Financialisation and Economic Growth in Africa

A Dissertation

presented to

The **Development Finance Centre (DEFIC),**

Graduate School of Business

University of Cape Town

In partial fulfilment
of the requirements for the Degree of
Master of Commerce in Development Finance

by

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January 2020

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ACKNOWLEDGEMENTS

My special appreciation goes to my supervisor, Dr Abdul Latif Alhassan, for your unwavering support. Without your patience, commitment and guidance, the success of this project would not have been achieved. I thank you.

A special gratitude goes to my parents, Sampo and Rasetlhake Kungwane and to my siblings, who sacrificed their time by affording me time and space during my research. To my mentor, Mr. Andile Nomlala, you were there from the beginning. Thank you for always believing in me.

Lastly, this research is dedicated to my late grandmother, Elizabeth Manto Masebe. I can finally say that I have done all of this for you. Let the heavens rejoice.

To God be all the glory.

ABSTRACT

Despite the growing literature on financial development-economic growth nexus, there exists a paucity of empirical studies that explore the impact of financialisation on economic growth while focusing on the competitiveness of the financial sector. This study examines the revealed comparative advantages of 34 developing African countries from the period 2008 to 2017 and goes further to determine the impact of the revealed comparative advantage indices on economic growth. Revealed comparative advantage is used as an alternative proxy to financialisation, while economic growth is measured in terms of GDP per capita. In order to determine the impact, a panel study approach was followed, using a multiple linear regression model. The study produces two findings. Firstly, we find that the majority of African countries do not reveal a comparative advantage in financial services. This finding confirms our expectation. Secondly, we find that there exists a negative and significant relationship between financialisation and economic growth. The findings suggest that as developing countries in Africa gain comparative advantages in financial services, those gains have a detrimental impact on their economic growth. Informed by the findings of this study, which have implications for financial market development in Africa, the main recommendations are firstly that regulators need to play their part in reducing the cost of business for financial services institutions—particularly compliance costs, so as to encourage competition and development in the financial services sector, without compromising their responsibility to protect consumers. Secondly, better insights regarding cross-border trading and its impact on economic growth, profitability and the accumulation of foreign currency reserves need to be gained, in order to come up with more conducive regulatory frameworks that do not result in penalties for local firms, rendering them uncompetitive relative to foreign firms. Additionally, management at financial institutions have the responsibility of ensuring that benefits derived from their cross-border business go beyond shareholder value, but that reinvestment into the real economy takes place either through increased lending or equity investments and should also ensure that sufficient investments are made into the infrastructure required to increase the institution's competitiveness. Finally, Government and regulators needs to pay attention to how cross-border financial transactions are taxed, especially considering the new era of FinTech's, cryptocurrencies, and deepening regional integration, while at the same time ensuring that there is greater depth, bread and liquidity of their local financial markets.

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GLOSSARY OF KEY TERMS

CFTA	Continental Free Trade Agreement
CPI	Consumer Price Index
DFIs	Development Finance Institutions
EAC	East African Community
EIU	Economist Intelligence Unit
FE	Fixed Effects Model
GDP	Gross Domestic Product
GMM	Generalised Method of Moments
ICT	Information and Communications Technology
IDC	Industrial Development Corporation of South Africa
IFRS	International Financial Reporting Standards
IPAP	Industrial Policy Action Plan
IMF	International Monetary Fund
ILO	International Labour Organization
IPAP	Industrial Policy Action Plan
NBFI	Non-banking Financial Institutions
ODA	Overseas Development Assistance
RE	Random Effects Model
SACU	Southern African Customs Union
SAP	Structural Adjustment Programme
SMMEs	Small, Medium and Micro-Sized Enterprises
WEF	World Economic Forum

CHAPTER 1

INTRODUCTION

1.1 Background of the Study

'Economic Development' is defined as a process of continuous industrial and technological upgrading in which any country, regardless of its level of development, can achieve if it develops industries that are consistent with its comparative advantage as determined by its endowment structure (Lin, 2012). Different countries make use of different fiscal and monetary policies to stimulate their economies for the purposes of achieving economic growth and development, be it through investing in sectors such as agriculture, manufacturing or services. This study looks at the role played by the services sector, particularly the financial services sector, in developing and growing African economies.

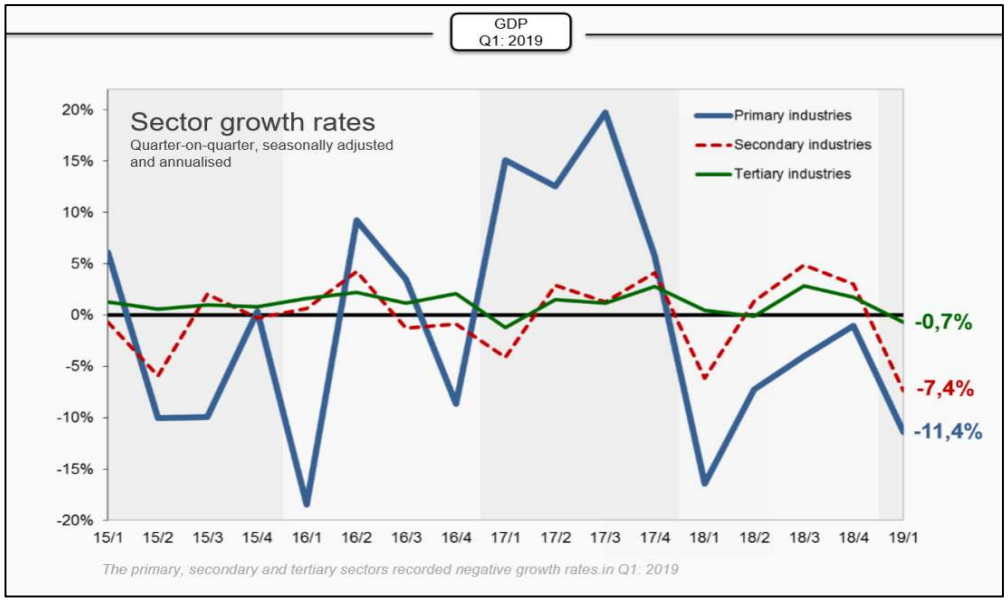
The term 'services' encapsulates a heterogeneous group of economic activities often having little in common other than that their principal outputs are largely intangible products (Shelp, 1981). Services include both intermediate services – for example construction – and final demand services, of which health services qualify as an example. The Oxford Dictionary describes the term 'financial services' as "professional services involving investment, lending and management of money and assets". The question that this study seeks to answer is whether policymakers should be paying more attention to the contribution made by the trade in financial services in achieving economic growth, particularly when deciding on how to allocate state resources, compared to the contributions made by other economic sectors.

Recent times have seen an increasing contribution by the services sector to developing countries' GDP growth (Seyoum, 2007), more particularly modern services which include business and financial services. A look at the two largest economies in Africa, Nigeria and South African, in the first quarter of 2019, we find that the services sector contributed more than 50% to GDP and the figure is steadily rising[1]. However, the financial services sector contributed only 3.2% and 0.2% towards Nigeria and South Africa's GDP respectively. This study therefore supports the argument that for emerging and developing markets to achieve sustained economic growth, there has to be accelerated diversification into the services sector

[1]Refer to Figures I, II, III and IV

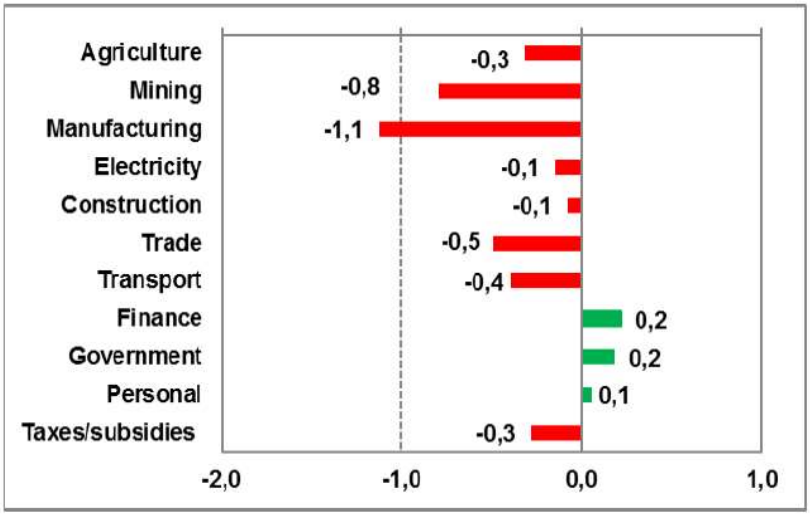
(primarily classified as the tertiary sector). Figure I illustrates that, unlike the primary sector, the tertiary sector has displayed consistent growth over a 4-year period, from 2015 to the first quarter of 2019. The study seeks to motivate towards structural transformation where Governments and Development Finance Institutions ("DFIs") allocate more resources towards industries that promote the trade in financial services.

Figure I. Sector growth rates in South Africa, Q1:2019



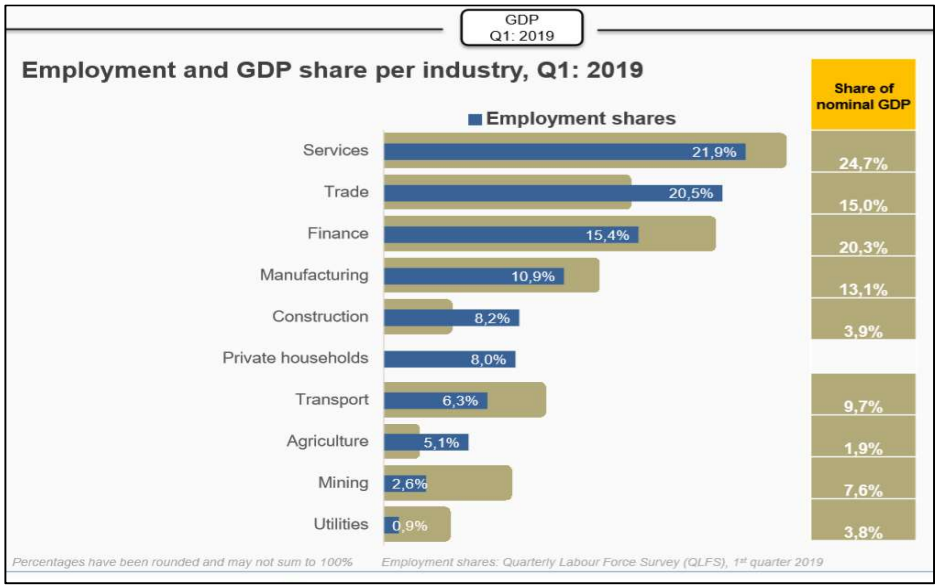
Source: Stats SA Publication on 2019 Q1 GDP Media Presentation

Figure II Contributions to growth in GDP, Q1:2019



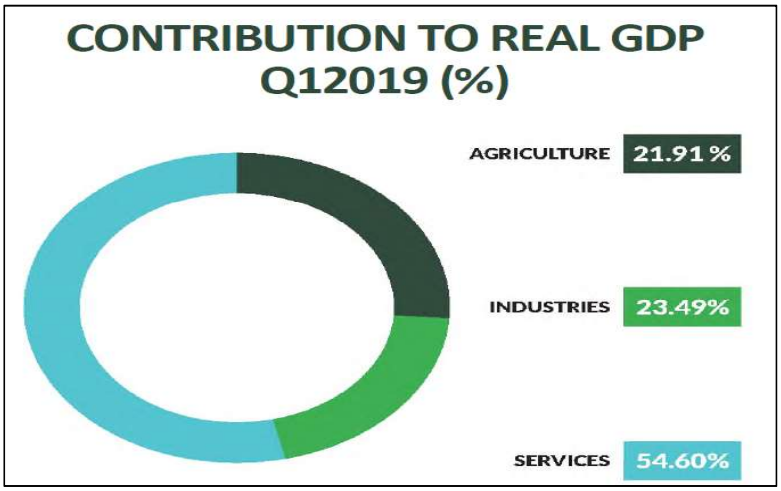
Source: Stats SA Publication on 2019 Q1 GDP Media Presentation

Figure III. Share of nominal GDP in South Africa, Q1:2019



Source: Stats SA Publication on 2019 Q1 GDP Media Presentation

Figure IV. Contribution to real GDP in Nigeria, Q4:2019



Source: Nigerian National Bureau of Statistics E-Library Nigerian Gross Domestic Product Report Q1:2019

This study does not look at the contribution that trade in services makes to the creation of skilled labour as well as the reduction of unemployment. Nor does it look at the impact of trade liberalisation which has resulted, for most African countries, in an increased rate in the importation of expensive processed goods, relative to producing and exporting cheap raw materials, adversely affecting their balance of payment positions, a symptom of Structural

Adjustment Programmes (SAP) (Riddell, 1992). As an important input into the production of other goods and services, services and the price and quality thereof, have a major impact on the performance of all sectors of the economy (Hoekman & Francois, 1999), therefore stimulating economic growth while accounting for a large proportion of foreign currency revenue (Seyoum, 2007).

Since services are harder to quantify as compared to the production of goods, since they are embodied in other sectors across the board (Hoekman, Matoo & English, 2002), this study therefore focuses on the export of services when measuring the extent of services in an economy because domestic consumption of such services might have a larger unquantifiable element of services inputs that cover the production of goods. Revealed comparative advantage indices are used to determine the level and trend of services export patterns (Seyoum, 2007) of developing African countries for the period 2008 to 2017, with the focus being on financial services. The rate of economic growth, measured in terms of GDP per capita, is measured against the level of comparative advantage, in order to determine whether a relationship exists between the two variables and what the impact is on economic growth. The objective being to determine whether economies with greater comparative advantages in financial services achieve accelerated economic growth when compared to those with lower comparative advantages. In instances where there is no revealed comparative advantage in a particular country (i.e. where the ratio is less than 1), we still determine whether a relationship between the revealed comparative advantage ratio and GDP per capita exists.

1.2 Problem Statement

Analysts argue that African countries whose economies are heavily reliant on commodity exports need to focus on diversification in order to achieve sustainable, less volatile economic growth (Leke, Lund, Roxburgh & van Wamelen, 2010). The majority of Africa's oil exporting countries have relatively small (approximately a third of GDP) manufacturing and services sectors and consequently larger agricultural and resources sectors, making them vulnerable to trade shocks (Roxburgh, Dörr, Leke, Tazi-Riffi, Van Wamelen, Lund, Chironga, Alatovik, Atkins, Terfous, & Zeino-Mahmalat, 2010). According to Kose and Riezman (2001), the volume of international trade for a typical African country accounts, on average, for more than 70% of the aggregate output, while a significant portion of the countries' exports is constituted by a narrow range of primary commodities. The lack of diversification in the countries'

economies results in high revenue instability due to the volatility in the prices[2] of primary commodities, with the volatility being driven mostly by external factors in the global markets. Noting the impact that government spending has on economic growth, the unpredictability of revenues makes it difficult for governments to budget effectively and to adequately allocate resources towards the rendering of essential goods and services.

For the purposes of avoiding the 'natural resource curse' as defined by Sachs and Werner (1995), policymakers need to understand the key characteristics of their endowment structure and identify in which industries they hold a comparative advantage (Lin, 2012). This will therefore guide the diversification process as investments can be allocated to industries that will contribute towards sustainable economic growth by creating jobs, lifting incomes and promoting domestic consumption. Research conducted by McKinsey & Co. found that on average, a 15% increase in manufacturing and services as a portion of GDP is associated with a doubling of income per capita (Leke et al., 2010). Seyoum (2007) noted that the presence of a dynamic services sector in developing countries is regarded as critical for the growth and efficiencies of a broad range of industries as well as overall economic performance. Growing and developing the financial services sector can be one way of broadening industries and can result in the diversification of a country's economic structure.

This study aims to contribute towards the growing body of knowledge surrounding the benefits that arise from having an established and competitive financial services sector, and how the sector can promote economic growth in developing African countries. The study builds on the work of Seyoum (2007), which looks into revealed comparative advantage and competitiveness in services, Aiginger's (2009) policy document on "Strengthening the Resilience of an Economy" as well as Kose's (2001) study on "Trade shocks and macroeconomic fluctuations in Africa". The intention is to inform structural reform aimed at advancing African economies beyond their reliance on natural resources which, in Africa's case, has perpetuated the lack of economic growth and development.

[2] Kose (2001) evaluates the effects of trade shocks, using relative price fluctuations, on macroeconomic dynamics of 22 non-oil producing African economies and finds more than 44% of economic fluctuations in aggregate output is as a result of trade shocks.

1.3 Statement of Research Objectives

This study explores the role of the financial services sector in enhancing growth in Africa. The specific objective is:

- to examine revealed comparative advantage in financial services in African
- to examine the role of the financialization in enhancing economic growth in Africa

1.4 Hypothesis

The expectation therefore is that developing countries that have established a comparative advantage by diversifying into financial services (measured in terms of exports) as compared to other industries, will achieve higher economic growth rates, sustained over a given period. In practical terms, we expect countries such as South Africa, Nigeria and Egypt, with large economies, to have achieved high GDP per capita rates due to large investments made into their financial services sectors, which in turn facilitated the growth of other industries.

1.5 Justification of Study

There are a limited number of studies examining developing countries' comparative advantages in services. Services account for an increasing share of employment and GDP in both developing and developed countries and the growth in the services trade has outstripped that of manufacturing (Seyoum, 2007).

Looking at the economic landscape of most African countries, such as South Africa, there is undoubtedly a commitment by Government and DFIs to invest in primary and secondary sectors, being agriculture, manufacturing, as well as infrastructure development in tourism and hospitality.[3] It is argued that services in developing countries have been largely costly and inefficient due in some extent to the lack of vigorous competition (Seyoum, 2007). Thus, making the facilitation of the rest of the industries somewhat uncompetitive.

Due to the increase in globalisation and the advancement of technology, services can now be traded between different countries and across regions, since most services, particularly financial services, produce intangible outputs. Abu-Akeel (1999) states that, unlike the cross-border trade in goods, services can be supplied from various locations therefore promoting and achieving scalability.

[3] Refer to the State of the Nation Address by President Cyril Ramaphosa, delivered on the 20th June 2019, where the President explains that in meeting Government's 7 priorities which include economic transformation and job creation, government will focus on expanding the industrial sector, bolster the mining industry, support the agricultural sector, as well as education and tourism.

This study therefore argues that for developing countries to achieve their desired level of economic growth and to ultimately catch up with developed nations, thorough investigations into the impact of services on the economy will need to be conducted. The benefits underpinning the services sector need to be explored in a manner that justifies the increasing contributions that services make to economic growth. Hoekman and Francois (1999) found that barriers to trade in business, consultancy and distribution are relatively lower than trading in transportation, finance and telecommunication, and regarded the latter as "backbone" services which are crucial to the ability of enterprises to compete internationally. Warren, Tamms and Findlay (1999) also found that, with the exception of transport, policies towards finance and telecommunication appear to be significantly more restrictive in developing countries.

The findings and recommendations of this study are aimed at providing policymakers with insights that would feed into their economic structural transformation strategies as well as trade and development policies. In addition to contributing towards policy reform, the study aims to contribute to the debate around whether financial services do in fact play a critical role in the economy or whether the impact is overstated or misrepresented.

1.6 Research Assumptions and Limitations of Study

The underlying assumptions in this study have been summarised below:

- The Revealed Comparative Advantage (RCA) indices are used to establish whether any of the developing African countries sampled have a comparative advantage in the export of financial services.
- Where a comparative advantage has been revealed, the extent of the comparative advantage (to the extent that the result is more than 1) is compared at a country and regional level. The assumption therefore is that the countries are comparable to each other.
- The rate of GDP growth per capita is then determined over the tested 10-year period 2008 to 2017.
- Finally, the extent of the comparative advantage is then measured against the rate of GDP growth per capita in order to establish whether a positive linear relationship exists.
- The assumption made is that revealed comparative advantage can be used as a reasonable alternative proxy for financialisation.

- The expectation is that there is a positive relationship between the growth in the export of financial services of a given country to the growth in the GDP per capita of that country over a specified period.

The study is limited to all developing African countries as defined by the World Bank. These countries are classified as Low-income, Lower-Middle-Income and Upper-Middle-Income. This means all the African countries that publish and share their economic data with the World Bank are considered when determining the unit of analysis with the exception of the Seychelles, which is a High-Income country, and therefore regarded as a developed country[4]. The second limitation is that, due to the broad definition of trade and the lack of comparable data on services, the trade in financial services is measured in terms of cross-border trade (i.e. exports) since the total contribution of services trade to economic growth is largely underestimated. This is because the statistical data recorded and used does not account for the trade in services embodied in goods as well as the production and sale of foreign affiliates (Hoekman et al., 2002).

1.7 Organisation of Study

The study is organised in a manner that first introduces the topic and summarises the research in Chapter 1. This is done by describing the purpose of the study (i.e. defining the problem statement); setting out the objective of the study and hypothesis to be tested; outlining the methodology that was followed; and highlighting the findings of the study. Chapter 2 describes the body of knowledge (i.e. literature review) surrounding the topic of interest. Chapter 3 explains the methodology that was used to collect and analyse the data for the purposes of addressing the problem statement and achieving the objectives, ultimately testing the hypothesis. Chapter 4 discusses the findings of the study while Chapter 5 presents the conclusion and recommendations made. The last section contains a list of references to sources used to support the facts applied in the study as well as the appendix, which contains a list of the 34 African countries that make up the sample used in the study.

[4] Refer to the World Bank website for the country classifications
https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

There have been a number of studies examining the contribution of trade in services in developed markets such as the United States of America and Europe. However, there appears to be limited research when it comes to developing African countries. From reviewing the literature, it is evident that the studies examining African economic landscapes focus mainly on economic sectors aligned to industrialisation, agriculture and the trade in mineral resource commodities. In an attempt to discover the impact of the trade in financial services on economic growth in developing African countries, we first explore the evolution of their financial sectors and economic growth by outlining the literature surrounding structural transformation and the process of financialisation within a developing economy's context. A larger financial services sector is regarded as instrumental to making a country's economy more resilient (Aiginger, 2009), in addition to facilitating the growth of other sectors of the economy. Such positive contributions are influenced by the price and quality of services which often determine the competitiveness of the goods produced by an economy (Seyoum, 2007). Therefore, in considering the existence of a relationship between the level of financialisation of a country and the rate of economic growth, we proceed to assess the theories underpinning Revealed Comparative Advantage indices (RCA), which are used to determine whether countries achieving economic growth do so because of the comparative advantage derived from their financial services sectors. Finally, we conclude on the relevance of the proposed study and contribution to the existing literature around financialisation.

2.2 Evolution of the Financial Services Sector and Economic Growth

The global share of total services exports to total goods and services exports has doubled from roughly 9% in 1970 to more than 20% by 2014 as shown by the International Monetary Fund (Loungani, Mishra, Papageorgiou, & Wang, 2017).

This growth represents the constant structural transformation shifts experienced globally mainly by developing countries that have witnessed accelerated financialisation.

Structural transformation has been broadly defined by Syrquin (1988) as the interrelated processes of structural change that accompany economic development. This therefore implies that where economic development is achieved by a country, one would expect to notice a

structural change to that country's economy. According to the International Labour Organisation (ILO), the lack of diversification in Sub-Saharan Africa has resulted in low productivity which has hampered the growth in employment prospects (as cited by Sow, 2017); they further indicate that the agricultural sector is responsible for the employment of an average of 54% of the working population in most African countries. The limited employment opportunities have been attributed to the lack of structural transformation (Lin, 2012). A case in point would be post-apartheid South Africa, where major structural changes have been witnessed as the government placed greater emphasis on the role played by the financial sector in the economy compared to that played by the mining, resources and agricultural sectors. Over the period 2012-2017, South Africa experienced an increase in employment in all industries of 836,000, except for mining which lost 58,000 jobs. The largest contributors to the increases were trade (284,000), finance (242,000), services (196,000) and construction (110,000) (Stats SA, 2017). The trend continues to date where, in the first quarter of the 2019 financial year, services, trade and finance constituted 57.8% of the share in employment, with finance on its own making up 15.4%, while mining only contributed 2.6% as shown in Figure III. According to information shared on Statistics SA's website, the finance, real estate and business services sectors have increased their relative importance from 17% in 1993 to 24% in 2012. In line with the change in economic structure, the economy grew at an average rate of 5% between 2004 and 2007 (pre-financial crisis) (Stats SA, n.d.).

The terms 'trade', 'services' and 'finance' carry various meanings. The World Bank describes trade as an engine of growth that creates jobs, reduces poverty and increases economic opportunity. From a structural perspective, trade constitutes one large sector that can be divided into various sub-sectors which include transport, travel, communications, construction, finance, insurance and government services, to name but a few (IMF, 2009). Shelp (1981) went on to define services as a heterogeneous group of economic activities often having little in common other than the fact that they produce principle outputs that are mainly intangible products, while the Oxford Dictionary (n.d.) defines financial services as professional services involving the investment, lending, and management of money and assets. All three terms used together make up the facets of financialisation. Krippner (2005) provides a definition of financialisation based on Arrighi's (1994) definition as "a pattern of accumulation in which profit-making occurs increasingly through financial channels rather than through trade and commodity production". Financialisation is therefore a multifaceted concept that can manifest in several areas of the economy (e.g. households, non-financial and financial corporates) and

is not limited to a specific period, era or place (Sawyer, 2013). The process of financialisation thus evolves over time and has becoming increasingly relevant in modern-day economics.

According to Lin (2012), prior to the 18th century, it took roughly 1400 years for Western countries to double their income. In the 19th century, the same process took close to 70 years, while only taking 35 years in the 20th century. Apart from the learning curve that is seemingly taking place, Lin argues that the dramatic acceleration in economic growth rates came from rapid technological innovation created by the Industrial Revolution and the structural shift from agrarian economies into modern industrialised and diversified economies. He therefore recognises industrialisation, technological innovation and industrial upgrading and diversification as essential features of rapid, sustained growth.

A number of indicators can be used to measure economic growth, and they include Gross Domestic Product ('GDP') per capita income, poverty, social and health indicators such as unemployment as well as operational patterns. This study focuses primarily on GDP as a measure of economic growth. Gross Domestic Product ('GDP') is the most established measure of a country's economic performance (Gianetti, 2015). GDP measures the total production of goods and services produced and traded within a country in a specified time period, usually a year. The measure therefore results from adding household consumption of goods and services, government expenditure, net exports (the value of exports minus imports) and net capital production. Although the measure is commonly used as proxy for economic growth, using GDP as a proxy has its limitations.

The limitations can be summarised as follows: the measure (i) excludes non-market transactions, i.e. when households produce goods for their own consumption, (ii) ignores non-monetary components such as volunteerism ((Kubiszewski et al., 2013 as sited by Giannetti 2015), (iii) fails to account for underground production (i.e goods sold in the black market that are not recorded, (iii) fails to take into account income inequality, (iv) fails to indicate whether the nation's rate of growth is sustainable, (v) fails to account for the cost on human health, life expectancy and the environment arising from negative externalities (Talberth et al., 2007 as cited by Giannetti, 2015), (vi) treats the replacement of depreciated capital as a new investment into/creation of capital, (vii) fails to account for relative utility gains that may arise from technological advances, so although the quality of products increase, the output is measured in the same way, and lastly (viii) it counts every expenditure as a positive (i.e net increase in progress) even though some expenditure, such as insurance are incurred in order to prevent or

repair social and environmental costs ((Leipert,1989 as cited by Giannetti, 2015). Notwithstanding the limitations highlighted, GDP per capita income serves as a more appropriate proxy to use for the purposes of this study since the study focuses on the production of financial services.

Real GDP for African economies grew at an average of 4.9% per annum from 2000 through to 2008, double the pace seen in the 1980s and 1990s (Leke et al., 2010). Although a large portion of it can be attributed to the surge in commodity prices, two thirds of the rise in GDP came from other sectors, including commerce, transportation and manufacturing (Leke et al., 2010). Some of the drivers behind the increase are government's actions towards ending armed conflicts as well improved macroeconomic reforms aimed at creating better business climates through the provision of soft and hard infrastructure, which enabled private sector engagements. With that came the growth of the financial sector which was then associated with growth of savings and of private (household) wealth, resulting in financial sector development being positively related to economic development (Sawyer, 2013).

2.3 Theoretical Framework: Financial Sector and Economic Growth

The effect of financialisation on economic growth has been examined using theories surrounding financial sector development, with the first being the supply-leading hypothesis. The supply-leading hypothesis assumes that financial development is the driver of economic growth. The demand-following hypothesis, on the contrary, suggests that economic growth generates the demand for financial products prompting the financial sector to provide more sophisticated services (Apere & Karimo, 2015).

There is currently a growing body of research challenging the long-held belief that industrialisation is the prime driver of economic growth and development (Loungani et al, 2017). Many economists still believe in Kaldor's growth laws which suggest that the industrial sector holds supremacy when it comes to economic growth (Kaldor, 1867). This notion explains the undeniable focus by DFIs such as the Industrial Development Corporation of South Africa ("IDC") on promoting their industrialist programmes. A key example would be the IDC's Industrial Policy Action Plan ("IPAP"), which aims to promote long-term industrialisation and diversification beyond traditional commodities and non-tradable services. The policy points to the fact that there is continuing predominance of the consumption-driven sectors (finance and insurance, real estate, transport and storage, etc.) over the main

production-driven sectors (agriculture, mining, manufacturing, construction, etc.). This shift is seen to have had a negative impact on both the current and trade accounts as demonstrated by the deficits on both, thus necessitating a dependence on foreign capital inflows (IPAP, 2014). Notwithstanding the negative impact, the policy still promotes increased investment into industrialist sectors without looking into how the financial sectors could be restructured in a manner that facilitates the growth of industrialisation versus being a consequence of industrialisation.

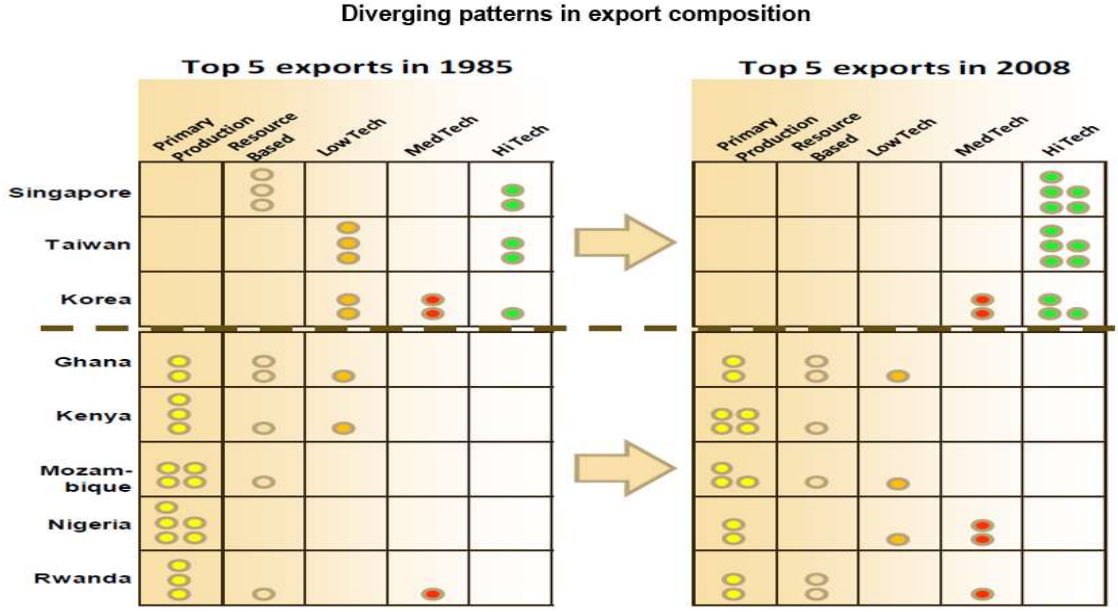
As argued by Lin (2012), in order to benefit from the latecomer phenomenon, low-income countries should accelerate their structural changes and develop *'new'* industries—'new' being relative to what they currently have, that are reflective of the country's latent comparative advantage.

As one of the most widely debated theories of structural transformation, Rostow's (1960) "stages of development" argues that the central stage (or take-off phase) features two key elements: a sharp increase in the rate of capital accumulation, and the emergence of a 'leading sector' that fosters the change of the production structure. Of all the industries, this proposes that the financial sector is the sector most likely to attract capital and allow for the accumulation thereof, also, as a leading sector, to foster the change of the primary production sectors. In order to prevent the accumulated capital from being distributed by way of shareholder dividends, a stringent policy needs to be put in place that will ensure the capital is directed towards the real economy. When it comes to the frameworks focusing on structural transformation, Gerschenkron (1962) suggested that the more backward a country's economy is, which most African countries' are, the greater the role played by special institutions such as government agencies and banking institutions, which are key instruments designed to attract and increase the supply of capital to the new industries.

There is somewhat a consensus that African countries will need to diversify their economies should they want to survive and compete globally. One can argue developing African countries have already contracted the Dutch-disease, which is described by Oomes and Kalcheva (2007) as a phenomenon where there is a rapid increase in the production of raw materials, mainly in mining and agriculture, which results in the decline of other sectors. This increase results in the country becoming increasingly dependent on commodities to an extent that a shock event taking place in the economy, for example a sharp increase or decrease in prices, would result in a decrease in exports, leaving the economy in a worse off state of affairs, similar to the

effects experienced by Nigeria and Angola between 2013 and 2015. This is regarded as the natural resource curse. The notion that being resource rich can be a curse is based on the empirical findings of Sachs and Werner (1995), who found that resource-rich economies on average experience lower economic growth rates than resource-poor economies. One can deduce from the findings that resource-poor countries have sought and invested in new and less price sensitive industries such as manufacturing, as well as financial and business services which they export to other countries and benefit from foreign currency capital inflows. In observing the global economic transitions, one can see that African countries have remained large exporters of commodities or low-technology goods, while Asian economies have managed to successfully transform their export sectors to export advanced technology and value-added goods (Figure V). The transformation has contributed drastically to China becoming the second largest economy in the world.

Figure V. Structural transformation patterns in Asia and Sub-Saharan Africa



Source: Data from World Bank Institute and K. Y. Amoako, "The African Center for Economic Transformation."

Epstein (2005) broadly defines the process of financialisation as "the increasing role of financial motives, financial markets, financial actors and financial institutions in the operation of the domestic and international economies". The largest and most dominant of these financial actors would have to be banking institutions. A highlighted feature of modern financialisation in the recent era of financialisation has been the growth of assets and liabilities in ways that are not related to economic growth, coupled with the rise of household debt (Palley, 2007). In previous eras, however, financialisation was looked at in terms of the growth of the stock

market relative to GDP and of bank deposits and loans relative to GDP. Owing to the broad nature of the term 'financialisation', it is therefore clear that researchers could choose varying areas under the financialisation banner to prove or disprove their theories. This notion is supported by observations by French, Leyshon, and Wainwright (2011) which state that research covering financialisation has been insufficiently attentive to space and place, both in terms of processes and effects. They further argue that: "Financialisation is a profoundly spatial phenomenon, representing as it does the search for a spatial-temporal fix or quasi-resolution of the crisis tendencies of contemporary capitalism".

Linked to financialisation is the term 'financial deepening', which is defined by Ekberg, Leyshon, and Wainwright (2015) as the process whereby the efficiency, depth (credit intermediation and market turnover), breadth (the range of markets and instruments), and reach (access) of financial markets is increased. Darrat (1999) found when studying the link between financial deepening and economic growth in the three middle-eastern countries of Saudi Arabia, Turkey and the United Arab Emirates, that financial deepening serves as a necessary causal factor of economic growth, and that the causal relationship is predominately long-term in nature, which implies governments needs to be persistent in the efforts to promote the deepening of their financial sectors. We therefore suggest that both financial inclusion and financial deepening serve as a consequence of financialisation, and while most of the efforts of financial inclusion, or financial deepening, come in the form of expanded access to formal savings, credit, and investments products (Demirgüç-Kunt & Klapper, 2012), it becomes more likely to achieve economic growth and development, because of the accumulation of capital, be it from foreign or local sources and the increase in production and consumption in the real sectors.

2.3.1 Features of Financialisation

As the fastest growing sector in many economies, research surrounding the financial services sector has been mainly negative. The majority of views derived from empirical observations regarding financialisation dating between ca. 1980s to 2013 agree to at least one or more of the following eight features of financialisation laid out by Fine (as cited by Sawyer, 2013) :

Table 1: Features of Financialisation

1	Financialisation involves large-scale expansion and proliferation of financial markets for a period of over thirty years.
2	The process is more generally linked to the deregulation of financial systems and the economy.
3	The process has resulted in the expansion and proliferation of financial instruments and services, developed by a broad range of financial institutions and markets who make them too complex for a layman to comprehend, e.g. futures exchanges and securitisations.
4	At a systemic level, financialisation is seen to have caused the present dominance of finance over industry.
5	Financialisation has been associated with market mechanisms that are reinforced by policies which underpin raising income disparities and social inequality.
6	The financial industry promotes consumption sustained more by the extension of credit and less through the use of capital gains made in using housing as collateral.
7	The financial instruments and markets created are not confined to the financial sector, but they have also penetrated a widening range of both economic and social factors such as housing, pensions, health, etc.
8	Financialisation has been associated with a particular culture which can be broadly interpreted as one that prioritises the maximisation of shareholder value at the expense of the greater society.

Post 2013, the narrative around the financial sector has evolved into more positive territory, with the help of themes such as financial inclusion as well as innovative technological advances in Fintech. Financial inclusion or inclusive financing is defined as the delivery of financial services, at an affordable cost, to sections of disadvantaged and low-income segments of society (Sharma & Kukreja, 2013). In addition to detailing the basic features of financial inclusion, Sharma and Kukreja, using India as a reference, argue that a nation can grow economically and socially if the previously financially excluded segment of society is empowered to become financially independent through financial inclusion. At a macroeconomic level, to achieve financial inclusion, governments need to promote the growth of financial and capital markets while ensuring that appropriate regulations are put in place that can ensure financial stability without necessarily stifling innovation and competitiveness in the private sector.

2.4 Empirical Literature

A study by Adeyeye, Fapetu, Aluko, and Migiro (2015), which has a particular focus on the Nigerian economy, finds that there is weak evidence supporting the supply-leading hypothesis in a developing economy, and instead the demand-following hypothesis is more dominant. Adeyeye et al. (2015) go further to suggest that a bi-directional causality exists between

financial development variables and indices of economic growth, confirming the interdependence between financial sector development and economic growth in the Nigerian context. When applying the demand-following hypothesis to Sub-Saharan Africa, Odhiambo (2007) finds that the direction of causality between financial development and economic growth is sensitive to the choice of measurement for financial development, and also discovers that the strength and clarity of the causality evidence is found to vary between countries and over time. For instance, South Africa and Kenya were found to have a stronger demand-following response as compared to Tanzania where the supply-leading response was found to be dominant.

To add to the opposing views between the supply-leading and demand-following hypotheses are the feedback hypothesis and the neutral hypothesis. The former hypothesis finds that there is a mutual effect between financial development and economic growth, while the latter asserts the lack of a relationship (Apergis & Levine, 2007). Contrary to the results found by Adeyeye et al. (2015), Karimo (2017) found that the growth-financial deepening nexus in Nigeria follows the supply-leading hypothesis. The study recommends that economic policy should be steered towards removing barriers to credit extended to the private sector and to focus on restoring investor confidence in the stock market. Under the supply-leading hypothesis, the effect caused by financial development to economic growth is driven by the improvement in the efficiency associated with capital accumulation or the increase in the rate of savings and rate of investment. It is therefore argued that economies suffer where their financial sectors are not efficient, and that efficiency can only exist when development in that sector takes place (Adeyeye et al., 2015).

The question then becomes, how can financialisation be used to achieve good? How can the process help with the development of countries and create growth that will benefit all citizens? A practical example of the benefits of financialisation is the innovation that has been introduced by the Fintech industry which is being used as a mechanism to achieve financial inclusion. The industry is set to disrupt the financial services industry for the benefit of the consumers. Using nationally representative cross-sectional survey data which measures all financial products and practices used by 13,000 Kenyans, Yenkey, Doering and Aceves (2015) found that the use of mobile money is positively related to the increased inclusion of people into the formal financial sector.

Lin (2012) suggests that the only way low-income countries can catch up with the economies of developed nations, is by accelerating structural change and income through facilitating the development of new industries that are reflective of the country's latent comparative advantage. This supports one of the significant effects of the supply-leading approach, which states that new horizons are opened up to entrepreneurs and businesses when they are provided with access to supply-leading funds, thus setting their expectations high and increasing their propensity to take on risks and the start new industries (Karimo, 2017).

Research conducted on a sample of developed and emerging economies by Cecchetti and Kharroubi (2012) has shown that the level of financial development is good for a country only up to a specific point, after which it becomes a drag on growth. Secondly, they also show that a fast-growing financial sector is detrimental to the aggregate productivity growth. This is mainly driven by the argument that financial services sector prioritises capital accumulation for the purposes of creating shareholder value (Tori & Onaran, 2015) and that rapid growth of this sector often suggests aggressive lending and investing practices which often creates and lead to bubbles that would serves as a precursor to a crisis.

In examining the relationship between financialisation and economic growth, Assa (2012) made use of two measures which involved analysing the value added by the financial sector relative to the total value added by all sectors of the economy. The second measure focused on total employment in the financial sector relative to total employment in the economy. With the same objective in mind, this study focuses instead on the revealed comparative advantage that the developing countries might have in the financial sector and how the revealed comparative advantage identified affects economic growth. Based on Balassa's (1977) claims that comparative advantage is revealed by observed trade patterns, i.e. significant shares of export markets, the revealed comparative advantage indices are determined using the share of financial services sector exports. Revealed comparative advantage (RCA) has been accepted in literature as a measure of international competitiveness (Utkulu & Seymen, 2004). Gross Domestic Product is similarly accepted as a reliable measure of economic growth and therefore, by using both indicators, there is hope that new information is revealed regarding financial sector competitiveness and its relationship to economic growth, looked at from a developing country's perspective.

Based on the growth-financialisation nexus hypotheses discussed, one can assume that the causal relationship between financial development and economic growth is not definite but instead depends on a number of factors which may include but are not limited to the country's

stage of economic development, ability to accumulate capital, the variables used to measure financialisation as well as the level of government expenditure directed at financial development.

Inasmuch as this study does not focus on other economic development indicators when examining the impact of the financial sector on economic growth, the issue of unemployment cannot be ignored. With a continent that has more than 500 million people of working age, which figure is estimated to exceed 1.1 billion in the year 2040 (Roxburgh et al., 2010), which is more than China and India, a large workforce bodes well for lifting GDP growth through production and consumption. South Africa, for instance, is facing the highest unemployment rate since the third quarter of 2017, at 29.1%.[5], while Nigeria is also experiencing the highest unemployment rate at 23.10%. The current declining trend in the share of manufacturing, agriculture and mining in creating employment suggests that policymakers in low-income developing countries will need to invest in the provision of the necessary specialised skills, which would match the requirements and growth of the highly demanding financial services sector.

For the development of a wide range of industries to take place, the presence of a dynamic services sector in developing countries is regarded as vital (Seyoum, 2007). Thangavelu and Owyong (2003) further argue that services provide vital inputs, in the form of skills and know-how, into the production export-oriented primary and secondary industries.

Based on our review of literature around financialisation and the observations noted, one can conclude that there is a lack of comprehensive studies on the contribution of the financial services sector to economic growth in developing countries using comparative advantage (whether dominant or latent) as a measure and a proxy for financialisation. This study therefore uses the revealed comparative advantage (RCA) indices of African countries to establish the degree of competitiveness in financial services between 2008 and 2017 and to determine whether a relationship between comparative advantage and economic growth exists.

2.5 Summary of Chapter

This chapter focused on the process of financialisation and how the financial services sector can be regarded as the best approach to achieving structural transformation and diversification. We then outlined how the narrative around the complex and seemingly superior financial

[5] https://tradingeconomics.com/south-africa/unemployment-rate
https://tradingeconomics.com/nigeria/unemployment-rate

services sector is gradually changing towards a more positive narrative, focusing on the role that can be played by the sector in financial inclusion and the deepening of financial markets in order to facilitate economic activity through capital accumulation, investment and access to credit so that more trade can take place in more 'risky' (although at times perceived) regions and segments of society. In our review of literature, we then consider the results of previous studies around the financialisation as well as the theories underpinning the sector, thereafter discussing the use of Revealed Comparative Advantage indices (RCA) and Gross Domestic Product per capita (GDP) as appropriate measures of financial sector development and economic growth.

Ultimately the objective of the study is to argue towards the importance of financialisation in achieving sustained economic growth (and consequentially diversification) in modern developing African countries' economies such as Angola and Zambia, who have, over a long period, relied heavily on commodities exports, resulting in concentration risk that has stifled most of their economic development. The intention is to advocate for structural reform that will encourage industry upgrading and diversification, with particular emphasis being placed on creating a well-regulated, efficient and effective financial services sector that will help drive sustainable economic growth.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Introduction

This chapter covers the research methodology which was followed when examining the relationship between the extent of a developing African country's comparative advantage in the financial services sector and the rate at which their economies grow in terms of GDP per capita. The sections which follow provide an outline of the research approach and design, by first specifying the data that has been analysed, the sample period that the study is covering as well as the sample size chosen to bring about reliable results. Secondly, the empirical model used for the analysis is then addressed, followed by the definitions and measurements of variables used in the model. Finally, the estimation technique used when conducting the test has been outlined.

3.2 Research Approach and Design

Research design is defined by Gujarati (as cited by Nthaga, 2018) as the conceptual structure within which one conducts research. The empirical research follows a quantitative data analysis approach, which applies a multiple linear regression model to analyse the relationship between the revealed comparative advantage (RCA) in financial services and economic growth measured in terms of GDP per capita. The approach is appropriate for the research objective as it allows for the use of secondary and panel data from 2008 to 2017, for which units of analysis are developing African countries. The RCA, as the independent variable, serves a proxy for financialisation while GDP per capita as the dependent variable, serves as a proxy for measuring economic growth.

3.2.1 Data, Sample Period and Size

Export data, recorded in US dollars, relating to financial services has been obtained from the International Monetary Fund's *Balance of Payments Yearbook*, for the periods 2008 to 2017, while the GDP per capita data, also in US dollars, was extracted from the World Bank's database. Secondary data was therefore used, and the data collected is reflected on an annual basis. The data collected enables the use of the RCA indices and GDP per capita as a standard

measure which simultaneously enables a comparison to be conducted between the different countries.

A panel study has been conducted over a 10-year horizon from 2008 to 2017 (i.e. sample period). Panel data models have been used to determine the relationship between the independent (explanatory) variables and the dependent variables. Panel data (also known as longitudinal data) represents data sets that contain repeated observations of the same individuals (countries) recorded over various periods. Panel data is further explained as cross-sectional data recorded for the same subject over a period; it therefore combines time series and cross-section data (Nthaga, 2018).

The study focuses mainly on developing African countries as defined by the World Bank; this implies that all African countries except for the Seychelles have been considered. However, due to the limited number of countries that publish and share their economic data with the World Bank, the study is limited to 36 African countries who published sufficient data covering the sample period. However, the actual sample for the regression analysis only used 34 countries, and excluded Ethiopia who have not published data on private sector credit issued by banks, private sector credit issued by financial institutions and broad money supply (M2) and Mozambique who have not published their inflation figures. The list of the sampled countries is included in Appendix A. Therefore, the unit of analysis is the individual African countries and 34 of them make up the sample selected for testing.

3.2.2 Empirical Model

The relationship between the revealed comparative advantage in financial services (RCA) and economic growth was examined using a multiple linear regression model. The assumption made was that the higher the RCA index, the greater the rate of economic growth. The model has been constructed as follows:

$$gdppc_{i,t} = \beta_0 + \beta_1 rca_{i,t} + \beta_2 gexp_{i,t} + \beta_3 gfcf_{i,t} + \beta_4 trade_{i,t} + \beta_5 infl_{i,t} + \beta_6 m2_{i,t} + \varepsilon_{i,t} \quad \ldots\ldots 1$$

Where $gdppc_i$ represents the dependent variable, i.e. annual GDP growth rate per capita between 2008 and 2017 in a country and has been regressed against the revealed comparative advantage (rca) as well as the standard growth control variables which include government

expenditure (gexp), gross fixed capital formation (gfcf), trade, inflation, as well as broad money supply. β_0 represents the y-intercept (i.e. constant term), while β_1 represents the slope of the line. Lastly, *i* and *t* denote firms (African countries) and year respectively while $\mathcal{E}$ represents the error term.

The regression models applied are therefore consistent, with only the RCA index changing as follows:

$$gdppc_{i,t} = \beta_0 + \beta_1 rca1_{i,t} + \beta_2 gexp_{i,t} + \beta_3 gfcf_{i,t} + \beta_4 trade_{i,t} + \beta_5 infl_{i,t} + \beta_6 m2_{i,t} + \varepsilon_{i,t} \quad \ldots\ldots 2$$

$$gdppc_{i,t} = \beta_0 + \beta_1 rca2_{i,t} + \beta_2 gexp_{i,t} + \beta_3 gfcf_{i,t} + \beta_4 trade_{i,t} + \beta_5 infl_{i,t} + \beta_6 m2_{i,t} + \varepsilon_{i,t} \quad \ldots\ldots 3$$

The results obtained from the test were intended to provide an indication of whether a positive relationship exists between the competitiveness in financial services (i.e. extent of financialisation) and economic growth. Once a relationship has been established, the strength of the relationship was analysed using the correlation coefficient between RCA and the GDP per capita.

3.2.3 Definition and Measurement of Variables

3.2.3.1 Dependent Variable Inputs

- **GDP growth rate per capita ('gdpgpc'):** Defined as a measure of the rate at which an economy is growing (i.e. the economic output). The rate is measured by comparing one period of a country's gross domestic product per capita to the previous period, e.g. quarterly or annual growth. GDP per capita measures the total output of a country in a manner that takes GDP and divides it by the number of people in that country. Using the measure GDP per capita is useful when comparing one country to another because the measure reflects the relative performance of the countries (Amedeo, 2019).

3.2.3.2 Independent Variables

- **Revealed Comparative Advantage Indices**

  Revealed Comparative Advantage ('RCA'): This variable is defined as the ability and authority of a country to manufacture and export cheaper and higher quality commodities to other countries or the ability to produce cheaper and higher quality commodities in the target markets (Yusefzadeh, Rezapour, Lotfi, Azar, Nabilo, Gorji, Hadian, Shahidisadeghi & Karami, 2015). However, according to Utkulu & Seymen (2004), the definition of RCA has been revised and modified to the extent that an excessive number of measures now exist. The measure used for the purposes of the study is the share of financial services exports relative to total goods and services exports.

  The RCA index (explanatory variable) was based on the original index followed by Balassa (1965). The index is based on observed trade patterns and measures the country's exports of a particular service, in this case financial services, relative to the sum of its total exports which include all goods and services and the corresponding exports of all countries in world. Comparative advantage is revealed where the RCA index is greater than 1 (RCA > 1). Having an RCA ratio greater than 1 reveals that competitiveness exists, whereas when the ratio is less than 1, there is no comparative advantage, thus no competitiveness that that country benefits from. RCA therefore ranges between 0 and 1. Since it is expected that the majority of African countries do not have an RCA index greater than 1, considering their 'developing' status and natural endowment structures, this study does not limit the test to countries which were found to have a revealed comparative advantage, where the RCA indices are greater than 1. Even countries with an RCA of less than 1 (i.e. who do not have a comparative advantage) were included in the sample where the relationship between RCA and GDP growth was determined. Revealed comparative advantage was therefore calculated as:

  $$RCA = (Xij/Xit)/(Xnj/Xnt)$$

  Where: *X = exports, i = particular country*, *j = financial services export*, *t = set of all exports (goods and services)*, *n = set of countries in the world*

  As a way of reinforcing the existence of revealed comparative advantage a country has in the trade of financial services, an additional measure of RCA was analysed. The RCA index is referred to as RCA2 and is used to measure a country's share of financial services exports relative to services export only (thus removing goods from the equation) as opposed to all

exports. In order to provide some insights into the national structure of services exports, a country can determine whether they have a comparative advantage for a particular service over another country by taking their export share in that service to that of all services exports and dividing it by the corresponding figure for all the other countries (Seyoum, 2007). Fundamental differences regarding the relationship between the two RCA indices and economic growth are not expected. Comparative advantage is revealed if RCA 2 is greater than 1 (RCA 2 >1).

$$\text{RCA 2} = (Xij/Xis)/(Xnj/Xns)$$

Where:

s = set of service exports (all services)

X = exports

i = country

j = financial services

t = set of all exports

n = set of countries in the world

Since the revealed comparative advantage measure is premised primarily on export-related trade of financial services, for the purposes of determining RCA, Economy Watch's definition of 'export-trade' is used, which defines export-trade as a process which entails the transfer of goods and services from a home country to foreign customers and considers export-trade as the primary source of foreign exchange for a country.

Financial services are further defined using the definition assigned in the Balance of Payment (BOP) Yearbook, published the International Monetary Fund (IMF). The IMF defines financial services as: "financial intermediary and auxiliary services, except insurance and pension fund services. The services include those usually provided by banks and other financial corporations. They include deposit taking and lending, letters of credit, credit card services, commissions and charges related to financial leasing, factoring, underwriting, and clearing of payments. Also included are financial advisory services, custody of financial assets or bullion, financial asset management, monitoring services, liquidity provision services, risk assumption services other than insurance, merger and acquisition services, credit rating services, stock exchange services, and trust services". For the purposes of this study, we expand on the IMF definition of financial services to include

insurance, this aligns with the definition to the data used from the World Bank database, which includes insurance. The variables to follow are defined mainly in line with the World Bank's[6] definition of government expenditure, gross fixed capital formation, trade, inflation and broad money supply.

- **Government Expenditure ('GEXP'):** Relates to general government final consumption expenditure (formerly referred to as general government consumption) and includes all government expenditure on the purchases of goods and services (including employee salaries and wages). It also includes expenditures towards the national defence and security forces but excludes military expenditures that form part of government's gross capital formation .
- **Gross fixed capital formation ('GFCF'):** Gross fixed capital formation (formerly gross domestic fixed investment) includes improvements to land (fences, ditches, drains, and so on); plant, machinery, and equipment purchases; and the construction of roads, railways, schools, offices, hospitals, private residential dwellings, and commercial and industrial buildings. Capital formation also considers net acquisitions of valuables. GFCF is called "gross" because the measure does not account for deductions related to the consumption of fixed capital (e.g. depreciation of fixed assets) from the total investment figures. GFCF therefore does not represent net investment as it only considers fixed assets and excludes other assets such as financial assets and inventory.
- **Trade:** Trade is defined as the activity involving the buying, selling or exchange of goods or services between people, firms or countries (Collins Dictionary, n.d). In this study, the variable 'trade' is derived by the sum of exports and imports of goods and services measured as a share of gross domestic product, as used by World Bank.
- **Inflation ('INF'):** Inflation is measured using the consumer price index (CPI), which is a variable that reflects the annual percentage increase in price/cost of acquiring a basket of goods and services by an average consumer, that may be fixed or changed at specific intervals, such as quarterly or yearly. This results in a diminished purchasing value of money. A study conducted by Akinsola and Odhiambo (2017) finds that the impact of inflation on economic growth varies per country over time. When balancing

[6] Definitions of variables are defined using the World Bank's definitions from the World Bank database. Which can be found using the following link: https://data.worldbank.org/

the literature, their study finds that there is overwhelmingly more evidence proving the existence of a negative relationship between inflation and growth, especially pertaining to developed economies and that the inflation-growth relationship can also be impacted by other macroeconomic variables, those variables being associated with fiscal and monetary policy.

- **Broad money supply ('M2'):** The definition as provided by the World Bank is applied, and it defines broad money as the sum of currency outside of banks; demand deposits; the time, savings, and foreign currency deposits of resident sectors (excluding the central government); bank and traveller's cheques; and other securities such as certificates of deposit and commercial paper. In broad terms, broad money supply refers to the total amount of money in circulation or existence in a country. Economists have differing opinions when it comes to the effect of money supply on economic growth (Ogunmuyiwa & Francis, 2010). Ogunmuyiwa and Francis found that even though there was a positive relationship between money supply and growth, the result is however insignificant when it comes to choosing between contractionary and expansionary money supply. In addition to the Ogunmuyiwa's study, when testing the impact of monetary and fiscal policies on Ethiopia's economic growth, Tadesse and Maleku (2019) found empirical evidence that suggests that both monetary and fiscal policy (i.e. money supply) have an equal statistically significant and positive impact on economic growth. The test made use of broad money supply (m2) as a proxy for monetary and fiscal policies.

Table 2 below shows our expected outcomes in terms of the impact each independent variable would have on the dependent variable, being GDP per capita. The symbols used represent the following: (+) represents a positive relationship while (-) represents a negative relationship.

Table 2: Expected outcomes of the Independent Variables

Variable	Symbol	Expectation
Dependent variables		
GDP growth per capita	GDPPC	
Independent variables		
RCA1	LOGRCA1	+
RCA2	LOGRCA2	+
Government expenditure	GEXP	+
Gross capital fixed formation	GFCF	+
Trade	TRADE	+
Inflation	INF	-

Money Supply	M2	+

3.2.4 Estimation Technique

3.2.4.1. Fixed Effect, Random Effect and Generalised Model of Moments

The fixed effect and random effect estimation models are designed to eliminate variable bias by measuring variations within a group (Torres-Reyna, 2007). In order to determine the appropriateness of either the fixed effect model ('FE') or random effect model ('RE'), one needs to conclude on whether the individual effect (error term) is in and of itself fixed or random. The main differences between the two effects is whether the unobserved individual effects, i.e. error term, embody elements that are correlated with the regressors in the model (Nthaga, 2018). Where one finds that a correlation exists between the omitted variable and the independent variables, the fixed effects model becomes more appropriate as it provides the means of controlling for the unobserved variables, i.e. omitted effects.

Each study will therefore give us a different effect size, while each size is an estimate of a common mean, implying that, in instances where different countries are as used a sample, the only difference is the sampling variation associated with using the specific countries as samples. Using FE allows us to assume that the same methodology and procedures were followed by the previous studies, and therefore the only difference is that the sample used in this study, being developing African countries, results in a single sampling error. In order to cater for the fixed effect and level of heterogeneity that exists for each country, a dummy variable for each country is effectively incorporated into the regression and in this way will be controlling for heterogeneity across countries.

In a fixed effects model, the subject being tested – in this case each African country – serves as its own control, since the model broadly suggests that whatever effects the omitted variables have on the subject at one point in time, they will also have the same effects at a later point in time, thus resulting in a 'fixed' or 'constant' effect. For this to hold true however, the omitted variables must both have a time-invariant value and time-invariant effect (Williams, 2018). With regard to African countries, we believe that the unobserved effects have variables with time-invariant values such as interest rates and foreign currency exchange rates that although one could argue fluctuate periodically, they on average remain relatively consistent over time and are arbitrarily correlated with the independent variables. The unobserved variables' effect can therefore be assumed to be consistent.

Therefore, if there are unobserved variables and they are correlated, by fixing the variables, the fixed effects model takes into account the unobserved heterogeneity and addresses the omitted variable bias problem that would otherwise render the regression model unreliable.
On the contrary, the random effect model is appropriate when there are no omitted variables, where one determines that the omitted variables are uncorrelated with the independent variables. The use of the model results firstly in unbiased estimates of the coefficients being produced, secondly in the use of all the data that is available and thirdly producing the smallest standard error.

The Hausman test for endogeneity has been used to decide to decide on the appropriate model between random effects and fixed effects (Greene, 2003; Gujarati, 2004). The term 'endogeneity' refers to situations in which an explanatory variable is correlated with the error term. The test aims to reject the null hypothesis, whereby the null hypothesis states that there is no correlation that exists between the explanatory variable and the unobserved factors, thus suggesting that the differences in the coefficients obtained from the random effects and the fixed effects are not systematic. By rejecting the null hypothesis, the alternative is accepted, which implies that there is a correlation between the error term and the explanatory variables, thus resulting in fixed effects. As such the differences between the fixed and random effects estimators are systemic and significant.

A dynamic specification of equation 1 presented in equation 4 was also estimated.

$$gdppc_{i,t} = \beta_0 + \beta_1 gdppc_{i,t-1} + \beta_2 rca_{i,t} + \beta_3 gexp_{i,t} + \beta_4 gfcf_{i,t} + \beta_5 trade_{i,t} + \beta_6 infl_{i,t} + \beta_7 m2_{i,t} + \varepsilon_{i,t} \quad \ldots\ldots\ldots\ldots 4$$

Where all variables are as define before and $gdppc_{i,t-1}$ denotes the lag of the dependent variable. The equation was estimated using the system Generalised Method of Moments (system-GMM), which serves as a generic method for estimating parameters (mean and variance) in statistical methods and uses moment conditions that are functions of the model parameters and the data, such that their expectation is zero at the parameter's true value (Adeleye, Osabuohien, & Bowale, 2017). GMM also functions as a dynamic panel data estimator and controls for the following factors: (a) Endogeneity of the dependent variable in a dynamic panel model, where there is no correlation between the explanatory variable and the

error term in a model; (b) Omitted variable bias and; (c) Unobservable panel heterogeneity; and (d) Measurement errors in data

GMM specifies that the following needs to apply for the model to be applied:

1. N (number of cross-sections or groups) > T (time span). The number of cross sections in this study equates to 53 which is more than the 10-year time horizon.
2. Uses instrumental variable (IV) estimation. Due to the lack of feasibility in conducting a fully controlled experiment, the method of instrumental variable (IV) is appropriate in estimating the causal relationship between financialisation and economic growth.
3. The instrument (Z) must be exogenous, $E(Z'u) = 0$.
4. And the number of instruments (Z) must be lower or equal (≤) to the number of groups (*N)* in the panel.

Under system-GMM, we test for autocorrelation (also known as serial correlation) of the error term. The null hypothesis assumes that the differenced error term is not second-order serially correlated and failure to reject the null hypothesis implies that there is no second-order serial correlation (Adeleye, 2017), which means that the original error term is serially uncorrelated, and the moment conditions (i.e. instruments) are correctly specified (where AR (2) >0.5) (Arellano and Bond 1991; Arellano and Bover 1995; Blundell and Bond 1998; Osabuohien, Efobi and Gitau 2015 as cited by Adeleye (2017)).

We further apply the Sargan test to statistically test over-identifying restrictions in a statistical model. The null hypothesis is used to test the validity of the instruments used in the model and failure to reject the null hypothesis provides support to the choice of instruments and provides comfort that they are appropriate for the model (Arellano and Bond 1991; Arellano and Bover 1995; Blundell and Bond 1998; Osabuohien, Efobi and Gitau 2015 as cited by Adeleye (2017)).

CHAPTER 4

DISCUSSION OF FINDINGS

4.1 Introduction

Chapter 4 focuses on presenting the regression results of the data analysis as described in Chapter 3. In addition to the results, the chapter presents the statistical properties of the data used as well as three diagnostics tests performed. The findings presented in this chapter inform the basis on which the conclusions and recommendations in Chapter 5 are made.

4.2 Descriptive Statistics

Table 3 illustrates the descriptive statistics of the dependent and independent variables used in the regression model. Due to the lack of complete data being submitted by the countries to the World Bank, only 36 of the 53 African countries had sufficient data to warrant inclusion in the sample for the purposes of analysing the descriptive statistics.

Table 3: Descriptive Statistics

Stats	Mean	Sd	Min	Max	N
GDPPC (US$)	2,061.673	2,234.591	214.1393	10,199.48	360
RCA1	0.2927594	0.3190366	0.0001	2.1173	360
RCA2	0.3971308	0.5280155	0.000	4.0953	360
GEXP(US$' mln)	7,530	14,200	72.8	82,700	342
GFCF (US$' bln)	12.5	20.8	66.3	97.4	351
TRADE (%)	70.45785	26.18689	19.1008	161.8937	355
INF (%)	6.90678	6.888611	-30.85616	44.35669	346
M2 (%)	41.29221	25.84044	8.482531	119.3549	346

Note: lgdppc = GDP per capita income; RCA1 = Revealed comparative advantage reflecting the share of financial services exports relative to total goods and services exports; RCA2 = Revealed comparative advantage reflecting the share of financial services exports relative to total services exports; gexp = government expenditure; gfcf = gross fixed capital formation, inf = inflation, m2 = broad money supply.

Over the study period, the average revealed comparative advantages for all countries included in the sample is 0.293 for RCA1 and 0.397 for RCA 2. The results suggest that African countries on average do not have a comparative advantage relative to the rest of the world when it comes to the exporting of financial services. This is as a result of the RCA indices not being more than 1. Having an RCA ratio which is less than 1 reveals that no competitiveness exists. As developing countries, the lack of a comparative advantage in the trading and exporting of financial services is expected, considering the dominance of foreign banks setting up branches in local African markets. However, on an individual basis, seven of the thirty-five African

countries spread across the five African regions, revealed a comparative advantage, with Kenya at the helm at 1.14. A study conducted by Kenya Bankers Association looking at the determinants of Banks Expansion in the East African Community ("EAC"), focusing on Kenyan Banks found that, due to the deepening of regional integration, there has been a considerable increase in cross-border banking, with recent statistics showing that a total of 282 subsidiaries of Kenyan banks were hosted within the region, spread out as follows: Uganda had 124 branches, Tanzania 70 branches, Rwanda 52 branches, Burundi 5 branches and South Sudan 31 branches. By contrast, except for Bank of Kigali who only established a representative office in Nairobi in February 2013, all the other EAC members had no presence in Kenya (Njoroge & Ouma, 2014). When it comes to RCA 2, seven countries revealed a comparative advantage with the Kingdom of Eswatini revealing the highest comparative advantage in financial services relative to total services exported at 1.84.

Our data shows that GDP per capita income on average sits at US$ 2061.67 with the minimum and maximum ranging between US$ 214.14 and US$ 10,199.48, respectively. Burundi and Mauritius made up the lower and higher end of the range, respectively. Although Africa's economic growth has remained consistent over the years, it has had an insignificant impact on the livelihoods of African people (Oluwatayo & Ojo, 2018). Oluwatayo and Ojo, found that in fact 50% (27 out of 54) of the African countries are reported to have a GDP of less than US$ 2000 per capita. The low rate shows that almost half of the African economies are at the lowest of the three stages of development as described by the World Economic Forum (WEF), with the medium stage having GDP per capita which is within the range US$ 3000 to US$ 9000, and the highest stage having GDP per capita income which is greater than US$ 17000. No African country qualified for the highest stage, including Mauritius, which represented the higher end of the range in our sample (i.e. US$ 10,199.48). The lower end of the range is Burundi (US$ 214.14), which has an economy that is very heavily reliant on the agricultural sector. The sector employs 80% of the population, while only generating 40% of GDP, which means most of the Burundian population lives in poverty and mainly in rural areas. Agriculture often requires minimal skills and is known to pay low wages. According to the World Bank, the level of food security in Burundi is almost twice as high as the average for Sub-Saharan Africa. Unlike Burundi, Mauritius is witnessing a growing trend in their GDP which was 3.7% in 2018, driven primarily by the construction and services sectors (tourism, banking, ICT). There is currently an ongoing structural transformation trend, resulting in the expansion of

more knowledge-intensive modern services sectors, while the traditionally low-skilled employment sectors such as manufacturing, and agriculture are stagnating or even contracting.

Government expenditure ranges from US$ 72.8 million to US$ 82,700 million, with an average of US$ 7,530 million. Government expenditure is influenced by each country's fiscal policy and depends on a number of factors which include but are not limited to revenue collection, borrowings, overseas development assistance ("ODA"). The lowest government spending is found in Guinea-Bissau. As one of the world's poorest countries, Guinea-Bissau has a population of only 1.8 million, and so a comparison to a country the size of South Africa or Nigeria would not be justified. A lower nominal amount of government spending is therefore expected considering its history of political and institutional fragility dating back to its independence from Portugal in 1974. Although not the largest in terms of population size, South Africa had approximately 11 times the highest government expenditure of all countries. Data from the Economist Intelligence Unit ("EIU") shows that at the end of 2018, general government expenditure was 30.3% of GDP while general government revenue stood at 25.8%. resulting in a fiscal deficit of 4.7%. One could, however, argue that a country such as South Africa, regarded as one of the most unequal countries in the world as supported by a Gini coefficient of 0.63, and the last to obtain independence on the African continent, is justified to have the current levels of government expenditure. Even with the inequality, South Africa remains one of the most advanced economies in Africa (Odhiambo, 2015) with the most liquid and advanced financial services sector.

Gross fixed capital formation (gfcf) for the African countries was at an average of US$ 12.5 billion and ranged between US$ 66.3 billion and US$ 97.4 billion. Gfcf represents a component of the expenditure on GDP (i.e. net investment in fixed assets), it therefore comes as no surprise that Algeria, which had the highest gross fixed investments (i.e. close to 8 times the average), is one of a handful of countries in the world which have managed to reduce poverty by 20% over the past decade. Algeria's economy is dominated by its export trade in petroleum and natural gas, which contribute close to a third of GDP, notwithstanding the high reliance on hydro gas and sensitivity to global oil and gas prices, growth in the non-hydrocarbon sector, which makes up 47% of GDP as reported by the World Bank was achieved mainly in the following industries: commercial services (i.e. finance, business and insurance), construction, industrial, and public works. Similar to the results noted with government expenditure, Guinea-Bissau had the lowest gross fixed capital formation.

Trade, represented as a percentage of GDP, was on average found to be 70.46%, with the minimum and maximum at 19% and 161.89% respectively. Lesotho had the highest trade relative to GDP of 161.89% in 2008, which is more than double the average of the other countries. As a landlocked country surrounded by South Africa, Lesotho imports close to 84% of their goods and services, with 88% of those imported from South Africa. Trade therefore makes up a significant component of their economic structure as evidenced by the country's reliance on the revenues earned from the Southern African Customs Union ("SACU"), which constituted 37% revenue in the 2018/2019 financial year (Government of Lesotho, 2019). Lesotho, with a population size of 2 million, relies heavily on the textile (41%) and the diamond sectors (39.8%) and is therefore sensitive to diamond prices and competition from international textile markets such as China.

Inflation averaged 6.9% and ranged between -30.856% and 44.357%. Inflation is driven by several factors which include a rise in prices due to an increase in demand, which is influenced by monetary policy in the form of public spending that can be inflationary or by increasing cost pressures, driven by increases in wages or the prices of raw materials. As some countries like Ethiopia experienced inflation rising to the level of 44.4%, others such as Tunisia experienced deflation of up to 30.856%. Ethiopia continues to struggle with severe food shortages (in particularly wheat, sugar and edible oil) caused by extreme weather conditions that resulted in drought and floods. As the fastest growing economy in the region, construction and services accounted for most of Ethiopia's growth, while the contribution made by agriculture and mining continues to decline. The demand side growth was brought about by public investment and private consumption, with public investment playing an increasingly important role, according to the World Bank, contributing to the inflationary pressures. Contrary to Ethiopia, the lower end of the range represents Tunisia, who experienced deflation of up to 30.86% in 2010, the year of the Arab Spring. The country was overcome by political instability, which translated into social and economic instability.

Broad money supply averaged 41.292% and ranged between 8.48% and 119.355% as a percentage of GDP. Monetary policies are expected to be different per country, and the choice of whether the policy should be expansionary or contractionary is made by the relevant monetary authorities. The central banks would either control interest rates or money supply, often using the interest rates to target inflation and to ensure price stability. With inflation at

a rate as low as 0.6%, Morocco is said to have a sound monetary policy in place. Even with slowing economic growth and socio-political tensions, the country continues to maintain a stable economy. Contrary to Morocco, the lowest money supply is found to be with the Democratic Republic of Congo ("DRC"). The DRC is known to have had a very fragile political landscape, high corruption and bureaucratic inefficiency, which have over time prevented developmental progress (EIU, n.d.), It is therefore expected that the money supply would be the lowest, as evidenced by the high inflation levels, which were reported at 24.4% in the year 2017 and 16.4% in 2018.

4.3 Revealed Comparative Advantage at a Country and Regional Level

In order to gain additional insights on the results, we further summarised the data set and identified the countries found to have had a comparative advantage within the 10-year horizon. Table 4 shows the RCA indices (RCA1 and RCA2) of the countries, their geographic region, the year in which they had a comparative advantage as well as their ranking in terms of their Financial Market Development as per the Global Competitive Index (ranked out of 137 countries).

Table 4: Revealed Comparative Advantage

No.	Country	Region	No. of years	Year(s)	Global Competitive Index Ranking
RCA1					
1	Kenya	East Africa	7	2011 - 2017	91
2	Burkina Faso	West Africa	4	2011 – 2013, 2015	Not ranked
3	Mauritius	East Africa	3	2010, 2011, 2013	45
4	Zambia	Southern Africa	1	2011	118
5	Benin	West Africa	1	2011	120
6	Eswatini	Southern Africa	1	2017	122
7	Cameroon	Central Africa	1	2017	116
RCA2					
1	Eswatini	Southern Africa	8	2009 -2014, 2016 - 2017	122
2	Malawi	East Africa	8	2010 – 2017	132
3	Burkina Faso	West Africa	7	2011 – 2017	Not ranked
4	Guinea	West Africa	6	2009, 2011, 2013, 2015- 2017	119
5	Kenya	East Africa	2	2016 - 2017	91
6	Zambia	Southern Africa	1	2011	118
7	The DRC	Central Africa	1	2008	126

From Table 4.1, it can be observed that Africa's largest economies, being South Africa, Egypt and Nigeria, have not had a comparative advantage within the 10-year period, both in terms of RCA1 and RCA2 (none of the three countries appear in the Top 7). The three countries were ranked 61, 100 and 125 respectively in the Global Competitive Index Ranking, when it comes to Financial Market Development during the 2017/2018 period. This suggests that the size of an economy and how developed the financial markets are does not automatically mean that that country has a comparative advantage when it comes to financial services. Financial Market Development, as used in the Global Competitive index, takes into account the following factors: (i) Efficiency; (ii) Availability of financial services; (iii) Affordability of financial services, (iv) Financing through local equity markets, (v) Ease of access to loans, (vi) Venture Capital availability; and lastly, (vii) Trustworthiness and confidence. Arguably, in deciding on a final ranking, the index takes into consideration both costs (through efficiency and affordability of financial services) as well as diversification, represented by the remaining five factors. In the case of this study, efficiency is an important consideration as it drives costs, which in turn influence comparative advantage. As shown by Adeyeye et al. (2015) economies suffer where their financial sectors are not efficient, and efficiency can only exist when development in that sector takes place.

The poor rankings achieved by African countries reflect the lack of competitiveness, development and diversification in the financial markets which is explains why the majority of them failed to reveal a comparative advantage. A study by Seyoum (2009) looking into the revealed comparative advantage and competitiveness in services in developing countries, found that many developing countries displayed strong comparative advantages in transport, and travel services, whereas there is still significant room for improvement in financial and business services. However, over the years, these countries have witnessed a weakening in comparative advantages due to the effects of trade liberalisation.

Additionally, we also find that more than half of the countries that have achieved an RCA1 of more than 1, have also achieved an RCA2 index of more than 1. Those countries were Kenya, Eswatini, Burkina Faso and Zambia. This indicates to us that their revealed comparative advantage in financial services is relatively dominant, because even without incorporating goods exported as well as the underlying services embodied in those goods (as done in RCA1), comparative advantage continues to exist.

Lastly, when it comes to geographic location, the East African region had more countries with a comparative advantage as compared to the rest of the other African regions. This is evidenced by the fact that although only 8 out of the 36 countries were from East Africa (22%), 50% of the 8 had some form of comparative advantage (either RCA1, RCA2 or both). Although still on a diversification path, the African Development Bank (AfDB) (2016) confirmed East Africa to be the best sub-regional economic performer with a 5.3% real GDP growth average, which was approximately 2.5 times more than the continent's average, driven mainly by strong performance in Ethiopia, Tanzania and Djibouti. All three of these countries did not show any form of comparative advantage when it comes to financial services, their growth in GDP could have benefited from countries who had revealed comparative advantages such as Kenya, who, from their close proximity, could provide cross-border financial services which benefited the their economies as recipient countries, and not necessarily that of Kenya.

4.4 Correlation Analysis

'Multicollinearity' is defined as the existence of a perfect or exact linear relationship among some or all explanatory variables of the regression model. Multicollinearity therefore represents a type of disturbance in the data (Gujarati, 2004), the presence of which may result in the statistical inferences made about the data that are not reliable. When multicollinearity exists, the Ordinary Least Square (OLS) estimators have high variance and co-variance, which lead to wider confidence intervals and the failure to reject the null hypothesis. In making use of the classical linear regression model, we shall assume that there is no multicollinearity among the regressors included in the model (Gujarati, 2004).

Based on the correlation matrix results, there is a perfect relationship between each individual variable and itself. This is indicated by the 1's that are shown diagonally in the matrix. The analysis further shows that there exists no perfect multicollinearity amongst the variables (i.e. the result is not 1 between the different variables), thus there is no perfect linear relationship among the explanatory variables.

Table 5: Correlation Results

	GDPPC	RCA1	RCA2	GEXP	GFCF	TRADE	INF	M2
GDPPC	1.000							
RCA1	0.106	1.000						
	(0.045)							
RCA2	0.080	0.529	1.000					
	(0.129)	(0.000)						
GEXP	0.509	0.016	0.004	1.000				
	(0.000)	(0.776)	(0.943)					
GFCF	0.440	-0.035	-0.080	**0.956**	1.000			
	(0.000)	(0.515)	(0.134)	(0.000)				
TRADE	0.363	-0.055	0.072	-0.204	-0.258	1.000		
	(0.000)	(0.301)	(0.178)	(0.000)	(0.000)			
INF	-0.128	-0.079	0.030	0.090	0.124	-0.223	1.000	
	(0.017)	(0.143)	(0.573)	(0.104)	(0.023)	(0.000)		
M2	0.634	0.163	-0.119	0.323	0.278	0.320	-0.239	1.000
	(0.000)	(0.002)	(0.026)	(0.000)	(0.000)	(0.000)	(0.000)	

Note: lgdppc = GDP per capita income; RCA1 = Revealed comparative advantage reflecting the share of financial services exports relative to total goods and services exports; RCA2 = Revealed comparative advantage reflecting the share of financial services exports relative to total services exports; gexp = government expenditure; gfcf = gross fixed capital formation, inf = inflation, m2 = broad money supply. The values in parenthesis represent p-values of the coefficients

The results further go on to show that there is low correlation between GDP per capita and RCA1 at a 5% level of significance, while there is no significant correlation between GDP per capita and RCA 2. Low correlation is further noted between GDP per capita and the standard growth variables, being trade, government expenditure (GEXP), gross fixed capital formation (GFCF), broad money supply (M2) and inflation, the only variable with a negative relationship with GDP per capita.

Relatively low collinearity exists between the two revealed comparative advantage indices (RCA1 & RCA2). There is, however, high collinearity that exists between Gross fixed capital formation (GFCF) and government expenditure (GEXP) at 0.9559. In instances where a multicollinearity exists, it is regarded as more appropriate to drop one of the variables where high collinearity is noted from the model. We regard the two variables, gross fixed capital formation and government expenditure, as two different variables, one representing net investments (i.e. investment or the acquisition of produced assets minus disposals) and the other broadly representing government purchasing goods and services. Although not the same, the two variables are highly correlated as a result of one variable being a product of the other. The investments made in produced assets as measured by gross fixed capital formation include new and/or existing fixed assets purchased by governments, the business sector and households

(including their unincorporated enterprises). For the purposes of controlling for the high collinearity between the two variables, we run two separate regression analyses for each proxy of financial services diversification (being the RCA1 and RCA2). Model 1 controls for government expenditure (GEXP) while Model 2 controls for gross fixed capital formation (GFCF).

4.5 Regression Results

The results of fixed effects (FEM) and system GMM regression estimations are presented in Table 6. Two models are estimated, with Model 1 including government expenditure without gross fixed capital formation while Model 2 includes gross fixed capital formation without government expenditure. Across all the static model estimations, the Hausman test rejects the null hypothesis (H_0) of Random effects at 1% level of significance. As a result, the alternative hypothesis (Ha), which communicates the evidence of fixed effects is accepted, therefore making the RE model inappropriate. In using the FE model, we assume that the effect size in our analysis differs only from other tests trying to achieve the same research objective because of sampling error and secondly that the samples selected share a common mean (Borenstein, Hedges, Higgins, & Rothstein, 2010).

The R-squared which reflects the variation in the dependent variable (i.e. GDP per capita), explained by the variation in the independent variables in a regression model, indicates that of 33.74% and 33.64% of GDP per capita is accounted for in Model 1 (for RCA1 and RCA2 respectively). For Model 2, which controls for gross fixed capital formation (GFCF) shows an R-squared of 37.79% for RCA1 and 38.02% for RCA2. The results suggest that controlling for gross fixed capital formation strengthens the power that the independent variables have in explaining the variations in the dependent variable. The results additionally reflect that although RCA1 has greater explanatory power when we control for government expenditure, RCA2 has greater explanatory power when we control for gross fixed capital formation. This therefore suggests that government expenditure has a greater impact on the export of both goods and services, when compared to gross fixed capital formation; whereas gross fixed capital formation has a greater impact on the export of services rather than on both goods and services.

We regard the results of the GMM model as reflecting more precise estimates of the coefficients due to the model's dynamism and the fact that it assumes arbitrary distributed fixed effects, among other assumptions.

As can be seen in the regression results, under both models controlling for government expenditure and gross fixed capital formation, the p-values of AR (2) of 0.2031(RCA1, Model 1) and 0.224 (RCA2, Model 1), and 0.2134 (RCA1, Model 2) and 0.2323 (RCA2, Model 2) are all more than 0.05. This therefore means we cannot reject the null hypothesis, and therefore there is no second-order serial correlations between the instruments and the error term.
The results of the Sargan test under the GMM model show that the null hypothesis cannot be rejected, as the p-values for RCA1 and RCA2 of 0.1389 and 0.1448 and 0.1408 and 0.1687 for both models controlling for government expenditure and gross fixed capital formation respectively, are more than 0.05. This therefore suggests that the instruments as a group, are exogenous, making them valid for use in the model.

A negative coefficient is observed for RCA under both the FEM and system estimations, with significance only observed for RCA (under the GMM) at 5%. This relationship is maintained irrespective of whether we control for government expenditure (GEXP, Model 1) or gross fixed capital formation (GFCF, Model 2). The negative coefficient for RCA, which serves as a proxy for financialisation, suggests that higher levels of financial services diversification is associated with lower growth which is inconsistent with our expectations.

The negative relationship between RCA1 and economic growth can be explained by a number of factors. First that the profits made by banking and non-banking financial institutions (NBFIs) do not necessarily translate into investments made into the real economy. This is mainly driven by the argument made by Tori & Onaran (2018) that financial services sector prioritises capital accumulation for the purposes of creating shareholder value and therefore capital is distributed amongst shareholders as dividends and not as capital investments or credit being extended into other industries.

Table 6: Regression Results

Dependent variable: LGDPPC								
	Model 1				Model 2			
	Fixed Effects		GMM		Fixed Effects		GMM	
	(RCA1) Coef.	*(RCA2) Coef.*	*(RCA1) Coef.*	*(RCA2) Coef.*	*(RCA1) Coef.*	*(RCA2) Coef.*	*(RCA1) Coef.*	*(RCA2) Coef.*
Constant	3.882***	3.863***	-0.156	-0.197**	3.954***	3.947***	-0.15**	-0.196***
LGDPPCL1.			0.981***	0.987***			0.97***	0.972***
LRC1	-0.004		-0.007**		0.002		-0.01**	
LRC2		-0.002		-0.004		0.006		-0.003
LGEXP	0.153***	0.154***	0.010***	0.010***				
LGFCF					0.145***	0.146***	0.014***	0.015***
TRADE	-0.001	-0.001	0.001***	0.001***	-0.001*	-0.001*	0.001***	0.001***
INF	0.001	0.001	0.000	0.000	0.001	0.001	-0.0004	-0.0004
M2	0.002*	0.002*	0.000	0.000	0.004***	0.004***	0.0001	-0.0001
F/Wald	7.32***	7.39***	12436.8***	11931.19***	19.79***	23.83***	48499.19***	40511.55***
R-squared	0.3374	0.3364			0.3779	0.3802		
Hettest χ^2	4.59**	4.54**			3.9**	4.32**		
AR(1): F	60.62***	64.395***			73.92***	79.084***		
Hausman	43.876***	44.335***			39.896***	41.198***		
AR(1): z			-2.1392	-2.1544			-2.2117	-2.211
prob > z			0.0324	0.0312			0.027	0.027
AR(2): z			-1.2726	-1.2161			-1.2443	-1.1944
prob > z			0.2031	0.224			0.2134	0.2323
Sargan χ^2			20.93653	20.75561			20.876	20.086
prob > χ^2			0.1389	0.1448			0.1408	0.1687
Instruments			22	22			22	22
Countries	34	34	34	34	34	34	34	34
Observations	316	316	286	286	325	325	293	293

*Note: lgdppc = Natural logarithm of GDP per capita income; RCA1 = Revealed comparative advantage relating to financial services exports as a percentage of total exports; RCA2 = Revealed comparative advantage relating to financial services as a percentage of total services exports; lgovexp = Natural logarithm of government expenditure; lgfcf = Natural logarithm of gross fixed capital formation, inf = inflation, m2 = broad money supply; ***, ** & * denotes significance at 1%, 5% and 10% respectively.*

Secondly, we point to the fact that competitive advantage is achieved either through cost (comparative advantage), differentiation (differential advantage) or both. The focus of this study is on comparative advantage, making the cost advantage an important factor for consideration. The absence of a comparative advantage for the majority of the African countries suggests that the cost of doing business and exporting financial services is still too high relative to other countries in the world. Since most of the developed markets financial institutions benefit from advanced technologies, economies of scale and cheaper funding costs (derived from retail deposits, equity and/or bond issuances), this explains why one would find so many international banking institutions, the likes of JPMorgan Chase & Co, International Bank of China (ICBC), Standard Chartered and HSBC setting up branches or acquiring banks in African markets.

A study on Kenyan banks by Njoroge and Ouma (2014) found that large, profitable and more efficient banks have had competitive advantage that allows them to expand into the East African Community (EAC) region, with efficiency and size being important factors. It is known that most of the foreign institutions (usually corporate and investment banks) are profit-seeking and are less motivated to contribute to the host economies. The payment of 'head-office' costs to their holding companies in addition to substantial dividends paid to foreign parent companies and investors, results in financial resources being remitted out of the host countries, putting strain on the already stretched foreign currency reserves. These institutions oftentimes come with their own experienced staff contingent (in the form of consultants), who earn more than the general population, and thus, limiting the positive impact that they can have in reducing unemployment.

A further argument has to do with the fact that most financial services that are exported by African countries would be directed at other African countries (regional trading partners), particularly as banks follow their clients, who are most likely to expand to neighbouring countries first. Oftentimes the importing countries have less developed financial markets and are associated with a higher degree of risk, be it political, social, or economic. Whether real or perceived, the high risk may translate into high non-performing loans, affecting the quality of assets of the exporting banks and have an indirect impact on the local (exporting) banking sector.

Additionally, with high non-performing loans, the exporting banks would have to raise and maintain high provisioning in order to protect themselves. In addition to the strict credit provisioning policies, adequate capital reserves have to be maintained by these banking and

NBFIs, so that they have are able to absorb any shocks that may occur and to comply with Central Bank and Basel II or III regulations. The above measures contribute to a higher cost of capital, thus indirectly diminishing profits made by these institutions. A case in point would be when the Central Bank of Nigeria (CBN) made the decision in October 2019 to raise the capital requirements for banks in Nigeria, who were already overburdened by bad loans (Kolawole & Adegbesan, 2019). The CBN believes that decision will protect the country's banking system against shocks emanating both locally and abroad, by increasing their capital adequacy and the quality of assets. Although the CBN was seeking to align their regulations to Basel III, some banks claimed that the transition would shave off as much as 200 basis points from their capital basis.

The fourth reason for the negative relationship can be attributed to the information asymmetry that exists between the exporting institutions and importing countries. Information asymmetry causes an imbalance of power in transactions[7] which can cause transactions to go wrong, mainly due to adverse selection. This could stem from the lack of accurate or complete information in the importing countries, or from failure to accurately capture all the risks associated with exporting the particular financial services, ultimately resulting in defaults and loss of income.

The fifth and final reason behind the negative relationship between RCA1 and GDP growth can be explained by barriers related to the regulatory framework affecting cross-border banking and financial services. Understandably regulatory frameworks are put in place in order to protect market participants. However, one can argue that regulation has also been used by governments as an instrument to make money and to influence monetary policy in the form of fines. Most banks that offer cross-border financial services often have a branch, a representative office or have partnered with local financial institutions in the importing countries, making them vulnerable to local regulations. Because of their role as intermediaries, banks find themselves affected by their clients' businesses. A case specific to Nigeria was when CBN fined four banks, being Standard Chartered Plc, Stanbic IBTC Plc, Citibank and Diamond Bank Plc for the role they played in helping MTN Group Limited (one of South Africa's largest telecommunications companies) repatriate $8.134 billion (Reuters, 2018).

[7]The explanation of Information asymmetry is sourced from the Lumen which can be accessed from the following link: https://courses.lumenlearning.com/boundless-economics/chapter/sources-of-inefficiency/

Lastly, the lack of adequate technological infrastructure used to facilitate and monitor financial transactions related to cross-border trading also increases the risk of being fined for non-compliance with regulations pertaining to anti-money laundering and the financing of terrorism activities. An example would be when the central bank of Mozambique, i.e. Bank of Mozambique, fined South African banks a total of R13 million for shortcomings in their anti-money laundering and terrorism financing controls. These administrative fines came as Mozambique grappled with major terrorist attacks in the northern province of Cabo Delgado that left 100 people dead (Rawoot, 2019). Therefore, as cross-border transactions increase, the financial and regulatory risk associated with them also increases, sometimes resulting in costs that affect the banks' profitability and reputation, ultimately diminishing the contributions that can be made into the exporting country's economy.

The GMM model finds that there is a negative relationship between RCA2 and economic growth; the relationship is, however, not significant. The variable measures the comparative advantage in financial services relative to total services exports, thus excluding goods. The measure was incorporated into the study with the idea of reinforcing the findings related to RCA1, and with the hopes of discovering new information. Similar to RCA1, we could deduce from the dataset that the majority of the countries do not have a comparative advantage in financial services. The absence of a significant relationship between RCA2 and economic growth differs from the expectation. The results suggest that the relationship between financial services and economic growth is heightened when goods are taken into account, rather than when only services are accounted for. This takes us back to the point raised by Hoekman et al. (2002) that since services are harder to quantify as compared to the production of goods, they are found to be embodied in other sectors across the board, therefore incorporating goods into the revealed comparative advantage calculation results in a fair representation of impact of services.

It can also be argued that since most of the African countries do not have a comparative advantage, as shown by RCA1 averaging 0.293 and RCA2 averaging 0.397, the growth in the RCA index, as progression towards achieving a comparative advantage is made, will cause a decline in GDP growth (for as long as it remains less than one, i.e. where comparative advantage is not yet attained). This is because capital investments need to be made by the financial institutions into new and advanced IT infrastructure and business processes which will drive efficiencies, sometimes at the cost of lending and investing into the economy. The

upgrading of systems at times demands that capital, whether physical, intellectual or human, be imported, thus reducing foreign currency reserves. As suggested by Mushtaq, Nazir, Bashir, Ahmed & Nadeem (2014), exports lead to a better allocation of resources, economies of scale, increase in foreign currency reserves as well as an exploitation of comparative advantage. Once the financial institutions have invested to a point where they are able to reveal a comparative advantage, then one will begin to see a positive contribution to economic growth.

We find a positive and significant relationship between government expenditure (GEXP) and economic growth. Under the fixed effects model (Model 1), none of the independent variables except for government expenditure (GEXP) have a significant relationship with economic growth. The fact that the relationship is significant confirms that government expenditure is a significant determinant of economic growth. The results corroborate the findings by Okoro (2013), who studied the impact of government spending on economic growth in Nigeria during the period 1980-2011 and found that the effect of government spending on economic growth is in the same direction. Similarly, Asghar, Azim & Rehman (2011), when studying the economic data of Pakistan from 1974 to 2008, proposed that government spending impacts on economic growth in the same direction. Linh, Nga & Phan (2019) found that, in general, economic theories do not clearly indicate the impact of government spending on economic growth, and although Keynes and Keynesian economists state that government spending boosts economic growth, he however warns that government spending should not exceed 25% of GDP because increasing the size of the expenditure will adversely affect economic growth. This study does not test for causality; however, a study by Odhiambo (2015) which looked at the causal relationship between government expenditure and economic growth in South Africa, which in this current study had the highest government expenditure, found that even though government expenditure and economic growth Granger-cause each other in the short run, economic growth is found to Granger-cause government expenditure.

Under both the fixed effects and GMM models, the results show that there is a positive and significant relationship between economic growth and gross fixed capital formation (GFCF). Similar to government expenditure, gross fixed capital formation can be assumed to be a significant determinant of GDP growth. The findings are in line with a study by Kanu and Ozurumba (2014) who, when testing the impact of capital formation on the economic growth of Nigeria, ascertained that, where in the short-run, gross fixed capital formation had no significant impact on economic growth, a positive long-run relationship between the two

variables existed. The decision by government, businesses and households to invest depends on a number of factors which include but are not limited to the economic and socio-political atmosphere and when all these factors are positive, an increase in capital accumulation is expected.

Trade is found to have a positive and significant relationship under the GMM model, irrespective of whether the model is controlled for government expenditure or gross fixed capital formation. In measuring trade, a few measures exist which include, 'balance of trade' which is calculated by subtracting imports from export and 'balance of payments' which refer to the difference in total value between payments made into and out of a country. This study makes use of 'balance of trade' as a measure and the results of a positive relationship corroborate the findings by Babalola, Mohd, Ehigiamusoe, and Onikola (2019), which looked at the impact of foreign trade in Nigeria. Babalola et al. found that foreign trade has a long-run impact on economic growth and that it has the capacity to accelerate economic growth. Possible ways in which trade can positively impact on growth include the transfer of technology and knowledge, development of physical, human and institutional capital, improved competitiveness and the possible creation of jobs in the recipient countries. These benefits can therefore contribute to boosting the productive capacities of their economies.

It is only when controlling for GFCF under the fixed effect model that a positive and significant relationship is found to exist between broad money supply (M2) and economic. The variable measures in essence the total supply of money circulating within a country. The correlation results also reflected a low, albeit positive, correlation between broad money supply (M2) and gross fixed capital formation (GFCF). There are, however, contradictory views around the relationship between money supply and economic growth. A study by Wang Yan-liang (2012) who looked into the relationship between money supply, inflation and economic growth in China, found that there was no co-integration relationship between money supply and economic growth, while also suggesting that as a condition to achieving economic growth, there needs to be a specific and appropriate level of money supply. Barro (as cited by Yan-liang, 2012) found that monetary supply growth is neutral to economic growth; while Kormendi and Meguire (1984) found that monetary supply has no impact on the economic growth. The findings of this study reflect in the contradictory views, since a positive and significant relationship is only found under one FE model and not under the GMM, in essence suggesting that the type of econometric model used influences the outcome of the relationship.

The results for four of the five standard growth variables, i.e. government expenditure, gross fixed capital formation, trade and broad money supply are in line with the expectations set in Table 1, while inflation is the only variable where no significant relationship is noted with economic growth. The findings around inflation are contrary to those of Kormendi and Meguire (1984), who found a negative and significant relationship between inflation and long-run economic growth. The robustness of their findings was, however, tested by Levine and Renelt (1992), who concluded that the relationship is sensitive to the econometric specifications. Taking all this into account, Jose De Gregorio (1992) went on to conclude that persistent inflation may reduce economic growth prospects as has happened in Latin America.

CHAPTER 5

CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

In Chapter 5 conclusions are made regarding the impact of financialisation, through revealed comparative advantage in financial services, on the economic growth trajectory of developing countries in Africa. Based on the conclusions, recommendations are offered to policymakers, regulators, academics and financial institutions while at the same time highlighting potential areas for future studies. The chapter closes by outlining the challenges encountered in carrying out the study.

5.2 Summary and Conclusion

The study examined the relationship between the indices showing revealed comparative advantage in financial services of developing African countries and economic growth, measured using GDP per capita. The study employed annual data on 34 African countries over the period 2008 to 2017. Revealed comparative advantage, which served as an alternative proxy for financialisation, was centred around measuring the share of financial services exports relative to total goods and services exports and compared each country relative to the rest of the world. The empirical literature applied in the study related primarily to financialisation, comparative advantage as well as economic growth. To the author's knowledge, this is the first empirical study that explores the relationship and impact of financial services on economic growth using revealed comparative advantage indices as a proxy for financialisation.

Over time, there has been a growing body of literature surrounding financialisation and its impact on growth, focusing primarily on financial inclusion, financial deepening, capital accumulation and access to credit. Additionally, many researchers have explored the standard drivers of economic growth such as trade (e.g. through trade openness or trade liberalisation), government spending, gross fixed capital formation, money supply and inflation. One also finds that most of the literature on competitive advantage is limited to testing whether competitiveness exists in various sectors that are not related to financial services, making the findings of this study unique, as they go beyond competitiveness to linking it to economic growth.

The results of the study show a negative significant relationship between the financialisation and economic growth. The results add to the debate around whether financialisation is good for economic growth and development and our findings therefore serve the purpose of reinforcing existing theories on financialisation.

Our contribution to literature is by corroborating the findings by Cecchetti and Kharroubi (2012), who have found that financial development is good for a country only up to a specific point, after which it becomes a drag on economic growth. They also find that a fast-growing financial sector is detrimental to aggregate productivity growth. We therefore expand on Cecchetti and Kharroubi's finding by suggesting that once financial sector development gets to a level where banking and NBFIs are large enough to export their financial services, then the financialisation process begins to be detrimental to economic growth, particularly when it is not efficient to do so. Efficiency drives costs, and until there is a reduction in the cost of doing business, comparative advantage that positively impacts economic growth will not be achieved.

The findings in this study also support Adeyeye et al.'s (2015) finding that economies suffer where their financial sectors are not efficient, and that efficiency can only exist when development in the financial services sector takes place. Following the supply-leading hypothesis, their study goes on further to state that the effect caused by financial development to economic growth is driven by the improvement in the efficiency associated with capital accumulation; an increase in the rate of savings as well as an increase in the rate of investment. A positive impact on economic growth will therefore be achieved should financial institutions move away from prioritising shareholder value over growing the economy in a manner which sees a significant share of accumulated capital being distributed as dividends; or where they are engaging in aggressive lending practices which can be detrimental to the economy.

We therefore argue that development and efficiency will be achieved by reducing the cost of exporting financial services, ultimately leading to economies of scales and a comparative advantage for more African countries, up until a point where financialisation translates into economic growth. Costs in the financial services sector are driven by high barriers to entry mainly in the form of licencing (similar to the telecommunication sector) and compliance costs; high non-performing loans (resulting from information asymmetry and adverse selection);

prudent credit provisioning policies (through mandatory implementation of the new IFRS 9[8] accounting standard) as well as high capital adequacy reserving requirements imposed by central banks and Basel I, II and III regulations or, in the case of NBFIs, regulations such as South Africa's Regulation 28 of the Pensions Funds Act[9]. Additionally, the lack of adequate infrastructure results in banking institutions being negatively affected by non-compliance to regulations aimed at anti-money laundering and combating the financing of terrorism, which often result in hefty administrative fines paid to the importing country's government.

This supports the findings of Hoekman and Francois (1999) and Warren et al. (1999) who respectively established that barriers to trade in business, consultancy and distribution are relatively lower than trading in transportation, telecommunication and finance, and that with the exception of transport, policies towards telecommunication and finance appear to be significantly more restrictive in developing countries.

Through analysing the dataset, we further find that countries such as Ethiopia, who have been found to have relatively higher GDP growth rates, do not show evidence of having revealed comparative advantage in financial services. This result therefore corroborates the negative relationship found between revealed comparative advantage and economic growth. Similarly, the dataset also revealed that countries with larger and more diversified economies such as South Africa, Nigeria and Egypt do not have a comparative advantage in financial services. This finding is in line with the findings of Palley (2008), who found that the recent era of financialisation has been associated with the growth of assets and liabilities, in ways that are not related to economic growth. If we were to apply Syrquin's (1998) definition of structural transformation, we can conclude that financialisation does not result in structural transformation, as it does not accompany economic development.

We further find that an insignificant and negative relationship exists between economic growth and the revealed comparative advantage that only takes into account financial services as a

[8] IFRS 9 is an International Financial Reporting Standard (IFRS) that has been published by the International Accounting Standards Board (IASB), which addresses the accounting for financial instruments. The standard outlines the processes, methods and criteria that should be followed, considered and taken when measuring credit risk and incurred and expected credit losses. Refer to link for more information https://www.iasplus.com/en/standards/ifrs/ifrs9

[9] Regulation 28 limits the extent to which long-term insurance funds may invest particular assets or in particular asset classes. For maximum exposure to offshore assets is limited to 30%. https://discover.sabinet.co.za/webx/access/netlaw/24_1956_pension_funds_act_24_of_1956.htm

share of total services exports and not goods exported (i.e. RCA2). The insignificance of the relationship does not reinforce the relationship between financialisation and economic growth as it was intended it would, in the study. Even though upon studying the data we found that only 50% of the countries that had a comparative advantage in financial services (where RCA was greater than 1) revealed it in both RCA 1 and RCA2.

5.3 Policy Implications

The study reveals that most African countries do not have a comparative advantage in financial services, which means regulators such as the Competition Commissions as well as the central banks need to work hand in hand with key players in the financial sectors to reduce the cost of doing business, which includes compliance costs. This will encourage new market entrants, increased competition and development in the sector. There is already a growing number of new market participants in the form of financial technology companies ('Fintechs'), that are already competing on costs.

The 2019 Rand Merchant Bank's *SA Fintech in Motion Report* (as cited by Fourie, 2020) reports that while retail banking and insurance has seen the most Fintech disruption, investment banking and capital markets are also starting to feel the winds of change. The changing dynamics will hopefully advance the comparative advantages of local banks.

The negative relationship between comparative advantage and economic growth suggests that banking and NBFIs in Africa need to have a better understanding of their cross-border trading and the impact it has on their profitability and the accumulation of foreign currency reserves. The quality and cost of providing these services need to be measured against the benefits. Management has the responsibility of ensuring that the benefits derived from cross-border business go beyond shareholder value, and that reinvestment into the real economy takes place either through increased lending or equity investments.

In order to ensure that there is a direct benefit on the economy, Government needs to pay particular attention to how cross-border financial services are taxed. With a growing number of Fintechs, mobile money transfer agencies as well as cryptocurrency service providers there needs to be a clear understanding of how these services will be taxed, without necessarily increasing the cost of doing business to a point where revenue collection becomes

counterproductive. Cross-border services serve as an import channel for collecting foreign currency reserves. The complexities which accompany these transactions may encourage tax avoidance. In the same manner, a growing number of financial institutions have set up operations in countries like Mauritius and the Cayman Islands which are regarded as tax havens and where complex offshore business transactions are structured and implemented thus allowing financial institutions to benefit from tax transfer pricing principles and VAT exemptions. The Fintech industry's contribution to Sub-Saharan Africa's economy, which stood at US$ 110 billion in 2018 is expected to increase by at least US$ 40 billion to US$ 150 billion by the year 2022 (Further Africa, 2018).

Additionally, sufficient investment needs to be made by banking and NBFIs in both soft and hard infrastructure, which will allow them to adequately monitor for transactions that may involve anti-money laundering and the financing of terrorism. The current administrative fines and sanctions imposed by the regulators can be avoided if more effort is made to ensure compliance. As increasingly more corporates expand into the African region, it is expected that banks and NBFIs will follow their clients into new territories. Therefore, the regulatory framework both in the exporting and importing countries need to be properly understood.

The impact that the financial services sector has on the economy can be severe, as seen during the Global Financial Crisis. Central banks have the responsibility to protect local industries by controlling interest rates and the foreign currency exchange rate. Banking and NBFIs, particularly the large ones, tend to be price setters and have the capacity to influence exchange rates, as has been seen in South Africa, where 17 local and international banks are accused of rigging the South African Rand (BBC, 2018). The oversight role played by regulators and the central banks become even more important, when it comes to financial services exports, as the extent of exporting is heavily reliant on the exchange rates at a point in time. Should the currency not be adequately monitored, the weakening of local currency might have a detrimental impact on local imports, thus affecting the rest of the economy.

Through cross-border trading, financial institutions are able to reap economies of scale, diversify their revenue and product base, and spread their risk. All three of these benefits will allow for a better allocation of resources and ultimately increase profitability. The deepening regional integration taking place in Africa, as advocated by the Continental Free Trade Agreement (CFTA), will require a more focused approach when it comes to trading services.

The CFTA posit that services trade will allow a more efficient use of the continent's resources in critical areas that involve road building, transportation, ICT as well as well as financial services (Area, A. C. F. T., 2016). Both Government and the private sector need to start planning around how they are going to take advantage of the expanding market, as the cost and quality of the services rendered will become important factors that drive comparative advantage. The local regulatory frameworks must better support cross-border trading so that institutions and all countries benefit equally from the capital diversification.

For a growing number of African countries, financial infrastructure exists; however, one finds the domestic markets are not liquid enough to attract capital inflows. This influences the rate at which financial development takes place, thus resulting in a slower pace of diversification into export markets. Regulators need to find better ways of ensuring greater depth, breadth and liquidity of their local markets. This will ultimately attract better capital inflows which will filter into the real economy if accompanied by stricter regulations which promote increased lending by banking institutions and capital investments by NBFIs, especially to Small, Medium and Micro-sized Enterprises ("SMMEs") and informal sectors. An example of such regulations is where the central banks request an increase to the loan to deposit ratios maintained by banks. This will have the effect of stimulating economic growth. Adequate monitoring of such ratios remains critical to avoid over-indebtedness and rising inflation, which may be counterproductive.

Diversification into the financial services sector will assist in reducing the sensitivity that most commodity exporting countries have to price instability and business cycle volatility. As Governments continue to direct investments towards the upgrading of their industrial structures and promote beneficiation, the role played by financial services should be clearly outlined by policymakers in each industry so that financial institutions do not structure financial products (i.e. through securitisations and financial securities like derivatives) that are only meant to extract profits from the real economy but include more creative alternative structures that will produce a multiplier effect into the rest of the economy. A more direct approach to problem solving is needed. An example of such measures would be where banks are mandated to create schemes that will provide structured financial support to SMMEs that are looking to export their goods and services. This support should include technical assistance, trade finance (e.g. letters of credit, guarantees, etc.) as well as global markets hedging facilities. This approach is intended to shift much of the responsibility of keeping SMMEs alive from government, towards

the private sector, a space which SMMEs are meant to be playing in. The empowering of more SMMEs will in turn result in diversification of the local economy while reducing employment, a problem a lot of African countries face.

Academics need to investigate why the services sectors has in recent years surpassed all other sectors including manufacturing and agriculture, because as the populations rise, one would expect demand in agriculture and manufactured products to rise. Instead African countries such as Ethiopia, listed as one of the fastest growing economies in the world in 2019 by the World Bank continues to experience food shortages, and find themselves as net importers of food. It is the contribution by the services and construction sectors that results in high GDP growth.

Finally, with a rising population of young, educated and unemployed people, African countries are slowly moving from the natural resource curse to the demographic dividend curse. Immediate and deliberate efforts need to be made by all economic participants, including the government, regulators, private sector as well as academia to ensure that young people are equipped with the necessary skills to take jobs that will promote structural transformation and development, mainly in the space of artificial intelligence and robotics. If not managed correctly, financialisation poses a major risk to the economy due to the rapid pace of automation that is currently being pursued by financial institutions. As pointed out by Fourie (2020), the financial services sector is exploiting the digital transformation process in order to cut jobs for the sake of increasing profits. It is therefore important that the correct balance is achieved between incentivising financial institutions, in the form of tax rebates, to assist in reducing unemployment without compromising on state's revenue collection. Government needs to condemn and guard against jobless economic growth.

5.4 Recommendations

Several opportunities for further research have been highlighted by the findings of this study. Particularly when looking the potential benefits of having a revealed comparative advantage in financial services by developing countries and on why financialisation is found to be detrimental to economic growth. This study can therefore be extended into the following:

- Testing the impact of importing financial services on the importing country's economic growth. With a particular focus on countries such as Ethiopia who experienced high

GDP growth, while not being heavily engaged in the exporting of financial services, whether through expansion or cross-border trading at levels similar to Kenya as highlighted in the study by Njoroge & Ouma (2014).

- Since a country might be found to have a comparative advantage at time period *t*, the same country may reveal a comparative disadvantage at a different time period e.g. *t+1*. Therefore, it would be useful to investigate the stability of the RCA indices using the relative importance of the particular service as a stability indicator as tested by Fertö and Hubbard (2003). The results of the stability indicators would provide a view on whether the structure of the country's RCA has changed over time. This information can therefore be taken into account when testing for the impact of continuous RCA on economic growth. Additionally, and as pointed out by Seymen (2004), the evaluation of RCA indices in the ordinal or cardinal sense is another field of dispute.
- In testing the relationship between financialisation and economic growth, our study included the revealed comparative indices of all 36 countries, including those who did not reveal a comparative advantage (i.e. where RCA was less than 1). A potential study should determine whether a different result would be produced between the two variables if one runs a model which only incorporates countries with RCA indices of more than 1.
- It is important to note that RCA calculations are based on observed trade data, which could potentially be influenced by government set regulations and barriers of entry, such as licenses, tariffs, etc. Therefore, the impact of such restrictions can be incorporated into the study in order to conduct a more in-depth analysis and draw better-informed conclusions.
- Despite some of its shortcomings, RCA indices provide a useful tool for detecting competitive advantage. Future studies can focus on finding new ways of measuring competitiveness and use the new measures to determine the relationship competitiveness has with economic growth.
- Testing what the impact of having a revealed comparative advantage in other economic sectors such as mining, and agriculture is on economic growth. The results could seek to justify why there has been a slow pace in diversification by African countries.
- Additionally, future studies can extend the testing of the same hypothesis being tested in the current study (i.e. the relationship between RCA and economic growth) to

developed countries, such as those in the United Kingdom and the United States of America.

- Finally, with the rising debate on the role and mandate of central banks, particularly in South Africa, a potential study can be undertaken to investigate the role of the Central bank in ensuring economic growth and to what extent the Central bank can influence the contributions made by financial institutions to economic growth.

5.5 Limitations

This study does not test for the causal relationship between revealed comparative advantage and economic growth. Therefore, we cannot conclude on which of the hypothesis that describe the financialisation-growth nexus applies, i.e. supply-leading; demand-leading, feedback, of neutral hypotheses.

The assumption made in the study is that the revealed comparative advantage index serves as a suitable proxy for financialisation on the basis that it measures competitiveness. Competition helps improve firm-level productivity, ultimately resulting in more cost-effective measures which can promote the growth of financial institutions. The study therefore does not test the accuracy of the assumption made.

The final limitation is that the study was also performed on countries with RCA indices of more than 1 and those with less than 1 (i.e. no revealed comparative advantage). By only including countries who had RCA indices of more than 1, our sample would have been limited to a point where no meaningful conclusions could be made, as the sample size would have been too small. When determining the impact of revealed comparative advantage (or financialisation) on economic growth, we therefore included all countries, essentially assuming that all the African countries had, to some extent, some level of comparative advantage.

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APPENDIX

APPENDIX A: LIST OF THE 34 AFRICAN COUNTRIES

1. Algeria
2. Benin
3. Botswana
4. Burkina Faso
5. Burundi
6. Cabo Verde
7. Cameroon
8. Congo, Democratic Republic
9. Cote d'Ivoire
10. Egypt, Arab Republic
11. Eswatini
12. The Gambia
13. Ghana
14. Guinea
15. Guinea-Bissau
16. Kenya
17. Lesotho
18. Madagascar
19. Malawi
20. Mali
21. Mauritius
22. Morocco
23. Namibia
24. Niger
25. Nigeria
26. Senegal
27. Sierra Leone
28. South Africa
29. Sudan
30. Tanzania
31. Togo
32. Tunisia
33. Uganda
34. Zambia