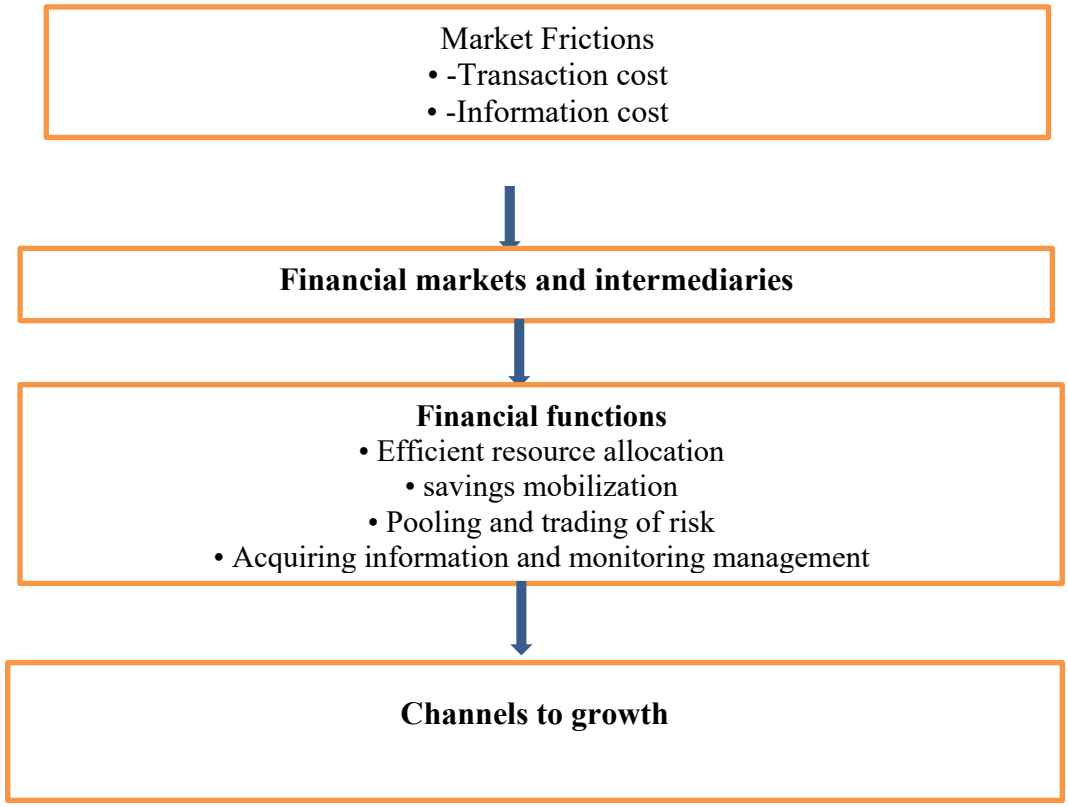
2.4.4 Growth indifference hypothesis

According to the finance-growth indifference hypothesis, there is no causal relationship between F.D. and E.G., implying that F.D. and E.G. are independent variables. Darrat (2012) and Onwumere (2015). According to Lucas (1988), "economists badly overstress the position of finance in, E.G." The simple explanation of this hypothesis is that growth in the real sector would lead to, E.G., the historical financial institution would lead to F.D. Lawal et al. (2016), this hypothesis gained support by Seers and Meier (1984), Stern (1989), Adeyey et al (2009).

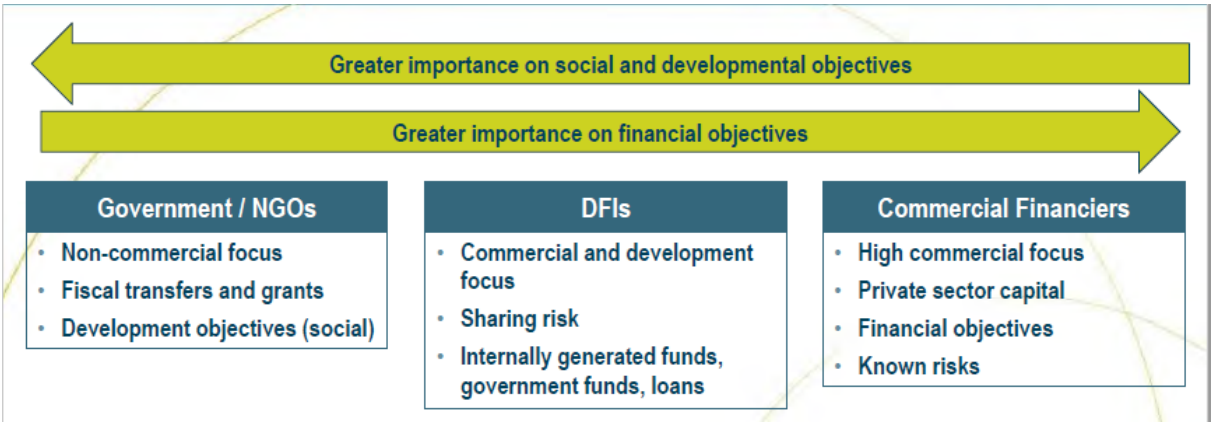
2.4.5 Theoretical framework between financial market development and economic growth

For reference, figures below depict the roles and corridors through which Development Finance institutions affect the overall economy. Evidence by Abhba (1863) debated the role of financial intermediaries in the growth of the economy. It is popularly held that the access to financial intermediaries (managing savings, scrutinizing projects, managing notes, serving as a manager of managers, assisting out with transactions, and incentivising transactions) is necessary for technological and economic progress Chinweoke et al. (2014). The traditional view on the relationship between finance and growth holds that the first step is physical capital accumulation in many countries.In addition, however, it is shown in the diagram below the level of specificity that institutions such as DFIs have in helping to stimulate growth in different areas is uncovered.

Figure 2. 9: Framework for functional approach



Source: (Vacu, n.d.) *based on the Functional approach developed by* (Levine et al., 2014)



Source IDC Presentation By Kgampi Bapela (n.d.)

2.4.6 Acquiring information and monitoring management

The function of financial institutions is shaped by the existence of asymmetric information (2014). This role is often promoted through contract negotiation and enforcement costs, such as the need for collateral if funds are required Tabak (2018). In such a situation, financial intermediation will be handled by specialized financial institutions (DFIs), and data collection and processing would be subject to fixed costs. The expense of collecting information and conducting transactions incentivizes financial markets to address information asymmetry issues.

2.4.7 Efficient allocation of resources

Development institutions use rigorous evaluation to help find viable investments, increasing the number of resources that those projects can raise, stimulating economic growth Ang (2007). A lot has been studied about how well different types of businesses can survive and grow during financial crises of late. It also indicates that DFIs are very capable of identifying promising projects that are not usually funded in economies, so it can be assumed that their decision on investment projects is correct and accurate.

2.4.8 Managing risks/ pooling and trading of risk

DFIs are experts at attracting funds from governments and other institutional players, as well as reducing project risk. For their clients and stakeholders, they provide good returns and risk management. This is due to their expertise, which allows them to structure various types of transactions with the least amount of risk by involving the government in projects in the event of force majeure Mr Mondi (n.d.). DFIs can diversify into various projects and investments by pooling funds from various sources, lowering risk by allowing more liquid DFIs to rapidly mobilize and supply funds for profitable long-term projects. It also reduces the amount of risk involved in the investment, encouraging donors and funders to hand over control of their funds.

2.5 Empirical literature review

Conflicting views on whether financial development has an impact on economic growth have spawned a slew of empirical studies. This section will look at the unforeseen relationship

between the development of the development finance sector and economic growth, its nature, and whether it has an impact on growth in South Africa, as well as developed and emerging countries.

2.5.1 Empirical evidence from developed countries

Massa (2011) examined the relationship between multilateral DFI investments and economic growth for a sample of 101 countries from 1986 to 2009 using the Generalized Method of Moments (GMM) for panel data analyses. According to the results, multilateral DFI investment has a positive and significant effect on the economic development of recipient countries. Their influence is greater in lower-income countries than in higher-income countries. According to the report, a 10% rise in multilateral DFI investment commitments increased growth in lower-income countries by 1.3 percent and in higher-income countries by 0.9 percent. They also discovered that multilateral DFI investments in infrastructure, industry, and agribusiness have the greatest effect on economic growth: agribusiness and infrastructure investments favor lower-income countries the most, while infrastructure and industry investments benefit higher-income countries the most.

Xu (2005) conducted an empirical study and developed a framework for assessing DFI performance by examining stakeholder relationships.They created a typology of DFIs based on three dimensions: organizational structure, lending type, and market served, using qualitative data from 20 English DFIs.They then developed a set of propositions that consider how these dimensions relate to DFIs' financial and social performance and serve as the foundation for a performance measurement framework.

According to Kyophilavong et al. (2014), the relationship between financial development and economic growth is still undetermined. Literature hasn't fully exhausted the debate over whether financial development affects growth or whether financial development affects growth. As a result, Kyophilavong et al. (2014) used Laos time series and the ARDL bounds testing method to cointegrate research in order to test the supply-leading hypothesis and demand-following hypothesis. As a result of the positive feedback effect between the two variables, it was concluded that financial development promotes economic growth, and that economic growth leads to financial development. This research, however, was broad in scope and did not focus on development finance institutions specifically.

CH Shen and CC Lee (2006) discovered that growth and banking development have a weak relationship, which they define as a weak inverse U-shape. When additional stock market variables are squared, they discovered, the inverse U-shape becomes stronger. As a result, financial development and growth could be nonlinear. Furthermore, the study discovered that only stock market development has a positive impact on growth, whereas banking development has a negative, if not negative, impact on growth. The study was conducted in 48 countries, and the researchers looked to see if the results were affected by a variety of financial and economic conditional variables. Financial liberalization, two sets of country growth dummies, banking and currency crises dummies, the creditor security index, and anti-director and corruption indices are the dependent variables, and the results clearly show that the conditional variables of financial liberalization, high wages, and strong shareholder protection offset the negative effects of banking and currency crises. On the other hand, the negative effects of banking development on growth are amplified by middle-income class dummies, regional Latin American, Sub-Saharan African, and East Asian dummies, banking and currency crises, strong creditor security, and higher corruption.

Zervos and Levine (1996) investigated the relationship between stock market development and long-run growth using pooled cross-country time-series growth regressions on countries from 1976 to 1993. If data supported, each country had two observations. Every country's first observation is based on data from 1976 to 1985. The second observation was based on data from 1986 to 1993. To calculate the value of stock market liquidity as a percentage of GDP and market capitalization.The ratio of market capitalization to GDP was used to determine size. The findings suggest that the development of the stock market is linked to economic growth.

In addition, instrumental variable procedures showed a clear correlation between a predetermined component of stock market development and long-term economic growth. Although cross-country regressions show a clear connection between stock market development and economic growth, the results should be regarded as suggestive partial correlations rather than absolute findings. There is a need for further research into the time series property of such relationships. More rigorous models, such as vector models and cointegration tests, as well as robustness tests, will be used in this analysis to test for such relationships over time.

Boubaraki (2010) studied a group of five Euronext countries: Belgium, Portugal, France, the Netherlands, and the United Kingdom for the period From 1995:Q1 to 2008:Q4. Foreign direct investment (FDI) was the control variable. A Granger Causality test showed that stock market creation and economic growth have a long-term relationship.This confirms that the stock market's liquidity boosts future economic growth, even in developed countries that are also backed by the dollar Levine (2003).

Arestis (2001) studied a group of five developing countries: Japan (1974:2-1998:1), Germany (1973:3-1997:4), the United States (1972:2-1998:1), the United Kingdom (1968:2-1997:4), and France (1968:2-1997:4). (1974:1-1998:1). The study used market capitalization as a proxy for economic growth and real GDP as a proxy for stock market development. Many other variables, according to Arestis, play a role in financial development and economic growth; therefore, stock market volatility and the commercial banking sector were used as control variables.

The relation between the two variables was tested using Johansen's Cointegration approach in a VAR context. The results showed that in France, Japan, and Germany, both stock market development and banking sector development lead to economic growth. The results have showed that the stock market's contribution to economic development in these economies is at best a fraction of what the banking sector contributes. The findings revealed that there is a statistically poor correlation between financial development and economic growth in the United Kingdom (UK) and the United States (US). Even the shaky linkage between economic growth and financial development could be in the process of flowing. This may be the result of high stock market uncertainty, which has harmed financial development and economic growth in the UK and the US. Finally, the authors recommend that the financial development's significance for economic growth be treated with caution, taking into account each country's specific characteristics.

Rousseau and Wachtel (2000) used the Vector Autoregression (VAR) model to conduct a panel study looking at the effect of the F.D on E.G in a community of 47 developing countries from 1980 to 1995. VAR was estimated using the general method of moments, with the M3 ratio serving as a control variable. The findings back up the idea that F.D development is essential for E.G.

Caporale et al. (2011) estimated a bivariate VAR-GARCH model to examine linkages between the stock market and economic growth in three CEEC countries, and found a causal relationship between stock market development and economic growth (the Czech Republic, Hungary, and Poland). The empirical findings point to a unidirectional causality between stock markets and level growth. Following the EU's accession, this link becomes stronger, which appears to be beneficial, presumably as a catalyst for institutional building and development. In most cases, the same is true for volatility spillovers. Furthermore, Germany has been confirmed as a locomotive for these countries, and a tight monetary policy has been found to have a negative impact on both economic and stock market growth.

They used a two-step Engle and Granger method for analytical research, as well as human capital and foreign direct investment as control variables. Tachiwou (2010) presented empirical data on the effect of stock market creation on economic growth in West African Monetary Union countries between 1995 and 2006. The two variables have a positive relationship in both the long and short run. Foreign direct investments and human capital are also significant determinants of development in West African countries, according to the findings.

Wong and Zhou (2011) studied the effect of financial development on economic growth using stock market development as a proxy, the study used yearly data for China, the United Kingdom, Japan, and Hong Kong from 1988 to 2008, and used cross-country data. The results of panel data parametric models support the role of stock market development as one of the main drivers of economic growth in these countries.

2.5.2 Empirical evidence from developing countries (emerging markets)

Barnard (2016) found that DFI credit extension has a positive and significant impact on economic growth in South Africa and emerging markets, according to a study on the impact of development finance institutions on socio-economic development and transformation.

"Moreover, government consumption has a negative impact on economic growth in both South Africa and emerging markets" Barnard (2016). Furthermore, research shows that DFI advances encourages manufacturing-to-GDP growth in South Africa and other emerging markets. In South Africa, DFI has a significant positive impact on the human development index, but not in emerging markets Barnard (2016). In South Africa, DFI credit extension has a positive but

minor impact on poverty; worse, in other emerging markets, the relationship is notably negative. He proposed that the government increase funding to DFIs because the results show that they have a positive impact. However, this research only looked at DFI credit extensions, not portfolio or other investments. I'd go even further and say the extent to which specific socio-economic issues aren't thoroughly explained or investigated. The main focus was on how DFI credit affects socioeconomic issues. Nonetheless, the goal of this study is to narrow the focus to economic growth in order to address policy issues and fill in gaps in the literature on development finance institutions and economic growth.

Palamalai (2016) used quarterly time-series data from World Bank Indicators to examine financial sector development and economic growth in Nigeria and South Africa from 1995Q1 to 2015Q4. "As estimation techniques, the Johansen cointegration and vector error correction mechanisms were used." "The Augmented Dickey-Fuller test was used to test for stationarity." Market capitalization, turnover ratio, total value of shares traded ratio, and inflation rates were used as stock market indicators in this study. The real gross domestic product, on the other hand, was used to measure economic growth. In the reference period, the South African stock market indicators on economic growth outperformed Nigeria, according to the study. The study only looks at the stock market as a proxy for financial development and how it affects growth. However, it restricts some measures and overlooks the importance of DFI credit in the South African economy, which this study aims to address.

Marashdeh and Al-Malkawi (2014) concentrated on financial deepening, a classical economic theory that states that the more liquidity in an economy, the faster it is expected to grow.The relationship between financial deepening and economic growth in Saudi Arabia was studied by Marashdeh and Al-Malkawi (2014). They used the autoregressive distributed lag approach to cointegration on time series data from 1970 to 2010. They used the (M2/GDP) monetization ratio to measure the depth and size of banks and insurance companies, and they discovered that there is a long-run relationship between financial deepening (M2/GDP) and economic growth, using GDP as a proxy for growth per capita. However, there is no evidence of the variables having a short-run dynamic bidirectional relationship. In general, the findings support the supply-leading hypothesis that financial deepening stimulates economic growth in Saudi Arabia, as the study concludes. This study focuses primarily on the impact of financial deepening on growth, but it does not go into great detail about Development finance institutions

and the extracurricular activities they engage in to spur economic growth, which is what this study and researcher hopes to learn about and contribute to the literature.

Luintel and Khan (1999) used a multivariate vector autoregression (VAR) framework to examine the long-run relationship between financial development and economic growth for a sample of ten countries. They discussed the challenges of cross-country regressions and bivariate time series studies. Through tests of over-identifying restrictions, the long-run financial development and output relationships are identified in a cointegrating framework. In all of the sample countries, the study found bi-directional causality between financial development and economic growth, which differs from previous empirical findings. The findings were attributed to I a higher-dimensional system analysis, (ii) a new method of identifying long-run economic relationships, and (iii) a new long-run causality testing approach.

Lawal et al. (2016) aimed to contribute to the literature on the debate between financial development and economic growth, as governments have attempted to promote economic growth, financial development, and trade expansion with mixed results over the decades. The ability of financial development and trade openness to influence economic growth in developing economies is still a matter of debate. Several scholars believe that each of these constructs has compelling cointegration, according to Lawal et al. (2016). Significant authors disagree that economic growth, trade openness, and financial development all happen at the same time. Lawal et al. (2016) used the ARDL bound estimation techniques to examine cointegration among economic growth, financial development, and trade openness in Nigeria after looking at four financial development growth nexus theories. Economic growth and financial development, on the one hand, and economic growth and trade openness, on the other, show a two-way cointegration. As a result, policymakers should pursue strong financial action and increase trade openness, according to the findings.

While Sassi (2016) investigated the theoretical benefits of Islamic banking as well as the main developmental characteristics of its financing modes. The empirical assessment of financial development and growth in 16 countries in the MENA region using unbalanced panel data is, however, the most exciting part. The study used aggregate credit advances to Islamic banks' private industry as Islamic financial development measures to examine the Islamic sector's specific effect on economic growth. The study used a dynamic panel model with a generalized

method of moments approach. The findings show no link between banking and growth, implying that banks do not stimulate economic growth.

Furthermore, according to Sassi (2016), financial development is significantly negatively associated with growth for some specifications. Another finding is that Islamic banks only operate in financial markets and have a weak relationship with growth, though they do tend to act positively, as theoretically demonstrated. In conclusion, the study found that the relationship between financial development and growth varies greatly across MENA countries, with the relationship being negative in petroleum-exporting MENA countries and positive but not significant in non-oil-producing MENA countries.

Cagli et al (2010) investigated the relationship between financial growth and macroeconomic variables using the Gregory Hansen test for cointegration for the Istanbul Stock Exchange from January 1998 to December 2008. Exchange rates, oil prices, inflation rates, gross domestic product, and money supply were all macroeconomic variables. The performance of the stock market was measured by changes in stock prices. According to the results, the stock market index level is cointegrated with the gross domestic product, oil price, and industrial production. The authors did suggest, however, that Turkey's macroeconomic strategy should be adjusted to better reflect global macroeconomic and financial conditions. In order to minimize instabilities in Turkey's economy, improvements are also needed.

According to Ndako (2010), “economic growth leads to stock market development in the long run, and there is a bidirectional causal relationship between banking development and economic growth in South Africa”. This was determined using quarterly data from 1983:Q1 to 2007:Q4 and the Vector Error Correct Model-based Causality test. However, several other basic aspects of each variable's effect on economic growth may have been overlooked. Since the study is looking at the role of financial development in general, it's important to look at how the stock market and banking sectors contribute to growth as separate markets, as Nyangara and Tyavambiza (2015) both agree. This will assist policymakers in developing a country's financial sector by helping them to take into account the fact that financial business markets do not work in the same way. As a result, policies should be put in place that take into account the unique characteristics of these markets in order to ensure efficiency.

2.6 Chapter summary

We looked at the functional approach in this chapter, which explains how development finance institutions affect economic growth, and we conducted an empirical literature review on developed and developing countries, including South Africa, to provide evidence for and against the causality between development finance institution development and economic growth. The specifications and design of the model used to conduct this study will be covered in Chapter 3.

CHAPTER 3

Methodology

3.1 Introduction

This chapter discusses the empirical model that was used and the economic techniques that will be used to estimate the model. It also includes information about the data period and sources.

3.2 Research design

The study used a quantitative research methodology that included statistical and econometric methods to evaluate the effect of DFI sector development on economic growth. Groenewald (2004)defines a research design as "a plan of the investigation conducted to obtain answers to research questions". The researcher tested the causality and direction of economic growth as influenced by DFI sector credit and other economic variables as control measures using ARDL regression model. The researcher also conducted unit root tests for robustness and data integrity using the augmented dickey fuller method.

3.2.1 Data period and source

The study focused on a variety of stakeholders in the South African DFI sector. This includes all foreign-funded, government-funded, and privately-funded DFIs operating in South Africa. The focus of the study was on the impact of DFI credit advances on South Africa's economic growth from 1995 to 2018. Similar to studies by Narayan and Smyth (2004) with 31 observations; Tang and Nair (2002) and Narayan and Narayan, 2004 with 29 observations; Enisan and Olufisayo (2009) with 24 observations and Alhassan and Biekpe, 2016 between 18 and 21 observations, the small sample limitation inherent in the limited sample data used for this research is addressed by the use of the ARDL estimation techniques which have been found have strong explanatory power with small sample size dataset. Targeted development finance institutions were chosen because they are the most powerful players in South Africa's development finance sector and control the country's development state. As a data source, the researcher used secondary data. The data was gathered from the Reserve Bank of South Africa (SARB), the World Bank, the OECD library internet, and the SADC data statistics and selected Development finance institutions' websites in South Africa.

3.2.3 Empirical model

Given that the primary goal of this investigation is to determine the impact of DFI development on economic growth, it's critical to identify all possible factors influencing DFI sector development, including other variables. This section aims to demonstrate the model that the investigation employs in this manner. The study, which is based on the endogenous growth model described in the literature review, benefits from the model developed by (Nurudeen, 2009) and quoted by (Vacu, n.d.), which expresses economic growth as a function of size.

GDP=f (MKT_CAP, DFI_E, TO,)……...

Where **GDP** = Gross Domestic Product, **SMKT** = Stock Market Capitalisation, **TO** = Trade openness, **DFI_E** = Development Finance Institution Extensions

The econometric model is expressed as follows

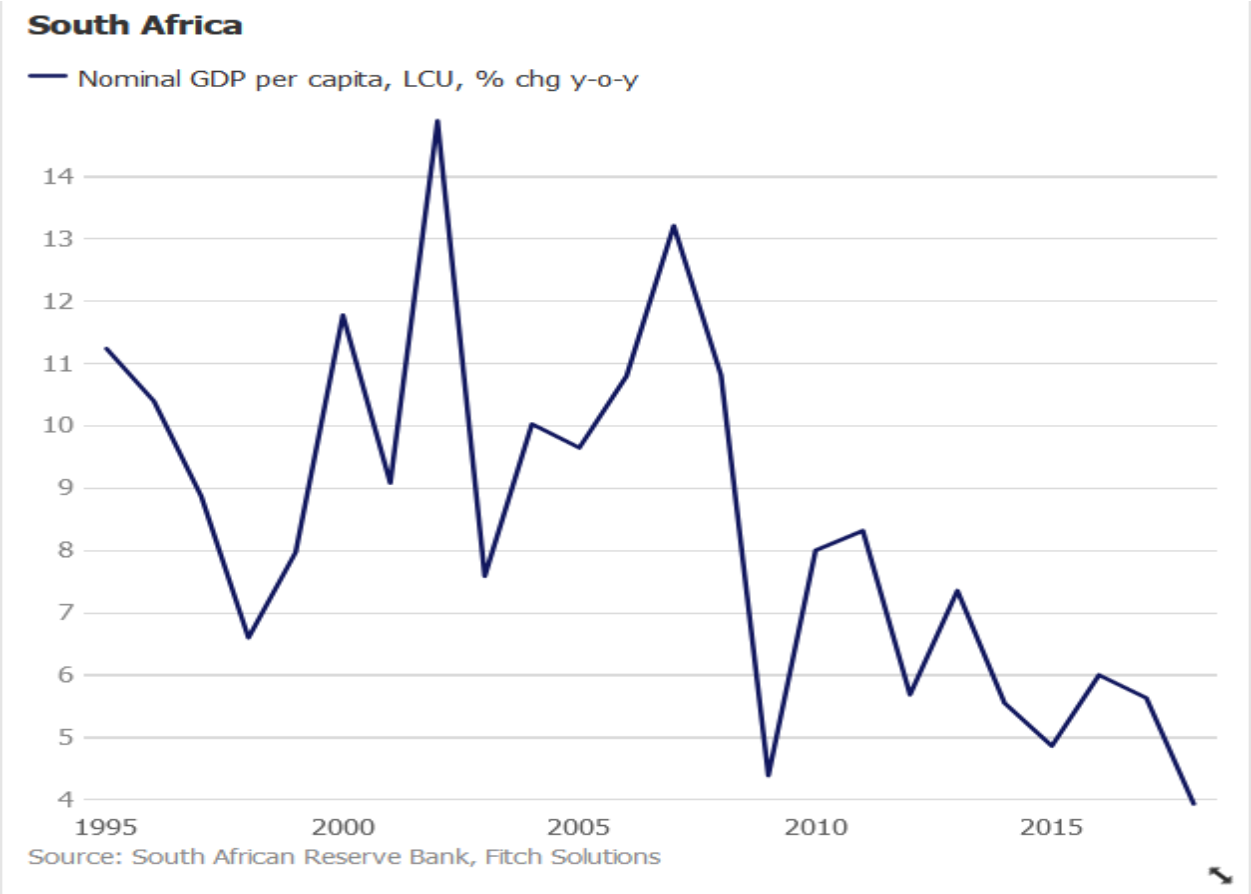
$$GDP_t = \beta_0 + \beta_4 TO_t + \beta_6 DFI\_E_t + \beta_7 SMKT_t + U_t$$

3.3 Definition and measurement of variables

3.3.1 Dependent variable: economic growth

The gross domestic product (GDP) growth rate at constant prices is a measure of economic growth. The expansion of credit to the private sector is expected to be aided by increased economic activity, as measured by the GDP growth rate. Djankov et al (2007) and Stepanyan and Gou (2011), as cited by Mukuka (2018) found a positive relationship between F.D and GDP growth, raising hopes that the study will produce similar results. In addition, Barnard (2016) asserts that there is a link between DFIs development and E.G, which affects socio-economic variables.

Figure 2.10: GDP per capita South Africa



(Source: South African Reserve Bank, Fitch Solutions 2021)

The figure above depicts the trend of economic growth in south Africa from the period 1995 to 2019

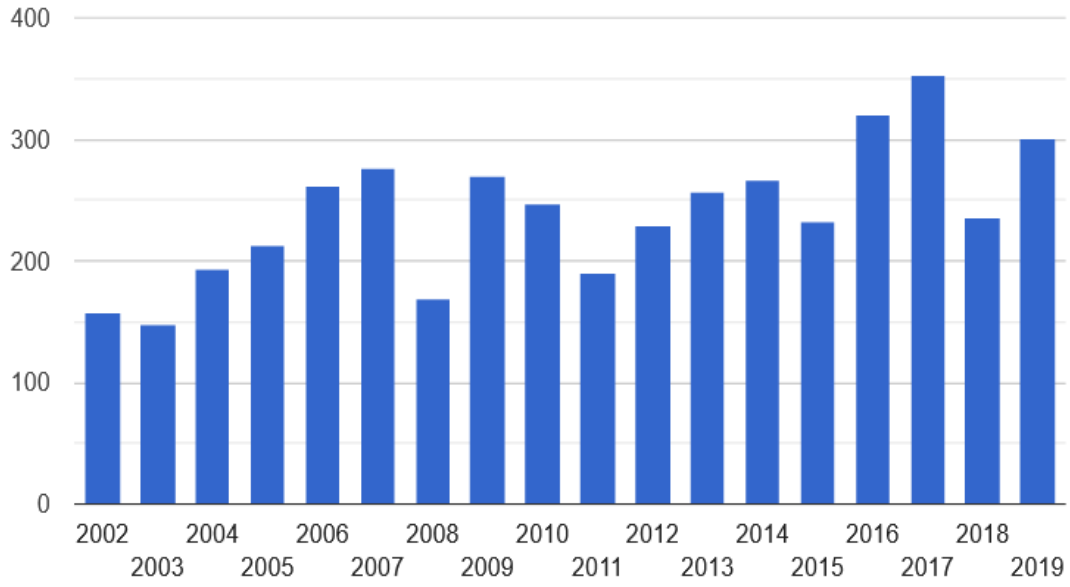
3.3.2 Independent variables

DFI Extensions – "DFIs are expected to play a critical role in promoting economic growth" Massa (2011). Most DFIs aim to provide funding for private investment that has the greatest impact on economic growth and development while remaining financially viable Massa (2011). The focus of this study is on DFI credit extension by South African and international DFIs operating in South Africa. DFI commitments are typically realized one or more years after the credit extension facilities are provided, so socio-economic effects should be visible one or more years after formal commitments Massa (2011) as cited by Barnard (2016).

3.3.3 Control variables

Stock Market Capitalization ratio (SMKT): The size of the stock market is measured. It is measured as the market capitalization to GDP ratio. The stock market capitalization ratio is a measure based on the assumption that overall market size is positively correlated with mobilizing capital and minimizing risk through diversification on an economy-wide basis (also known as market value). "It is one of the proxies for stock market development", according to Lekatarirano (2013), and equals the value of listed shares on the JSE as a GDP quotient, or the amount of capital as a percentage of real GDP. It is a measure of stock market development based on its size. Market capitalization expressed as a percentage of GDP at constant prices is referred to as size Tachiwou (2010). Figure 2.11 depicts the trend of stock market development in South Africa from the period 2002 to 2019

Figure 2. 11: Stock market capitalisation over time



(Source: Johannesburg Stock Exchange, Fitch Solutions 2021)

Trade openness: This is a metric for economic policies that restrict or encourage cross-border trade. The openness ratio is used to measure the impact of financial liberalization, as Choong (2005) pointed out, because the evidence suggests that economic liberalization is a positive factor for economic growth. This is used as a control variable because it is expected that domestic and external factors, such as the country's level of trade, will influence the economy.

3.4 Estimation approach

To test the causality between the variables DFI credit extension and GDP, the researcher used a ADRL regression estimation approach. To test for stationarity, the researcher used the augmented dickey fuller and the Phillip Perron unit roots tests.

3.4.1 Unit root tests

3.4.2 Augmented dickey-fuller

The study uses formal techniques to see if the time series for all variables is stationary. The formal test is carried out using the Augmented Dickey-Fuller method (ADF). The ADF test differs from other unit root test methods in that it includes regressed legged terms to account for any potential serial correlation in the error terms. “It is based on the assumption that the error terms are statistically independent and have a constant variance” Chakraborty (2007), according to Chakraborty. A likelihood of less than 5% indicates that the ideal time series data is stationary and free of unit roots. Spurious regression, which is unfavorable and biased, will occur when the likelihood is greater than 5%, suggesting non-stationary unit-roots. As a result, before the researcher established short-run and long-run relationships, the analysis administered the integration order for all included variables in the panel.

3.4.3 Phillip perron (P.P.) Test

Although the ADF test is similar to the Phillip Perron (P.P.) test, the Phillip and Perron (1988) set is more comprehensive because it allows for autocorrelated residuals using non-parametrical statistical methods. According to Dimitrios (2006), three cases are used to determine whether or not to proceed to the next step after receiving the stationarity test results. The first is that if all of the variables are stationary at level I (0), the variables can be assumed to be cointegrated. The second is that if the variables are integrated in different orders, it can be assumed that cointegration does not exist. Finally, a cointegration test may be conducted if the variables are integrated in the same order.

3.4.4 Multi-collinearity tests

The researcher used correlation tests between dependent and independent variables to achieve all the primary objectives. The independent variables were analyzed using correlation analysis to see if they had a high correlation with each other, although this would undermine the study's accuracy. This is to allow for more analysis of the researcher's regression equations, as correlation aids in determining the impact of independent variables on dependent variables. The researcher used the centered VIF to conduct variance inflation factors diagnostic tests to see if there is multi-collinearity between co-efficients.

3.4.5 Cointegration tests and Long-run - Short-run analysis

According to Mishra.et.al (2009), if the variables are stationary and integrated in the same order, a cointegration test may be used to ascertain if a set of non-stationary series is cointegrated or not. The commonly used cointegration techniques are Engle Granger's cointegration method and Johansen's cointegration approach.

The Engle-Granger cointegration approach was intended to be used for this study because it works best with a small number of variables. To test causality between DFI commitments and economic growth, the study used an endogenous growth model; thus, this approach will suffice for both long-run and short-run analysis. The Engle-Granger cointegration approach, also known as the Engle Granger-2 stage method, was developed by Engle and Granger (1981). It outlines four steps that should be taken when testing for cointegration. The first step is to test the order of integration for the variable, and if the results from step one allow, the second step is to estimate the long-run relationship. The third step is to check for residual cointegration, and the fourth is to estimate the error correction model to look at the variables' short- and long-term effects. The Engle-Granger cointegration approach is regarded as a simple to comprehend and apply method Dimitrios (2006).

The study acknowledges, however, that the relationship between two variables can go either way, as suggested by the supply leading, demand following, and feedback hypotheses discussed earlier. According to Mohammed (2018), the ARDL bounds testing approach developed by Pesaran, S et al (2001) for testing the existence of a cointegration relationship is applicable regardless of whether the underlying series are I(0) or I(1) (1). For small sample sizes, the ARDL bounds test is used. It's a different way to look at a long-term relationship, regardless of

whether the underlying variables have a unit root or not Mohammed (2018). Furthermore, the ARDL technique can be used to obtain unbiased long-run model estimates.

3.5 Summary

The primary goal of this chapter is to explain the model, econometric technique, and study data. The study conducts both formal and informal stationarity tests for robustness. It also examines the short-run effects of Development Finance Institutions' extensions on economic growth using the short run error correction approach. The long run relationship is tested using the ARDL approach in this study because the long-run bounds test indicates that there is a long-run relationship between the two variables. Diagnostic tests are performed to check for model heteroskedasticity, serial correlation, and mis-specification; additionally, if these issues exist on the model, inefficiencies may occur.

CHAPTER 4

Discussion of Findings

4.0 Introduction

The analysis of data, statistical techniques, and the regression modeling strategy are all covered in this chapter. The analysis process will make use of the modeling strategy discussed in Chapter Three, and the final result will be discussed and interpreted.

4.1 Descriptive statistics

GDP has a mean of 5720000, a coefficient skewness of -0.10908, and a standard deviation of 1160000, indicating that it is more responsive to influences than trade openness, which has a much lower standard deviation. The mean trade openness is 28.93, with a standard deviation of 3.04 and a coefficient skewness of 0.046977. DFI extensions had a standard deviation of 1252.51 and a mean of 28.93. Private sector credit has a mean of 1652.52 and a standard deviation of 1252.51.

Table 4. 1: Descriptive statistics

	GDPW	DFI_E	TO	MKT_CAP
Mean	5720000	1652.525	28.93296	202.8954
Median	5940000	1064.5	29.719	185.21
Maximum	7300000	4780	36.217	352.16
Minimum	3950000	202.5	22.766	115
Std. Dev.	1160000	1252.51	3.04338	63.38768
Skewness	-0.10908	1.018978	0.046977	0.653041
Kurtosis	1.506109	3.018472	3.014364	2.624521
Jarque-Bera	2.279305	4.153609	0.009034	1.846836
Probability	0.31993	0.12533	0.995493	0.397159
Sum	1.37E+13	39660.6	694.391	4869.49
Sum Sq. Dev.	3.09E+23	36081974	213.0297	92413.96
Observations	24	24	24	24

Note: GDPW= Gross domestic product; DFI_E= Development finance institutions extensions. ;TO=Trade openness; MKT_CAP= Stock market capitalisation. Source: Candidates estimations from research data

The DFI E kurtosis was the highest, while the GDP kurtosis was the lowest. DFI_E can be visualized as a thin "bell" with a high peak, and it is recognized as leptokurtic because it exceeds 3. A decrease in kurtosis, on the other hand, corresponds to a broadening of the peak and "thickening" of the tails, as in the case of GDP. The kurtosis of trade openness and DFI_E is

slightly higher than three but exactly equal to three, resembling a standard normal distribution with a kurtosis of three and is called mesokurtic. Furthermore, the kurtosis of stock market capitalization and GDP, at 2.62 and 1.50, respectively, was less than 3.

4.2 Correlation analysis

The correlation between the study's explanatory variables and their respective probabilities is shown in Table 2. The significance level used was 5%. The lowest correlation was 0.152354, and the highest was 0.671806 between stock market capitalization and Development Finance Institutions extensions. The correlations were all less than 80%, indicating that multi-collinearity issues had no impact on the study.

Table 4. 2: Covariance analysis

	GDPW	DFI_E	TO	MKT_CAP
GDPW	1	0.671806	0.649561	0.631625
DFI_E	0.671806	1	0.39922	0.152354
TO	0.649561	0.39922	1	0.24331
MKT_CAP	0.631625	0.152354	0.24331	1

Note GDPW= Gross domestic product; DFI_E= Development finance institutions extensions; TO=Trade openness; MKT_CAP= Stock market capitalization; . Source: Candidates estimations from research data

The correlation between DFI E and TO was 0.39922, which was insignificant because the probability was 0.0533 at a 5% level of significance. While there was a strong positive correlation between GDP and DFI E, GDP and MKT CAP had a strong positive correlation of 0.631625. TO had a skewed positive relationship with GDP. There was a weak positive correlation of 0.642572 with MKT CAP and 0.24331.

4.3 Unit root results

To formally examine the time series's stationarity status for all the variables under investigation, the study used the Augmented Dickey-Fuller (ADF) and Phillip Perron tests. The study fails to reject the null hypotheses if the test statistics are more significant than the critical values at all levels of significance with both tests; therefore, more differencing is required until the test statistics are less than the critical values. The study includes deterministic components in the test equation for each variable when testing for stationarity, such as intercept, trend, and intercept, as well as none intercept to understand how the user data is trended.

Table 4. 3: Augmented Dickey-Fuller (ADF) and Philip Perron (PP) unit root tests

		ADF					PP			
		At Level								
		GDPW	**DFI_E**	**TO**	**MKT_CAP**		**GDPW**	**DFI_E**	**TO**	**MKT_CAP**
With Constant	t-Statistic	-0.87143	-2.25256	-2.97825	-2.26918		-0.80776	-2.12689	-2.92213	-2.22183
	Prob.	0.778705	0.194634	0.052022	0.189496		0.797977	0.236638	0.05816	0.204367
		n0	n0	*	n0		n0	n0	*	n0
With Constant & Trend	t-Statistic	-0.74378	-2.55738	-3.27125	-4.24928		-1.24339	-2.49038	-3.12917	-3.21507
	Prob.	0.956782	0.300615	0.096044	0.017177		0.87648	0.329099	0.123268	0.106113
		n0	n0	*	**		n0	n0	n0	n0
Without Constant & Trend	t-Statistic	1.90407	-1.97758	0.274598	-0.42707		5.030576	-0.81418	0.792286	-0.03182
	Prob.	0.982972	0.048371	0.756832	0.517745		0.99999	0.352242	0.87712	0.661713
		n0	**	n0	n0		n0	n0	n0	n0
At First Difference										
		d(GDPW)	d(DFI_E)	d(TO)	d(MKT_CAP)		d(GDPW)	d(DFI_E)	d(TO)	d(MKT_CAP)
With Constant	t-Statistic	-2.94759	-6.81857	-5.53856	-4.58586		-2.99029	-7.1121	-7.23938	-8.09976
	Prob.	0.055987	1.08E-05	0.000188	0.001747		0.051463	5.65E-06	4.27E-06	6.42E-07
		*	***	***	***		*	***	***	***
With Constant & Trend	t-Statistic	-2.94036	-6.84695	-4.3409	-4.40414		-2.92348	-7.24528	-9.67275	-7.60535
	Prob.	0.169884	6.87E-05	0.015358	0.011375		0.174543	3.04E-05	6.87E-08	1.43E-05
		n0	***	**	**		n0	***	***	***
Without Constant & Trend	t-Statistic	-1.59951	-6.95315	-5.61761	-5.2567		-1.44678	-7.24219	-7.07169	-6.16104
	Prob.	0.10164	4.07E-07	6.30E-06	1.48E-05		0.134287	2.52E-07	3.33E-07	1.89E-06
		n0	***	***	***		n0	***	***	***

Note GDPW= Gross domestic product; DFI_E= Development finance institutions extensions; TO=Trade openness; MKT_CAP= Stock market capitalization; a: (*)Significant at the 10%; (**) Significant at the 5%; (***) Significant at the 1% and (no) Not Significant; c: Probability-based on MacKinnon (1996) one-sided p-values. Source: Candidates estimations from research data

DFI E, trade openness, GDP, and MKT CAP were non-stationary after applying ADF and Phillip Perron test results, prompting the researcher to use the first differencing technique to make the data stationary. As a result, at first differencing, all of the variables in question became stationary.

4.4 ARDL long-run bounds tests

The null hypothesis that no long-run relationship exists is tested using the ARDL bounds estimation. The estimated F-statistic is greater than the upper bounds critical values at conventional levels of significance of 3 percent, 5 percent, and 10 percent, as shown in Table 4. 4 below. This suggests that there is a long-term link between economic growth and the expansion of development finance institutions.

Table 4. 4

F-Bounds Test	**Null Hypothesis: No levels relationship**			
Test Statistic	Value	Significance	I(0)	I(1)
			Asymptotic: n=1000	
F-statistic	4.431005	10%	2.37	3.2
k	3	5%	2.79	3.67
		1%	3.65	4.66

Source: Candidates estimations from research data

4.5 Regression results

4.5.1 Long-run estimates

The long-term estimations are listed in the table below. In the long run, the Development Finance Institution Extension coefficient shows a positive relationship with GDP, i.e., every unit change in DFI E increases economic growth by 12%. As a result, the GDP of South Africa grows by 0.12 million for every million increase in Development Finance Extensions, which provides long-term capital at low-interest rates (risk-free) for development-oriented projects and funding tools, as proposed by Massa (2011). DFIs also promote economic growth by financing projects that would not otherwise be funded and sharing risk by acting as equity or debt providers in projects. This finding is indeed in line with the findings quoted in literature of similar studies by (Kyophilavong et al., 2014, Rousseau and Wachtel, 2000, Marashdeh and Al-Malkawi, 2014) that found a casual relationship between financial development and growth therefore enhancing the finance-growth theory of financial being a determinant of economic growth.

The results show a positive effect of trade openess on economic growth at a 5% level of significance, indicating that trade plays by far the most significant role in promoting economic growth in South Africa over the study period, which is consistent with Massa (2011), Barnard (2016) Khadiagala (2015). Trade openness is a measure of financial liberalization that fuels economic growth by allowing capital to move quickly and frequently within markets, according to Choong et al. (2005).

The stock market capitalization coefficient, on the other hand, is positive and significant at 1%, indicating that stock market development promotes long-term funding for capital formation, particularly in South Africa, as it has the most robust and developed stock market in Africa. These findings are in line with that of Nurudeen (2009) and Choong et al. (2005), who suggests that the stock market acts as an essential conduit to economic growth by linking savers and funding for long term financing of projects that ordinarily would not be financed by banks. Furthermore, it allows companies to raise capital to expand and grow by funding new ventures, which increases gross domestic output.

Table 4. 5: Long run ARDL estimates

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LOG(DFI_E)	0.121033***	0.035836	3.377394	0.0070
LOG(TO)	0.823796**	0.320276	2.572147	0.0278
LOG(MKT_CAP)	0.24272***	0.055498	4.373498	0.0014
Constant	22.24776***	0.91916	24.20445	0.0000

Note: DFI_E= Development finance institutions extensions; TO=Trade openness; MKT_CAP= Stock market capitalization; Source: Candidates estimations from research data

4.5.2 Short-run estimates and diagnostics

Table 4.6 shows the result of the short-run error correction terms. A 1% increase in Development Finance Extensions boosts GDP by 0.016 million Rands in the short run. As a result, DFI-E has a short-term impact. At the 1% level of significance, trade openness appeared to have a significantly positive relationship with GDP, with a 0.11 million rand increase in GDP per 1% increase. CointEq(-1), the cointegration term, is found to be -0.13 and significant at 1%. This implies that approximately 13.6 percent of any disequilibrium movements are corrected within one period, implying a moderate rate of disequilibrium correction in reaching long-run equilibrium steady-state position.

Table 4. 6: Error correction model

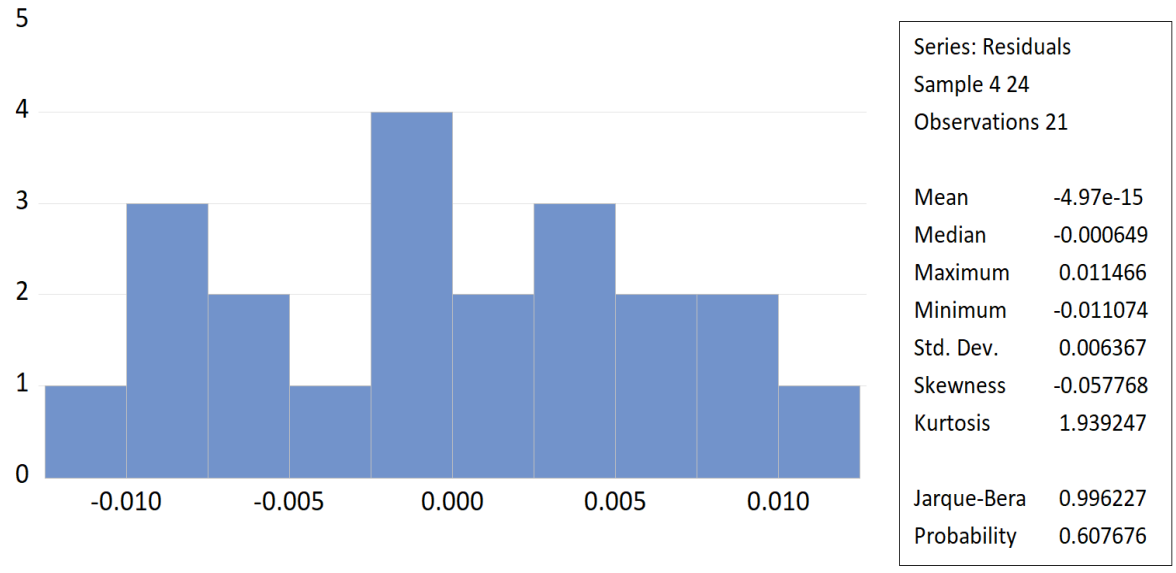
Variable	Coefficient	Std. Error	t-Statistic	Prob.
DLOG(GDPW(-1))	0.928525***	0.126527	7.338567	0.0000
DLOG(DFI_E)	0.016772***	0.004561	3.677746	0.0043
DLOG(TO)	0.115453***	0.022662	5.094643	0.0005
CointEq(-1)*	-0.1363***	0.024473	-5.56929	0.0002
R-squared	0.871841			
Adjusted R-squared	0.816916			
S.E. of regression	0.00761			
Sum squared resid	0.000811			
Log likelihood	76.90398			
Durbin-Watson stat	2.220335			
Akaike info criterion	-6.65752			
Schwarz criterion	-6.30935			
Hannan-Quinn criteria.	-6.58196			

Note GDPW= Gross domestic product; DFI_E= Development finance institutions extensions; TO=Trade openness; MKT_CAP= Stock market capitalization; Source: Candidates estimations from research data

4.5.3 Diagnostics

To check for serial correlation, normality tests were performed, with a P-value of 60%; thus, we can accept the null hypothesis that residuals are normally distributed.

Table 4. 7 Normality test



Further tests for normality using the serial correlation Lagrange Multiplier (L.M.) test were not significant, implying that there is no serial correlation in the model's residuals, as shown in Table 4.8 below.

Table 4. 8: Breusch-Godfrey Serial Correlation L.M. test

F-statistic	0.307284	Prob. F(2,8)	0.7437
Obs*R-squared	1.498150	Prob. Chi-Square(2)	0.4728

Null hypothesis: No serial correlation at up to 2 lags

We can accept the null hypothesis that residuals are normally distributed because the researcher performed a normality heteroskedasticity test with a P-value of 99 percent.

Table 4. 9 Breusch-Pagan-Godfrey Heteroskedasticity Test

F-statistic	1.226418	Prob. F(10,10)	0.3766
Obs*R-squared	11.56781	Prob. Chi-Square(10)	0.3150
Scaled explained SS	1.231863	Prob. Chi-Square(10)	0.9996

Null hypothesis: Homoskedasticity

CHAPTER 5

Conclusions and Recommendations

5.0 Introduction

The study's summary and conclusion are presented in this chapter. Recommendations are made based on the findings of the data analysis in Chapter Four, with the hope of assisting future research and policy formulation. Future research topics have been identified and suggested to add to the debate on the finance-growth nexus.

5.1 Summary of key findings

This section summarizes the numerous sections, examines the examination's impediments, concludes the investigation, and offers approach suggestions. The study's main goal was to use annual data from 1995 to 2018 to empirically examine the impact of Development Finance Institutions Extensions on economic growth in South Africa. The majority of the studies examined show a strong long-term link between financial development and economic growth, such as Barnard (2016). As a result, Development Finance Institutions Extensions are critical to economic growth. Furthermore, the reviewed studies confirmed a causal relationship between Development Finance Institutions and economic growth. A few studies, however, claimed that the importance of financial development had been exaggerated.

By applying the ARDL bounds tests techniques by Pesaran, Shin, and Smith (2001), ADF tests and employing annual time series data of development finance institutions extensions, South Africa's GDP as well as controlling for stock market development and trade openness, evidence of a long-run relationship was established between extensions from DFIs and economic growth. The findings, in the context of this study, show that, if the extensions of DFIs continue to grow in South Africa, the economy should also continue growing, As these extensions facilitate the growth of South Africa's infrastructure, capital formation, and creation of new markets and industries that initially do not exist or abandoned by other forms of finance. This will have multiplier effects on employment generation, meeting South Africa' National development plan by 2030 and economic growth in South Africa.

5.2 Recommendations

5.2.1 Recommendations to government

The South African government should develop policies that encourage the integration of Development Finance Institutions into the economy, i.e. policies that increase potential investors' awareness of the market and boost their confidence in it. It is necessary to create an environment that allows Development Finance Institutions to have a direct impact on growth.

Additionally, the government should continue or increase its budget allocation towards Development Finance Institutions as this will enable these institutions to make advances at risk-free rates to boost growth. The government should ensure that state ownership policy is flexible enough to help DFIs adjust based on their needs and objectives.

5.2.2 Recommendations to policymakers

Economic activities that improve the relationship between Development Finance Institutions and economic growth should be established by policymakers (both fiscal and monetary), such as stimulating confidence in local DFIs, which improves investment levels. Given that investment is the primary channel through which Development Finance Insititutions contributes to growth, this may have a long-term impact on Development Finance Insititutions' ability to significantly contribute to growth. Finally, an environment should be created that allows DFI extensions to have a direct impact on growth.

5.3 Recommendations for further study

More research into the impact of Official Development Assistance (ODA) on economic growth is still needed. In addition, research on Development Finance Institutions Extensions on sector-specific aspects of the economy, such as manufacturing, energy, and agriculture, can be conducted. Also, other control variables such as taxation, banking development, and government spending can be used to examine the impact of economic growth policies.

REFERENCES:

Abhba. (1863). Political economy. *Notes and Queries*, *s3-IV*(93), 288. https://doi.org/10.1093/nq/s3-IV.93.288-h

Adayleh, R. M. (2018). *Does Finance – Led Growth Hypothesis Hold in Jordanian Economy ? An Empirical Analysis*. *8*(1), 45–54.

Ang, A. P. (2007). Workers' Remittances and Economic Growth in the Philippines. *IDEAS Working Paper Series from RePEc*. http://ez.sun.ac.za/login?url=http://search.proquest.com/docview/1698187687?accountid=14049%255Cnhttp://sunsfx.hosted.exlibrisgroup.com/sun?url_ver=Z39.88-2004&rft_val_fmt=info:ofi/fmt:kev:mtx:journal&genre=preprint&sid=ProQ:ProQ%253Aabiglobal&atitle=Workers%25

Arestis, P., Demetriades, P., Arestis, P., & Demetriades, P. (n.d.). *Finance and growth : Institutional Considerations and Causality Finance and Growth : Institutional Considerations and Causality*.

Aubry, J. (2018). *The critical role of development finance institutions in economic development: Wharton Public Policy Initiative*. https://publicpolicy.wharton.upenn.edu/live/news/2733-the-critical-role-of-development-finance

No Title, (2005).

Barnard, A. (2016). *The impact of development finance institutiosn on socio-economic transformation: The case of South Africa*.

Chinweoke, N., Onydikachi, M., & Chidinma Elizabeth, N. (2014). Financial intermediation and economic growth in Nigeria (1992-2011). *The Macrotheme Review*, *3*(6), 124–142. http://macrotheme.com/yahoo_site_admin/assets/docs/11MR36ch.13003353.pdf

Choong, C. K., Yusop, Z., Law, S. H., & Liew, V. K. Sen. (2005). Financial development and economic growth in Malaysia: The perspective of stock market. *Investment Management and Financial Innovations*, *2*(4), 105–115.

Darrat, M., Amyx, D., & Bennett, R. (2010). *An Investigation into the Effects of Work-Family Conflict and Job Satisfaction on Salesperson Deviance An Investigation into the Effects of Work – Family Conflict and Job Satisfaction on Salesperson Deviance*. *July*. https://doi.org/10.2753/PSS0885-3134300304

Global Impact Investing Network. (2015). The Landscape for Impact Investing. *Global Impact Investing Network and Open Capital*, 119.

Groenewald, T. (2004). A Phenomenological Research Design Illustrated. *International Journal of Qualitative Methods*, *3*(1), 42–55. https://doi.org/10.1177/160940690400300104

IDC Presentation By Kgampi Bapela. (n.d.).

Khadiagala, G. M. (2015). *The Role of Development Finance Institutions (DFI) in Building South Africa' s Developmental State The Role of Development Finance Institutions (DFIs) in Building South Africa' s Democratic Developmental State By Gilbert M . Khadiagala Professor of* . *August*. https://doi.org/10.13140/RG.2.1.4945.9042

Latif, A., & Fiador, V. (2014). Insurance-growth nexus in Ghana : An autoregressive distributed lag bounds cointegration approach. *Journal of Advanced Research*, *4*(2), 83–96. https://doi.org/10.1016/j.rdf.2014.05.003

Lawal, A. I., Nwanji, T. I., Asaleye, A., & Ahmed, V. (2016). Economic growth , financial development and trade openness in Nigeria : An application of the ARDL bound testing approach Economic growth , financial development and trade openness in Nigeria : An application of the ARDL bound testing approach. *Cogent Economics & Finance*, *12*(September 2017). https://doi.org/10.1080/23322039.2016.1258810

Levine, R., Literature, E., & Jun, N. (2014). *Financial Development And Economic Growth : Views And Agenda Financial Development and Economic Growth : Views and Agenda*. *February 1997*.

Massa, I. (2011). Impact of multilateral development finance institutions on economic growth. *London: Overseas Development Institute*, *August*, 1–23. https://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/7312.pdf

Mr Mondi. (n.d.). *Introducing IDC corporate governance funding model pre and post investment process concluding remarks*. www.adfi-ci.org/news/Presentation_by_Mr_Mondi_IDC_Part_2.pdf

Nurudeen, A. B. U. (2009). Does Stock Market Development Raise Economic Growth? Evidence from Nigeria. *Review of Finance and Banking*, *1*(1), 15–26.

OECD. (2019). *Development finance institutions and private sector development - OECD*. https://www.oecd.org/development/development-finance-institutions-private-sector-development.htm

Palamalai, S. (2016). Stock Market Development and Economic Growth in India: An Empirical Analysis. *International Journal of Finance & Banking Studies (2147-4486)*, *3*(3), 30. https://doi.org/10.20525/.v3i3.187

Qobo, M., & Soko, M. (2015). The rise of development finance institutions: South Africa,

BRICS and regional strategy. *Development Southern Africa*, *24*(1), 335–344. https://doi.org/10.1080/03768350701327269

S.A. Government. (2014). *20YR Chapter 4 Economic Transformation*. Chapter 4.

Sawers, L., Schydlowsky, D., Nickerson, D., Sawers, L., Nickerson, D., & Schydlowsky, D. (2000). Financial Markets and Economic Development. *Emerging Financial Markets in the Global Economy*, *17*, 3–21. https://doi.org/10.1142/9789812813534_0001

Solow, R. M. (1956). A Contribution to the Theory of Economic Growth. *The Quarterly Journal of Economics*, *70*(1), 65. https://doi.org/10.2307/1884513

Tabak, B. M., Silva, T. C., & Sensoy, A. (2018). Financial Networks. *Complexity*, *2018*, 99–103. https://doi.org/10.1155/2018/7802590

Vacu, N. P. (n.d.). *The Impact of Stock Market Development on Economic Growth : Evidence from South Africa*.

Контроль, С. И. (2014). *Corporate ownership & control корпоративная собственность и контроль*. *9232*(1), 313–382.

Abhba. (1863). Political economy. *Notes and Queries*, *s3-IV*(93), 288. https://doi.org/10.1093/nq/s3-IV.93.288-h

Adayleh, R. M. (2018). *Does Finance – Led Growth Hypothesis Hold in Jordanian Economy ? An Empirical Analysis*. *8*(1), 45–54.

Ang, A. P. (2007). Workers' Remittances and Economic Growth in the Philippines. *IDEAS Working Paper Series from RePEc*. http://ez.sun.ac.za/login?url=http://search.proquest.com/docview/1698187687?accountid=14049%255Cnhttp://sunsfx.hosted.exlibrisgroup.com/sun?url_ver=Z39.88-2004&rft_val_fmt=info:ofi/fmt:kev:mtx:journal&genre=preprint&sid=ProQ:ProQ%253Aabiglobal&atitle=Workers%25

Arestis, P., Demetriades, P., Arestis, P., & Demetriades, P. (n.d.). *Finance and growth : Institutional Considerations and Causality Finance and Growth : Institutional Considerations and Causality*.

Aubry, J. (2018). *The critical role of development finance institutions in economic development: Wharton Public Policy Initiative*. https://publicpolicy.wharton.upenn.edu/live/news/2733-the-critical-role-of-development-finance

No Title, (2005).

Barnard, A. (2016). *The impact of development finance institutiosn on socio-economic transformation: The case of South Africa*.

Chinweoke, N., Onydikachi, M., & Chidinma Elizabeth, N. (2014). Financial intermediation

and economic growth in Nigeria (1992-2011). *The Macrotheme Review*, *3*(6), 124–142. http://macrotheme.com/yahoo_site_admin/assets/docs/11MR36ch.13003353.pdf

Choong, C. K., Yusop, Z., Law, S. H., & Liew, V. K. Sen. (2005). Financial development and economic growth in Malaysia: The perspective of stock market. *Investment Management and Financial Innovations*, *2*(4), 105–115.

Darrat, M., Amyx, D., & Bennett, R. (2010). *An Investigation into the Effects of Work-Family Conflict and Job Satisfaction on Salesperson Deviance An Investigation into the Effects of Work – Family Conflict and Job Satisfaction on Salesperson Deviance*. *July*. https://doi.org/10.2753/PSS0885-3134300304

Global Impact Investing Network. (2015). The Landscape for Impact Investing. *Global Impact Investing Network and Open Capital*, 119.

Groenewald, T. (2004). A Phenomenological Research Design Illustrated. *International Journal of Qualitative Methods*, *3*(1), 42–55. https://doi.org/10.1177/160940690400300104

IDC Presentation By Kgampi Bapela. (n.d.).

Khadiagala, G. M. (2015). *The Role of Development Finance Institutions (DFI) in Building South Africa' s Developmental State The Role of Development Finance Institutions (DFIs) in Building South Africa' s Democratic Developmental State By Gilbert M . Khadiagala Professor of* . *August*. https://doi.org/10.13140/RG.2.1.4945.9042

Latif, A., & Fiador, V. (2014). Insurance-growth nexus in Ghana : An autoregressive distributed lag bounds cointegration approach. *Journal of Advanced Research*, *4*(2), 83–96. https://doi.org/10.1016/j.rdf.2014.05.003

Lawal, A. I., Nwanji, T. I., Asaleye, A., & Ahmed, V. (2016). Economic growth , financial development and trade openness in Nigeria : An application of the ARDL bound testing approach Economic growth , financial development and trade openness in Nigeria : An application of the ARDL bound testing approach. *Cogent Economics & Finance*, *12*(September 2017). https://doi.org/10.1080/23322039.2016.1258810

Levine, R., Literature, E., & Jun, N. (2014). *Financial Development And Economic Growth : Views And Agenda Financial Development and Economic Growth : Views and Agenda*. *February 1997*.

Massa, I. (2011). Impact of multilateral development finance institutions on economic growth. *London: Overseas Development Institute*, *August*, 1–23. https://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/7312.pdf

Mr Mondi. (n.d.). *Introducing IDC corporate governance funding model pre and post investment process concluding remarks*. www.adfi-ci.org/news/Presentation_by_Mr_Mondi_IDC_Part_2.pdf

Nurudeen, A. B. U. (2009). Does Stock Market Development Raise Economic Growth?

Evidence from Nigeria. *Review of Finance and Banking*, *1*(1), 15–26.

OECD. (2019). *Development finance institutions and private sector development - OECD*. https://www.oecd.org/development/development-finance-institutions-private-sector-development.htm

Palamalai, S. (2016). Stock Market Development and Economic Growth in India: An Empirical Analysis. *International Journal of Finance & Banking Studies (2147-4486)*, *3*(3), 30. https://doi.org/10.20525/.v3i3.187

Qobo, M., & Soko, M. (2015). The rise of development finance institutions: South Africa, BRICS and regional strategy. *Development Southern Africa*, *24*(1), 335–344. https://doi.org/10.1080/03768350701327269

S.A. Government. (2014). *20YR Chapter 4 Economic Transformation*. Chapter 4.

Sawers, L., Schydlowsky, D., Nickerson, D., Sawers, L., Nickerson, D., & Schydlowsky, D. (2000). Financial Markets and Economic Development. *Emerging Financial Markets in the Global Economy*, *17*, 3–21. https://doi.org/10.1142/9789812813534_0001

Solow, R. M. (1956). A Contribution to the Theory of Economic Growth. *The Quarterly Journal of Economics*, *70*(1), 65. https://doi.org/10.2307/1884513

Tabak, B. M., Silva, T. C., & Sensoy, A. (2018). Financial Networks. *Complexity*, *2018*, 99–103. https://doi.org/10.1155/2018/7802590

Vacu, N. P. (n.d.). *The Impact of Stock Market Development on Economic Growth : Evidence from South Africa*.

Контроль, С. И. (2014). *Corporate ownership & control корпоративная собственность и контроль*. *9232*(1), 313–382.