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ABSA	Amalgamated Banks of South Africa
BASA	Banking Association of South Africa
BIS	Bank of International Settlement
CDC	Credit Default Swaps
CDO	Collateralized Debt Obligation
FNB	First National Bank
FSB	Financial Services Board
GCM	Global Credit Market
GDP	Gross Domestic Product
IIF	International Institute of Finance
IMF	International Monetary Fund
ING	International Netherlands Group
JSE	Johannesburg Stock Exchange
NCR	National Credit Regulator
NM	Neo Marxists
RM	Revolutionary Marxists
ROE	Return on Equity
SARB	South African Reserve Bank
WFE	Federation of Exchanges

ACKNOWLEDGEMENTS

DECLARATION

I declare that the thesis **"*A Framework to Minimize Systemic Indebtedness: A Financialisation Theoretical Perspective*"** is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references. This research has not been previously accepted for any degree and is not being currently submitted in candidature for any degree.

Signed…………………………

Date…………………………….

ABSTRACT

The purpose of this study is to develop an indebtedness framework that explains the effects of financialisation and household indebtedness on economic development. For this purpose, the study empirically examines annual South African data covering the years 1990-2017 to look at the effect of financialisation before and after the 2007/08 financial crisis. South Africa adopted an inflation targeting monetary policy regime in the 1990s before the global economic crisis in response to the global financial crisis of 2007-08. Examining data from 1990-2017 made it possible to look at the effects of financial deregulation policies that were introduced post the 2007-08 financial meltdown.

The study addressed three objectives. The first objective sought to establish the extent of financialisation in the South African economy pre and post the 2008 financial crisis. To achieve this objective, annual time series data from 1990-2017 on financialisation variables was split into two, before and after the financial crisis. Graphical presentations of the four financialisation variables (financial deregulation, foreign financial inflows, asset price volatility, and shift to market-based finance) showed that there was a difference in financialisation before and after the 2008 financial crisis. Analysis of variance showed that there is a statistically significant difference between the foreign financial inflows' series before and after the financial meltdown of 2008 (t-test value -6.527, $p \leq$ 0.0001). (1990-2008). The findings also showed that there was no statistically significant difference between asset price volatility before and after the financial meltdown of 2008. Interestingly, there is a statistically significant difference between stock market value traded in the period from 1990-2008 and 2009-2017 after the financial crisis (t = -4.295, $p \leq$ 0.001).

The second objective sought to examine the causal direction between financialisation and household indebtedness. Contrary to a priori expectations, the findings showed that financial deregulation, foreign financial inflows and shift to market-based finance do not Granger cause indebtedness. However, the findings showed that the null hypothesis that asset price does not Granger

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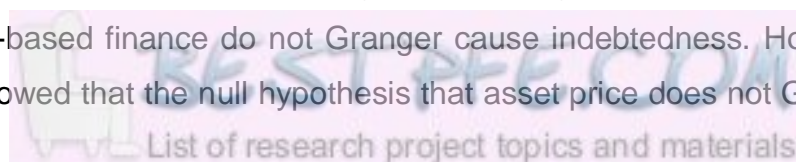
cause household indebtedness was rejected. This implies that there is a causal direction between asset price volatility and household indebtedness

Lastly, the third objective of this study was to explain the effects of financialisation and indebtedness on economic development to inform the indebtedness framework that this study set out to develop. Using annual data for the period of 1990 to 2017, the third objective was addressed by examining the effect of household indebtedness and financialisation on economic development. These effects were tested using OLS regression and error correction modelling technique (ECM) for each of the four financialisation variable: (1) financial deregulation measured using the financial reform index; (2) foreign financial inflows measured using stock of foreign liabilities as percentage of GDP; (3) asset price volatility; and (4) shift to market-based finance, measured using stock market value traded as percentage of GDP.

The findings showed that foreign financial inflows and asset price index when regressed with household indebtedness showed a statistically significant effect on economic development in a long-run model. The indebtedness framework was duly presented showing that economic development is likely to be negatively and strongly affected by financialisation as experienced in asset price volatility and foreign financial inflows.

Keywords: Financialisation, Indebtedness, foreign financial inflows, asset price volatility, financial deregulation, market-based finance, economic development, human development index, financial system.

CHAPTER 1: ORIENTATION

1.0 INTRODUCTION

The purpose of this study is to shed light into the effects of systemic indebtedness and financialisation on income inequality in South African. To understand systemic indebtedness this study looks at the concept from a financialisation theoretical framework. The approach is shaped by several authors (Gloukovieczoff, 2006; Krippner, 2005; Servet and Saiag, 2013; Stockhammer, 2000) who have observed the interconnectedness between indebtedness and financialisation. Krippner (2005) defines financialisation as the increasing role of financial motives, financial markets, financial actors and financial institutions in the operation of the domestic and international economies. Gloukovieczoff, 2006 puts it simply as the growing necessity to use financial products to meet every day needs. For this reason, Kaworski and Stockhammer (2016) view household indebtedness as household financialisation.

Systemic indebtedness on the other hand refers to an economy which is sustained almost entirely by credit. Other scholars (Brennan and Gallagher, 2007; Gloukoviczoff, 2006; Schicks, 2013) look at indebtedness at household level and define the term as the inability to meet financial commitments. It is from the household outlook that Gutierrez-Nieto, Serrano-Cinca and Cuesta-Gonzalez (2016) view indebtedness as one of the main contributing factors in creating poverty.

If household indebtedness is viewed as household financialisation as indicated by Kaworski and Stockhammer (2016), how is this concept related to income inequality and financialisation of the economy? Other questions to ask include: What drives indebtedness? What are the pros and cons of household financialisation? The study seeks to address these questions in this study.

First background information related to indebtedness is provided in the section below. Next, the rationale for the study is provided, which is followed by the

problem statement and corresponding research questions and objectives. The philosophical underpinnings and design of the study is briefly articulated and further expounded

1.1 BACKGROUND TO THE STUDY

In the past three decades, the world has witnessed an acute rise of interest in the operations of the financial markets in the economies of the world. This interest is related to the increase of financialisation and the globalization of systemic indebtedness, as well as the substantial deregulation of monetary policies in the market economies of the world (Lapavitsas, 2016).

Increase in financialisation coincided with the increase in inequality, after South Africa opened its economy in the 1990's. James (2017) traces the origins of indebtedness to the colonial roots of labour market "*South African capitalism*" when labourers were recruited to work in the mines. According to James (2017) wage advances, which resulted to indebtedness, were tied to labour procurement.
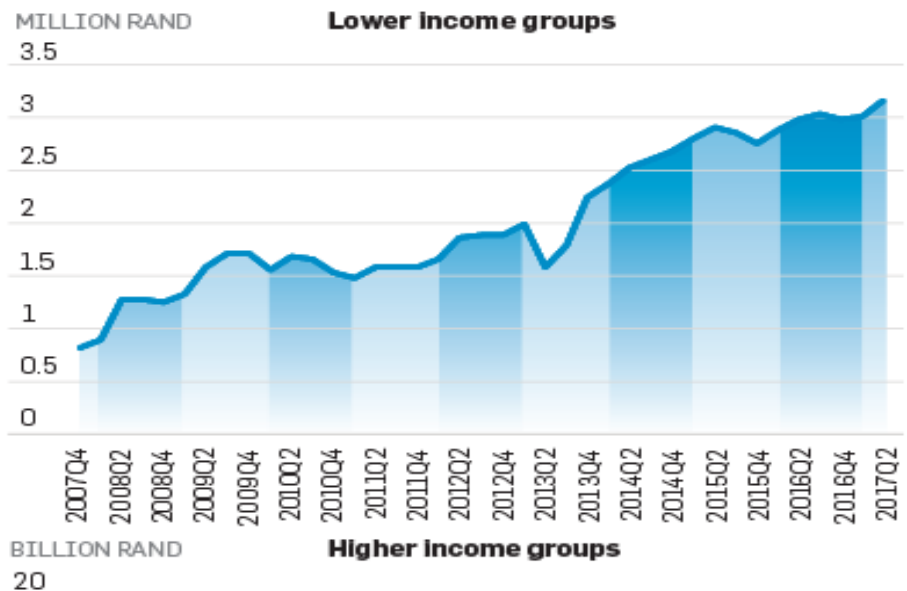
Figure 1: Credit and store card debt more than 120 days

(Source: Van Rensburg, D. (2018) Don't be fooled, there is a credit problem. *https://www.fin24.com/money/debt/dont-be-fooled-there-is-a-credit-problem-20180107-2*.)

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Furthermore, increase in indebtedness in South Africa overlaps with the increase in inequality. As Figure 1 shows Gini Coefficient increased from 59,3 in 1992 to 63 in 20014 (World Bank 2017).
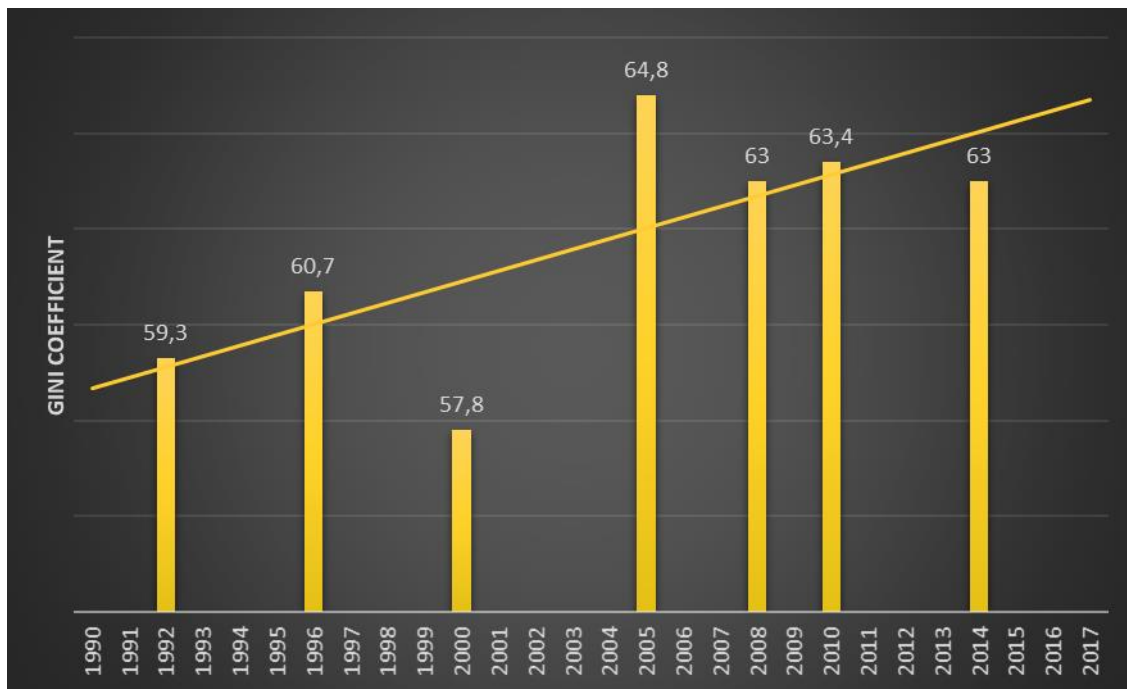
Figure 2: Inequality in South Africa

*Source :*Data sourced from the World Bank (2018)
https://data.worldbank.org/indicator/SI.POV.GINI?locations=ZA

Literature has been consistent on the relationship between inequality, income, and education. For example, as early as in 1955, Kuznets (1955) argued that there is a long-term relationship between income inequality and the development process based on changes in the structure of different sectors in the economy. Much later Friedman and Friedman (1980) concurred with the view that inequality has a dampening effect of growth.

The human development index developed by the United Nations (UNDP, 2018) captures Income, education, and health achievements at a national level. Figure 3 shows human development levels by country from 1990- 2017. Sub-Saharan Africa shows the lowest levels of human development (around 0.550), as measured by the HDI, compared to the rest of the world (UNDP, 2018). OECD countries have HDI levels greater than 0.8, which is regarded as very high

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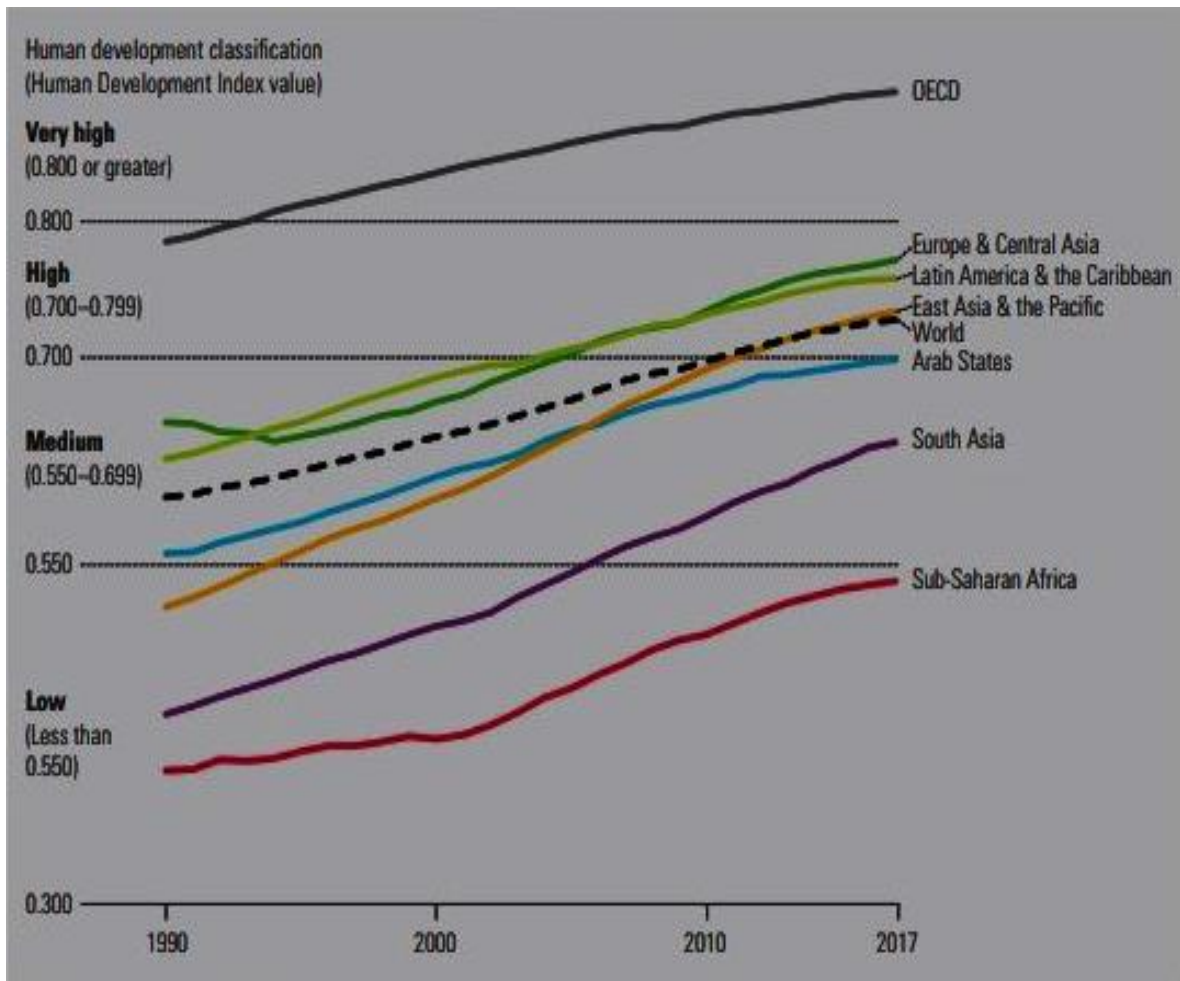
Figure 3: Human Development Index by country (1990-2017)

Source: UNDP (2018) UNDP (2018). Human development indices and Indicators.

Income inequality and human development have been associated with unemployment in development economics literature (Bhorat, van der Westhuizen and Jacobs, 2009). It is not surprising that employment levels, corresponding to inequality, are high in South Africa.

The unemployment rate in South Africa has never been below 20% since 2002 according to Figure 5.3. The highest experiences were in 2002 which hit 29.3% and slowed down to the levels of 24% between 2004 to 2010. Unemployment rose to 25% in 2012 and 27.7% in 2017.

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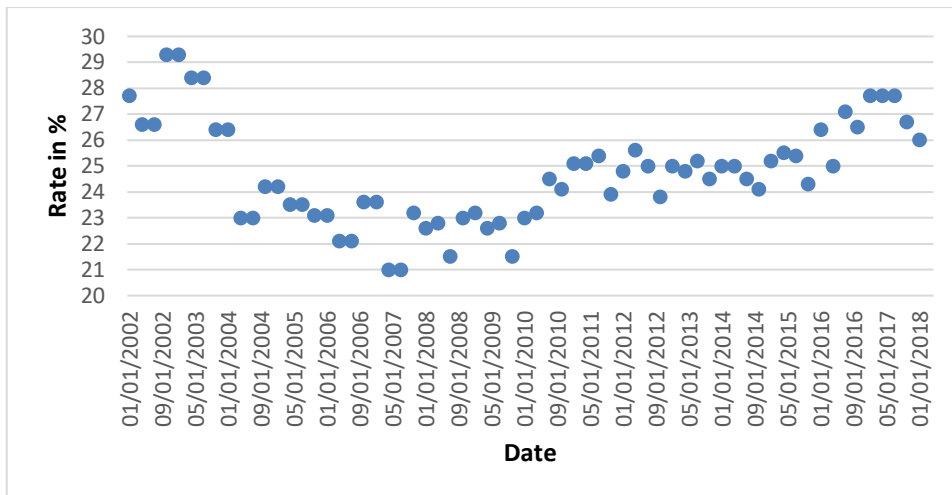
Figure 4: Unemployment rate in South Africa (2002-2008)

Source: SARB 2018

The inflation rate went below zero (-4%) in 2003 to 2004 falling from two digit figures in 2002 (SARB, 2015). Inflation rate is uneven due to fluctuating consumer prices (SARB, 2015). In 2010 inflation accelerated to a maximum of 8.6% from 0.4% level in 2006 (SARB, 2015). However poor economic conditions dropped inflation rate to 3.4% in 2010 which struggled to rise above 5.5% levels from 2010 to 2017 (SARB, 2018).
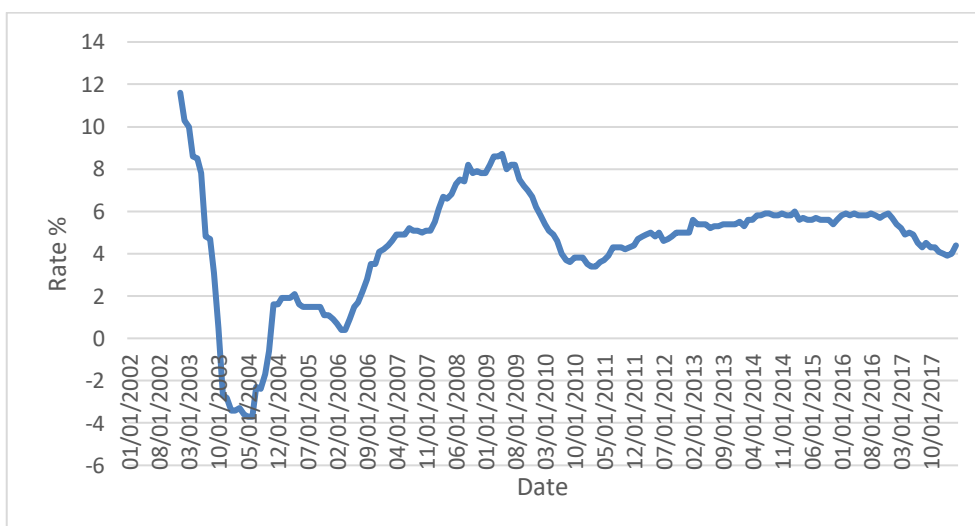
Figure 5: Inflation rate in South Africa 2002-2017

Figure 6 show the trends of instalment debtors, suspensive sales and leases, Instalment sale over per capita GDP, debt to GDP, unemployment rate, and

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Inflation rate between 2002 and 2018. The credit extended to private sector was high between 2004 and 2008 with a maximum of above 25% in 2007. This sharply declined in 2008 to 2010 due to economic recession effects and never fully recovered from the effects of economic meltdown. From 2010 credit picked up by about 5% and remained consistent within 5%-10% of credit extended to private sector. In addition, 2003 and 2004 also saw a sharp decline due to a decline in economic growth confidence impacting on affordability. These anomalies dropped to below 5% in both 2003 and 2004. Thus 2005 to 2008 were lucrative in terms of credit extended to private sector compared to years post 2008.
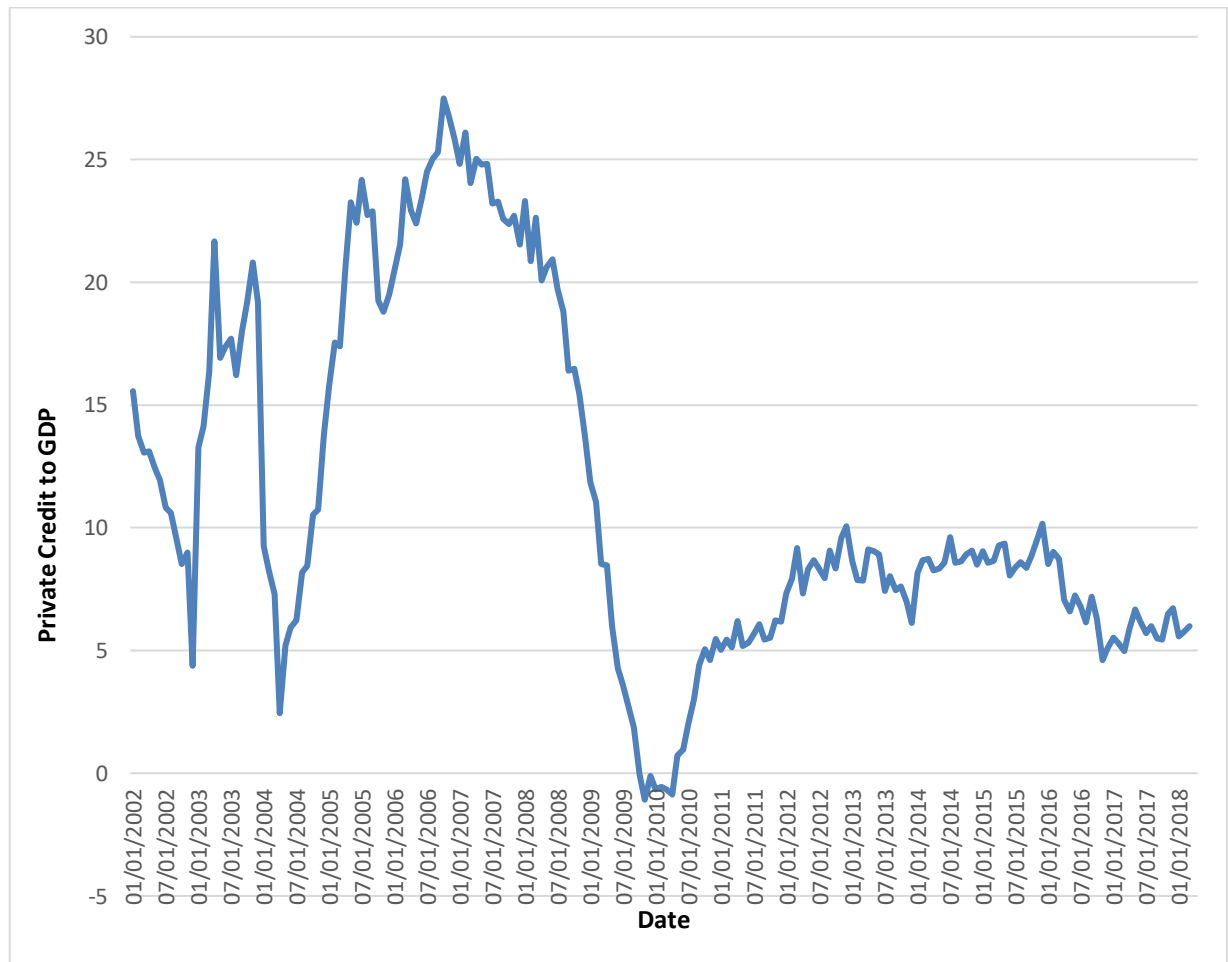
Figure 6: Total credit extended to private sector 2002-2017

The debt to GDP on the other hand stood below 40% which improved to below 30% in 2007. However, the ratio began to rise above unacceptable levels from 30% in 2010 to 55% in 2017. This is due to high spend with a declining

economic growth. The rise in the debt to GDP ratio is also attached to political instability and the country's poor economic performance.
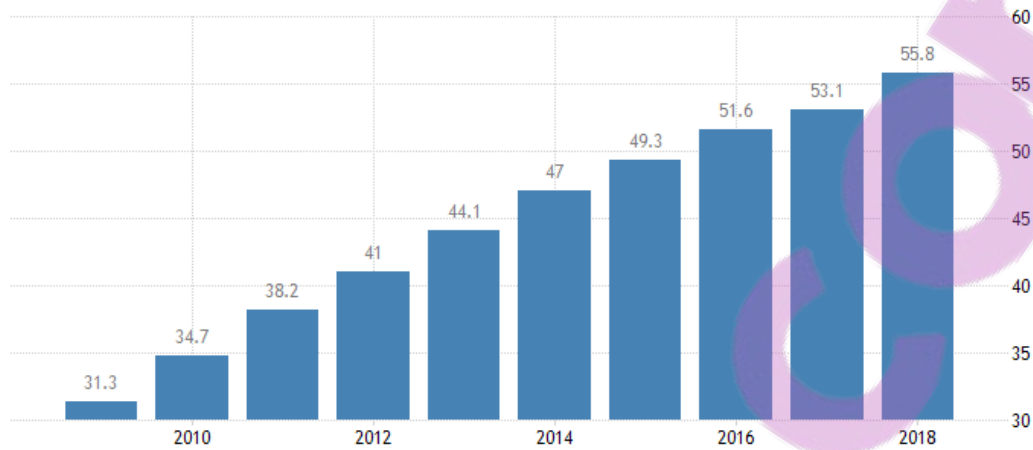
Figure 7: Public Debt to GDP

Source: National Treasury 2018

1.2 RATIONALE FOR THE STUDY

The economic outlook in South Africa as painted above signal structural problems that possibly affect indebtedness, and economic growth. According to a report by International Institute of Finance (IIF) (2018 first quarter), total global debt was $ 247 trillion, just over 318% of the world's GDP. The records of IMF indicate that the banks and financial institutions have over recent years, extended credit facilities to individuals and businesses to a point of unmanageability. These figures sparked the interest of the researcher, to look at the role indebtedness has played in the poor growth rates of the South African economy. What started as a simple inquiry into indebtedness led to an understanding of the interconnectedness of indebtedness to financialisation (Lapavitsas, 2016; Servet and Saiag, 2013, Stockhammer, 2000). As argued below, the question that remained after a critical evaluation of literature was how financialisation enables or disables economic development? Out of this question emerged the rest of the research questions outlined below.

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1.3 PROBLEM STATEMENT

According to Masso (2016) escalating private and public indebtedness can be examined as part of the historical trajectory of financialisation. Financialisation and systemic indebtedness as explained by Servet and Saiag (2013) are two sides of the same coin in that one cannot survive without the other. The financialisation of credit creation sits at the core of financial institutions' wealth maximization (Lapavitsas, 2016). Stated differently, financialisation enhances highly profitable credit by leveraging assets and income optimally (Stockhammer, 2000). Servet and Saiag (2013) as well as Fine (2007) explain that at the base of financialisation and indebtedness is the monetisation of the economy which is due to the increased commodification of everyday needs. Aalbers (2017) and Kohl (2018) point out that financialisation does not only structurally transform economies and firms, but also households as they participate in the housing markets.

Servet and Saiag (2013) links indebtedness with the reversal of the roles where finance does not rely on production and trade, but on finance led accumulation regime. As explained by Servet and Saiag (2013), stock prices do not just determine household debt, but they also determine investment decisions, fiscal and monetary policy. This scenario poses a problem where volatility and instabilities ingrained in the financial markets befall businesses and households forcing them into protracted indebtedness (Stockhammer, 2000; Lapavitsas, 2016). Currie and Largoarde-Segot (2017, 214) put forward a contention that deregulation of financial markets "*has enabled banks to focus on arbitrage within secondary markets by creating exotic and complex financial.*

The productive sector of the economy, as explained by Stockhammer (2000) starts to shrink in a highly financialised economy, as it becomes more beholden to the financial sector. This shift has an adverse effect on employment, because as the productive sectors shrinks, unemployment and income inequality increase (Servet and Saiag, 2013). Servet and Saiag (2013) lament that the negative outcomes of financialisation create an *"unstable equilibrium"* where poverty becomes an outcome of inequality. Current studies have not looked at the impact of indebtedness and financialisation on development. As will be

discussed later, the increase in financialisation in South Africa coincides with a rise in indebtedness and inequality. While the impact of the apartheid system on inequality is indisputable, it is not clear whether indebtedness influences economic development positively or negatively. It is also not clear whether income inequality is an outcome of financialisation or not.

Servet and Saiag (2013), however do state that living standards are enabled or disabled by financialisation, and they also state that financialisation creates indebtedness but these relationships are not tested in literature. On the basis of this gap in knowledge this study seeks to shed light on how indebtedness, financialisation, and income inequality are linked in the South African economy.

1.4 RESEARCH QUESTIONS

Given the problem articulated above, this study seeks to address the following questions:

1. To what extent is the South African economy financialised?
2. How is financialisation linked to indebtedness?
3. What are the effects of household indebtedness and financialisation on economic development?

1.5 PURPOSE OF THE STUDY

The purpose of this research is to determine the extent to which financialisation aggravates indebtedness and consequently develop an indebtedness framework that sheds light into the link between financialisation, household indebtedness, economic development in South Africa. To achieve this aim, the study is designed to achieve the objectives outlined below.

1.6 OBJECTIVES OF THE RESEARCH

Research Objective 1

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To determine the extent to which the South African economy is financialised.

Research Objective 2

To determine the causal direction of the relationship between financialisation and indebtedness.

Research Objective 3

To establish and explain the effects of household indebtedness and financialisation on economic development.

1.7 RESEARCH DESIGN

The purpose of this study is to develop an indebtedness framework that explains the effects of financialisation and household indebtedness on economic development. For this purpose, the study empirically examines South African data covering the years 1990-2017 to look at the effect of financialisation before and after the 2007/08 financial crisis. The study first tests the effect of financialisation on household indebtedness with the aim of identifying the causal direction of the two variables. Thereafter the study, develops an error correction model to test the effect of financialisation and household indebtedness on economic development. Human development index (HDI) was used as a proxy measure for economic development.

1.8 ASSUMPTIONS

This section discusses the theoretical and philosophical assumptions of this study. Theoretically, this study assumes that household financialisation (indebtedness) is motivated by the need to have a decent quality of life. Capital holders (owners of firms and managers) on the other hand are motivated by profit.

As will be explained in chapter four, this study takes a critical realism philosophical approach that there is a "real" world with characteristics, phenomena and elements that are not observable (Bhaskar, 2011). This

approach informs the epistemological stance of this study, where the indebtedness framework is constructed by first identifying financialisation structure of the South African economy. Bhaskar (2011) explains that with social structures there are underlying structural powers and tendencies that exist whether or not detected or known. Critical realism as explained by Bhaskar, shifts the focus from epistemology (theory of knowledge) to "theory of being". The implications here are that the world must also be explained in relation to particular points in time. This ontological view informs the following assumption that this study makes:

1. Even though the study is conceptualised to look at the empirical relationship between financialisation, household indebtedness and economic development, it is assumed that there are structural powers, such as the monetary policy regime, the fiscal policy and the institutional powers vested with various institutional bodies in the South African economy that affect the relationships and equations specified in this study.

2. It is assumed that the time period (1990- 2018) selected to address the research questions of this study captures the effects of indebtedness and financialisation on economic development.

1.9 STRUCTURE AND CONTENT OF THE RESEARCH

Chapter 1 serves as an introduction and orientation to the research under review. Chapter 1 also gives a broad outline of background issues, the problem statement, research questions, objectives, and brief explanation of how the study is designed. The ontological stance and the philosophical assumptions the study is based on are explained.

Chapter 2 discusses the contextual issues around indebtedness, including the regulatory framework that shapes credit creation, social economic indicators and performance of the banking sector in South Africa. Chapter 3 follows with

the theoretical, and conceptual framework of this study. The study methodology including, the critical realism philosophical approach, variable measures, model specification and analytical tools are explained in chapter 4. Chapter 5 presents the findings of this study. Chapter 6 discusses the findings, and mounts arguments on how this work contributed to original knowledge.

1.10 CONCLUDING REMARKS

This chapter provided the overview and introduced the research topic by providing the background of the study, problem statement as well as aim and objectives of the study. Included is the rationale behind what motivated this study to be done by. Knowledge gaps were highlighted. The next chapter proceeds to paint the contextual background of the study.

CHAPTER 2: CONTEXTUAL BACKGROUND

2.0 INTRODUCTION

This chapter presents the contextual issues pertaining to indebtedness with a particular focus on banking environment. The global outlook is presented in the next section. Thereafter, the South African banking environment is presented followed by a discussion on the South African economic environment.

2.1 GLOBAL BANKING ENVIRONMENT

The Basel Accords are the banking supervision accords. Basel I, Basel II and Basel III are issued by the Basel Committee on Banking Supervision to ensure the implementation of a regulatory framework in the global banking industry. The Basel IV accord is an extensive review of the previous Basel Accords to minimize the risk of bank capital and bank credit as a major driver of potential bank instability. The Basel Accords have been developed not only to ensure smooth financial intermediation, but also financial stability. This view is not always shared amongst scholars. For example, Werner (2013) in a landmark empirical study conducted in 2013, established strong evidence that the notion that financial institutions are merely financial intermediaries can no longer be left unchallenged. Werner (2012) argues that when banks create credit, they set up numerous chain reactions both locally and globally with numerous multiplier effects. A simple explanation of this theory is that money is created endogenously when banks create new loans.

Vivian and Spearman (2015) hold a conservative approach that the banks' primary function is a financial intermediary role between buyer and seller as opposed to borrower and lender. According to Vivian and Spearman's (2015) argument, this is an erroneous representation of the banks' role in the money creation process. The correct explanation, as per their argument, is that the role banks play in the money creation process needs to be re-explained to accentuate the significance of the value-for-value exchange transaction which

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forms the basis of the money creation process and the banks function as facilitator of this crucial transaction between buyers and sellers.

Vivian and Spearman's (2015) critique denotes the need to correctly define the banks' role in this relationship to uphold corporate credibility which is ultimately vital for influencing public policy and academic integrity. The two authors contend that there is deliberate confusion created between cash money and bank money. That is, banks create money - bank money not cash money. Their argument is that bank money is a record of debt-credit relationship and that the creation of this type of money has been misunderstood to be an act of creating something out of nothing, thereby disregarding the value-for-value transaction between the buyer and the seller.

According to Vivian and Spearman, the reason for banks' existence is not motivated by money creation but by the reduction of various risks and costs associated with value-for-value transactions. This process, they maintain, exposes the banks to high levels of impaired accounts, solvency risks and liquidity risks associated with cash demand and supply dynamics. Vivian and Spearman argue that commercial and retail banking's role is that of intermediation between the seller and the buyer transactions. The authors articulate the purpose of commercial and retail banks as that of facilitating "*the process of inter-temporal exchange transactions between buyers and sellers*".

The buyer and seller transactions are based on value-for-value inter-temporal exchange which must be completed by the immediate settlement and payment of the debt raised by the buyer. If the bank's role is merely reduced to facilitating these debt-credit transactions, this then begs the question: who then provides the funds to pay the seller and how is this money created?

From the Marxist perspective, the underlying principles of the credit creation policy in commercial banks flow from the "institutionalized powers and freedoms of banking and other financial institutions" (Pixley and Harcourt, 2013). These freedoms and powers of banks as financial intermediaries involve the provision, allocation and withholding of the credit as they deem fit. These freedoms include

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banks entering high risk areas of speculative credit creation which is mainly focused on, amongst other things, the financing of loans to private equity, loans for hedge funds, real estate, mortgages and direct financial investment by banks. Marxist economists have identified speculative credit creation as the main cause of economic bubbles in the financial markets.

The Marxist position is that when a portion of financial credit creation rises, it creates capital gains from the speculation and bolsters the balance sheets artificially. This creates a sense of elation in the market driving asset prices to go up and encouraging the banks to increase loans and credit book. The situation becomes unsustainable as credit creation falls forcing asset prices down, leading to the increase of bad debts as banks get more risk averse causing deflation in the economy. According to Pixley, and Harcourt (2013), most of the banking crises have been caused by the multiple incidents of speculative credit creation practices from the 1980's to the late 2000's.

The Marxist Socialist interpretation of the debt creation phenomenon is that there are powerful vested interests with pressure group capabilities empowered by the institutionalized mechanics of the credit creation and allocation in the financial system supported by specific ideological assumptions and models. The capitalist system and its banking system is considered to be predestined to ultimate disintegration amidst continuous attempts to reinvent and reconstruct its endemic deficient financial system. Pixley and Harcourt (2013) maintain that "the general arrangements of credit creation and allocation are more or less maintained and reconstituted through crises after crises even after a major failing and crash". This means a reformation rather than a fundamental transformation and transition disabling potential alternatives to the current global credit creation mechanism.

Pixley and Harcourt (2013) view, that an entirely new and different credit creation system will have to be conceptualized, tested and implemented, is a sensible view. Their recommendation is that credit creation should be understood as a public good and made more decentralized and diverse than is currently the case. Putting it differently, Pixley and Harcourt's position is that

the credit creation mechanism should be de-privatized in favour of diverse and broadly-based public institutions. Thus, they are making a case to refocus credit creation towards a national development agenda. They are calling for a migration from a commercially driven system to a broad social, financial and ethical development imperative executed by various public institutions and agencies answerable to the state. To them, the current capitalist system of lending and borrowing on interest is by and large responsible for the present economic instability. Such a view would not work in a government with high levels of corruption. Most importantly, management of financial institutions requires unique banking skills and experience that is not necessarily available among public sector employees.

There are alternative banking models including the Swiss JAK bank model premised on zero interest for both deposits and withdrawals (Kennedy, 1995). The North Carolina public banking model which relies entirely on a productive investment agenda for the development and growth of the economy (Tesseman and Kruger, 2012). Said bases his argument on ethical banking practices derived from the Islamic finance philosophy (2008). Tesseman and Kruger (2012) argue for an interest rate commission agent banking system which they contend will remove the current technical and strategic deficiencies in the banking system. Baicu and State (2012) argue for an improved banking model that will ensure sustainable financial stability. This long-term sustainability includes the state playing a key role. The traditional banking system is under pressure as the result of recurring global economic disruptions in the financial system. The conceptualization and implementation of an effective banking model designed to address national development objectives has been viewed as being long overdue. Baicu (2012) argues that government requires formation of strong network of national industrialization banks (NIB's) to carry out the onerous task of economic development and industrialization. Maintaining an acceptable industry debt ratio is argued to be the principle would underpin the operations of the NIBs

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The critical realist model of financialisation expects actors in the financialisation processes to go the extra mile and incorporate ethical behaviours in their day-to-day activities (Danemark et al, 2000, p. 5-6). Ethical behaviour as several authors have indicated, can save the banks from systemic crises of conflicts, contradictions, domination, inequalities and, above all, indebtedness.

The Marxist solution however, seeks the removal of capitalism. It is based on the argument that the terminal contradictions motivated by the demand of indefinite profit motif cannot provide a precise strategic mechanism for running the banks. The Marxist model as argued earlier calls for a socialist solution in the financial system.

The neo-classical conservative models on the other hand, call for cosmetic amendments without breaking the genetic code of the global capitalist market economy. The retention of financialisation and debt creation policies under this model would therefore remain unchanged.

The liberalist-based critical realist solution is pragmatic in that it seeks to provide a conscious appreciation of how the banks, central banks and stock exchange markets would operate to manage both private and public indebtedness in the economy (Brown, 2013; JAK Members Bank, 2004, Swart, 2013). Empirically, King and Levine (1993) demonstrated that the level of financial intermediation is a good procedure of long run rates of economic growth, capital accumulation and productivity improvement.

2.2 SOUTH AFRICAN BANKING ENVIRONMENT

Within the South African credit environment, the banking system is dominated by five major commercial banks. The WEF Global Competitiveness Report 2017-2018 ranks South Africa 44th in the world in terms of financial market development out of 148 countries (WEF Global Competitiveness Report 2017-2018).

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This ranking reflects in part the effectiveness of the South African banking system as was demonstrated by the country's ability to endure the 2008 global financial crises. Furthermore, South Africa's financial service sector, supported by a sound regulatory and legal framework is comparably advanced comprising various domestic and foreign institutions who provide multiple range of services in commercial, retail and merchant banking, mortgage lending, insurance and investment banking (BASA, 2014).

The South African banking system is well developed and sophisticated and comprising a central bank, the South African Reserve Bank, as well as financially strong banks, investment institutions and other small and medium sized banks. Many foreign banks and investment institutions have established businesses in South Africa. Investment and Merchant banking remains the most competitive in the corporate banking industry, whilst the country's big five banks - ABSA, FNB, Standard Bank, Nedbank and Capitec are dominant in the retail market (BASA, 2014).

The legislation and regulatory frameworks governing the financial sector is primarily, the Banks Act of 1990 and Mutual Banks Act 1993, which ensures the attainment of a sound, efficient system in the interest of the depositors of banks and the economy in its totality. The Reserve Bank, is responsible for administering the registration of institutions as banks or mutual banks as well as for discharging all the requirements of the Act (BASA, 2014).

There are a number of role players in the financial services sector, including commercial banks, investment banks, the Central Bank, Bank Association of Southern Africa, Banks' Ombudsman, and the Prudential Authority, and National Treasury. The commercial banks usually hold reserves that are less than their deposit liabilities (SARB, 2016). Therefore, fractional reserve banking system allows the money circulation to grow beyond the amount underlying the reserves of base money created in the first instance by SARB. A basic example would mean for every R10.00 issued by SARB, a commercial bank can issue

the same note 25 times more than the original base amount to its customers (Werner, 2014).

The SARB regulates bank credit creation and management of banks by imposing reserve requirements and capital ratios. Rather than directly controlling the money supply, the SARB operate within an inflation targeting regime with a sharp focus on interest rate and prices (SARB, 2016).

The non-banking sector before the promulgation of the Financial Sector Regulations Act (2018) was adjudicated by the Financial Services Board (FSB). FSB which responsible for the regulation of financial markets and institutions including insurers, fund managers and broking operations, is subsumed within the Prudential Authority located with the SARB. The Prudential Authority was established under the Financial Sector Regulations Act (2018) .

The National Credit Regulator is accountable for regulating the South African credit industry, including the registration of credit providers, credit bureaux and debt counsellors. It is responsible for enforcing compliance with the National Credit Act and is focused on developing an accessible credit market to meet and provide the needs of the people who are marginalized economically (National Credit Act of 2005).

The Banking Association of South Africa is an industry body representing all registered banks in South Africa. It is the mandated representative of the sector and represents the industry through lobbying engagement with key stakeholders from the political, economic and financial jurisdiction in the country.

The Ombudsman for Banking Services (OBS) resolves individual complaints about banking services and products. The mandate of the OBS is to resolve complaints through negotiations. A formal ruling is then made in the form of a recommendation that is binding or a determination that is not subject to OBS jurisdiction guidelines.

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The National Treasury is one of the institutions responsible for developing and maintaining the legislative and regulatory frameworks in South Africa. There are close ties between the SARB and the National Treasury. The Minister of Finance is the ultimate administrator of the Banks Act of 1990, the Financial Intelligence Centre (FIC) which is a regulatory body in South Africa that was established to identify the proceeds of unlawful activities and combat money laundering activities (RSA, 2001b:1). The FIC was established under the Financial Intelligence Act 2001 in February 2002.

Other legislation applicable to South African banks include the Financial Intermediary and Advisory Services (FAIS Act) which regulates the activities of all financial service providers who give advice or provide intermediary services to clients in respect of certain financial products. The Act requires such providers to be licensed; and requires that professional conduct be controlled through a code of conduct and specific enforcement measures.

The National Credit Act (NCA) no 34 of 2005 is designed to achieve specific objectives most of which are to benefit and protect the consumer. It regulates consumer credit and seeks to ensure fair and non-discriminatory access to consumer credit and improved standards of consumer information. It also seeks to promote responsible granting of credit and provides for debt re-organization in case of over-indebtedness. The consumer Protection Act seeks to promote a fair accessible and sustainable marketplace for consumer products and services.

Kelly-Louw (2008) has indicated that many legislative changes have been implemented by the introduction of the National Credit Act which seeks to promote and advance the social and economic welfare of South Africans. A further objective is to encourage responsible borrowing and the avoidance of reckless lending. He maintains that one of the key attributes of this act is the "in duplum" rule which limits the interest recoverable in terms of a loan or credit transactions. According to this rule, Vessio (2005, p. 34) points out that interest in area is legally claimable in terms of the agreement between the parties and within the legal limits set by the state may not exceed the capital amount on

which interest is due and in this calculation, what has already been paid by way of interest will not be taken into account. A creditor is therefore not prevented by the rule to collect more than double the unpaid or paid capital amount in interest provided that at no time he allows unpaid arrear interest to reach the unpaid capital amount. Should this augmentation occur, interest would cease to run (Sanlam Insurance Ltd 652 H-J). The loopholes that were exploited in this rule and in the Act were closed by the National Credit Act amendment of 2016.

The Competitions Act promotes and maintains competition in South Africa in order to sustain efficiency, adaptability and development of the economy which provide consumers with competitive pricing and product choices. The competition Act also promotes employment and advances the social and economic welfare of South Africans. It expands opportunities for participation in world markets, and recognizes the role of foreign competition and ensures that small and medium sized enterprises have equitable opportunities to participate in the economy, thus promoting a greater spread of economic ownership (Competitions Act of 1998 as amended by Act. No 39 of 2001).

The SA Banks are expected to comply with the King Code on corporate governance. The King IV code applies to all corporate institutions regardless of the manner and form of incorporation. The South African major banks are listed on the Johannesburg Securities Exchange (JSE). King IV is part of the JSE's listing requirements. King IV code on corporate governance "asks for mindful application of the King IV code and for its recommended practices to be interpreted and applied in a way that is appropriate for the organization and the sector in which it operates" (King Report, 2016)

2.2 1 South African banking system and the major commercial banks

PwC's (2017) analysis of major banks shows that domestically, economic growth in South Africa registered a disappointing 0.3% in 2017 on the back of a negative 4th quarter GDP figure. The RMB/BER Business Confidence Index and the FNB/BER Consumer Confidence Index both dipped in the same quarter

which demonstrated that South African business and consumers were under financial pressure.

According to the PwC analysis, the overall composition of the major banks combined loan portfolios remained largely unchanged at FY 16 when compared to FY 15. In many ways, this reflected that the banks' strategic decisions to maintain the shape of their balance sheets and portfolio structures was not that easy, given the heightened levels of economic uncertainty and forecast. The combined loans and advances grew from by 0.7% and 2.1 % against 1H16 and FY 15 respectively. The PwC analysis indicated that aggregate credit demand, across retail and wholesale portfolios continued to be constrained by economic factors ranging from slow economic growth, increasing pressure on household incomes and subdued levels of business confidence – all amplified by the heightened rate that persisted over the rand.

SARB Economic and Financial Data (2016) showed that both financial and non-financial companies increased their reliance on bank funding during Q 3, with the utility sector showing demand for bank intermediated funding in the second half of the year. Their report indicated that the banks reduced their risk exposure from sectors which were under financial stress including agriculture, mining, oil and gas sectors. Mortgage portfolios continued to show sluggish levels of growth in the domestic real sector with combined residential mortgage advances growing at 1.7% in FY 16 compared to FY 15 and growing by 0.7% against 1H 16.

The sustained reduction in aggregate demand for credit of residential mortgages was a clear indication that combined household incomes were under severe pressure, providing an opportunity for major banks to refocus lending to other asset classes. As an outcome, both capital and interest repayment were affected, thus denying households the ability to settle contractual repayments as early as they possibly could have.

Banks are germane to economic development through the financial services they provide. The efficient and effective performance of the banking industry

over time is an indication of financial stability in any nation, especially if credit and debt equity is extended to ensure productivity and output. It is for this reason that, Luqman (2014) and Kolapo, Ayeni and Oke (2010) noted that when banks extend credit to the public for productive activities they are likely to accelerate the pace of a nation's economic growth and its long-term sustainability.

Vosloo and Styger (2009) provide a solid argument for the necessity of a strong governance regime for the risk management in financial institutions. They have emphasized that a focused and unceasing contraction of non-performing loans (NPL's) strengthens the risk-adjusted-return on capital (RAROC) which is a vital instrument in the banks profit optimization framework. In South Africa banks have put much effort in the past four years to keep NPL at less than 5% Vosloo and Styger (2009) note that the banks are operating in a cumbersome environment in which the pursuit of a RAROC driven credit structure does not necessarily guarantee the financial health of impaired accounts but increases the total cost structure of maintaining them.

According to the Campbell and Coco's (2015) model, the existence of impaired accounts emanates from endogenous and exogenous factors ranging from negative home equity, low finance resources to levels of high inflation and high interest rates.

Due to a multitude of non-performing loans, the Basel II Accord has put an emphasis on credit risk management and practices. This Accord ensures adherence to the governance protocol of credit management. Compliance manages credit risk exposure to safeguard profitability and growth in the market. The resource and capital allocation are enabled to operate within a stabilized environment. The commercial banks of South Africa had high levels of non-performing loans in 2007 up to 2010, as indicated in the PwC 2016 report. High NPL levels not only have a negative impact on banks' lending to the economy but also affect the operating efficiency of such banks.

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PWC's (2016) analysis of major banks showed that a focused and unceasing contraction of NPL's in bank balance sheets is invaluable to the economy from both a micro-prudential and macro-prudential perspective (ECB Banking Supervision, 2016). The main task is to do an asset quality review and a stress test to determine the performance of each asset. The objective is to assess varying approaches and ascertain the identification, measurement, management and write offs of the NPL's. The combined NPL's decreased 2.8% against 1H16 but increased 4.5% against FY 15. Impairment charges grew 13.6% against FY 15 on an annualized basis. The number and value of clients in debt counselling continued to increase in FY 16. Debt counselling clients are over-indebted consumers who have affordable repayment plans with credit providers.

The PWC analysis indicated that the South African commercial banks have started to dedicate teams to deal with operational and business- related matters pertinent to this NPL portfolio while continuing to monitor provisioning assumptions used in calculating impairments relative to this portfolio. Overall, the NPL have been kept to a total gross loan ratio of 3% well below the 4% level last seen in 2H 12 and comfortably below the elevated levels seen in some international territories. On an annualized basis, operating expenses grew 9.2% and, in some ways, reflect the heightened inflationary environment that persisted in 2016. The combined cost to income ratio deteriorated marginally by 28 bps to 54% against 2 H15.

Guided by Barros (2012) research on technical efficiency of Japanese banks, this study examines the extent of NPL's impact on the banks' financial performance. PwC has painted a positive NPL outlook, however individual assessment of each bank may produce a different view.

The National Credit Regulator places about 9.87mn people on impaired account records. The total private debt is about R 1.6 trillion which suggests that the financial sector led by the commercial banks is trapped in a gridlock of non-performing loans.

According to Gidlow (2008), from the late 1930's, the South African banking sector was dominated by Standard and Barclays banking institutions. Prior to the major consolidation of the South African banking sector, the market was contested competitively by various banks which amongst others included Trust Bank, Volkskas, United Allied, Sage, Bankorp, Senbank, and Bankfin, all of which became merged into Amalgamated Banks of South Africa (ABSA).

Table 1: Market Capitalization and P/E Ratio

Bank	Market Cap	Share Price	Price/E ratio
First Rand (FNB)	R 265,89 bn	R 47.50	11.15
Standard Bank	R 231,36 bn	R 142.89	9.84
ABSA Bank	R 121,36 bn	R 148.48	8.07
Nedbank	R 103,86 bn	R 207.30	8.63
Capitec	R 94,16 bn	R 826.49	24.82

Finance

Bank	Income	Headline Earnings	HEPS
Standard Bank	R 99.9 bn	R22.1 bn	1 440
First Rand (FNB)	71.8 bn	22.4 bn	399
ABSA	72.4 bn	15.04 bn	1 769
Nedbank	26.0 bn	11.5 bn	2 400
Capitec	10.7 bn	3.8 bn	3 281

Reach & Network

Bank	Employees	Branches	ATMs
Standard Bank	54 767	1 211	7 410
ABSA	30 739	744	8 885
Firs Rand (FNB)	8 216	676	4 641
Nedbank	32 401	786	4 052
Capitec	13 069	796	4 024

Banking Clients

Bank	Dec 2015	June 2016	Dec 2016
Standard Bank	11.6 mn	-	11.8 mn
ABSA Bank	9.4 mn	8.9 mn	8.8 mn
Capitec	7.3 mn	7.9 mn	8.3 mn
First Rand (FNB)	7.2 mn	7.4 mn	7.7 mn
Nedbank	7.4 mn	7.7 mn	7.4 mn

The Permanent Bank of South Africa was incorporated into Nedbank. The consolidation of the banking sector gave birth to four major competitors comprising Standard Bank, First National Bank, ABSA, and Nedbank. The rise of major commercial banks was motivated primarily by the decline of confidence levels in small banks as a result of the Saambou Bank debacle (Gidlow, 2008; Moloi, 2014).

In terms of market capitalisation, First Rand is South Africa's biggest bank with a capitalization of just under R 266 billion followed by Standard Bank at R 231 billion. Both Banks carry fair value with a price/earnings ratio that is relatively low-unlike Capitec, which carries a P/E of 25.

Standard Bank, Absa and Nedbank implemented their new banking fees early in the year which included a complete restructuring from Standard Bank, a moderate increase from ABSA, while Nedbank's fees increases were marginal.

In March 2017, Capitec announced its new banking fees which saw prices increase across most of its transactions albeit from a low base involving single price transaction costs. The FNB's new banking fees came into effect from 1 July 2017 and included a marginal increase in the monthly account fee for its Gold account. FNB kept its fees largely unchanged from 2016/2017 period, introducing two new accounts in the form of FNB and FNB Premier Fusion Account. The R1.40 fee makes it the most affordable point of sale (POS) withdrawal fee of the major banks, except for Nedbank which still offers the transactions free. The next banking fees review took place at the end of 2017,

when Standard Bank, ABSA and Nedbank updated their fee structures. Capitec conducts its annual fees review in March whilst FNB does it in July.

The FNB has published its new banking fees for the 2018/19 period. The bank has kept some of its prices unchanged, that is, the monthly fee for the Gold Account. Other prices have been hiked in line with inflation and include the adjustments for the recent VAT increase. From 1 April 2018, the VAT rate was hiked to 15%, which translated to a 1% increase in fees across most of the commercial banks, though some of these costs have been absorbed by the banks.

The tables below show how fees for SA's five major retail banks have changed year-on-year, taking into account the change in VAT. The accounts used are the banks' mid-market accounts (Business Tech, 4 June 2018). The calculations are based on a R500 transaction, which the banks have said is the most common range for cash-based transaction in the country. Absa, Standard Bank, Nedbank and Capitec rates (adjusted for VAT) have been in effect since 1 April 2018, with FNB's new rates commencing from 1 July 2018.

ABSA

Absa Gold Cheque Account	2017 Fees (14% VAT)	R500 transaction in 2017	2018 Fees (15% VAT)	R500 transaction in 2018	% Change from 2017 to 2018
Withdrawal (Native)	R3.95 + R1.35/R100	R10.70	R4.54 + R1.41/R100	R11.59	+8.3%
Withdrawal (Other)	R9.95 + R1.35/R100	R16.70	R10.59 + R1.41/R100	R17.64	+5.6%
Withdrawal (POS)	R3.95	R3.95	R4.54	R4.54	+14.9%
Deposit (ATM)	R3.95 + R1.35/R100	R10.70	R4.54 + R1.41/R100	R11.59	+8.3%
Debit order (internal)	Free		Free		–
Debit order (external)	R16.95		R18.16		+7.1%
Account fee (PAYT)	R42.00		R45.39		+8.1%

Figure 8: ABSA

(Source: Staff Writer 4 June 2018. South Africa's banking fees compared.
https://businesstech.co.za/news/banking/249251/south-africas-banking-fees-compared/)

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Standard Bank Elite Account	2017 Fees (14% VAT)	R500 transaction in 2017	2018 Fees (15% VAT)	R500 transaction in 2018	% Change from 2017 to 2018
Withdrawal (Native)	R1.80 per R100	R9.00	R1.82 per R100	R9.10	+1.1%
Withdrawal (Other)	R6.70 + R1.80 per R100	R15.70	R8.07 + R1.82 per R100	R17.17	+9.4%
Withdrawal (POS)	R1.80	R1.80	R1.82	R1.82	+1.1%
Deposit (ATM)	R1.80 per R100	R9.00	R1.82 per R100	R9.10	+1.1%
Debit order (internal)	R4.50		R4.54		+4.0%
Debit order (external)	R16.00		R16.64		+3.1%
Account fee (PAYT)	R55.00		R60.53		+10.1%

Figure 9: Standard Bank

(Source: Staff Writer 4 June 2018. South Africa's banking fees compared.

https://businesstech.co.za/news/banking/249251/south-africas-banking-fees-compared/)

Nedbank Savvy Account	2017 Fees (14% VAT)	R500 transaction in 2017	2018 Fees (15% VAT)	R500 transaction in 2018	% Change from 2017 to 2018
Withdrawal (Native)	R4.50 + R1.40/R100	R11.50	R5.00 + R1.51/R100	R12.55	+9.1%
Withdrawal (Other)	R11.50 + R1.40/R100	R18.50	R12.57 + R1.51/R100	R20.12	+8.8%
Withdrawal (POS)	Free	Free	Free	Free	–
Deposit (Intelligent depositor ATM)	R5.50 + R0.70/R100	R9.00	R1.00/R100	R5.00	-44.4%
Debit order (internal)	Free		Free		–
Debit order (external)	Free		Free		–
Account fee	R100.00		R107.00		+7.0%

Figure 10: Nedbank

(Source: Staff Writer 4 June 2018. South Africa's banking fees compared.

https://businesstech.co.za/news/banking/249251/south-africas-banking-fees-compared/)

Capitec Global One	2017/18 Fees (14% VAT)	R500 transaction in 2017/18	2018/19 Fees (15% VAT)	R500 transaction in 2018/19	% Change from 2017/18 to 2018/19
Withdrawal (Native)	R6.00	R6.00	R6.56	R6.56	+9.3%
Withdrawal (Other)	R8.50	R8.50	R8.83	R8.83	+3.9%
Withdrawal (POS)	R1.50	R1.50	R1.61	R1.61	+7.3%
Deposit (ATM)	90c / R100	R4.50	96c / R100	R4.80	+6.7%
Account fee (PAYT)	R5.50		R5.80		+5.5%

Figure 11: Capitec

(Source: Staff Writer 4 June 2018. South Africa's banking fees compared.

https://businesstech.co.za/news/banking/249251/south-africas-banking-fees-compared/)

Figure 12: FNB

(Source: Staff Writer 4 June 2018. South Africa's banking fees compared.
https://businesstech.co.za/news/banking/249251/south-africas-banking-fees-compared/)

2.2.2 Trend Analysis of Factors influence Monetary Policy

According to the Constitution of South Africa, the ultimate objective of the monetary policy in the country is "_to establish a stable financial environment in support of sustainable real economic growth over the medium and long-term_". Since 2000, the core inflation has been targeted in the 1 – 6% range. The SARB achieves financial stability by influencing the money supply and bank credit extension to the private sector. The bank does this with operational instruments such as the minimum cash reserves for banking institutions, open market operations and short-term money market interventions through swaps and repurchase transactions (Mboweni, 2000).

SARB influences the demand for credit through influencing the level of the repo interest rates as the operational instrument. Its primary objective is to influence interest rates in order to combat inflation. There must therefore be a link between the quantity of money circulating in the economy and interest rates; and the macroeconomic variables such as price level, the level of employment and the gross domestic product (GDP).

Lower interest rates bring about more investment projects to South Africa. Increased investments in the country, result in an increase in GDP. The danger though is that lower interest rates and concomitant greater money supply might

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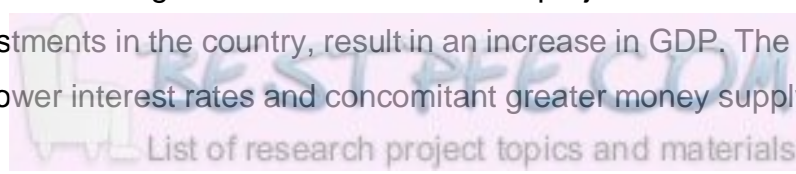
increase the inflation rate. The repo rate is the rate at which the SARB grants assistance to the banking sector and therefore represents a cost of credit to the banking sector. When the repo rate is changed, the interest rates on overdrafts and other loans extended by the banks also tend to change. In this way the Reserve Bank indirectly affects the interest rates in the economy.

In 2000, SA government and the SARB targeted the CPIX inflation rate between 3 to 6 percent measure on annual average by the end of 2002. SARB reviewed the monetary policy in 2015.

The following graphs show the trends of instalment debtors, suspensive sales and leases, instalment sale over per capita GDP, debt to GDP, unemployment rate, and Inflation rate between 2002 and 2018.
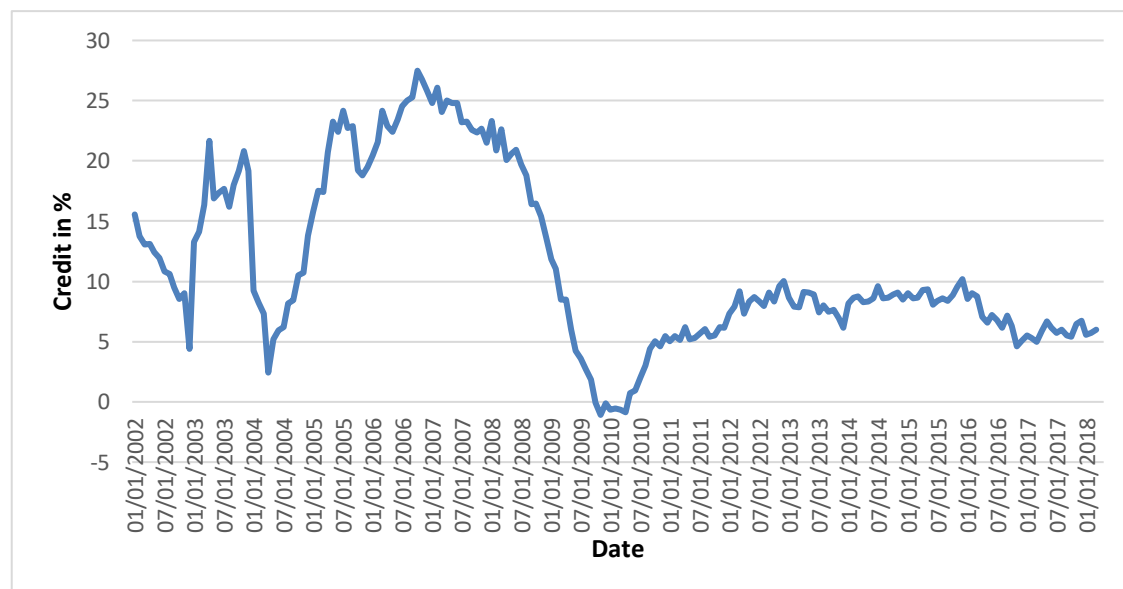
Figure 13: Total credit extended to private sector 2002-2017

Figure 8 shows that the credit extended to private sector was high between 2004 and 2008 with a maximum of above 25% in 2007. This sharply declined in 2008 to 2010 due to credit crunch which was precipitated by the global financial crisis of 2008. Figure 13 shows that the total credit extended to private sector, although improved slightly around 2011, it never reached the pre-2008 levels. As illustrated in Figure 13, in 2010 credit picked up by about 5% and

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remained consistent within 5%-10% of credit extended to private sector (SARB, 2015). In addition, 2003 and 2004 also saw a sharp decline due to a decline in economic growth confidence impacting on affordability (SARB, 2015). These anomalies dropped to below 5% in both 2003 and 2004. Thus 2005 to 2008 were lucrative in terms of credit extended to private sector compared to years post 2008 (SARB, 2015).
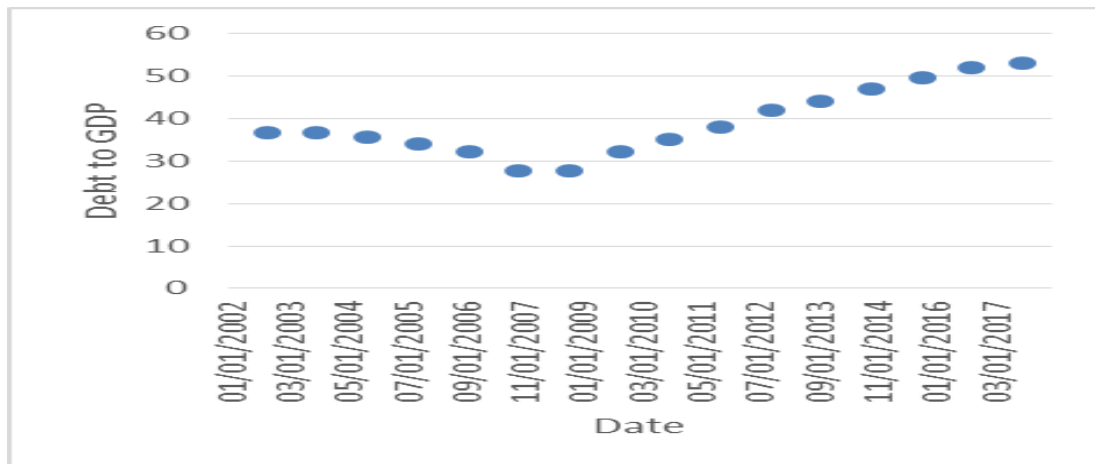
Figure 14: Public Debt to GDP

Figure 14 shows that the public debt to GDP ratio stood below 40% which improved to below 30% in 2007. However, the ratio began to rise above unacceptable levels from 30% in 2010 to 55% in 2017. This is due to high spend with a declining economic growth. The rise in the debt to GDP ratio is also attached to political instability and the country's poor economic performance.

The unemployment rate in South Africa has never been below 20% since 2002 according to Figure 10. The highest experiences were in 2002 which hit 29.3% and slowed down to the levels of 24% between 2004 to 2010. Unemployment rose to 25% in 2012 and 27.7% in 2017. There is however the presence of trend and seasonality behavior in this pattern.

The inflation rate went below zero (-4%) in 2003 to 2004 falling from 11% levels in 2002. Inflation rate is uneven due to fluctuating consumer price spend. In 2010 inflation accelerated to a maximum of 8.6% from 0.4% level in 2006.

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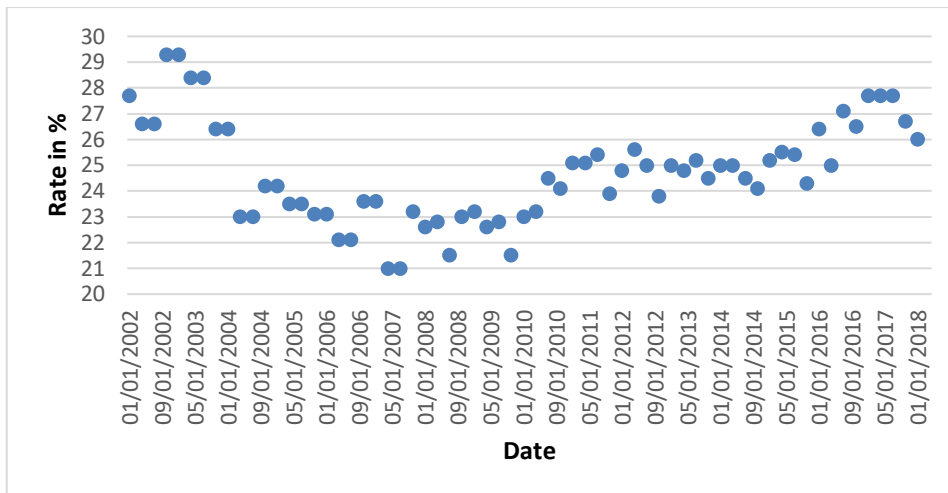
Figure 15: Unemployment rate 2002 – 2018

However poor economic conditions dropped inflation rate to 3.4% in 2010 which remained below 6% from 2010 to 2017 in line with the inflation targeting economic policy regime adapted by the Reserve Bank.
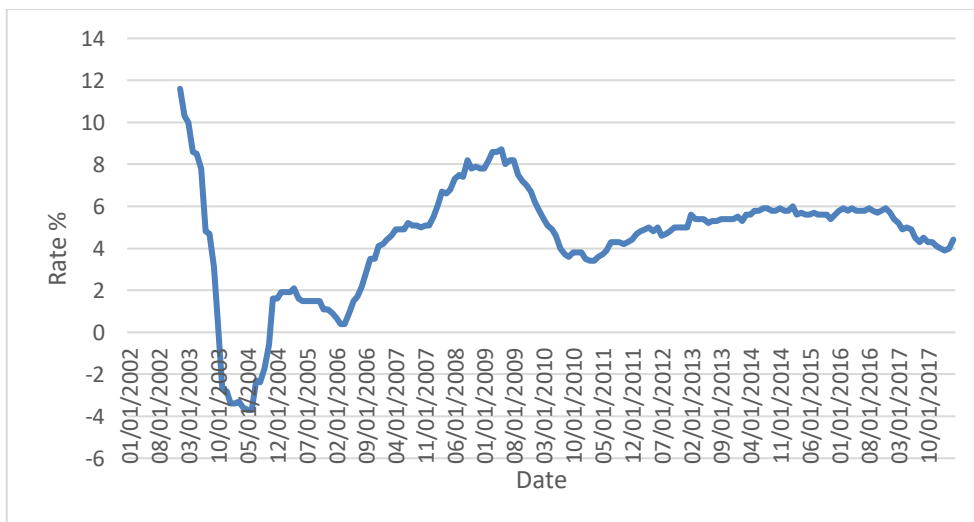
Figure 16: Inflation rate 2002 -2018

2.3 THE SOUTH AFRICAN ECONOMIC CONTEXT

South Africa represents the most sophisticated and developed economy in the continent. It is one of the most industrialized countries in Africa. The economy relies heavily on the mining sector, as well as the dynamic agricultural and financial sectors. South Africa is an upper middle-income economy according

to the World Bank measurement standard. The Gross Domestic Product (GDP) in South Africa was 349.42 billion US dollars (R4.2 trillion) for the fiscal 2017 (IMF, 2016).

To create large numbers of jobs, build an inclusive and transformed economy and reduce inequality and poverty, South Africa requires a solid sustainable expansion. The key challenge is the diminished structural and financial support by the private sector into the economy, unabated unemployment and declining real per capita income. The structural deficiencies have undermined the sustainable development of the economy.

The downgrading of South Africa's credit rating by the three major rating agencies made it more expensive to avail funding for developmental projects critical to the growth of the economy and job creation. The weak pace of growth, large fiscal debt burden and sizeable contingent liabilities were instrumental in the country's credit rating status.

In 2018, the public debt was over 55% of GDP and the budget deficit approaching 5% of the budget and just over 2 % of the GDP - lower than in the past but still requiring foreign financing that adds to South Africa's external liabilities (World Bank , 2018). The real GDP growth, at constant factor prices is projected at 1.4%.

2.3.1 Economic Indicators

Table 2: Economic indicators

Main Indications	2015	2016	2017	2018	2019
GDP (billions USD)	317.57	294.90	344.06	361.08	374.26
GDP (Constant Prices Annual % Change	1.3	0.3	0.7	1.1	1.6

GDP per capital (USD)	5,800	5,302	6,089	6,292	6,418
General Government Balanced (in % GDP)	-3.9	-36	-3.40	-3.4	-3.4
General Government Gross Debt (in % of GDP)	49.3	51.7	53.0	55.6	57.1
Inflation Rate %	4.6	6.3	5.4	5.3	5.5
Unemployment Rate (% of the Labour Force)	25.4	26.7	27.6	28.3	28.5
Current Account (billions USD)	-13.95	-9.62	-9.81e	-11.76	-13.51
Current Account (in % of GDP)	-4.4	-3.3	-2.9	-3.3	-3.6

Source: World Bank, 2018

Note: (e) Estimated Data

2.3.2 Main Industry Sectors

South Africa is endowed abundantly in mineral resources. The country is the world's largest exporter of gold, platinum, chrome and manganese and the fourth largest producer of diamonds. Eighty percent of the worlds' platinum is produced in South Africa, and 60% of the world's coal reserves are situated in the country. Oil and gas reserves are presumed to be situated off coast in the Indian Ocean. South Africa has diverse manufacturing industries and is world leader in several specialized sectors, including railway rolling stock, synthetic fuels, mining equipment and machinery. The industrial sector employs nearly one-fourth of the workforce and represents 29,7% of the country's GDP.

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The services sector is expanding, employing over 70% of the workforce and it was estimated that it would represent 67.5% of the country's workforce by 2017. The major sectors of the economy are finance, real estate and business services, followed by general government services. The country has a sophisticated financial services structure with an active stock exchange that ranks among the world's top 20 in terms of market capitalization. The tourism sector has struggled to capitalize on the positive gains it received from the FIFA World Cup in 2010, whilst benefiting from the weakness of the rand and visa facilitation. In 2017 South Africa welcomed 16 million foreign tourists, with an increase of 4% over 2016 but still significantly below average increase of 7%.

Agriculture represents only small part of the country's GDP (2.8%) and employs less than 5% of the country's workforce. South Africa is the world's largest producer of wine and the continent's largest corn and sugar producer.

2.3.3 Economic Activity by Sector

Table 3: Economic activity by sector

Breakdown of Economic Activity by Sector	Agriculture	Industry	Services
Employment by Sector (in % of Total Employment)	5.6	23.4	71.1
Value Added (in % of GDP)	2.4	28.9	68.6
Value Added (Annual % Change)	-7.8	-1.3	1.4

Source: World Bank latest data due to rounding, the sum of the percentages may be smaller/greater than 100%.

2.3.4 Socio Economic Context

The history of apartheid in South Africa entrenched a deeply polarized nation. Although the racially driven political system was abolished in 1994, the impact of its damage to the society will take years to be removed completely. Since the advent of the new political order, the government has initiated many interventions to address the imbalances of the past. Chief amongst these interventions was the Reconstruction and Development Programme (RDP) applied as a long-term strategy to change the lives of the majority of poor South Africans.

However, the RDP was deemed to have failed in the maximization of revenue and tax collection, rather focusing too narrowly on fiscal redistribution across various segments of society. Faced with these challenges, the government decided to implement a new macro-economic policy framework termed the Growth, Employment and Redistribution (GEAR) Strategy in 1996 to stimulate faster economic growth which was required to provide resources to meet social investment needs. The policy was also aimed at reducing fiscal deficits, lowering inflation, maintaining exchange rate stability, decreasing barriers to trade and liberalizing capital flows.

In early 2013 the government introduced the National Development Plan (NDP) Vision for 2030 as South Africa's long-term socio-economic development roadmap. This policy was adopted as the cornerstone and blueprint for a future economic development strategy for the country at the 53rd African National Congress in Mangaung, in December 2012. The National Development Plan is viewed as a policy instrument for eliminating poverty, reducing inequality and creating sufficient jobs in the economy by 2030.

As a long-term strategic plan, the NDP serves four broad objectives, including providing overarching achievable goals by 2030, Building consensus on removing obstacles and achieving goals **to** providing a shared long-term

strategic framework within which more detailed planning can take place in order to advance the long-term goals set out in the NDP and creating a basis for making choices about how best to use limited resources.

2.4 SUMMARY

The contextual background provided in this chapter shows that the South Africa economy is highly financialised. This is attributed largely to the advanced banking system and its infrastructure. The banking industry plays a pivotal role in the millions of decisions that are taken daily to ensure economic and business activity occurs undisrupted. The extent of indebtedness and financialisation of the public and private sector is explored in the ensuing chapters.

This chapter laid down the foundation of this work by articulating the gaps in knowledge from which research questions of the study emerge. The critical realism philosophical paradigm underpinning the assumptions made was explained and will be further expounded in chapter four. The next chapter presents literature review related to the topic of the study.

CHAPTER 3: LITERATURE REVIEW – THEORETICAL AND CONCEPTUAL FRAMEWORKS

3.0 INTRODUCTION

This chapter presents the theoretical framework of this study (section 3.2). This followed by arguments mounted to frame the hypothesis of this study. These arguments explain how indebtedness, financialisation and economic development are linked. The chapter concludes by presenting a conceptual framework that shapes the development of the indebtedness framework that will be specified in chapter four and tested in chapter five.

3.1 THEORETICAL FRAMEWORK: FINANCIALISATION

Literature on financialisation was initiated in the US in 1994 by Phillips who wrote a chapter in *Arrogant Capital* titled 'The Financialization of America". The adoption of financialisation as a theoretical framework to explain systemic indebtedness increased in the early 2000's. Epstein (2002:3) put forward a definition of financialisation that was accepted by most authors in the field of financialisation:

'"Financialization" refers to the increasing importance of financial markets, financial motives, financial institutions, and financial elites in the operations of the economy and its governing institutions, both at the national and international levels'

Epstein explains financialisation as the expansion of financial capital in a way that impairs the growth of the productive sectors and invariably the entire economy. As explained by Iancu (2013, p.5) the financialisation of the economy "*has been achieved through banks, capital markets and, partially, non-banking financial institutions, using as instruments crediting, securities issuing and trading*". Iancu (2013) further explains that financialisation can be expanded by: (1) increasing public and private indebtedness; (2) credit securitisation; and (3) by using financial derivatives.

Van der Zwan (2014) describes the concept of financialisation as a shift from industrialisation to financial capitalism. It is an emergence of a new regime of accumulation, ascendancy of shareholder value orientation and the financialisation of everyday life (Van der Zwan, 2014). This means investment in the industrialisation of the real economy is sacrificed in favour of financial market capitalism (Epstein, 2005).

Earlier, Aglietta (2000) expressed the view that shareholder value has become the norm in the financialisation process. Financialisation has brought about a new era of corporate governance in which profit maximization interests define the policies and practices of business organizations (Aglietta, 2000). The interests of organized labour, the importance of growing the economy, and the investment in long-term projects are removed from the corporate strategy agenda.

Financialisation means the increasing role of financial motives, financial markets, financial actors and financial institutions in the economic activities of nation states (Kaworski and Hammer, 2016). In other words, financialisation is portrayed as involving the systematic annexation, control and expansion of major financial institutions to ensure unrestricted entry into globalized and financialised market economies (Lapavitsas, 2016). This goal is being attained by also influencing the central banking monetary policy indispensable to the advancement of rentier interests in the speculative financial markets (Epstein, 2005; Lapivitsas, 2015; Van der Zwan, 2014;).

Government policy has actively promoted financialisation via financial market liberalization (Lapavitsas, 2016; Epstein, 2005). Reducing domestic regulation and international barriers to capital moving between countries has been the key foundation of government policy to enable financialisation (Lapavitsas, 2016). As a result of financialisation, the financial sector has been increasingly engaged in short-term speculative investment and the massive extension of credit to households (Iancu, 2013).

Onaran and Tori (2017) as well as Karwoski and Stockhammer's (2016), observed that inequality and decline in productivity are outcomes of financialisation. Hyde, Vachon, Wallace (2018) did a study where they looked at the relationship between financialisation, income inequality and redistribution in 18 affluent democracies. This view is echoed by Mawdley (2018) who observed a deepening of the relationship between financialisation and "development" that sees financial instruments being used in development projects in the South.

As explained by Mohamed (2017), financialisation of economies has resulted in the reduction of long-term investment strategy, lack of diversification and over-reliance on the minerals, energy and finance economic paradigm. Furthermore, the volatility and instabilities ingrained in the financial markets have befallen businesses and households forcing them into protracted indebtedness (Epstein, 2005).

3.1.1 Financialisation: The Liberal Perspective

Scholars from the liberal school of thought (Ratajczak, 2011; Freeman, 2010) argue that, essentially the failure to properly manage deleveraging, collateral debt obligations, credit default swaps and other multiple systemic risks is responsible for the continued global economic stagnation as well as endemic indebtedness. Liberal scholars situate the problems right at the apex of the speculative stock market framework with the mainstream view that the inherent systemic market risks will be resolved by the market itself.

The liberal position is that the state has been impartial in its interventionist projects on the financialisation problem. Their point is that market has benefited unduly due to the autonomy granted to the central banks, extensive privatization and the deregulation laws. State intrusion into the financial markets is seen by most liberals as largely an effort to protect business. The liberal position is that government's actions and relations with capital need to be denounced for having played a significant role at various levels to bring about the financialisation crisis. It has been the prevailing viewpoint of the liberal

economists that "market failures were considered a marginal phenomenon, while manifestations of state failure were treated as fundamental and inherently destructive for market" (Ratajczak, 2011, p. 204).

According to Ratajczak (2011, p. 202) *"orthodox representatives of mainstream conservative economics treat everything linked to financialisation as an indication of certain natural changes in the market economy which do not give sufficient justification for significant paradigmatic revisions or changes to fundamental theories or models".*

Ratajczak argues that the significant evidence of frequent market crashes caused by endogenous factors in the market place must be enough to persuade mainstream thinking about the risks associated with the manner the global Financialisation system is organized. Ratajczak does not support the idea that the decades of perpetual market crashes are as a result of the failure to effectively manage the securitization of financial instruments; and that the financial derivatives will eventually correct themselves.

Ratajczak (2011), writing to support the liberal interventionist reforms, contends that the information asymmetry about financial products in the market is the source of ill-informed and reckless speculative practices. This information asymmetry also includes rating agencies who become subjected to a "complexity of financial instruments constructed under financial engineering". Ratajczak holds a view that in the history of financial markets crisis and crashes, the rating agencies have given little upfront warning or direction about the impending crisis associated with the financialisation crisis.

Within the context of the liberal economic paradigm, Freeman, (2010, p.165) writes that *"the spread of rent seeking leads to the violation of the fundamental rules of trust between sellers and customers. It also results in the old Latin maxim of caveat emptor (buyer is responsible) taking on new significant importance".*
Freeman expresses concern about the fact that the notion of moral hazard has been stretched far beyond the limits of rationality and responsibility by the

markets. The markets know they are protected unconditionally by the government by way of the "*state as the insurer of last resort*" dictum, should any uncontrollable crisis befall it. The liberals thus contend that the Financialisation problem is largely a manifestation of errors made by the state" (Ratajczak, 2011, p. 208).

In a ground-breaking research, a liberal academic, van der Zwan (2014, p. 103-121), introduces other dimensions from which financialisation can be analysed. Van der Zwan scrutinizes the impact of financialisation on the daily lives of ordinary individuals. In her work, van der Zwan calls for a democratization of the financial services to suit the needs of non-corporate clients. The access to financial services means that individuals should be made to take control of the services that were previously provided by their employers or state. van der Zwan maintains that individuals need to self-provide and self-manage pension funds, health care and home mortgages.

Writing in support of the stakeholders in the financialisation sector, van der Zwan (2014, p. 112) also states that "Financialisation theory dictates that it is only through risk taking that the individual can achieve the type of investment return necessary to sustain himself". She maintains that risk is one motivating force to enter financial markets for protection against possible unemployment, poor health, and retirement.

On this liberal view, van der Zwan (2014) argues that there needs to be proportional benefits for economic actors in the financial markets. She maintains that these benefits must accrue not only to shareholders and executives but also must include ordinary wage earners and their household. *"Whether through employee stock ownership plans or home mortgages, wage earners increasingly rely on financial markets for the provision of social goods",* she argues. Van der Zwan's position is that the democratization of the finances needs to elevate the segments of the population to the status of capital owners (van der Zwan, 2014, p. 120). She says whilst the subprime mortgage crisis exposed the weaknesses of Financialisation theory, it is unfathomable to envisage the possible existence of a substitute. Her analysis shows that

ordinary citizens need to take control of their financial destiny as evidenced in the multiple worldwide increment of community-based co-operatives, banks and peer- to -peer lending platforms of communal financial self-help initiatives, thus demonstrating that ordinary citizens need not be victims but active participants within the realm of Financialisation. Van der Zwan's viewpoint fits very well with the liberal agenda. She accedes to the need to reform the Financialisation system through reforms that empower stakeholders to increase output. Some of the key positions advanced by the liberal school are discussed further.

The liberal camp has been making many attempts to revise and incorporate the Conservative 1920 Chicago Plan into the current global political economy. Another latest landmark research presented by two IMF critiques in "*Chicago Plan Revisited*" provides an outlined transition from a system of privately issued debt-based money to a system of government issued debt free money (Benes and Kumhof, 2012, p. 1-55).

The key purpose of the plan (still is) was to distinguish and separate operationalization of monetary and credit functions in the banking system. *"The Plan requires a 100% backing of deposits by government issued money and the banks can only finance new credit either through government money or from non-government deposits without the creation of new deposits ex nihilo"* (Benes and Kumhof, 2012, p. 4).

Benes and Kumhof (2012) cited four key benefits in the Plan, originally published by Fisher (1936) and paraphrased in the following points (i) a complete cessation by banks to create own funds, thus eliminating the ability to create and destroy funds during subsequent contractions would allow for a much better control of credit cycles which were perceived to be the major source of business cycle fluctuations. (ii) 100 % reserve money backing would eliminate bank runs. (iii) The ability of government to issue money directly at zero interest, rather than borrowing the same money from the banks with interest (iv). The separation of money creation from debt creation (Benes and Kumhof, 2012 p. 4)

The authors of the original Chicago Plan wanted to ensure that the government is not burdened with national debt issues but is able to avail public equity for the common good of the nation. The Chicago Plan raised the point that major economic crises have been preceded in most cases by high levels of private and public credit. The empirical evidence of this assertion is presented in the studies by Schurlarick and Tanya (2012, p. 4) and Kumhof and Ranciere, (2010, p.8), who advised that economic recession may be used as a barometer to measure the state of indebtedness in an economy.

Benes and Kumhof's (2012) review of the Chicago Plan illustrates the need to separate the quantity of money and the quantity of credit as two separate variables independent of each other. They advanced the point that the growth of money and credit in the monetary system will be governed by separate rules to ensure discipline and caution in the banking system. In other words, banks would be prevented to create their own funds just like any other business enterprise in the economy. The current global total debt far exceeds the combined global net worth (CIA, 2014). The former stands at $ 230 trillion dollars and the latter is $ 107 trillion dollars *"The Chicago Plan Revisited"* advocates for the reduction of private debt by way of purchasing large amounts of private debt from banks "*against the cancellation of treasury credit*" (Benes and Kumhof, 2014, p. 6).

The plan endorses the retention of "*socially useful*" credit which can have an overall positive impact in the real economy but warns about the proliferation of credit practices aggravated by private institutions in favour of a government which can create adequate money supply that is debt free.

However, it does have its own limitations as pointed out by Fiebiger (2014) critiquing the absence of post Keynesian literature in the review by Benes and Kumhof (2012). The proposed debt relief approach for private debt is regarded primarily as dependent on a political decision rather than a requirement for reform. The "Chicago Plan Revisited" according to Fiebiger (2014) is quiet in respect of the national debt default based on domestic currency issued debts. Fiebiger contends that the only path out of the crisis can only take place via

Keynesian policies that seek to "*restore full employment and shift distribution back towards ordinary labour*" (Fiebiger, 2014, p. 249).

Furthermore, Wray (2014) argues that economies are fully monetized in the developed nations and the current global monetary system cannot carry the size of due payments to clear off outstanding liabilities. There is not enough cash in the monetary system to allow interminable debt payments to take place. Wray contends that the establishment of specialized institutions must be accepted in order to issue monetary IOU's and enable the activity of debt servicing to occur.

The scale of economic activity is significant and modern monetized capitalist economy should develop systems for monetary IOU's to release the blockages caused by the lack of debt settlement at the point of payment. Wray is a liberal reformist who does not support the total transformation of the current financial system but contends that changing the banking system is imperative even if it means the unbundling of the large financial institutions so that governance mechanism can be properly implemented.

The mainstream economists contend that there is no justification for the fundamental transformation of the current global market conditions. Nonetheless, there is schism amongst them in terms of defining and appreciating the reality they are confronted with. On one hand, there is acceptance that the global financial system is experiencing frequent cyclical market crises as a consequence of failure to manage the complexity and contradictions of international stock and forex markets and on the other, markets are regarded as highly efficient and properly organized. Any deviation from the norm is subjected to immediate self-correction imposed by the efficiency of the markets and there is nothing improper about Financialisation and debt saturated markets.

The "Chicago Plan Revisited" is a comprehensive liberal monetary reformation proposal potentially capable of influencing major policy changes if properly

implemented yet is conspicuous by its absence in the mainstream political and economic institutional discourses.

From the above, it emerges that at the global, local and individual stakeholder level, the liberal model seeks to promote concrete action-based programmes as strategies of reforming the Financialisation process. This action- based model certainly has merits which if, linked to the processes in the real level, could lay the foundation for a long-term sustainable development path for all the stakeholders in the Financialisation sector.

3.1.2 Financialisation: The Radical Perspective

The radical perspective locates the Financialisation debate at the real level, on the very nature of the philosophy underpinning the capitalist accumulation imperative. Thus, according to Lindberg referred to as ILsup AHN (2013, 5-32), there are two distinct schools of thought within the radical Marxist camp. One camp referred to as the revolutionary Marxists argue that the inevitable downfall of capitalism will be triggered off by the falling rate of profit. The other camp comprising Neo-Marxists think that the inevitable collapse of the capitalist economy will be caused by the ever-growing presence of Financialisation.

The revolutionary Marxists (RM) and the neo-Marxists (NM) scholars, both agree on the fundamental diagnostic, that the capitalist economy is based on inherent contradictions which because of its own logic and nature, fails to resolve the endemic problems embedded in it. Both camps foresee an eventual systemic breakdown of capitalism. However, they are at variance in identifying the way forward out of the financialisation crisis.

Neo Marxists, Moseley, Bellamy, Foster, and Magdoff consider capitalism as a system highly dependent on accumulation in order to survive. Labour is therefore regarded as a critical *commodity to maintain consistent production in the process of accumulation. "Against the backdrop of these economic principles, the theory of the falling profit was established*" (ILsup AHN, 2013, p.12).

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The Neo-Marxists maintain that the increasing challenge of maintaining capitalist profits amidst a process of accumulation has necessitated the growth of financialisation. However, financialisation is not considered as an absolute solution because as Foster (2010, p. 1), argues… *"Financialisation of the capital accumulation process is coupled with speculative growth of the credit-debt system"*. According to Forster and Magdoff, (2014, p. 2), Financialisation was developed as response to deal with the continuous tendency of capital stagnation in the real economy, which successively cause falling rate of profit. In a capitalist economy, lies an irreversible outcome of stagnation rooted in the system of production and accumulation.

Whilst the RM's and the NM's have both articulated a strong argument for the removal of a global capitalist economy, there is still an unobtrusive evidence of how socialism can resolve effectively the conundrum of a debt saturated global economy. Habermas position (1980, p. 2) is that major economic crisis fuelled by stagnation and systemic indebtedness in developed economies cannot be resolved by enacting a socialist economy. He rather thinks the problem could be resolved by a "*reconstructive political approach grounded on legitimate law validated by those who are seriously affected by the crises*" (Habermas, 1980). This is indeed a plea for a political economy anchored on the precepts of law and justice in order to uphold and protect the inviolable right of those who have fallen victim to the vagaries of modern capitalism. The Habermasian reconstructive approach is thus opposed to the Marxian revolutionary alternative.

The Habermasian school of thought posits that the complication of systemic debt in the economy should be politically managed as a consequent of the rule of law. Habermas argues that the pressures of multiplying debt in the global capitalist economy cannot reside exclusively in the prism of the economy but within the sphere of state political power incorporating the rule of law and order. The Habermas reconstructive critical theory expresses how a "pure economics" approach to global finances has become a real problem to the legal/political economy of the world.

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Habermas maintains that the complication of debt goes beyond the economic relation between debtor and creditor. He points out that "*the economy of the debt as such can be politically appropriated through the establishment of the law for the stakeholders of the political economy of debt".* On this view, ILsup AHN, (2013, p.20) notes that the internationalization of a political and legal framework should go a long way in minimizing the ills of a debt saturated economy faced by various stakeholders.

The Habermasian reconstructive political economy of debt demands a progressive engagement with the phenomena of debt to find solutions by means of managing the debtor and creditor relations to ensure equality and fairness before the law. His reconstructive political economy of debt approach can enable the debt repayment obligation to continue without undue losses to both creditor and debtor in the future.

ILsup AHN (2013) states that the central role of the political economy of debt is to maximize the protection of stakeholders from possible abusers as debtors or creditors whilst promoting its mutual good and purpose in society. He contends that the political economy of debt does not envision a debtless society as its goal, nor does it denounce the economy of debt but strongly advocates a society in which the rule of law governs the relations of stakeholders within the political economy of debt existence.

In an un-paginated on-line article by Amin (2011), a proposal out of the current debt crisis is presented. Amin suggests that *"nations should socialise the ownership of monopolies, de-financialize the management of the economy and deglobalize international relations (2011). Amin argues that the imposition of shareholder value remit as a strategy for accumulation needs to be removed. He contends that the emphasis of "market driven" compensation is a guise of ensuring that the growth of monopoly rents*" is sustained.

The position of the radical school is that the de-financialisation of the global economy will basically mean a pronounced shift from a finance-led global

economy to "nationally prioritized" social economy. It will be a process of restructuring the current global credit framework to allow a greater involvement by the government and society. The markets would thus be redesigned and reorganized according to the broader national development goals that determine the financial sovereignty of each nation.

Lapavitsas (2011, 2016) and Fine (2010) on the role of the state in the financialisation issue, raise the point that the state needs to turn its attention to the capitalist mechanism underpinning the Financialisation process and use its political power to set the guidelines for the stakeholders in the actual level to operate. This then, carries forth the cardinal point that of all the layers that comprise social reality (and by implication, the Financialisation sector) the real level is the most central.

It sets the tone for the various stakeholders to function. And it is at this level that the state can indeed act to influence policy making, strategy and plan formulation processes. It is in the context of this axiom that Lapavitsas (2016, p. 1) explores deeper the level to excavate the conundrum of financial appropriation caused by wage stagnation and low public interest rates. Lapavitsas illustrates how households and the labour power have been devalued and exploited through a process of financial expropriation. The labour power was subjected to a process of direct appropriation of value by means of both asset and interest payment (2009a p. 9-13). In this context, direct appropriation means the restructuring of the labour wages by capital in order to create a need for workers to access the credit market.

The advent of the labour market deregulation gave rise to privatization and significant losses of jobs which in turn resulted in the upsurge of loan usage to cover the costs of private consumption, housing, health care, and education. In addition, the financial deregulation represented a new status quo in which financial capital took place centre stage to direct private savings into financial markets through specialized investment of pension and insurance funds.

A conflicting analysis by Fine (2010) maintains that Lapavitsas exaggerates the role of appropriation of the working-class revenue as an element in the current crisis. Fine claims that the concept of financialisation and the exploitation of workers is misunderstood. There is an over-simplification of the value of labour which is magnified by the reduced understanding of the working class (Fine, 2010, p. 100).

The "*financial expropriation*" concept is deficient because its existence is linked to the values of labour power that is taken out of wage revenue by the supply of banking services (Fine, 2010, p. 100). Fine claims that labour represents a distinct unique set of features separate from those of reproduction which cannot be explained in terms of labour time or money except in theoretical terms. Financialisation is not merely about new widespread kind of wage expropriation but is "*generalized across the economy as a whole, including the financial operations of putatively independent industrial corporations*" (2010: 113).

Fine proposes the introduction of a system provision in order to evaluate every element of reproduction that will determine precisely the value of labour power. He argues that Financialisation is broader than wage expropriation and needs to be understood in the context of the entire economy. However, both Fine and Lapavitsas agree that the interest-bearing capital has played a significant role in the advancement and expansion of Financialisation in the global economy.

Lapavitsas maintains that financialisation is systemic transformation of mature capitalist economies with three distinguishable features. Firstly, the relations between large non-financial companies and banks have been altered as the former have come to rely on internal finances while seeking external finance in open markets. Large corporations have acquired independent financial skills. They have become financialised (Lapavitsas, 2011: 613). Secondly, Lapavitsas argues that banks have consequently transformed themselves and turned toward mediocrity transactions in open markets. They have also turned toward individuals in terms of lending and handling financial assets (Lapavitsas, 2011: 614). Thirdly, he contends that workers have become increasingly involved with the financial system of borrowing and holding financial assets. The retreat of

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public provision in housing, health, education, pensions and so on has facilitated the Financialisation of individual income, as have stagnant real wages.

The result has been the extraction of bank profits through direct transfers of personal revenue, a process referred to as financial expropriation Lapavitsas (2011: 620). Financialisation has taken control over many areas of the economy creating massive gaps of credit accumulation in both the public and private sectors. His arguments are solid and require to be considered if a total relook of the current debt-centric global economy is to be successful. His position has been echoed by Fine (2010, Bryan and Rafferty (2006), Sotoriopoulous and Lapatsioras (2014), Flood and Garber (1983 p. 12), Hussman (1991, p. 5), Hart and Kreps (1986, P.927), Arrow and Debreu (1954), Flood and Garber (1980), and Hirshleifer (1980 and Akdal, 2009, p. 2), among others.

Bryan and Raffety (2012) seem to share the same mind-set with Lapavitsas regarding the process of reproduction of labour and finance through illicit extraction of surplus value. Consequently, financial expropriation, can be explained as a mechanism for workers in which the loss of wages or future loss of wage increments is replaced by credit access in order to maintain the same standard of living and acquire more assets on credit with the hope of asset value appreciation in future.

According to Sotoriopoulos and Lapatsioras (2014) "*Financialisation generates and spreads a new kind of "governmentality" in the Foucauldian sense*" (2014, p. 92). Financialisation is an extensive power transferred into the hands of financial markets using various channels of expertise in business, society, government and selected academic institutions to justify its purpose and existence.

In this Foucauldian context as presented by Sotoriopoulos and Lapatsiorias (2014), there is seemingly a normalization of quantified and commoditized risk by appearing to manage market disruptions and commodity price drops. A perception of being in control is created to bring about market stability. Both

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argue that this "creates fetishism of certain sort which results in "individualization" and normalization of risk profile formations and thus impacts on every member of the population" (2014, p. 94).

The more individuals and governments are exposed to credit risk, the more vulnerable they become and compound further risk which creates an opportunity of "financial governmentality" that ensures the "engineering" of these pliable credit markets is achieved through extended entrapment in systemic indebtedness. The radical view demonstrates that the stakeholders do operate in the context of guidelines as set by the imperatives of capitalism.

3.1. 3 Financialisation and indebtedness

When people are unable to meet the repayments of their credit, be it rent, mortgage and household bills, they are regarded as indebted (Gloukoviezoff., 2006). Gloukoviezoff (2006) explicitly links indebtedness to financialisation when he explains how every financial product including, bank accounts, credit schemes and pension schemes, are related to financialisation. The wide diffusion of financialisation is attributed to urbanisation, growth of female employment, and individualisation of societies (Gloukoviezoff., 2006). While financialisation has its advantages, which include access to finance, and decent living standards enabled by credit, when it gets out of control it creates indebtedness. Over-indebtedness is a major problem that affects both borrowers and financial institutions, and even the whole society (Alleweldt, et al., 2014).

According to Macleod (1891), Werner (2012), Smith (2013) and Lapavitsas (2011), corporate credit creation policy in the financial institutions is enabled by interest rates that banks charge when they extend credit. The attention is now turned to the relationship between interest rates and indebtedness.

Interest is an amount charged to borrower for the use of the lender's money over a stipulated period. The money that the lender is investing is changing in value with time due to interest being added. This is the reason, interest is sometimes referred to as time value money. In general, interest comprise four

dimensions, principals, investment, length of period and the rate of interest and the amount value. The money invested is referred to as the principal which then grows into an amount value. The difference between the amount value and the principal is the interest earned during the period of investment.

The interest expressed as a percentage of the principal is referred to as interest rate. Interest rates take into account the risk of default. The bank charges factor in variables such as service costs, risk premium against possible defaults, compensation for inflation and profits. A key reminder is that the interest and the rate of interest are not identical. Interest is calculated by multiplying capital value by the rate of interest. Interest payment is at the heart of systemic indebtedness and financialisation (Epstein, 2005).

The notion of the interest charges lies at the core of the banking system. An interest-based debt comprises net capital value invested in the system. In other words, the time value over the period of the interest paid for a loan provides more return than the principal amount. A simple example, a home loan of R500 000 paid at a fixed amount of R5000 per month for twenty years would cost R1 200 000 million. The interest paid would be R700 000 and more than the principal amount of R500 000. Interest compounds the magnitude of debt. Debt is always reasonably manageable but gets into default due to high levels of interest rate charges over long periods of years.

Some first world countries like Sweden have established an interest free banking institution known as JAK. This bank has been called the safest in Sweden (The JAK Members Bank, 2004).. The primary purpose of this bank is to provide its members with interest free loans. To accomplish this objective, the bank offers interest free savings (The JAK Members Bank, 2004). The activation of loans must be preceded by savings for at least six months. Like any bank, JAK bank must ensure that loans can and will be settled. Its unique features enable the bank to manage an impressive low rate of defaulters.

Generally, those who can save continuously are the ones who are good performers in respect of loan payment. A system of ensuring liquidity is

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implemented effectively so that there is a workable balance between loan demand and savings. The bank believes that the charging of interest sets up a growth compulsion in the economy and the perpetual growth is unsustainable (Kennedy, 1995). The bank believes that the development of a zero-interest banking mechanism is vital to sustainable economic growth. JAK is a shining symbol of ethical finance and banking practices.

Interest free economies or interest free credit appears to be gaining momentum in some of the first world countries especially with respect to the growth of community-based banking co-operatives in West and Eastern Europe. Credit or debt, it would appear, is an inevitable necessity which brings life into the economic development of a country, but also it is becoming clear that an economic system can also function without interest bearing loans and credit in the development and advancement of any country.

Swartz (2013) proposes that much can be achieved and learned from the Islamic economy in which interest charges are non-existent. The rule of Islam where when a loan is advance the lender is entitled to receive capital only and nothing more (Swartz, 2013). Sidi (2008) argues that the philosophical foundation of Islamic financial system is based on strict adherence to sound business ethics and conduct. The system emphasises ethics, moral, social and religious dimensions to enhance equality and fairness in the business environment. Islamic finance may be viewed as a form of ethical investing or ethical lending. No loans are possible unless they are interest free. According to the Institute of Islamic Banking and Insurance (2012), these loans must be true to the Shariah principles, free from unjust enrichment and must be based on true consent of all parties and be an integral part of real trade or economic activity which includes, inter alia, manufacturing and partnership.

It has been observed in heterodox economic literature that interest-based lending magnifies the concentration of wealth in the hands of a few global institutions. There is greater need to drive the world global financial system towards extraordinary transformation and transition than to be subjected to a regressive financial system which has essentially led to the modern-day

indebtedness in the world economy. However, on the other hand, there are some strong arguments for the justification of the interest charged by the banks. These arguments propound that interest is a compensation to the lenders for the risk they have taken. An opportunity cost which they have suffered and sacrificed as a result of lending out their money. Vessio (2005) mentions an important factor that, if for instance, the borrower is earning profit on the lender's money, it is only reasonable that the lender should share in the profits. Vessio maintains that interest is the value of the "time" which the lender grants to the borrower for making use of the capital. This "time" has an independent value as its duration extends, a progressive increase in its price must take place.

The greatest challenge in the capitalist economy is that of interest-bearing capital as defined in Das Kapital (Marx and Engels, 2000). Interest bearing capital plays a key role in the creation of systemic indebtedness. Locking customers, clients and nations alike into structural debt is not only devastating to the indebted but also destructive to the economy as the profit threshold set by the banks are not achieved.

This study has looked at alternative banking models including the Swiss JAK bank model premised on zero interest for both deposits and withdrawals (Kennedy, 1995). The North Carolina public banking model which relies entirely on a productive investment agenda for the development and growth of the economy (Kennedy, 1995). Said bases his argument on ethical banking practices derived from the Islamic finance philosophy (2008). Tesseman and Kruger (2012) argue for an interest rate commission agent banking system which they contend will remove the current technical and strategic deficiencies in the banking system. Jeffers and Baicu (2012) argue for an improved banking model that will ensure sustainable financial stability. This long-term sustainability includes the state playing a key role. The traditional banking system is under pressure as the result of recurring global economic disruptions in the financial system. The conceptualization and implementation of an effective banking model designed to address national development objectives has been viewed as being long overdue. Jeffers and Baicu (2012) argues that government requires formation of strong network of national industrialization banks (NIB's) to carry out the onerous task of economic development and

industrialization. Maintaining an acceptable industry debt ratio is argued to be the principle would underpin the operations of the NIBs

The critical realist model of financialisation expects actors in the financialisation processes to go the extra mile and incorporate ethical behaviours in their day-to-day activities (Danemark et al, 2000, p. 5-6). Ethical behaviour as several authors have indicated, can save the banks from systemic crises of conflicts, contradictions, domination, inequalities and, above all, indebtedness.

The Marxist solution, however, seeks the removal of capitalism. It is based on the argument that the terminal contradictions motivated by the demand of indefinite profit motive cannot provide a precise strategic mechanism for running the banks. The Marxist model as argued earlier calls for a socialist solution in the financial system. The neo-classical conservative models on the other hand, call for cosmetic amendments without breaking the genetic code of the global capitalist market economy. The retention of financialisation and debt creation policies under this model would therefore remain unchanged.

The liberalist-based critical realist solution is pragmatic in that it seeks to provide a conscious appreciation of how the banks, central banks and stock exchange markets would operate to manage both private and public indebtedness in the economy (Brown, 2013; JAK Members Bank, 2004, Swart, 2013).

Empirically, King and Levine (1993) demonstrated that the level of financial intermediation is a good procedure of long run rates of economic growth, capital accumulation and productivity improvement.

In a key study by Prescatori, Sandri and Simon (2014 p. 19), assertion was made that high levels of government debt would not hurt economic growth in the medium and long-term period. This assertion denounces the claim that the credit creation practices by financial institutions compound systemic indebtedness in the economy.

Reinhart and Rogoff (2009b p.574) maintain that high debt is a constraint on growth. Mardock (2014) contends that "an economy which is growing quickly

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and has an effective government like China can easily service high levels of debt. He contends that countries like Greece and Italy' with high debts, slow growth and ineffective governments are hardly likely to attract much lending given the rates above those in China".

Other mainstream economists argue that the trajectory of debt over a long period does in fact, have a positive effect in the growth of an economy. They argue that modern financing is based on debt creation, pointing out that the organization of the global financial system is deeply entrenched in debt creation almost making it impossible to think of other alternatives. Their position is therefore rather deterministic.

Irons and Bivens (2013, p.3) present a different dimension to this debate stating that there is a major difference between deficit and debt, and that the latter is not bad for government but the former is because it means that the state increases its demand for "loanable" funds from the private sector looking to borrow money from its own citizens as well as from International investors. Irons and Bivens assert further that it is the annual deficits, not the outstanding stock of debt, that tend to threaten future Financialisation growth. Irons and Bivens further contend that debt does not automatically lead to financial crises. In fact, given the US strong economy, Irons and Bivens maintain that holding US debt is in high demand because the interest rates are low, and the country is far from facing financial crisis. Irons and Bivens' arguments provide evidence for the assertion that there is a debt-based global economic system. Using the same data that was used by Reinhardt and Rogoff to test a statistical correlation between high levels of debt and low economic growth, Irons and Bivens (2010, p.4) demonstrated that high levels of debt do not lead to lower economic growth. In their findings, they conclude that slow economic growth results in low revenues and the inability to service debts.

They claim that this situation can also be compounded by high deficits which induce high interest rates and affect investor confidence leading to subdued economic growth. The justification for maintaining a debt based economic system is that credit growth is usually associated with state objectives relating to national development and advancement. A direct statistical relationship

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between capital investment in the economy and the growth in employment numbers is established. The absence of debt inflow into the economy, results in slow growth.

Even though global finances experienced deep financial meltdown in 2007-08, there is still a strong defence for the debt-centric global economic system by the conservative school. In a landmark research, Cochrane (2014, p. 3) for example, recommends a run-free financial system in which there is mild restructuring on debt issuance and a more efficient way of managing debt liabilities through an effective taxation regime. Cochrane puts forward a contention that the first traditional goal of debt management is fund deficits at lowest long-run taxpayer cost. This means that the US for example, must have unrestrained access to huge volumes of debt in case of emergencies, at a minimal cost. Cochrane (2015, p. 41) advocates for a debt-centric approach where "manageable debt" tools are introduced and recommended to save finance costs and lower the inflation rate. Cochrane recommends a floating rate debt to engender more financial stability.

These recommendations are akin to replacing a chaotic debt situation with a more stabilized debt management framework without changing the core nature of the current debt creation system. The mainstream position therefore is that the global financial system manifests an advanced stage of credit addiction without which an abrupt withdrawal may cause severe bouts of contagious relapses across the system. The stance here is that continuity of new debt helps the system to expand.

There are similarities of thought in the argument postulated by both Prescatori, Sandri and Simon (2014) and Irons and Bivens (2013). Both academic camps agree that debt does not adversely affect economic growth in the long-term. On the contrary, they present debt as a necessary tool of development in the modern economy. As noted above, Cochrane (2015) basically regards debt as an economic asset which merely requires effective control and management in order to derive long-term benefits in the economic system.

An interesting feature of the conservative school concerns the inadequate attention which is paid to the inequalities in the power relations in the Financialisation project. Whilst acknowledging that the benefits of Financialisation accumulate in few hands, Chowdbury (2014, p. 3), is of the view that "in the debt-money system a few large debtors borrow most of the money from the monetary institutions". According to Chowdbury, the money borrowed gets distributed by few economic agents by way of lending-borrowing investment and cost income types of economic transactions. Chowdbury maintains that this process is largely influenced by both public and private deficits which ultimately determine the unequal access to credit opportunities.

Zalewski and Whalen (2010) are also of the view that the current capitalist-based financialisation model has a tendency of increasing inequalities in wealth. The authors point out that investors and shareholders are the true beneficiaries of Financialisation with unprecedented income and wealth and that the continued disregard of the unequal power relations in the system denies the conservative experts the means to offer long-lasting solutions for the de-financialisation and deconstruction of systemic indebtedness in the global economy.

The conservative mainstream approach offers nothing more than inflation targeting, interest rates control and liquidity management as instruments of managing the highly complex financialisation system exclusively controlled by independent central banks. Other economic and financial indicators and mechanisms which must be used to run the system effectively are almost completely disregarded in the policy recommendations put forward from the conservative camp.

The liberal perspective maintains that the positive and negative interest rates in the global financial systems have complicated the processes of credit creation in financial institutions. On one hand, there is significant growth of corporate, sovereign and private debt overhang resulting in the increase of non-performing loans, foreclosures and bankruptcies, and on the other, the global economy is locked in continued economic stagnation and in some cases regression

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because of the failure to deglobalize, definancialize and deconstruct the inextricability and interconnectedness of contagious banking systems.

The liberal school holds that to manage financial and economic systems requires more than just interest rates manipulations. Along this vein, Ramus (2016) wrote that interest rates manipulation is viewed increasingly by the mainstream advocates as the end-all solution to all the global economic woes... "Forget stimulus, forget income inequality, forget unsustainable and increasingly unserviceable levels of debt". In other words, the underlying mechanisms which fuel the Financialisation system are sacrificed on the altar of fallacious capitalist ideology.

The implementation of conservative policies and the composition of conservative economic theories in the early 1970's, are viewed by liberals as the root and foundation of the financialisation crises, culminating in the financial meltdown of 2007-08. Liberal analysts view the rise of what might be called "financial dominance" as the underlying development that explains not only the emergence of the debt crisis but also the associated form of "inhuman globalization" (Dumenil and Levy, 2005, p. 17).

Roos, (2013, p. 3) joins the debate by arguing that entire nations are today being subjected to permanent state of sovereign debt bondage just to keep the money flowing towards their creditors. Roos argues that the power of finance capital is at the centre of conservative politics and the positivist academic school of thought. Applying this insight to the political economy of sovereign debt, Roos states that one can realise how the structural dependence of the state on capital provides private banks with the ability to set the limits within which their states ought to operate.

The reliance on the so-called free market mechanism is thus responsible for a monetary system which is entirely dependent on the creation of private debt on one hand, and control of the financial system over its capital mobility on the other. According to Roos (2013, p.3), states have lost control over the creation and circulation of money, which in turn, has shaped the structural context in which global finance is increasingly capable of disciplining debtor states through

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market mechanisms, simply by withholding credit and withdrawing outstanding investments. Roos maintains that the conservative ideas and their tools for manipulating the Financialisation system have given total power to commercial banks to reward and punish disobedience and entrench subservience. The sovereignty and independence of a nation state has thus been pulverized hence the monetary sovereignty of states remain undermined.

Lazzarato (2011, p. 89) in a similar vein, argues that debt constitutes the most deterritorialized and the most general power relation through which the conservative capitalists institute their class interests. The conservative project revolves around the strategy of stagnation of wage income and government taxation income in order to create unprecedented avenues of corporate, private and sovereign debt in the financial systems of the global economy. Lazzarato maintains that the accumulation ideology is the bedrock on which rests systemic indebtedness. He explains that financialisation is used by the commercial banks to systematically annex, control and expand their operations into all areas of the economy, politics and society. Lazzarato argues that the pervasiveness of ascendancy includes the entire non-financial sectors of the economy. He explains that Financialisation process is accelerating both the quantitative and the qualitative proliferation of commercial banking activities. The explosion of credit creation and the maximization of profits are being accompanied by the introduction of multiple customised and generic financial instruments.

At the height of systemic indebtedness and unrestrainable financialisation, conservative economist, Krugman (2015) argued that sovereign debt is indispensable for national economic growth. According to Krugman, "there is a reasonable argument to be made that part of what ails the world economy right now is that governments are not deep enough in debt". The reasoning behind his position is that an economy requires a debt stimulus to its GDP in order to grow and sustain itself. Krugman does not consider debt problematic but as an opportunity by the state to provide deficit-driven budgets which will help the government and the society to develop and move out of debt in the long run. Using debt to get out of debt eventually, Krugman argues.

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He contends that in a situation that allows low interest rates, it becomes imperative to borrow and develop the economy. Krugman argues that the "debt of stable reliable governments provide "safe assets" that can help investors to manage risks, make transactions easier and avoid destructive scramble for cash" (Krugman 2015). Krugman, however, concedes that there should be caution when applying low interest rates on government debt in a strong economy to avoid a negative ripple effect on saving deposits, insurance premiums and money supply. He contends that what "we need are policies that would permit higher rates in good times without causing a slump. And such policy would be targeting a higher level of debt" (2015). He opposes governments that impose austerity measures in the economy and maintains that bond investors must be given an opportunity to stimulate the economy by means of providing sovereign debt finance. Krugman argues for some government's role in the stimulation of the economy and supports milder alterations in the global financial system to guarantee the substantively unreformed status quo remains.

As claimed by Hudson (2012), Krugman's failure to contextualize the challenges of debt diminishes the capacity of primary institutions to deal effectively with the current financial systems and its associated key players. Hudson contends that Krugman is indifferent towards the behaviour of the banking and financial capitalist system and its impact on the mortgage bond holders who are locked in an indefinite debt-trap. Hudson further argues that the credit creation practices by banking institutions are considered as "merely shifts of lending savings from wealthy people to those with a higher propensity to consume" (Hudson, 2012). It is a total rejection of the claim that banks in the creation of credit also create debt.

Krugman's views on debt as well as those of other conservative economists amply demonstrate extreme cases of capitalist bias which the Liberal School utterly rejects. The Liberal School rather than confining the debate to the empirical layer and the here-and-now type of conceptualization looks beyond surface appearances to focus attention on how people could be mobilized to reform the financialisation system.

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3.2 CONCEPTUAL FRAMEWORK

This study builds on Karwoski and Stockhammer's (2016) work that quantified six interpretations of financialisation: (1) financial deregulation; (2) foreign financial inflows, (3) asset price volatility, (4) shift to market-based finance, (5) nonfinance corporation debt, and (6) household financialisation. Karwoski and Stockhammer compared South Africa's financialisation with sixteen other emerging economies (EMEs). Financialisation of the seventeen emerging economies were contrasted with the most highly financialised economies of the US and the UK (see Table 4).

Table 4: Comparing Financialisation of the SA Economy to other Emerging Economies (1997-2015)

Region	Country	Financial deregulation	Foreign Financial inflows	Asset Price Volatility	MB vs BB Financial system	NFC debt	Household debt
Latin America	Argentina	mlow	mhigh		low	low	low
	Brazil	low	low	high	mhigh	mlow	mlow
	Mexico	mhigh	low	low	mlow	low	mlow
Emerging Europe	Czech Republic	mhigh	mhigh	low	low	mhigh	mlow
	Hungary	high	high	mlow	mlow	high	mhigh
	Poland	mhigh	mlow	mlow	low	mlow	mlow
	Russia	mhigh	mlow	high	mhigh	mlow	low
	Turkey	mlow	mlow	mlow	high	low	low
Africa	South Africa	mhigh	mlow	high	mlow	mlow	mhigh
Asia	China	low	low	low	mhigh	high	mhigh
	Hong Kong	high	high	high	high	high	high
	India	low	low	mhigh	mhigh	mlow	low
	Indonesia	low	mhigh	mlow	mlow	low	mlow
	Malaysia	mlow	mhigh	mhigh	low	mhigh	high
	Singapore	high	high	mhigh	high	mhigh	mhigh
	South Korea	mlow	mlow	mlow	high	high	high
	Thailand	mlow	mhigh	low	mlow	mhigh	mhigh
Anglo-Saxon Countries	UK	high	high	mhigh	mhigh	high	high
	US	high	high	mhigh	high	mhigh	high

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As shown in Karwoski and Stockhammer's study, the indicators that display high levels of financialisation in the South African economy between 1997 and 2015 include financial deregulation, asset price volatility and household debt. On the basis of these findings it is reasonable to postulate that financialisation has an effect on household indebtedness. It is postulated that the direction of the relationship will be positive (see Figure

• Financial deregulation • Foreign financial inflows • Asset price volatility • Shift to market-based finance • NFC debt	→	Household Indebtedness	→	Economic development
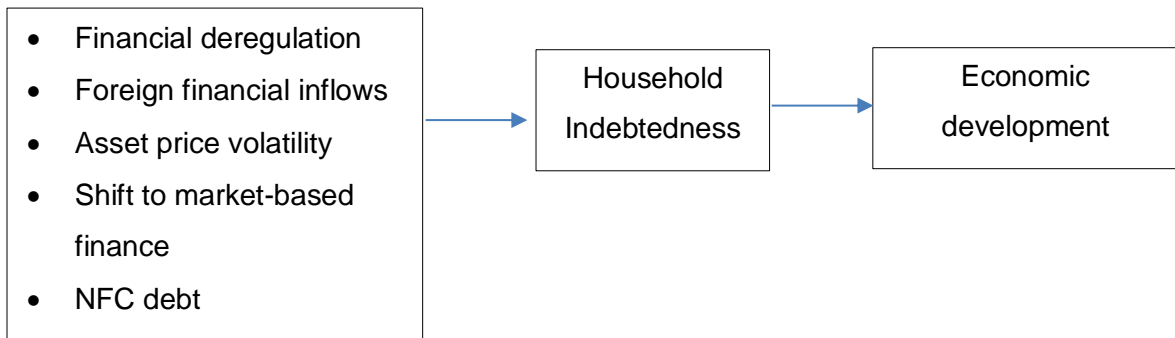
Figure 17: Conceptual framework of this study

According to Bond (2013) the power, vulnerability and the destructiveness of financial markets have spiralled out of control in South Africa. Bond paints the country as being amongst the most unequal, economically volatile and protest-intensive in the world. He explained that what occurred in 2012 was the amplification of uneven development. A number of authors (Detzer, 2016; Fine, 2010; Iancu, 2013; James, 2017) concede that uncontrolled debt accumulation associated with liquidity limitations has the potential to erode economic stability and bring about high levels of poverty. The inability to service interest charges and debt repayments compound the levels of debt in the economy. As depicted in Figure 8, this study postulates that indebtedness has an effect on economic development.

3.3 CONCLUDING REMARKS

This chapter reviewed literature on the theory of Financialisation and indebtedness. In the course of the review the following major points emerged:

- There are divergent views on how the relationship between financialisation and indebtedness could be addressed.

- The conservative, liberal and radical approaches to indebtedness converge around the issue of how financialisation influences indebtedness.

- Kaworski and Stockhammer (2016) provide a comprehensive framework of financialisation which has shown that the South African economy is financialised especially in relation to three indicators: (1) financial deregulation, (2) asset price volatility and household financialisation.

- The insights that emerged from literature have informed the conceptual framework that postulates that financialisation and indebtedness influence economic development.

CHAPTER 4

RESEARCH METHODOLOGY

4.0 INTRODUCTION

This chapter provides an outline of the methodology that was used to collect and analyse data to address the objectives of the study. The methodology was based on the conceptual framework discussed in the previous chapters. This chapter describes the research design components and processes that were incorporated to address the following research questions: (1) To what extent is the South African economy financialised? (2) How is financialisation linked to indebtedness? What are the effects of household indebtedness and financialisation on economic development?

Research method entail the collection and analysis of data for purposes of addressing the objectives of a research project (Industrial Institute, 2010). At this juncture, it will be important to distinguish between research methodology and research methods. The term method is used to describe the tools of data collection, analysis and techniques in the research process. Methodology, on the other hand, has more philosophical underpinnings, and thus refers to the broader ontological, theoretical and ideological contexts underpinning the construction of knowledge (Sayer, 1992; Corbetta, 2003). Methodology is an intrinsic research tool that develops a bridge which can narrow the gap between the known and the unknown in the object of investigation.

The research process followed in this study is depicted in Figure 18. It should be noted that the study was designed to collect time series data for household indebtedness and financialisation in South Africa from 1990 to 2017. The period was chosen to facilitate the evaluation of the effects of financialisation on household indebtedness before the 2007/08 financial crisis and afterwards. Accordingly, secondary data, whose sources are discussed later, was collected for the period 1990-2017.
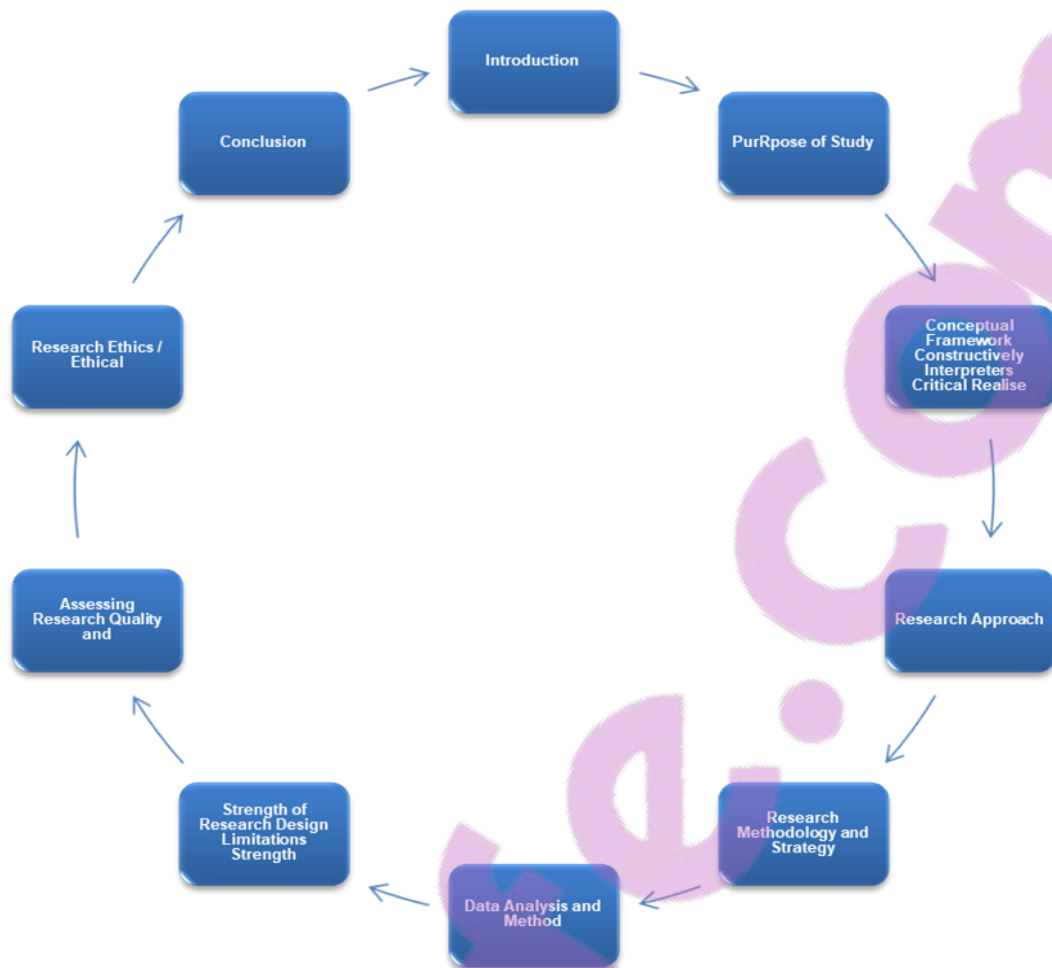
Figure 18: Research process followed for this study

According to Saunders and Tosey (2013) the researchers can apply multiple strategies in their research design to achieve the desired goal in relation to the main research question. These different strategies include a choice in the adoption of different approaches amongst others such as a case study research, historical research, exploratory research, comparative research, action or transformative research, descriptive research, and explanatory research.

It is not possible to employ all the research types in a single study. Thus, this study will venture to integrate key aspects of positivist, to provide a critical realist perspective (Boateng, 2015). A critical realist is capable of merging ideas from different philosophical viewpoints and thus present a holistic understanding of the subject matter under examination.

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For example, a case study is often linked with interpretivism and therefore case studies are also used in critical realist research. Ethnography, for instance, can be linked to both realism and interpretivism. Furthermore, experiment and survey strategies are connected to a positivist research agenda, but they can also be linked to realism and pragmatism.

4.1 PHILOSOPHICAL ISSUES: CRITICAL REALISM

Philosophy is concerned with questions of how one should live (ethics); what sorts of things exist and what are their essential natures (metaphysics); what counts as genuine knowledge (epistemology); and what are the correct principles of reasoning (Bhaskar, 1978). As explained earlier this work is based on critical realism. The fundamental principle of critical realism is that there is a reality which exists independent of its human conception (Bhaskar, 1978). In other words, reality exists independent of the mind and that what the researcher experiences in his or her senses provide a precise depiction of reality.

Critical realist philosophy prioritizes ontology (the study of being or existence) over epistemology (the study of nature and scope of knowledge and justified belief) in the sense that the way the social world is viewed needs to guide the way knowledge of it is obtained and used to transform society (Harre and Madden, 1975; Lawson 1989; Bhaskar, 1999; Sayer 1991, Sayer 2004; Yirenki-Boateng, 2001, 2010).

The epistemological position of this study is positivism based on a critical realist paradigm which accommodates transformative, integrative pluralism. The research methodology is based on a quantitative nature, because the influence of financialisation on indebtedness and economic development will be tested using quantitative techniques.

Secondary data in the form of historical time series data was used to enrich the critical analysis perspective. In positivism, research is confined only to the empirical level dealing with statistical analysis and observations about the easily accessible reality (Sobh and Perry, 2005). The critical realist approach

combines elements of empiricism, (in the case of official documentary evidence) and structuralism to obtain the full picture based on the ideas of ontological depth as outlined by (Yin, 1989, Sobh and Perry, 2005). In critical realism, research is associated with scientific enquiry.

A critical realist researcher essentially argues that the experiences of the senses and the way they are represented are processed subjectively by the mind. The critical realist researcher is deeply concerned about the underlying unseen reality at the real level which has an influence at the empirical level because of the structural relationships that exists between the visible and the invisible reality. Critical realist postulates that there is reality to discover out there in the form of intransitive objects (Archer, Bhaskar, Collier, Lawson and Nome, 1998).

The critical realist approach involves relating actions, perceptions, interpretations at the actual level (concrete) to the imperatives in the generative mechanisms at the real level (Danemark, et al, p. 55-59). The iterative processes involve the interpretation and analysis of activity in the actual level and the real level. The fundamental issue in this methodology is the ability to relate the data between concrete at the actual level and abstract at the real level.

4.2 RESEARCH DESIGN

Research design is defined as the overall strategy chosen to integrate the different components of the study in a coherent and logical way, thereby, ensuring that the research problem is addressed effectively. Research design constitutes the blueprint for the collection, measurement, and analysis of data.

This study empirically examines South African data covering the years 1990-2017 to determine: (1) the extent to which the South African economy is financialised (objective 1); (2) the causal direction of the relationship between financialisation and indebtedness (objective 2); and (3) to establish and explain the effects of household indebtedness financialisation on economic

development (objective 3). To address these objectives a four stage design process was followed as depicted in Figure 19.

Step 1: Data description

↓

Step 2: Variable measures and data source

↓

Step 3: Addressing study objectives and model specification

↓

Step 4: Model estimation
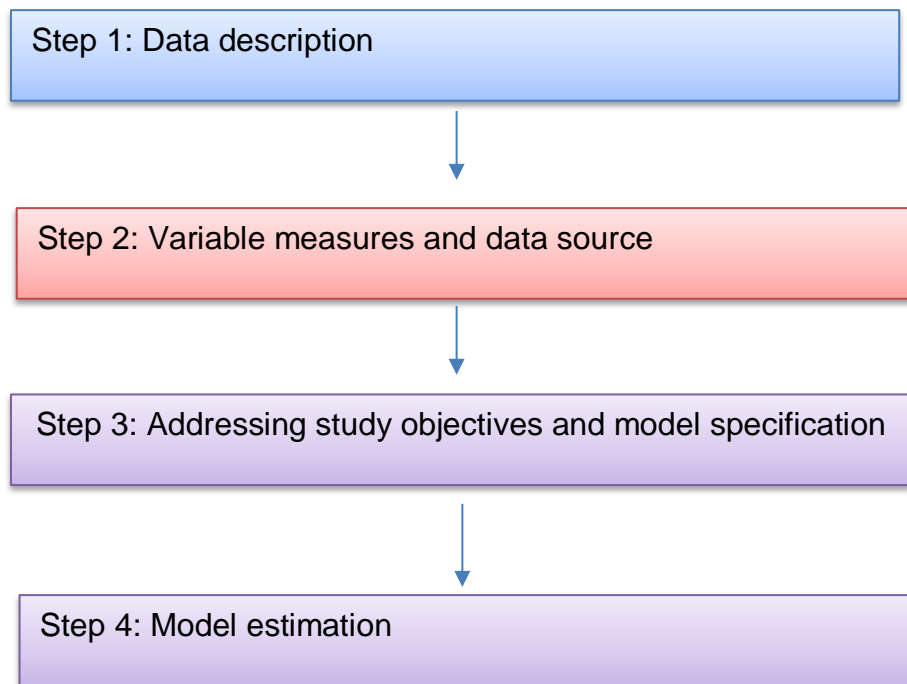
Figure 19: Study design

Each of the four steps above are explained in the sections below.

4.3 DATA DESCRIPTION

The study empirically examined South African annual continuous data covering the years 1990-2017. The study looked at financialisation, household indebtedness and economic development.

Financialisation
- Financial deregulation
- Foreign financial inflows
- Asset price volatility
- Shift to market-based finance

Indebtedness

Economic development
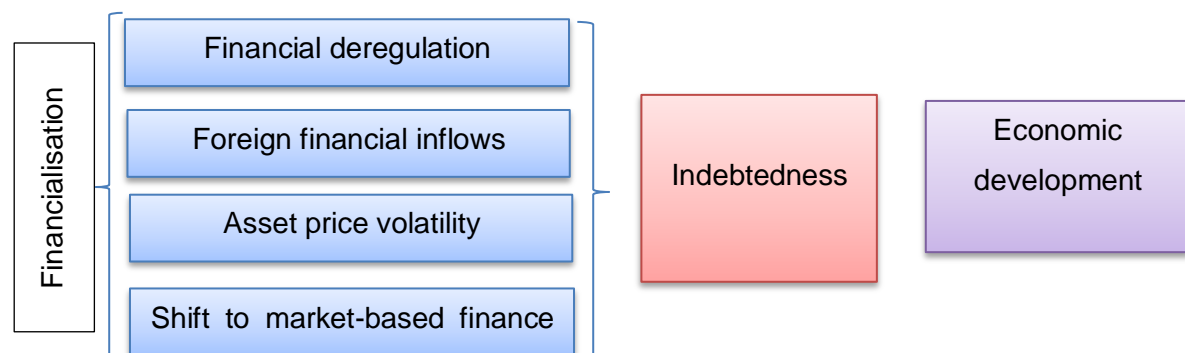
Figure 20: Variables of this study

As explained by Karwoski and Stockhammer (2016), and as covered in chapter three, financialisation was interpreted using six variables: (1) financial deregulation, (2) foreign financial inflows, (3) asset price volatility, (4) shift to market-based finance, (5) NFC debts and (6) household financialisation. Due to data available the study looked at a four financialisation variables as depicted in Figure 11.

4.4 VARIABLE MEASURES AND DATA SOURCE

As depicted in Table 5 financial deregulation data is measured using financial reform index sourced from the IMF database. Foreign financial inflows is measured using stock of foreign liabilities (%GDP) sourced from the South African Reserve Bank (SARB). Asset price volatility is measured using the volatility of stock price index sourced from the Federal Reserve Economic database. Shift to market-based finance is measured using stock market value traded (%GDP) sourced from SARB.

Table 5: Data source and a priori expectations

Variable	Measure	Data source
Household Indebtedness	Household debt to disposable income	South African Reserve Bank
Economic development	Human Development Index (proxy)	United Nations Development Programme database
Financial deregulation	Financial reform index	IMF database
Foreign financial inflows	Stock of foreign liabilities (%GDP)	South African Reserve Bank
Asset price volatility	Volatility of Stock Price Index for South Africa, Index, Annual, Not Seasonally Adjusted	US Federal Reserve Economic database

Shift to market-based finance	Stock market value traded (% GDP)	South African Reserve Bank

4.5 ADDRESSING STUDY OBJECTIVES AND MODEL SPECIFICATION

4.5.1 Addressing Objective 1

The first objective of the study is to determine the extent to which the South African economy is financialised. This objective does not require model specification. By splitting the data into two, before the 2007/08 financial crisis (1990-2008) and after the financial crisis will be possible to assess whether financialisation is trending up or down. The financial reform index that measures financial deregulation ranges between 0 and 1 with higher values indicating high levels of financialisation (Karwoski and Stockhammer, 2016). Exposure to foreign financial inflows is likely to increase financialisation as local economies adjust or emulate practices of foreign institutions. To understand the trend in asset price volatility and shift to market-based finance data will be split into two: before financial crisis (1990-2008) and after the crisis (2009-2017).

4.5.2 Addressing Objective 2

To determine the causal direction of the relationship between financialisation and indebtedness the study used Granger causality test.

4.5.3 Addressing Objective 3

To establish the effects of household indebtedness and financialisation on economic development the error correction modeling process was followed as explained below. The equation that was specified to meet this objective is as follows:

$$EcoDev_t = \mu + a_1 indebt_{t-1} + a_2 \text{financialisation}_{t-1} + u_t \qquad (1)$$

Where:

$EcoDev$ = economic development

indebt = household indebtedness

4.6 MODEL ESTIMATION

Time series data was estimated to address the first last two objectives of this study. Time series data are data collected on the same observational unit at multiple time periods. Time series data were used to (1) to develop forecasting models and (2) to estimate dynamic causal effects. Some of the issues concerned with time series data included: time lags, correlation over time (serial correlation or autocorrelation) and calculation of standard errors when the errors are serially correlated.

In order to find out the effect of household indebtedness and financialisation on economic development (Objective 3) inflows to South Africa on income inequality, the study used the Error Correction Model (ECM), a category of time series models that estimate the speed at which a dependent variable Y returns to equilibrium after a change in an independent variable X. The basic structure of an ECM is as follows:

$$\Delta Y_t = a + b\Delta X_{t-1} + bEC_{t-1} + e_t \tag{1}$$

Where EC is the error correction component of the model and measures the speed at which prior deviations from equilibrium are correlated, and e_t measures the error term (Brooks, 2008). In the Engle and Granger Two-Step Method the EC component is derived from cointegrated time series as Z.

$$\Delta Yt = b0\Delta Xt-1 - b1Zt-1 \tag{2}$$

b0 captures the short-term effects of X in the prior period on Y in the current period.
b1 captures the rate at which the system Y adjusts to the equilibrium state after a shock. In other words, it captures the speed of error correction. To obtain Z, Y is regressed on X and all the variables that are expected to be cointegrated are included. Secondly, the ΔY is regressed on Zt-1 .

This study specified the equation of this type

$$\Delta HDI_t = a_0 + a_1\Delta hhindebt_{t-1} + a_2\Delta financialisation_{t-1} + a_3 EC_{t-1} + \epsilon_t \quad (3)$$

Where:

HDI = a proxy measure for economic development

hhindebt = household indebtedness

GDP = gross domestic product

EC = error correction component

ε = error term

To prevent the use of non-stationary data Unit Root test (Augmented-Dickey-Fuller (ADF) test was carried out to test for stationarity of the endogenous and exogenous variables. The ADF test is based on the following regression:

$$\Delta X_t = \delta_0 + \delta_1 t + \delta_2 X_{t-1} + \sum_{i=1}^{k} \alpha_i \Delta X_{t-1} + \varepsilon_t \quad (4)$$

Where Δ is the first difference operator, X_t, is the natural logarithm of the series δ1, δ2, and δi, to be estimated; and ε_t is an error term. The null hypothesis of a unit root was tested against an alternative hypothesis of no unit root. A stationary series has a finite root and variance that do not depend on time.

$$X_t = \alpha + \rho X_{t-1} + \varepsilon_t \quad\quad\quad\quad\quad (5)$$

where $|\rho| < 1 \ and \ \varepsilon_t$ is also stationary with a mean of zero and variance σ2

After checking for stationarity, the number of co-integration equations among the variables was determined using the Johansen (1988) co-integration approach, to check whether an equilibrium relationship exists. A necessary condition for equilibrium is that the data series for each variable involved exhibit similar statistical properties. In other words, data series should be integrated to the same order with evidence of some linear combination of the integrated series. An integrated series is expressed as a function of all past disturbances at any point in time.

$$Xt = \alpha + \rho X_{t-1} + \varepsilon_t \quad\quad\quad\quad\quad (6)$$

where α is a constant drift, $\rho = 1$

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Given that ρ is a unit, X is said to have a unit root. If two time series are integrated of the same order and some linear combination of them is stationary, then the two series are cointegrated. Cointegrated series share a stochastic component and a long term

equilibrium relationship. If Xt is non-stationary, the variance may become infinite and any stochastic shock may not return to a proper mean level. As shown by Engle and Granger (1987), such a non-stationary series has no error-correction representation.

Regression analysis requires the following assumptions to be upheld:
The expected value of the error term in the population is zero

$$E(\epsilon_i) = 0$$

2.. There must be independent and identically distributed error terms with an expected value of zero and a constant variance σ^2, formally presented as follows (homoscedasticity):

E (εi εi) = 0 for I ≠j

the assumption of independent and identically distributed error terms with an expected value of zero and a constant variance σ^2 (homoscedasticity).

An autoregressive model is framed by regressing a value from a time series on previous values from that same time series. for example, yt on yt−1:

yt= β 0+ β 1yt−1+ϵt   (7)

In this first order (AR1) regression model, the dependent variable in the previous time period has become the predictor. The error term (ϵt) would have same assumption as articulated above. The order of an autoregression is the number of immediately preceding values in the series that are used to predict the value at the present time. The second-order autoregressive model (AR2) would thus be written as follows:

yt= β 0+ β 1yt−1+ β 2yt−2+ϵt   (8)

The value at time t is predicted from the values at times t−1 and t−2. More generally, a kth-order autoregression, written as AR(k), is a multiple linear regression in which the value of the series at any time t is a (linear) function of the values at times t−1,t−2,···,t−k.

Analysing time series data, requires the starting point to be exploratory analysis, that is, graphing the data, plotting Y versus time at point t, to look for patterns in the graph. Residuals are analysed prior to using a regression model. In analysing regression models, the assumption that successive errors are unrelated is very important.

Eviews 10, an econometrics software package, was used to estimate the model and analyase the two models of this study. To prevent the use of non-stationary data Unit Root test (Augmented-Dickey-Fuller (ADF) test was carried out to test for stationarity of the endogenous and exogenous variables in equations 4 and 5. The ADF test is based on the following regression:

$$\Delta X_t = \delta_0 + \delta_1 t + \delta_2 X_{t-1} + \sum_{i=1}^{k} \alpha_i \Delta X_{t-1} + \varepsilon_t \tag{9}$$

Where Δ is the first difference operator, X_t, is the natural logarithm of the series δ1, δ2, and δi, to be estimated; and ε_t is an error term.

4.7 ETHICAL CONSIDERATIONS

The entire research process must be predicated on sound ethical considerations. There are many reasons which necessitate complete adherence to research ethical norms. The key priority is to ensure public and private documents are handled ethically and professionally. In terms of restricted information, permission must be sought beforehand. These requirements are a safety net against wilful fabrication, falsification and misrepresentation of research data. In this study, public documents were used.

The research process cuts across various disciplines and institutions and it was of utmost importance to ensure that the high standards of ethics were maintained. Ethical standards are a form of public accountability guarantee, that provide a sense of comfort that data will be handled professionally.

Resnik (2015) tabled an exhaustive breakdown of critical ethical codes governing a credible research process. These include amongst others, honesty, objectivity, integrity, carefulness, openness, confidentiality, responsible publication, respect for colleagues and legality.

The researcher complied fully with the prescript and principles of ethical research standards required to pursue an academic study of this nature.

4.8 CONCLUSION

The methodology chapter has described the design components and the research process that was followed to address the three objectives and research questions of this study. The chapter put a philosophical argument for the selected research design and made a case for how the aim, questions and objectives will be addressed using a secondary data methodological approach. The purpose of the study, design and model building process were discussed in detail. The GARCH model building process was explained.

CHAPTER 5: ANALYSIS AND RESULTS

5.0 INTRODUCTION

This chapter is divided into six parts. The first part presents the descriptive statistics of the six variables of this study: (1) financial deregulation; (2) foreign financial inflows; (3) asset price volatility; (4) shift to market-based finance; (5) household indebtedness; and (6) economic growth. The second part checks the series data (study variables) for autocorrelation. The next part reports the unit root tests of the six study variables for non-stationarity. The fourth part reports the findings related to the first study objective, which is followed by findings related to the second objective of the study (part five). The last part of this chapter presents the results that address the third objective of the study; and the final part presents the indebtedness framework emerging out of the findings.

5.1 DESCRIPTIVE STATISTICS

5.1.1 Graphical presentation of economic development variables
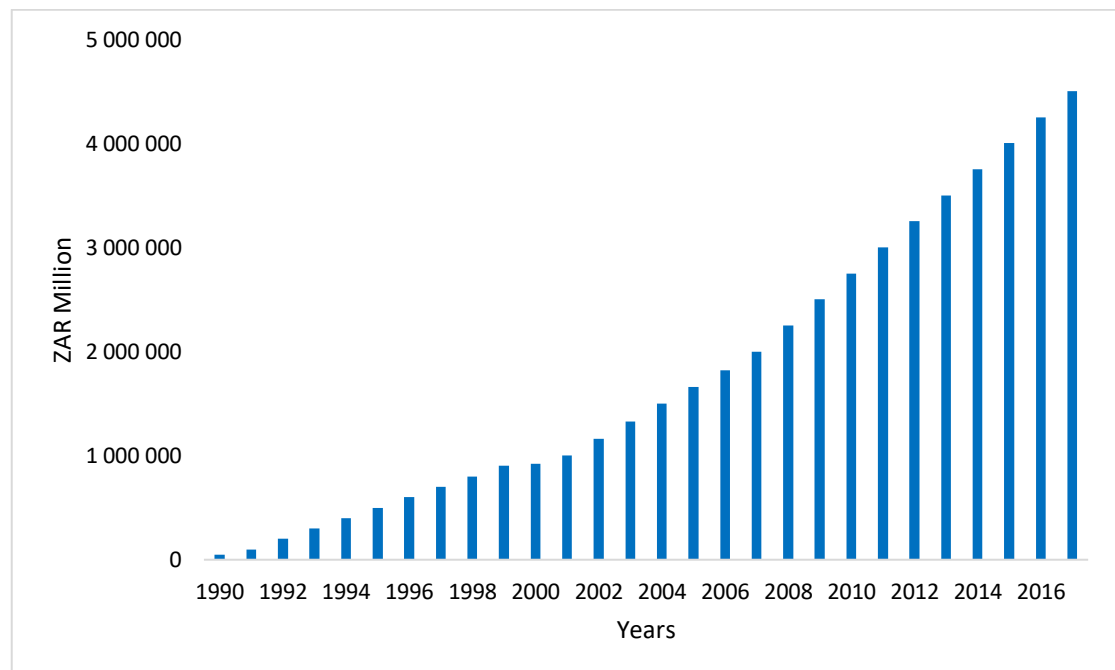
Figure 21: GDP (ZAR Million) 1990-2017

As indicated in chapter one, the Gross Domestic Product (GDP) in South Africa is 349.42 billion US dollars (R4.2 trillion) for the fiscal 2017. The graph shows an exponential growth in GDP from 1990- 2017.
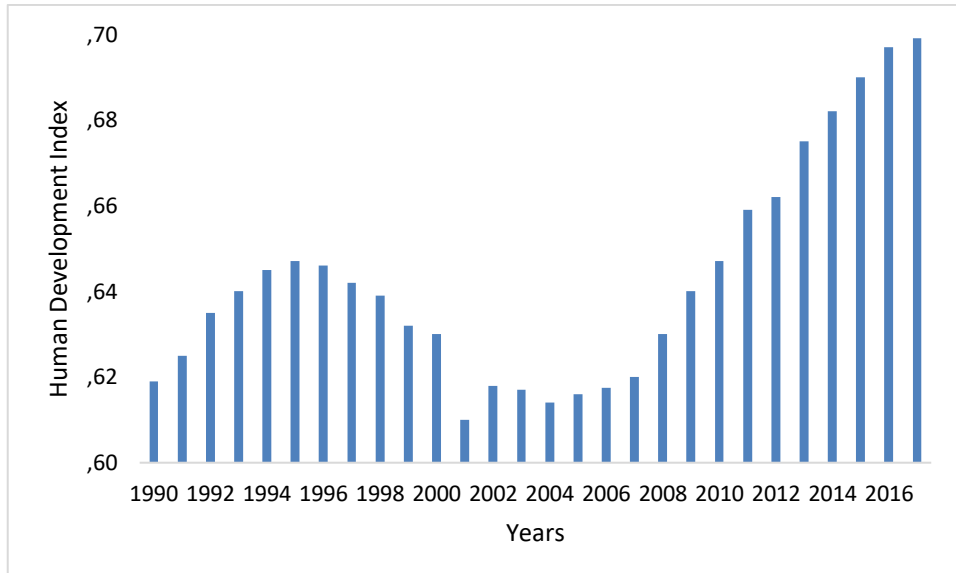
Figure 22: Human Development Index for South Africa (1990-2017)

The Human Development Index (HDI) provides information on the human development aspect of economic growth. It is constructed around three indicators: longevity measured by life expectancy at birth; educational attainment measured by a combination of adult literacy rate and the combined school levels enrolment ratios; and standard of living measured by GDP per capita.

Figure 22 shows a decline in HDI after South Africa attained independence in 1994. HDI started picking up after the 2007/08 economic crisis to about 0.70

5.1.2 Graphical presentation of household debt

Figures 18 and 19 depicting household loans and the ratio of household debt to disposable income portray a similar trend.   Household loans as percentage of GDP ranged between 30% and 35% in the period between 1994 and 1997. This is the period when the South African economy was open to the world markets. A decline in household loans declined to its loans in 2002. A steady incline was recorded from 2003 to 2008 (42%). The loans trended down and in 2017 the percentage of household loans to GDP dropped to 33%.

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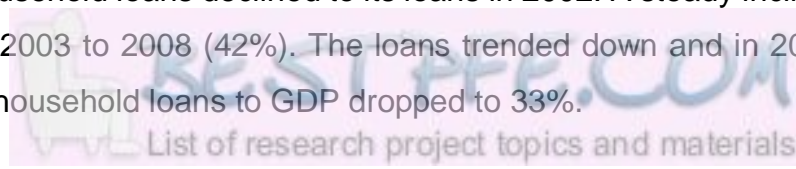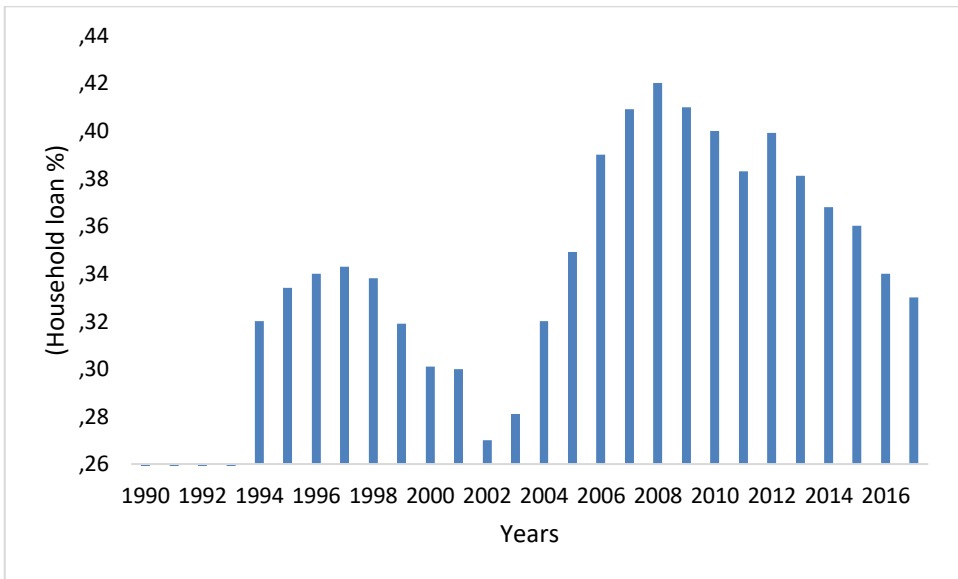
Figure 23: Household loan (%GDP)

Figure 23 depicts a clearer picture in terms of household indebtedness. Between 1990 and 1994 indebtedness was below 50%. The figures spiked between 2004 to 2008 over 85% in 2008. Even though a decline trend is evident after 2008, indebtedness is still over seventy percent.
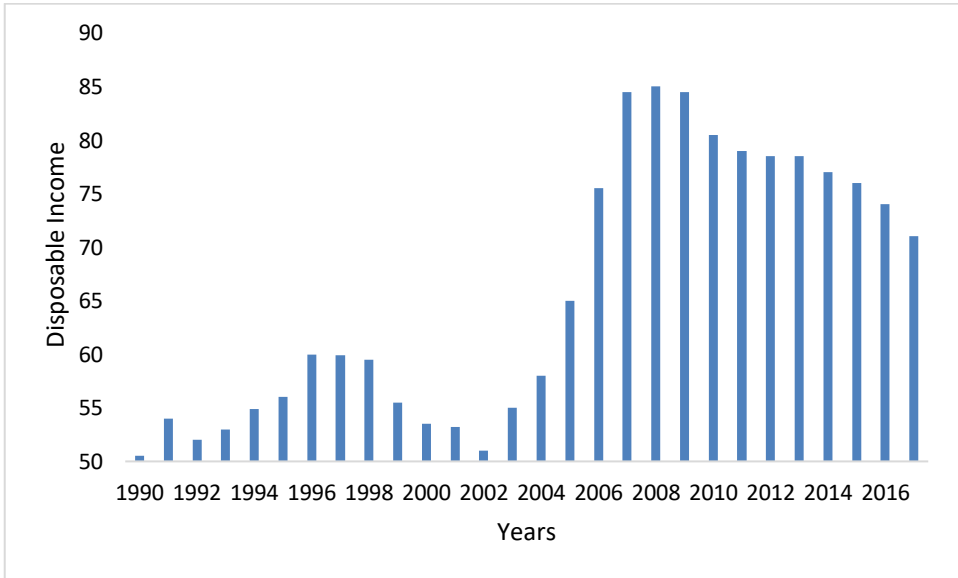
Figure 24: Household debt to disposable income (1990-2017)

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5.1.3 Graphical presentation of financialisation variables

As mentioned in chapter four and earlier in this chapter, this study focuses on four financialisation variables:

a. financial deregulation measured using financial reform index
b. foreign financial inflows measured using stock of foreign liabilities
c. Asset price volatility
d. Shift to market-based finance measured using stock market value traded (%GDP)

The graphical presentation of these variables is presented below

a. Financial deregulation

Figure 25 above exhibits an increasing financial reform index from a low point (0.25) in 1980 to 0.8 in 2005. As explained in chapter four the closer the index is to one the higher the level of financialisation.
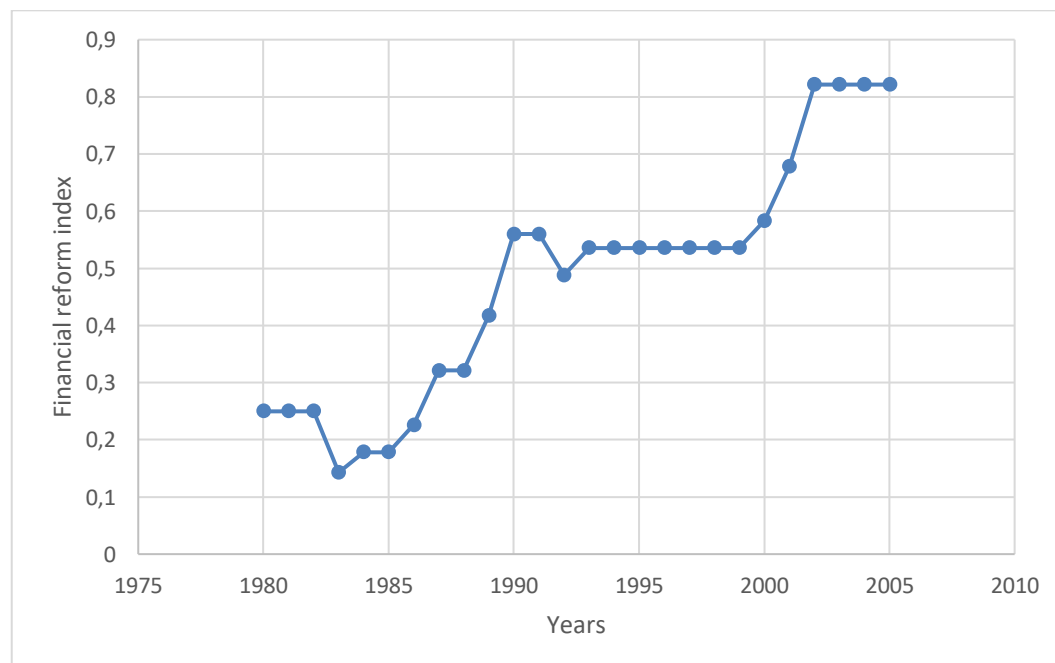
Figure 25: Graphical presentation of financial deregulation (1990-2005)

b. Foreign financial inflows

Figure 26 shows that foreign financial inflows were around 20% of GDP in 1990, and almost doubled in size in 2002, before taking a dip to 18.9% of GDP in

2005. This coincides with the opening up of the South African markets to the rest of the world, after the 1994 democratic elections. Thereafter there has been a steady incline with 2017 recording about 50% GDP stock of foreign liabilities.
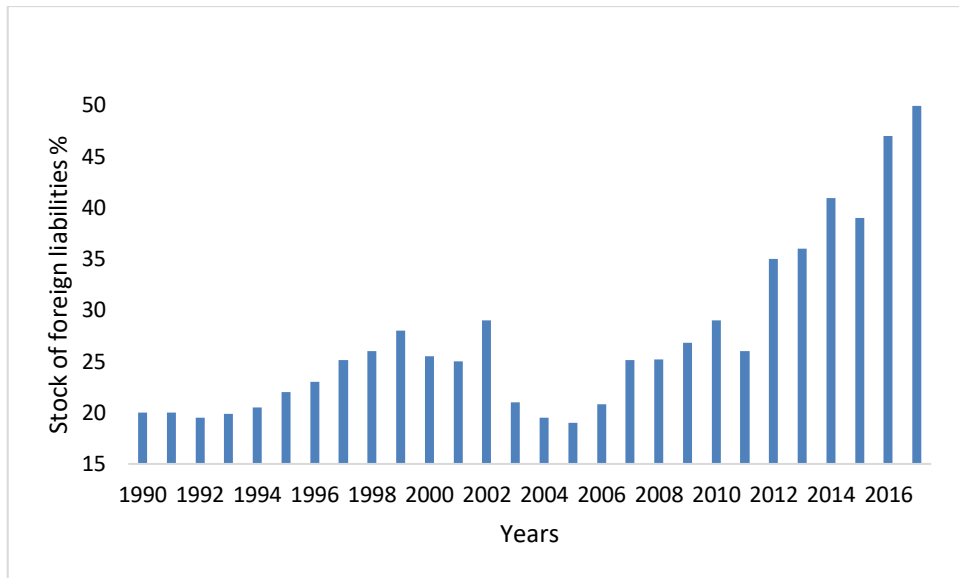
Figure 26: Foreign financial inflows (1990-2017)

C. *Asset price volatility*

As explained by Karwoski and Stockhammer (2016) high volatility is an effect of inflation combined with deflation of asset prices. Figure 27 shows that volatility was quite low in the mid 90's (less than 15%). In 1999 volatility hiked to more than 25% with the highest record in 2009.
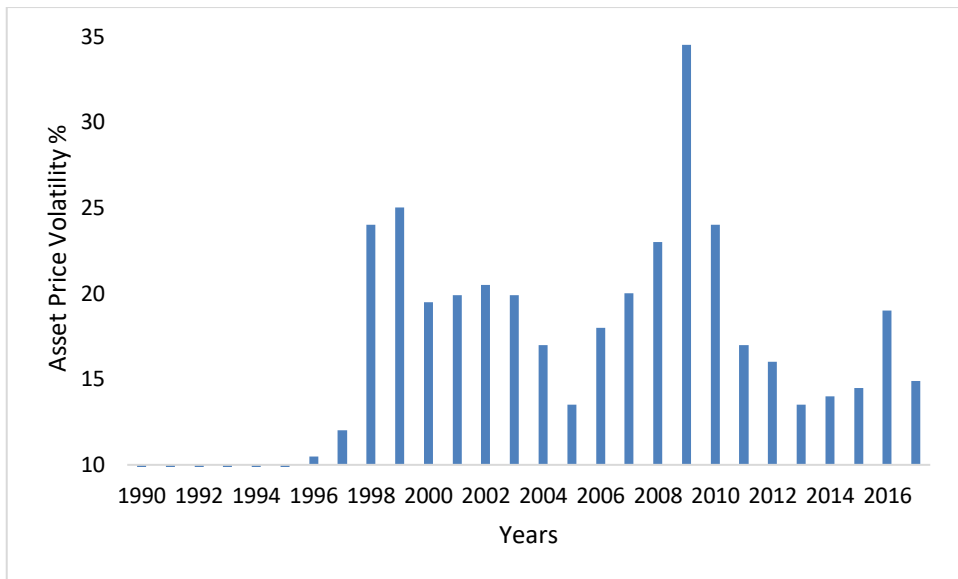
Figure 27: Asset price volatility (1990-2017)

Shift to market-based finance

A financial system can either be bank-based or market based. If it is market based, it means that activity is much stronger in capital markets than in bank markets. Likewise, if activity is much stronger in bank markets the financial system is said to be bank based. The South African Reserve Bank (2015) uses the World Bank's activity indicator to measure shift to market-based finance. The indicator captures the ratio of value traded on the domestic stock exchange, expressed as a share of GDP (SARB, 2015). When an activity measure is above 1, it shows that an economy is more market-based signalling high levels of financialisation, because the activities in capital markets is stronger relative to bank lending.

With activity indicator close to zero between 1990 and 1995, depicts a bank-based financial system. It can also be observed that the indicator was trending upwards from 1996 going forward till 2006 when the ratio reached 1.0 for the first time. It can also be observed that activity indicator has remained over 1.00 for more than ten years illustrating a strong and consistent shift to market-based finance.

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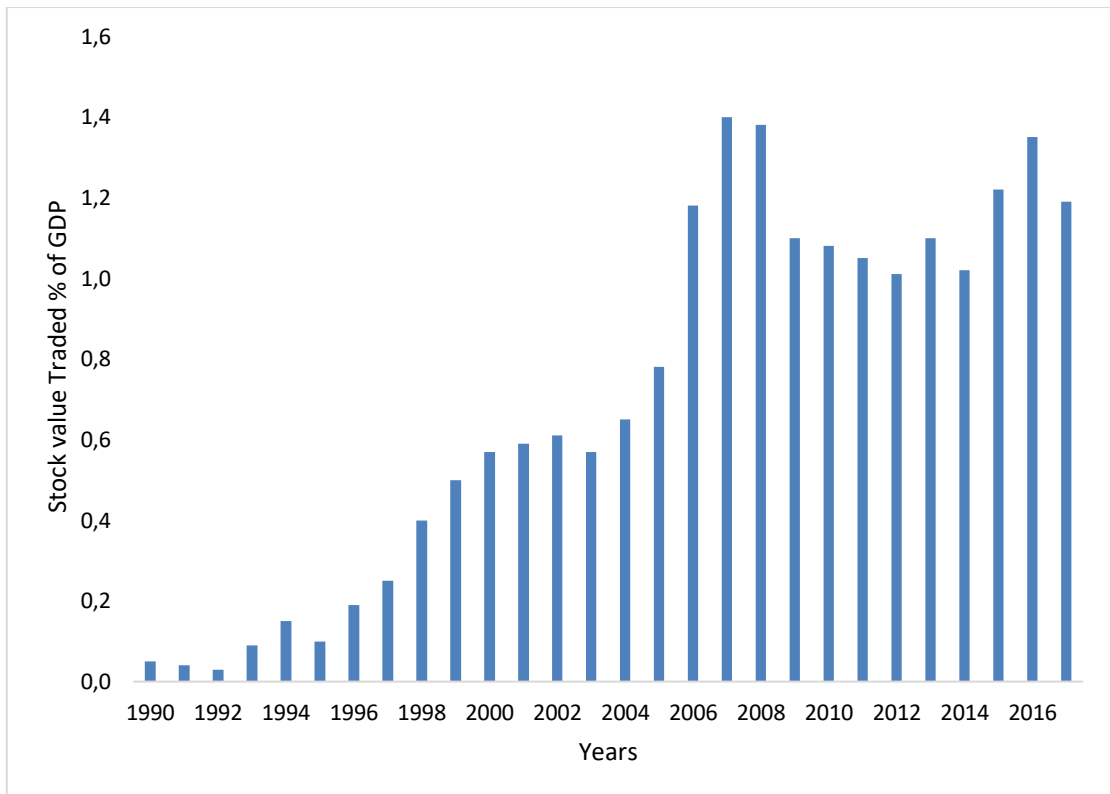
Figure 28: Stock value traded (% of GDP) (1990-2017)

5.1.4 Descriptive statistics of the study variables

House indebtedness statistics portray the ratio of household debt to disposable income. The figures show that more than 50% (median) of the observations over the period between 1990 and 2017 South Africans with household loans have more than fifty percent of their disposable income tied to household loans.

Human development index captures national achievements in health, education and income. Over the study period (1990-2017) South Africa has medium levels of human development (mean 0.63), which on average is higher than the average level of human development in the Sub-Saharan region as reported in the UNDP (2018) report.

Table 6: Descriptive Statistics of the Study Variables (1990-2017)

Variable	Mean	Median	Maximum	Minimum	Std Dev
1. Household Indebtedness	57.49	57.20	65.20	52.40	3.81
2. Economic Development	0.63	0.62	0.65	0.61	0.014
3. Financial Deregulation	17.85	18.25	18.25	17.25	0.52
4. Foreign Financial Inflows	24.83	25.60	29.4	18.9	3.63
5. Asset Price Volatility	18.51	19.71	26.22	11.14	4.91
6. Shift to Market-Based Finance	0.53	0.56	1.42	0.18	0.18

The descriptive statistics on financialisation variables (financial deregulation, foreign financial inflows, asset price volatility and shift to market-based finance), show that the South African financial system is financialised.

5.2 CHECKING DATA FOR AUOTOCORRELATION

Checking for autocorrelation is an important step in regression because if the series exhibits high levels of correlation it means it does not meet the regression assumptions. An autocorrelation is deemed as significant if it is outside a $\pm 1.96 \times 1/(T)^{1/2}$ band, where T is the number of observations (Brooks, 2008). In the case of the data for this study (28 observations), a correlation coefficient is classed as significant if it is larger than approximately 0.37 or smaller than -0.37 using significance testing rule ($\pm 1.96 \times 1/(T)^{1/2}$).

5.2.1 Checking Household indebtedness time series for autocorrelation
Given that the series dies off almost geometrically with increasing lags (see Figure 29), the series thus obeys an autoregressive process. The

autocorrelations in Figure 25 point to strong autocorrelation and heteroskedasticity issues, and that the series may contain a unit root. Using the significance rule ($\pm 1.96 \times 1/(T)^{1/2}$ it can be observed that the autocorrelation coefficients at lags 1-4 are significant, thus the null hypothesis that there is no autocorrelation is rejected under the rule mentioned above.

Sample: 1990 2017
Included observations: 28

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
		1	0.931	0.931	26.955	0.000
		2	0.806	-0.449	47.967	0.000
		3	0.641	-0.269	61.778	0.000
		4	0.476	0.085	69.703	0.000
		5	0.331	0.087	73.712	0.000
		6	0.214	-0.023	75.468	0.000
		7	0.129	-0.001	76.134	0.000
		8	0.054	-0.169	76.254	0.000
		9	-0.014	-0.065	76.263	0.000
		10	-0.086	-0.072	76.608	0.000
		11	-0.164	-0.112	77.942	0.000
		12	-0.237	0.018	80.891	0.000

Figure 29: Household Indebtedness Correlogram

5.2.2 Checking Human development Index time series for autocorrelation

The first column of Figure 30 shows a persistent series that dies out after lag 5. Again, autocorrelation coefficients are significant for the human development index series, suggesting that there is a unit root.

Sample: 1990 2017
Included observations: 28

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
		1	0.861	0.861	23.042	0.000
		2	0.698	-0.165	38.780	0.000
		3	0.517	-0.164	47.745	0.000
		4	0.329	-0.136	51.535	0.000
		5	0.155	-0.079	52.417	0.000
		6	0.006	-0.054	52.419	0.000
		7	-0.128	-0.103	53.075	0.000
		8	-0.233	-0.054	55.359	0.000
		9	-0.309	-0.049	59.586	0.000
		10	-0.346	0.003	65.173	0.000
		11	-0.332	0.072	70.608	0.000
		12	-0.318	-0.116	75.917	0.000
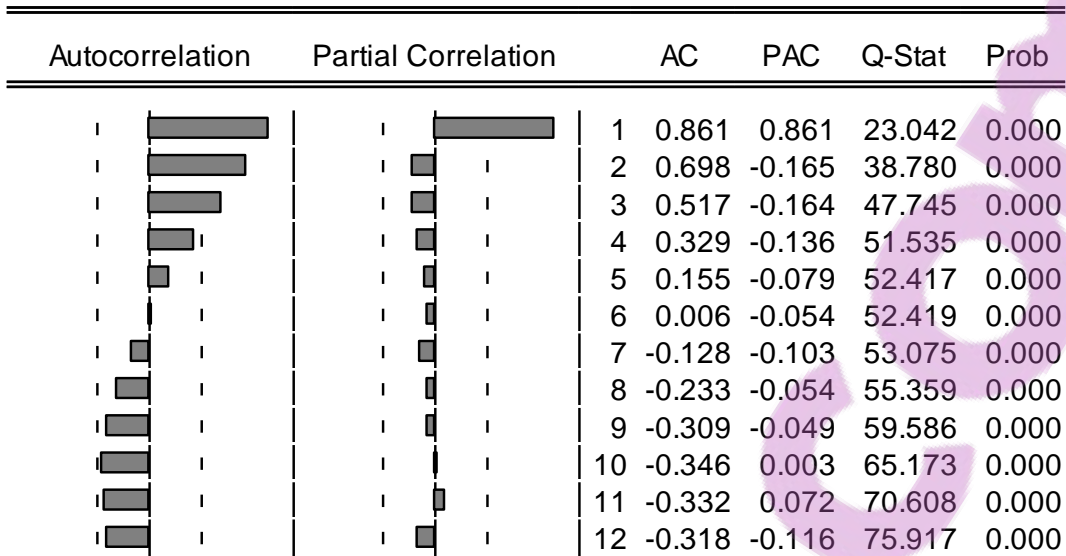
Figure 30: Human development index series correlogram

5.2.3 Checking financial reform index time series for autocorrelation

The autocorrelation coefficients for the reform index time series are also significant, thus calling for a rejection of the null hypothesis that there is no autocorrelation.

Sample: 1990 2017
Included observations: 16

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
		1	0.827	0.827	13.123	0.000
		2	0.588	-0.300	20.245	0.000
		3	0.326	-0.203	22.596	0.000
		4	0.102	-0.045	22.843	0.000
		5	-0.045	0.038	22.897	0.000
		6	-0.101	0.076	23.188	0.001
		7	-0.154	-0.207	23.947	0.001
		8	-0.215	-0.157	25.618	0.001
		9	-0.277	-0.059	28.773	0.001
		10	-0.338	-0.078	34.270	0.000
		11	-0.361	0.003	41.789	0.000
		12	-0.329	-0.007	49.595	0.000
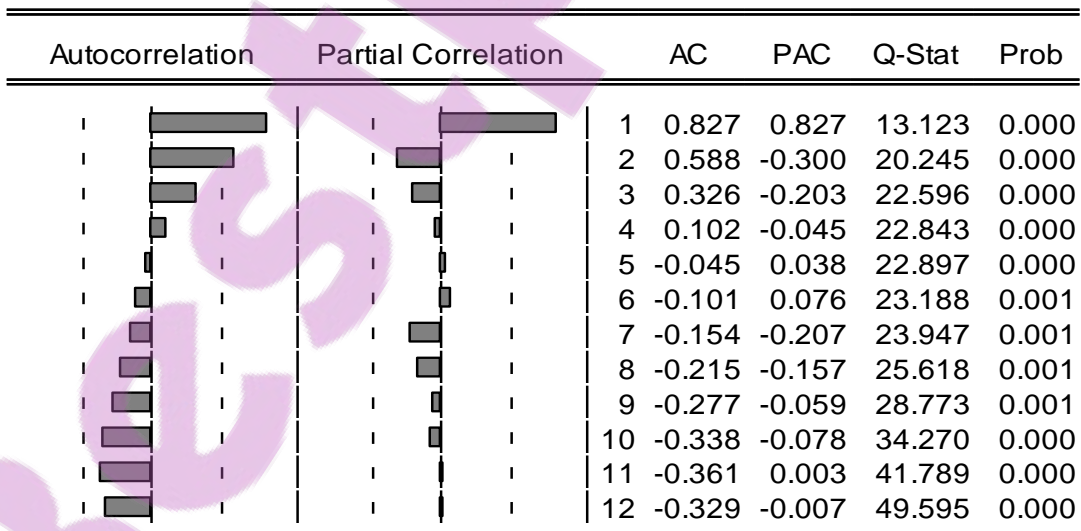
Figure 31: Financial reform index correlogram

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5.2.4 Checking stock of foreign liabilities time series for autocorrelation

Stock of foreign liabilities' autocorrelation coefficients are significant in the first three lags. Notwithstanding, the null hypothesis of no autocorrelation is rejected at the 1% level for all autocorrelation considered.

Sample: 1990 2017
Included observations: 28

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
		1	0.786	0.786	19.236	0.000
		2	0.587	-0.081	30.383	0.000
		3	0.454	0.050	37.322	0.000
		4	0.294	-0.162	40.342	0.000
		5	0.144	-0.073	41.104	0.000
		6	0.008	-0.114	41.106	0.000
		7	-0.036	0.129	41.158	0.000
		8	-0.095	-0.120	41.540	0.000
		9	-0.129	0.046	42.277	0.000
		10	-0.116	0.003	42.909	0.000
		11	-0.134	-0.082	43.792	0.000
		12	-0.108	0.068	44.406	0.000

Figure 32: Stock of foreign liabilities

5.2.5 Checking asset price volatility time series for autocorrelation

Sample: 1990 2017
Included observations: 22

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
		1	0.493	0.493	6.1223	0.013
		2	-0.023	-0.352	6.1360	0.047
		3	-0.181	0.012	7.0458	0.070
		4	-0.301	-0.292	9.6948	0.046
		5	-0.325	-0.095	12.967	0.024
		6	-0.227	-0.132	14.662	0.023
		7	-0.047	0.020	14.739	0.039
		8	0.075	-0.069	14.951	0.060
		9	0.196	0.129	16.516	0.057
		10	0.251	0.022	19.295	0.037
		11	0.112	-0.057	19.897	0.047
		12	-0.206	-0.305	22.132	0.036

Figure 33: Asset price volatility correlogram

The series for the asset price volatility (Figure 33) dies away very quickly after the first lag. The first lag has a statistically significant autocorrelation coefficient, and thus the null hypothesis of no autocorrelation is rejected. The series may not have a unit root because of the rate at which the series decomposes.

5.2.6 Checking stock market value traded time series for autocorrelation

The series presented in Figure 34 is quite persistent and dies off geometrically after six lags. Similar to previous series, the autocorrelation coefficient of the stock market value traded time series is heteroskedastic.

Sample: 1990 2017
Included observations: 19

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
		1	0.815	0.815	14.727	0.000
		2	0.575	-0.267	22.484	0.000
		3	0.375	-0.004	25.988	0.000
		4	0.269	0.117	27.909	0.000
		5	0.184	-0.096	28.876	0.000
		6	0.114	-0.011	29.274	0.000
		7	0.017	-0.129	29.284	0.000
		8	-0.063	-0.014	29.429	0.000
		9	-0.154	-0.141	30.375	0.000
		10	-0.243	-0.118	32.982	0.000
		11	-0.311	-0.043	37.818	0.000
		12	-0.350	-0.077	44.803	0.000

Figure 34: Stock market value traded series correlogram

5.3 UNIT ROOT TESTS

This study builds an indebtedness framework using error correction modelling process. As explained by Books (2008) stationarity is a desirable property in timeseries analysis. GARCH models may contain a unit root if there is strong autocorrelation in the series; and such a series is not stationary. A unit root is a statistical term that means there is no correlation between any two values of y. This implies that there is no trend over time in values of y. In other words, the values are effectively random, as such one cannot find any relationship through regression analysis. A unit root also signals heteroskedasticity problems.

It is very important to determine the stationarity of a series because non-stationarity or otherwise can strongly influence the behaviour and properties of a series (Brooks, 2008). A stationary series is one where the mean and the variance of the series is constant over time (Brooks, 2008). Along the same vein, a non-stationary series wanders a long way from their mean value and rarely cross the mean, while a stationary series crosses the mean frequently.

Another feature of a stationary time series is that it lacks broad trends in the data. Before times series analytical tools are executed each variable must be tested for stationarity so that if it exhibits statistically significant nonstationarity, the time series can be transformed by differencing it. In so doing, the series is able to meet the regression assumptions. As explained by Brooks (2008) non-stationary data can lead to spurious regressions meaning that regression statistics such as the R^2 would be meaningless. Furthermore, time series analytical tools require an assumption of stationarity for the outcome to be meaningful. Sometimes a non-stationary series must be differenced a number of times (*d* times) before it becomes stationary, it is then said to be integrated of *order d* (Brooks, 2008). The section below presents unit root statistics of the six variables of this study.

The autocorrelation findings suggest that they may be one or more unit roots, but this can only be confirmed by doing a unit root test. The null hypothesis of a unit root was tested against an alternative hypothesis of no unit root using an augmented Dickey-Fuller (ADF) test. The objective of the test is to examine the null hypothesis that a series contains a unit root versus an alternative hypothesis that a series is stationary.

To reject the null hypothesis that a series contains a unit root (in other words to accept the alternative hypothesis that a series is stationary), the value of the ADF test statistic must be greater than the critical value. If the results are such that the null hypothesis cannot be rejected the data is differenced until the output shows ADF test values larger than critical values.

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5.3.1 Unit root test of household indebtedness series

Table 7: Household indebtedness unit root test results

Null Hypothesis: 1990-2017 HOUSEHOLD DEBT TO DISPOSABLE INCOME has a unit root				
			t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic			-1.993892	0.2875
Test critical values:	1% level		-3.711457	
	5% level		-2.981038	
	10% level		-2.629906	
*MacKinnon (1996) one-sided p-values.				
Augmented Dickey-Fuller Test Equation				
Dependent Variable: D(_1990_2017_HOUSEHOLD_DEBT_TO_DISPOSAB INCOME				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
HH Debt to DISPOSABLE_INCOME(-1)	-0.076201	0.038217	-1.993892	0.058
HH Debt to DISPOSABLE_INCOME(-1)	0.754434	0.134352	5.615352	0.000
C	5.104062	2.572917	1.983765	0.059
R-squared	0.595902	Mean dep var		0.673
Adjusted R-squared	0.560763	S.D. dependent var		3.539
S.E. of regression	2.345539	Akaike info criterion		4.651
Sum squared resid	126.5358	Schwarz criterion		4.796
Log likelihood	-57.46397	Hannan-Quinn criter.		4.692
F-statistic	16.95842	Durbin-Watson stat		1.490
Prob(F-statistic)	0.000030			

The value of the ADF test statistic (-1.993892) is not more negative that the critical values at 1%, 5% and 10% levels, so the null hypothesis of a unit root in the household indebtedness series cannot be rejected.

5.3.2 Unit root test of human development index series

Table 8: Human development index series unit root test results

Null Hypothesis:1990-2017 HDI has a unit root				
			t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic			-0.96546	0.7494

Test critical values:	1% level	-3.72407	
	5% level	-2.98622	
	10% level	-2.63260	
*MacKinnon (1996) one-sided p-values.			
Augmented Dickey-Fuller Test Equation			
Dependent Variable: D(1990-2017 HDI)			
Sample (adjusted): 1993 2017			
Variable	Coefficient	Std. Error	t-Statistic	Prob.
1990-2017 HDI(-1)	-0.060180	0.062333	-0.9654	0.3453
D(1990-2017 HDI(-1))	0.338799	0.204382	1.6576	0.1122
D(1990-2017 HDI(-2))	0.459242	0.217713	2.1093	0.0471
C	0.038919	0.039626	0.9821	0.3372
R-squared	0.358454	Mean dep var		0.002560
Adjusted R-squared	0.266805	S.D. dependent var		0.006929
S.E. of regression	0.005933	Akaike info criterion		-7.270990
Sum squared residual	0.000739	Schwarz criterion		-7.075970
Log likelihood	94.88738	Hannan-Quinn criter.		-7.216900
F-statistic	3.911144	Durbin-Watson stat		2.217590
Prob(F-statistic)	0.023006		

As Table 8 shows, the human development index series has a unit root because the ADF test statistic (-0.965461) is not more negative than the critical values at 1%, 5%, nor at 10% level. Therefore, the null hypothesis of a unit root in the human development index series cannot be rejected.

5.3.3 Unit root test of foreign financial inflows series

Table 9: Foreign financial inflows series unit root test results

Null Hypothesis:1990-2017 Stock foreign liability has a unit root				
Augmented Dickey-Fuller test statistic			t-Statistic	Prob.*
			0.678213	0.9893
Test critical values:	1% level		-3.699871	
	5% level		-2.976263	
	10% level		-2.627420	
*MacKinnon (1996) one-sided p-values.				
Augmented Dickey-Fuller Test Equation				
Dependent Variable: D(1990-2017 Stock foreign liability)				
Method: Least Squares				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
Stock of foreign liabilities(-1)	0.056961	0.083987	0.678213	0.5039
C	-0.455895	2.363638	-0.192879	0.8486
R-squared	0.018066	Mean dependent var		1.092593
Adjusted R-squared	-0.021211	S.D. dependent var		3.143849
S.E. of regression	3.177016	Akaike info criterion		5.220949
Sum squared resid	252.3358	Schwarz criterion		5.316937
Log likelihood	-68.48281	Hannan-Quinn criter.		5.249491
F-statistic	0.459972	Durbin-Watson stat		2.420325
Prob(F-statistic)	0.503867			

The unit root test of the stock of foreign financial inflows measured using stock of foreign liabilities shows that there is a unit root. The ADF test statistic 0.678213 is not larger than the critical values. The null hypothesis is rejected. This implies that the stock of foreign liabilities series is not stationary.

5.3.4 Unit root test of asset price volatility series

Table 10: Unit root test results for asset price volatility series

Null Hypothesis: 2009-2017 Asset price volatility has a unit root				
			t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic			-5.698396	0.0029
Test critical values:	1% level		-4.582648	
	5% level		-3.320969	
	10% level		-2.801384	
*MacKinnon (1996) one-sided p-values.				
Augmented Dickey-Fuller Test Equation				
Dependent Variable: D(2009-2017 Asset price volatility)				
Method: Least Squares				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
2009-2017 Asset price volatility(-1)	-0.584864	0.102637	-5.698396	0.0013
C	8.638740	2.059553	4.194473	0.0057
R-squared	0.844041	Mean dependent var		-2.436800
Adjusted R-squared	0.818048	S.D. dependent var		4.517156
S.E. of regression	1.926830	Akaike info criterion		4.361947
Sum squared resid	22.27604	Schwarz criterion		4.381807
Log likelihood	-15.44779	Hannan-Quinn criter.		4.227997
F-statistic	32.47171	Durbin-Watson stat		2.576567
Prob(F-statistic)	0.001262			

The ADF test statistic (-5.698396) of the asset price volatility series is more negative than the critical value (-4.582648), at 1% level (-4.582648). Therefore, the null hypothesis, that there is a unit root is rejected. This means the asset price volatility series is nonstationary.

5.3.5 Unit root test of financial reform index series

Table 11: Unit root test results for financial reform index series

Null Hypothesis: 1990-2017 Financial reform index has a unit root				t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic				-1.61693	0.4501
Test critical values:		1% level		-3.95914	
		5% level		-3.08100	
		10% level		-2.68130	
*MacKinnon (1996) one-sided p-values.					
Augmented Dickey-Fuller Test Equation					
Dependent Variable: D(financial reform index)					
Method: Least Squares					
Variable	Coefficient	Std. Error		t-Statistic	Prob.
Financial reform index(-1)	-0.129252	0.079936		-1.616937	0.1299
C	2.515306	1.286606		1.954994	0.0724
R-squared	0.167440	Mean dependent var			0.466667
Adjusted R-squared	0.103397	S.D. dependent var			0.915475
S.E. of regression	0.866856	Akaike info criterion			2.675678
Sum squared resid	9.768707	Schwarz criterion			2.770084
Log likelihood	-18.06758	Hannan-Quinn criter.			2.674672
F-statistic	2.614485	Durbin-Watson stat			1.273563
Prob(F-statistic)	0.129888				

Table 11 shows that the financial reform index series has a unit root because the ADF test statistic (-1.616937) is not more negative than the critical values at 1%, 5%, nor at 10% level. Therefore, the null hypothesis of a unit root in the human development index series cannot be rejected. This means that the series is not stationary.

5.3.6 Unit root test of stock market value traded series

Table 12: Unit root test results for stock market value traded series

Null Hypothesis:1990-2017 Stock value traded has a unit root				
			t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic			-1.030168	0.7276
Test critical values:	1% level		-3.699871	
	5% level		-2.976263	
	10% level		-2.627420	
*MacKinnon (1996) one-sided p-values.				
Augmented Dickey-Fuller Test Equation				
Dependent Variable: D(1990-2019 Stock value traded)				
Method: Least Squares				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
Stock value traded(-1)	-0.054561	0.052963	-1.030168	0.3128
C	0.078894	0.044274	1.781932	0.0869
R-squared	0.040721	Mean dependent var		0.040664
Adjusted R-squared	0.002350	S.D. dependent var		0.125619
S.E. of regression	0.125471	Akaike info criterion		-1.242294
Sum squared resid	0.393575	Schwarz criterion		-1.146306
Log likelihood	18.77097	Hannan-Quinn criter.		-1.213752
F-statistic	1.061245	Durbin-Watson stat		1.413555
Prob(F-statistic)	0.312795			

The ADF test statistic (-1.030168) for stock market value traded series is not more negative than the critical values at 1% (-3.699871), 5% (-3.699871), nor at 10% level (-2.627420). Therefore, the null hypothesis of a unit root in the

stock market value traded series cannot be rejected. This means that the series is not stationary.

5.4 TRANSFORMING NONSTATIONARY SERIES

The unit root tests in the section above showed that all in level series yielded nonstationary variables with the exception of the asset price volatility series. Table 13 shows that foreign financial inflows, asset price volatility and stock market value traded series were stationary at 1st difference.

Table 13: 1st difference and 2nd difference series statistics

	1st difference series		2nd difference series	
	ADF	**P value**	**ADF**	**P value**
Household indebtedness	-2.533	0.120	-4.158	0.004
HDI	-1.769	0.386	-8.736	0.0000
Financial reform index	-2.291	0.187	-7.992	0.0001
Foreign financial inflows	-5.569	0.0001	-10.676	0.0000
Asset price volatility	-3.999	0.0067	-6.166	0.001
Stock market value traded	-3.543	0.015	-5.476	0.0002

It should be noted that the variables that were stationary at 1st difference are financialisation variables. Household indebtedness, HDI and financial reform index series were only stationary at second difference.

5.5 FINDINGS RELATED TO OBJECTIVE ONE

To what extent is the South African economy financialised?

A case has already been made in chapters three and four for focusing on four financialisation variables: (1) financial deregulation measured using the financial reform index+; (2) foreign financial inflows (measured using stock of foreign liabilities as percentage of GDP); (3) asset price volatility; (4) shift to market-based finance (measured using stock market value traded as

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percentage of GDP). However, given that financial reform index data for South Africa is only available up to 2005, only three financialisation variables will be focused on.

To address this objective, time series data was split into two: the periods before the financial crisis (1990 to 2008) and the aftermath (2009 – 2017) to see if the policy interventions at national and global level had any effect on financialisation of the South African financial system. Analysis of variance (ANOVA) test was then performed to see if there is a statistically significant difference between the series before and after the financial crisis of 2007/08.

5.5.1 Foreign financial inflows 1990-2008 vs 2009-2017

Figure 35 shows a definite trend post 2008 financial crisis where stock of foreign liabilities is trending upwards from just over 25% of GDP in 2008 to close to 50% of GDP in 2017.
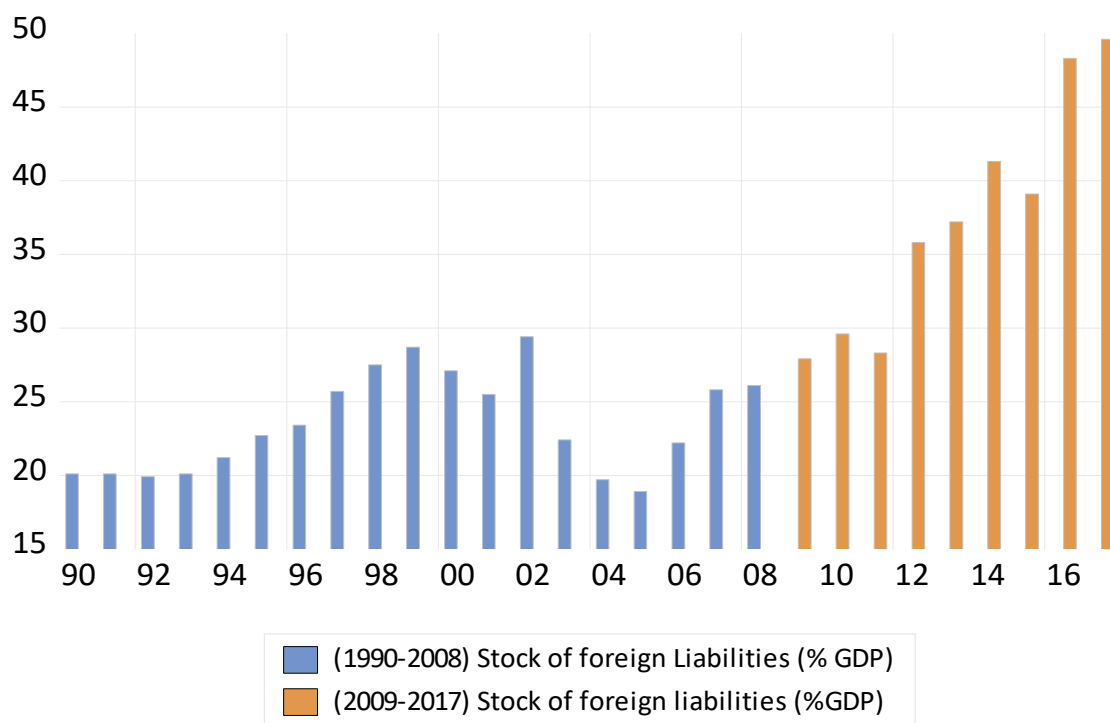
Figure 35: Extent of financialisation - foreign financial inflows

Table 14: ANOVA foreign financial inflows

Test for Equality of Means Between Series			
Method	**df**	**Value**	**Probability**
t-test	26	-6,52655	0,0000
Satterthwaite-Welch t-test	9,34039	-4,98129	0,0007
Anova F-test	-1,26	42,5959	0,0000
Welch F-tes	(1,9,3404)	24,8132	0,0007
Analysis of variance			
Source of variation	df	Sum of Sq	Mean Sg
Between	1	1189,412	1189,412
Within	26	726,0022	27,92316
Total	27	1915,414	70,94127
Category statistics			
Variable	Count	Mean	St. Deviation	Std. Err of Mean
1990-2008	19	23,5000	3,36469	0,7719
2009-2017	9	37,4555	8,07946	2,6932
All	28	27,9857	8,42266	1,5917

Analysis of variance test (t-test value -6.527, $p \leq 0.0001$) shows that there is a statistically significant difference between the series before and after the financial meltdown of 2008.

5.5.2 Asset price volatility 1990-2008 vs 2009-2017

Figure 36 shows that asset price volatility was at its lowest in 1996 and 1997. Volatility levels were over 25% in 1999. After the 2008 financial crisis asset price volatility spiked to over 35% in 2009 and declined steadily in subsequent years.
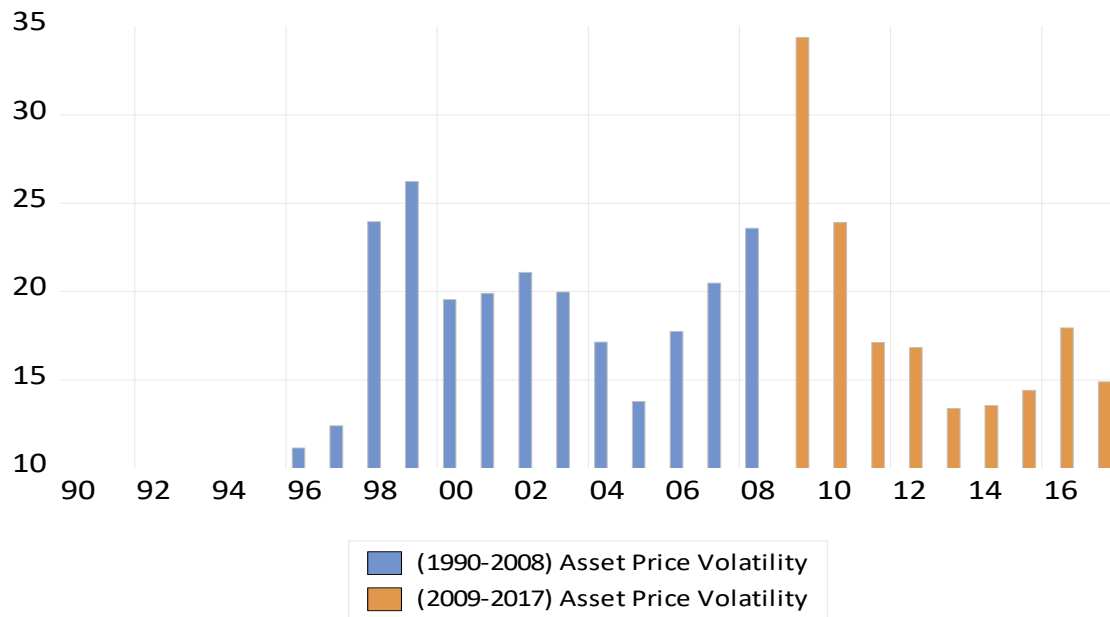
Figure 36: Extent of financialisation Asset price volatility

Table 15: ANOVA Asset price volatility pre and post 2008 financial crisis

Test for Equality of Means Between Series			
Method	**df**	**Value**	**Probability**
t-test	20	0.210864	0.8351
Satterthwaite-Welch t-test*	12.85402	0.195809	0.8478
Anova F-test	(1, 20)	0.044464	0.8351
Welch F-test*	(1, 12.8)	0.038341	0.8478
Analysis of Variance			
Source of Variation	**df**	**Sum of Sq.**	**Mean Sq.**
Between	1	1.358345	1.358345
Within	20	610.9888	30.54944
Total	21	612.3471	29.15939
Category Statistics			

Variable	Count	Mean	Std. Dev.	of Mean
(1990-2008) Asset price volatility	13	18.99173	4.508634	1.25047
(2009-2017) Asset price volatility	9	18.48634	6.773621	2.257874
All	22	18.78498	5.399943	1.151272

The t test static shows that there is no statistically significant difference between the asset price volatility in the 1990-2008 period before the financial crisis and after the crisis.

5.5.2 Stock market value traded 1990-2008 vs 2009-2017
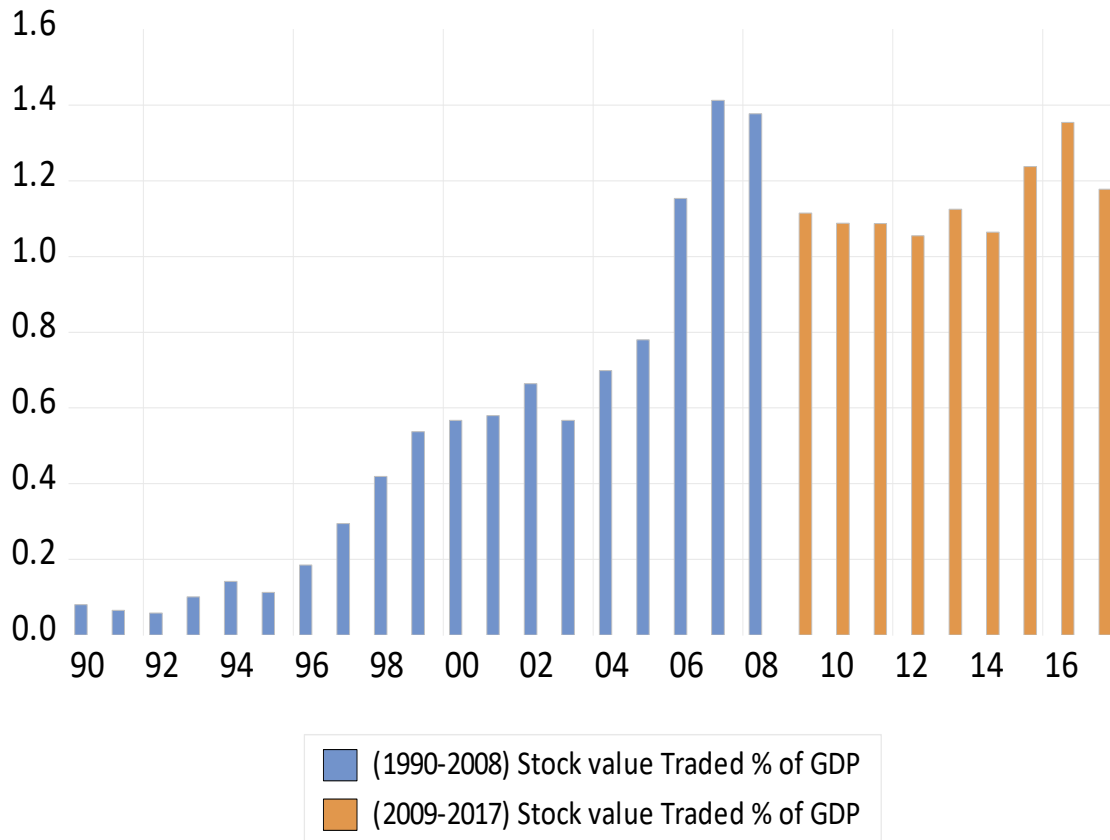
Figure 37: Extent of financialisation - stock market value traded

Figure 37 show a financialisation upward trajectory for the stock value traded. In the early 1990 stock traded at the financial markets was less than 0.1 of the GDP. A dip after the crisis is evident but still above the 1% which is an indication of a market based financial system.

Findings in Table 16 show that there is a statistically significant difference between stock market value traded in the period from 1990-2008 and 2009-2017 after the financial crisis (t = -4.295, p ≤0.001).

Table 16: ANOVA - stock market value traded

Test for Equality of Means Between Series			
Method	df	Value	Probability
t-test	26	-4.295042	0.0002
Satterthwaite-Welch t-test*	21.54878	-6.054840	0.0000
Anova F-test	(1, 26)	18.44738	0.0002
Welch F-test*	(1, 21.5488)	36.66108	0.0000
Analysis of Variance			
Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	2.420499	2.420499
Within	26	3.411486	0.131211
Total	27	5.831985	0.215999
Category Statistics			

Variable		Mean	Std. Dev.	of Mean
(1990-2008)		0.515363	0.430456	0.098753
Market value traded (2009-2017) Market value traded		1.144917	0.097611	0.032537
All	28	0.717719	0.464757	0.087831

5.6 FINDINGS RELATED TO OBJECTIVE TWO

To determine the causal direction of the relationship between financialisation and indebtedness.

To determine the causal direction between financialisation and household indebtedness a Granger causality test is done. Granger causality is defined by Cromwell (1994) as a way to investigate causality between two variables. To test for Granger causality, this study tests the following null hypotheses:

1. H_{01}: financial deregulation does not Granger cause household indebtedness
2. H_{02}: foreign financial inflows do not Granger cause household indebtedness
3. H_{03}: Asset price volatility does not Granger cause household indebtedness

4. H_{04}: Shift to market-based finance does Granger not cause household indebtedness

Given that the number of observations in the series are few, one lag was chosen for the Granger causality test.

Table 17: Granger causality test - Financialisation and indebtedness

Null Hypothesis	Observations	F statistic	Prob
H_{01}: financial deregulation does not Granger cause household indebtedness	14	1.0113	0.4016
H_{02}: foreign financial inflows do not Granger cause household indebtedness	26	0.0381	0.9627
H_{03}: Asset price volatility does not Granger cause household indebtedness	20	2.5908	0.1000
H_{04}: Shift to market-based finance does Granger not cause household indebtedness	26	1.6808	0.2103

The F statistics and the corresponding p values in Table 17 illustrate that the four null hypotheses cannot be rejected for financial deregulation, foreign financial inflows and shift to market-based finance. However, the findings show that the null hypothesis that asset price does not Granger cause household indebtedness is rejected at 10% level. This implies that there is a causal direction between asset price volatility and household indebtedness.

5.6 FINDINGS RELATED TO OBJECTIVE THREE

To establish and explain the effects of household indebtedness and financialisation on economic development. As discussed in chapter four, the equation specified to meet this objective is:

$$EcoDev_t = a_0 + a_1 \Delta indebt_{t-1} + a_2 \Delta \text{financialisation}_{t-1} + \epsilon_t \qquad (4)$$

HDI = C(1)*HHDEBT + C(2)*Financialisation + C(3)

Note that:

HDI = Economic development measured using a proxy measure HDI

HHDEBT = household indebtedness

Equation 4 will be tested using the error correction modelling process for the four financialisation variables using annual time series data from 1990-2017.

5.6.1 Error correction model 1: Effects of indebtedness and deregulation on economic development

The estimation equation as per the EViews output is:

HDI = C(1)*HHDEBT + C(2)*FINREFORMINDEX + C(3)

Where FINREFORMINDEX = Financial reform index (deregulation measure)

Table 18: Error correction model 1 findings

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Dependent Variable: HDI				
Method: Fully Modified Least Squares (FMOLS)				
HHDEBT	0.001919	0.001032	1.859242	0.0877
FINREFORMINDEX	-0.002414	0.001388	-1.738523	0.1077
C	0.558859	0.052956	10.55320	0.0000
R-squared	0.101331	Mean dependent var		0.630600
Adjusted R-squared	-0.048448	S.D. dependent var		0.013793
S.E. of regression	0.014124	Sum squared resid		0.002394
Long-run variance	0.000156			

The findings in Table 18 show that the coefficient for financial reform index is negative but is not a strong predictor of economic development, and the relationship is not statistically significant. The R squared value (0.10133) is also low.

Substituted Coefficients:

HDI = 0.00191858385928*HHDEBT - 0.00241359724754*FINREFORMINDEX + 0.558858802403

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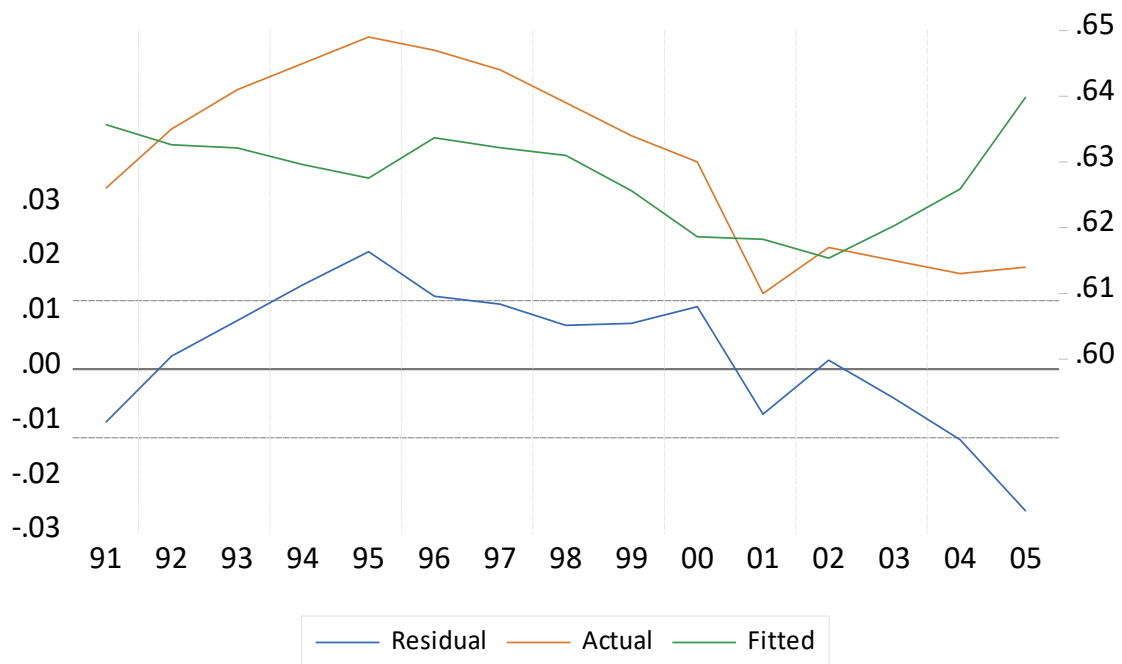
Figure 38: Actual fitted residual graph for model 1

The fitted residuals in Figure four show that the error is not constant around the mean which means that the relationship between economic growth, household indebtedness and financial regulation is not a long-run relationship.

5.6.2 Error correction model 2: Effects of indebtedness and foreign financial inflows on economic development

Table 19 shows that stock of foreign liabilities is a strongest predictor of economic development. The regression output also shows a negative beta coefficient for household indebtedness which means that there is an inverse relationship between economic development (HDI) and household indebtedness. The R square value of 0.72 shows model parsimony.

Estimation Equation:
HDI = C(1)*HHDEBT + C(2)*STOCKFOREIGNLIAB + C(3)

Where
STOCKFOREIGNLIAB = stock of foreign liabilities

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Table 19: Error correction model 2 findings

Dependent Variable: HDI				
Method: Fully Modified Least Squares (FMOLS)				
Sample (adjusted): 1991 2017				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
HHDEBT	-6.16E-06	0.000383	-0.016103	0.9873
STOCKFOREIGNLI AB	0.002444	0.000549	4.447190	0.0002
C	0.573986	0.022831	25.14048	0.0000
R-squared	0.724024	Mean dependent var		0.644000
Adjusted R-squared	0.701026	S.D. dependent var		0.026358
S.E. of regression	0.014412	Sum squared resid		0.004985
Long-run variance	0.000427			

Substituted Coefficients:

HDI = -6.16040492031e-06*HHDEBT + 0.00244371302398*STOCKFOREIGNLIAB + 0.57398551506

Figure 39: Actual fitted residual graph for model 2

Figure 39 shows that the fitted residuals are stable around the mean only during 2008-2014, and were unstable between 1992 and 2002. .

5.6.3 Error correction model 3: Effects of indebtedness and asset price volatility on economic development

Estimation Equation:
=========================
HDI = C(1)*HHDEBT + C(2)*ASSETPRICEVOL + C(3)

Where
ASSETPRICEVOL = asset price volatility

Table 20: Error correction model 3 findings

Dependent Variable: HDI			
Method: Fully Modified Least Squares (FMOLS)			
Date: 02/03/19 Time: 00:43			
HHDEBT	0.001466	0.000376	3.897935	0.0011
ASSETPRICEVOL	-0.003055	0.000852	-3.583252	0.0021
C	0.603908	0.030421	19.85180	0.0000
R-squared	0.299419	Mean dependent var		0.645000
Adjusted R-squared	0.221576	S.D. dependent var		0.029660
S.E. of regression	0.026168	Sum squared resid		0.012326
Long-run variance		0.000399		

Table 20 shows that household indebtedness and asset price volatility have a statistically significant effect ($p \leq 0.05$) on economic development. The R square value indicates 30% of the variance is explained in the model, which is on the low side.

Substituted Coefficients:

HDI = 0.00146559403592*HHDEBT - 0.00305464746118*ASSETPRICEVOL + 0.60390826115

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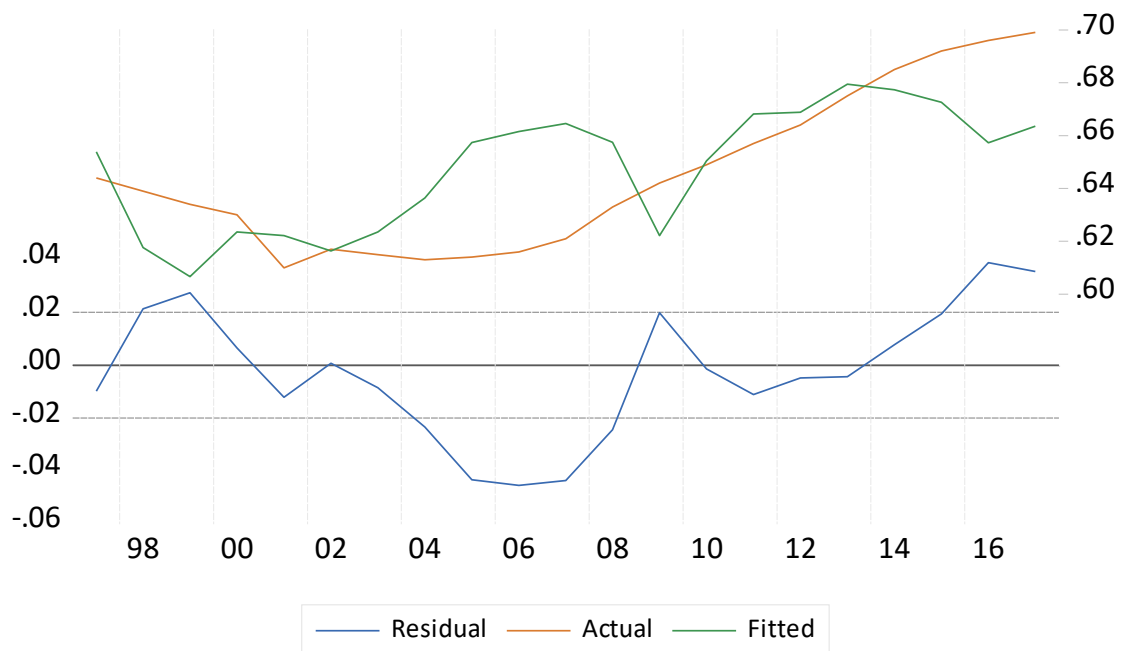
Figure 40: Actual fitted residual graph for model 3

Figure 40 shows stable residuals, except for 2006, 2016 and 2016.

5.6.4 Error correction model 4: Effects of indebtedness and stock market value traded on economic development

Estimation Equation:

HDI = C(1)*HHDEBT + C(2)*STOCKMARKETVALUETRADED + C(3)

Where
STOCKMARKETVALUETRADED = stockmarket value traded

Table 21: Error correction model 4 findings

Dependent Variable: HDI				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
HHDEBT	0.001588	0.000977	1.625021	0.1172
STOCKMARKETVALUETR ADED	-0.013626	0.025957	-0.524964	0.6044
C	0.549570	0.049407	11.12324	0.0000
R-squared	0.184968	Mean dependent var		0.644000
Adjusted R-squared	0.117048	S.D. dependent var		0.026358
S.E. of regression	0.024768	Sum squared resid		0.014723
Long-run variance	0.000844			

Table 21 shows that the effect of household debt and stock market value traded is statistically insignificant. The R square value (0.185) is low which is another indication that the model is not adequately identified.

Substituted Coefficients:

HDI = 0.0015877044393*HHDEBT - 0.0136263905668*STOCKMARKETVALUETRADED + 0.549569734564

Figure 41: Actual fitted residual graph for model 4

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Figure 37 shows stationary residuals between 1992 and 2001 and, thereafter the residuals were not stable around the mean.

5.7 Indebtedness Framework

This study introduces and indebtedness framework as illustrated in 38. The findings emerging from section 5.6 show that out of the four financialisation variables only the asset price index and household indebtedness have a statistically significant effect on economic development in a long-run model.

The regression estimation resulted that confirm the framework presented in Figure 42 shows that household indebtedness has a positive regression coefficient while asset volatility has a positive and larger beta coefficient. This means that economic development is likely to be negatively and strongly affected by financialisation as experienced in asset price volatility.

$$HDI = 0.00146559403592 \cdot HHDEBT - 0.00305464746118 \cdot ASSETPRICEVOL + 0.60390826115$$
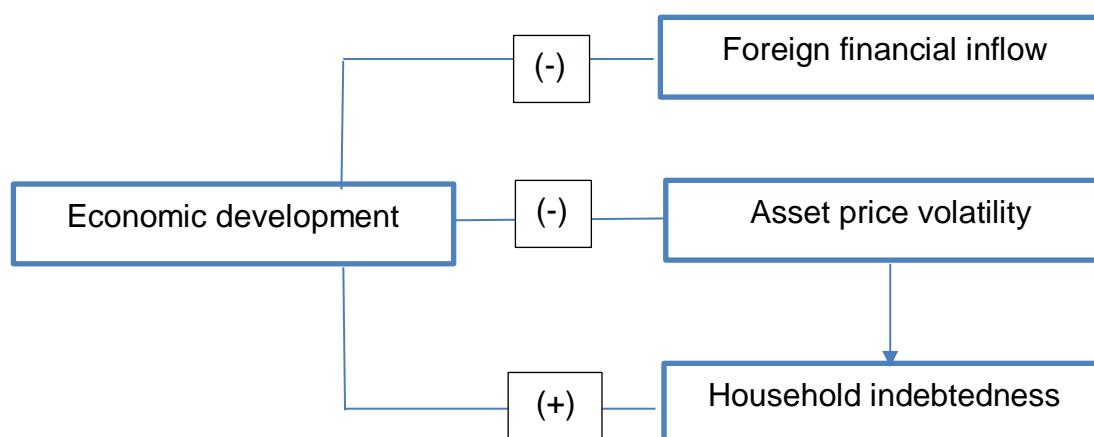
Figure 42: Indebtedness framework

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5.8 Concluding remarks

This study has three objectives, and this chapter shows how each objective was addressed. The first objective sought to establish the extent of financialisation in the South African economy pre and post the 2008 financial crisis. The findings showed that the South African economy is highly financialised with respect to foreign financial inflows, asset price volatility and as shown by the shift to market-based finance.

The second objective sought to examine the causal direction between financialisation and household indebtedness. The findings showed that only the asset price volatility Granger cause volatility.

Out of the four financialisation variables only the asset price index and foreign financial inflows had a statistically significant effect on economic development in a long-run model with indebtedness included as a regressor. The indebtedness framework was duly presented showing that economic development is likely to be negatively and strongly affected by financialisation as experienced in asset price volatility. The implications of these findings are discussed in the next chapter.

CHAPTER 6: DISCUSSION AND CONCLUSIONS

6.0 INTRODUCTION

The foundation of this thesis was laid in chapter one where a broad outline of background issues, the problem statement, research questions, and study objectives were put forward. The study was conceptualised around the idea that financialisation is likely to affect indebtedness and thereby affect the growth of the economy. Financialisation was described in chapters one and two as a process whereby financial markets, financial institutions, and financial elites gain greater influence over economic policy and economic outcomes, thereby transforming the functioning of economic systems at both the macro and micro levels. The principal impacts of financialisation are that: (1) the significance of the financial sector relative to the real sector is elevated, (2) transfer of income from the real sector to the financial sector is effected, and (3) income inequality increases and wage stagnation takes place(Epstein, 2002; Fine, 2013; James, 2017, Kaworski and Stockhammer, 2016; Zhang, 2009). Zhang (2009) warned that financialisation may put the economy at risk of debt deflation and prolonged recession. It is on these bases that the study posed three research questions:

1. To what extent is the South African economy financialised?
2. How is financialisation linked to indebtedness?
3. What are the effects of household indebtedness and financialisation on economic development?

From the perspective of critical realism, a philosophical paradigm that base knowledge construction on illuminating unobservable influences beyond the tangible reality, the study addressed three objectives which are discussed below.

6.1 DISCUSSION AND CONCLUSIONS: OBJECTIVE 1

To achieve this objective, annual time series data from 1990-2017 on financialisation variables was split into two, before and after the financial crisis.

Graphical presentations of the four financialisation variables (financial deregulation, foreign financial inflows, asset price volatility, and shift to market-based finance) showed that there was a difference in financialisation after the 2008 financial crisis.

The findings also showed that South Africa exhibits high levels of deregulation as illustrated by the financial reform index. This finding is consistent with Kaworski and Stockhammer's (2016) findings that showed that South Africa exhibited high levels of deregulation even more than other emerging economies such as China, India, and Korea.

Analysis of variance showed that there is a statistically significant difference between the foreign financial inflows' series before and after the financial meltdown of 2008 (t-test value -6.527, p ≤ 0.0001). (1990-2008). The findings also showed that there was no statistically significant difference between asset price volatility before and after the financial meltdown of 2008. Interestingly, there is a statistically significant difference between stock market value traded in the period from 1990-2008 and 2009-2017 after the financial crisis ($t = -4.295$, $p ≤ 0.001$).

Asset price volatility is measured using the World Bank's activity indicator to measure shift to market-based finance. As mentioned in Chapter five, the indicator captures the ratio of value traded on the domestic stock exchange, expressed as a share of GDP (SARB, 2015). An activity measure above 1, signals that the economy is more market-based than bank-based because the activities in capital markets are stronger relative to bank lending.

The findings of this study showed that the activity indicator was close to zero between 1990 and 1995, depicting a bank-based financial system. The indicator trended upwards in 1996 going forward till 2006 when the ratio reached 1.0 for the first time. The findings also showed that the activity indicator remained over 1.00 for more than ten years illustrating a strong and consistent shift to market-based finance.

These findings illustrate that the South African financial system is highly financialised. Given that financialisation affects monetary policy, it is important to discuss these findings in relation to the monetary policy stance taken by the South African Reserve Bank. As explained in chapter two and three, inflation rate is at the core of the monetary policy. The inflation targeting strategy by the SARB influences the behaviour of the monetary policy from which the rate of interest and the interest rates are determined during the process. It is the SARB's duty to ensure that the repo rate is reasonable for the commercial banks to manage affordable interest rates which are critical for the buying and selling of goods and services in the economy, as well as for foreign financial inflows, and asset prices. As much as the HDI index for South Africa is above the norm in comparison to other countries in the sub-Saharan region, inequality and unemployment are still high. This perhaps requires a relook at policy prescriptions that would reduce unemployment levels. Even though it is beyond the scope of this study to look at the effect of monetary policy on economic development, it can be seen that the monetary policy has been successful in increasing foreign financial inflows.

6.2 DISCUSSION AND CONCLUSIONS: OBJECTIVE 2

The second objective sought to examine the causal direction between financialisation and household indebtedness. Contrary to a priori expectations, the findings showed that financial deregulation, foreign financial inflows and shift to market-based finance do not Granger cause indebtedness. Asset price volatility was found to Granger cause household indebtedness. This implies that there is a causal direction between asset price volatility and indebtedness. These findings should be viewed in the context of other indebtedness statistics presented in this study:

Firstly, the debt to GDP ratio in South Africa, as illustrated in chapter one, is hovering just above 50%. The IMF regards a debt- to- GDP ratio of 60 percent as a prudential limit in developed countries, while 40 percent is the debt- to- GDP ratio that should not be breached on a long-term basis in developing and

emerging economies (IMF, 2014). At about 50% of debt to GDP ratio, South Africa is above the prudential limit for developing and emerging economies.

The rise in debt to GDP coincides with a new political administration that was installed in 2009. The high levels of debt to GDP ratio beg the question of whether indebtedness is a fertile ground for unrestricted credit creation through the financialisation of the economy. The findings that addressed whether financialisation Granger caused indebtedness were an attempt to address this question. The findings of this study did not support the argument that financialisation causes indebtedness. The Granger causality test was not supported for all four financialisation variables (financial deregulation, foreign financial inflows, asset price volatility and shift to market-based finance).

These findings should be interpreted with caution given that the indebtedness measure used for this study only covered a small proportion of the private sector debt. This is an important point because South Africa's public debt (which was not captured in the indebtedness measure of this study) accounted for 49.6 % of the country's nominal GDP in 2017 (R2.6 bn) according to National Treasury (2018). The Government as the main customer of commercial banks contributes to indebtedness. At the same time, management and leadership of State-Owned Companies instead of assisting the government to minimize borrowing costs and optimize commercial revenue are in fact compounding the situation by increasing the size of borrowing costs. Ninety percent of the South African government debt is funded by local commercial banks and financial institutions. In fact, already the debt servicing cost are 4% of the GDP (National Treasury, 2018). The IMF estimates Government Debt to GDP will be 56% by 2020 and this could mean the debt servicing costs will be no less than 5% of the GDP as the interest rate is expected to increase to about 7.5%. The recent downgrading by rating agencies and the continued budget deficits has the potential of worsening the costs of borrowing and put the country in an unavoidable debt trap.

The financialisation imperative as indicated in literature guarantee the use of multiple borrowing sources to diversify government's debt portfolio (Epstein, 2002). This study shows that financialisation was low in the 1990 and early

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2000s. This can be explained by the fact that during the same period South Africa exercised a prudent fiscal and monetary policy. In 2009, there were cash reserves surplus of about R 50bn as a result of effective management of state resources. The public debt bottomed up around the beginning of 2007 but then stared to rise sharply from 2010 post the financial meltdown of 2008. The unlimited and indiscriminate access to corporatized credit possibly triggered the rise of public and private indebtedness.

In 2002, the Debt to GDP was around 36% but by 2017 it was 53% to GDP. Both Private and Public debt is around R 4 trillion rand (National Treasury, 2018). Interests costs are 4 % of the GDP and the budget deficit is almost 5% of the national GDP. The State is at the point where some of its assets will have to be liquidated in order to inject the required revenues to carry out its national developmental goals. The structural indebtedness is now embedded

For example, the National Treasury key focus is the management of refinancing risks arising from a high level of debt redemptions. Although this appears to be a confidence instilling act from the lenders point of view, it does not remove the government from the clutches of systemic debt. The government has not offered its own unique and original plan to redeem and fund debt.

Nonetheless, the National Treasury believes that the main budget will move into a surplus in 2020/21 notwithstanding the fact that gross borrowings will peak at about 5 percent of the GDP. As the government increases expenditure in local and foreign debt redemptions, the more it requires unencumbered revenues into its fiscus. The government finance strategy is long on the utilization of debt finance instruments but very short in presenting actionable short to medium and long-term revenue generation plans comprised of tax revenues, SOE revenues, local and foreign investment revenues and other commercial revenues linked to government business. The cost of servicing government debt is influenced by the volume of debt, new borrowing and macroeconomic variables such as interest, inflation and exchange rates.

Applying the Keynesian Theory on Financialisation in a narrow sense, the South African Public Debt fails inordinately to finance economic expansion. According to Keynesian Theory (Keynes, 1930), a debt financed government spending could stimulate the economy and revitalise a stagnant economy. Budget deficits with the sole purpose of growing an economy were in order based on this theory. Economist such as Krugman (2015) contends that sovereign debt is indispensable for national economic development. The reasoning behind this position is that an economy requires debt stimulus to its GDP in order to grow and sustain itself. Krugman does not consider debt problematic but as an opportunity by the state to provide deficit-driven budgets which will help government and the society to develop and move out of debt in the long run.

The Keynesian Theory has many flaws as pointed out by James (2017) and Epstein (2002). It promotes fiscal ill-discipline which conceives early seeds of a debt saturated economy. The source of government expenditure is only limited to borrowings or debt. The financial burden of the current generation is inconsiderately transferred to the next. It creates unaffordable welfare programmes, large political bureaucracy and a cumbersome civilian payroll (James, 2017).

Public debt is justified if it creates a conducive environment for production in the real economy and wealth creation in the finance economy. Economic stagnation follows if public debt is misallocated and misappropriated into debt optimisation expenditure.

Of importance to this study, the findings showed that household indebtedness measured using the household debt to disposable households sourced from the SARB database has been on the incline from the mid 90's; and it reached its highest point of over 85% in 2008. The banks lose billions of Rands annually by writing off irrecoverable debts. Non-performing loans in commercial banks are also attributed to indebtedness. Non-performing loans have negative implications on the viability and performance of the banks. Vosloo and Styger (2009) provide a solid argument for the necessity of a strong governance regime for the risk management in financial institutions. They have emphasised that a

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focused and unceasing contraction of indebtedness and invariably, non-performing loans would strengthen the risk adjusted return on capital (RAROC), which is a vital instrument in the banks profit optimization mechanism. Banks are operating in a cumbersome environment in which the pursuit of a RAROC driven credit structure does not necessarily guarantee the financial health of impaired accounts but increase the total cost structure of maintaining them (Vosloo and Styger, 2009).

The Marxist Socialist interpretation of financialisation is that there are powerful vested interests with pressure group capabilities empowered by institutionalised mechanics of credit creation and allocation in the financial system, supported by specific ideological assumptions and political interventions to saturate government into systemic indebtedness (Pixley & Harcourt, 2013; Masso, 2016; Lapavitsas, 2016; Fine, 2015). In the case of South Africa, the projections for expanding borrowings are not matched by government revenue and economic growth. The country is entrenched in deep liquid domestic capital market characterized by an increase in borrowing requirement and higher financing costs.

The empirical evidence presented in chapter five shows high levels of financialisation between 2002 and 2017. It is likely that such an increase has been largely influenced by the Monetary Policy and the National Credit Act. Both instruments were used as policy tools to mitigate the adverse impact of credit on bank customer debt levels. Even though inflation has been low, the country has plunged into a technical recession caused mainly by lack of economic growth. The unemployment rate remains very high surrounded by deep levels of intractable private and public indebtedness.

However, it must be noted that the ratio of interest to total expenditure has been relatively stable at about 10% for the past decade (SARB, 2014), making it possible for customers and households to have a lighter credit burden. The relatively low interest rates were largely influenced specifically by investor confidence in the South African bond market which were considered less risky than other financial instruments. The monetary policy was instrumental in the

containment of interest rates ensuring the debt stock was not negatively affected by rising interest rates.

Low interest rates did not retard the growth in the size of customer debt. In fact, it can be argued that the low interest rates motivated more debt to be taken as the costs of servicing the debt appeared to be affordable and reasonable at a glance. However, once the customer defaults on payment, a range of administrative costs and interest charges become transparent and neutralize the ability to settle the principal debt.

The credit to the private sector and individual customers was relatively affordable and easy to access without stringent regulatory delays. The potential gains presented by the financialisation of the South African economy, meant that the commercial banks and the Reserve Bank, were prepared to forgo restrictive and prohibitive debt servicing costs imposed on the market, in order to enhance long term investment returns anchored around interest accumulation and time value of money.

6.3 DISCUSSION AND CONCLUSION: OBJECTIVE 3

Lastly, the third objective of this study was to explain the effects of financialisation and indebtedness on economic development to inform the indebtedness framework that this study set out to develop. Using annual data for the period of 1990 to 2017 for South Africa, the third objective was addressed by examining the effects of household indebtedness and financialisation on economic development. These effects were tested using OLS regression and error correction modelling technique (ECM) for each of the four financialisation variable: (1) financial deregulation measured using the financial reform index; (2) foreign financial inflows measured using stock of foreign liabilities as percentage of GDP; (3) asset price volatility; and (4) shift to market-based finance, measured using stock market value traded as percentage of GDP. Each of the variables were tested for stationarity using the Augment Dickey-Fuller (ADF) unit test. The findings of the ADF unit-root test

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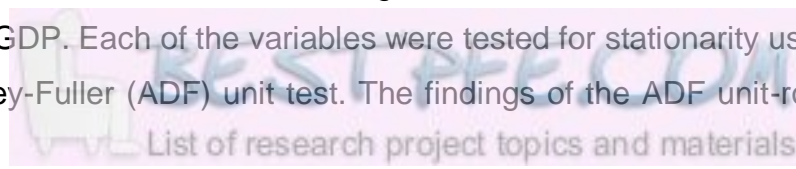
showed that all the variables were nonstationary (had a unit root) at in level and were stationary as first and second difference.

Out of the four financialisation variables only the asset price index and foreign financial inflows had a statistically significant effect on economic development in a long-run model with indebtedness included as a regressor. These findings confirm the argument presented in chapter one that in developing economies financialisation materialises largely to the detriment of economic development, especially in economies where inequality is high.

These findings are consistent with Detzer (2016)'s findings that link increasing inequality with financialisation. Even though this study did not link financialisation with inequality, the human development index, which was used as a proxy for development, captures income distribution. Furthermore, the relationship between income inequality and economic development has been established in literature (see for example Bhorat et al, 2009).

The findings are also consistent with Kaworski and Stockhammer's (2016) views that countries that have actively deregulated might experience household financialisation and asset price inflation without being exposed to strong foreign capital. South Africa however has been exposed to foreign capital and the findings of the study confirm a causal relationship between asset price volatility and indebtedness.

6.4 CONTRIBUTION TO KNOWLEDGE

This study contributes to knowledge in two fundamental ways. Firstly, the study shows that there is a causal link between financialisation and indebtedness, especially in an economy that is characterised by structural problems including low growth rate, high unemployment and high levels of inequality. The challenges experienced by a highly financialised financial system is that the productive capacity of the economy is beholden to capital markets. As argued in chapter one, the unintended consequences of financialisation would be unemployment which further exacerbates the debt burden of households.

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Secondly, the study contributes to knowledge by providing an indebtedness framework that explains the effects of financialisation and indebtedness on economic development
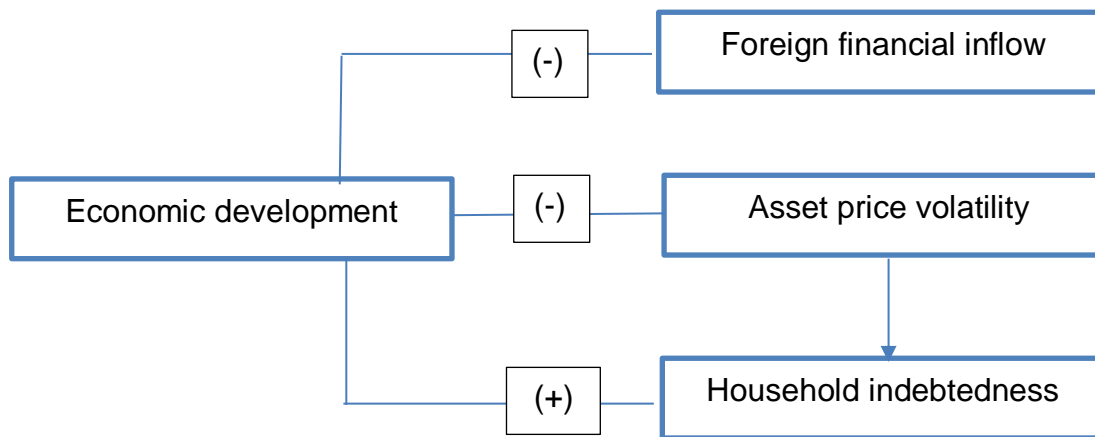
Figure 43: Indebtedness framework

6.5 POLICY IMPLICATIONS AND RECOMMENDATIONS

The South African government has not been successful in creating an environment that cushions households from globalisation and financialisation effects. It is envisaged that the findings of this study will inspire policy to find ways to abate the negative effects of financialisation on household indebtedness and economic growth. Literature reviewed showed that emerging economies such as China, South Korea, Malaysia and India have not financialised, to the extent of South Africa, when it comes to financial deregulation. There are also examples in the world of countries that do not charge interests rates that plunge households into debt, notably Sweden. The call to create the environment for economic development and job creation has brought arguments about the appropriateness of government policy; and chief amongst them is the inflation targeting regime.

Nonetheless high inflation is perceived as even more detrimental to the poor as it devalues continuously the only possession, that poor people have, cash in the long run. The banks also argue that the depreciation of the value of money as the result of inflation, has a negative effect on bank operations especially with regard to impaired accounts which are often written off due to non-payment. The levels of inflation act as a particularly pernicious and regressive form of taxation on the wealth of a populace. Given the high levels of inequality and poverty in South Africa, this effect should be of concern to policymakers. Nonetheless, inflation targeting policy per se cannot satisfy job creation demands. The unemployment rate in South Africa is embedded in the economic system which has essentially been left untouched for generations. Policy makers would have to think hard as they learn their lessons from China and South Korea, as well as from India and Malaysia on what macroeconomic policies to put in place to ensure development, while limiting indebtedness and financialisation.

Policy makers would also have to rethink the relationship between interest rates and the monetary policy. For example, high interest rates can be applied to attract much needed capital inflows. Monetary policy could thus be used to stabilize prices and the inflation rate. This would invariably create the conducive environment for job creation and ignite the economy towards a growth trajectory. Monetary policy and interest rates influence the consumption of more services and goods and are used as macroeconomic instruments that are targeted to deliver specific economic outcomes. Policy makers would also have to look at how the adverse effects of market-based finance on performance of the productive sector can be abated. South Africa is not short of incentives to create employment. However, these incentives might not work when there are such high levels of education inequality in South Africa. Perhaps policy makers should focus on narrowing the inequality gaps to minimise the adverse effects of financialisation on household indebtedness.

Neo Marxists like Moseley, Bellamy, Forster and Magdoff contend that financialisation is usually coupled with speculative growth of the credit- debt-system. The above-mentioned authors further argue that the credit-debt-system

executed through financialisation was developed as a response to deal with the continuous tendency of capital stagnation in the real economy which successively causes falling rate of profit. In a capitalist economy, lies an irreversible outcome of stagnation rooted in the system of production and accumulation (Forster and Magdoff, 2014, p. 2). Whilst the Revolutionary Marxists and the Neo Marxists have both articulated a strong argument for the removal of a global capitalist economy. There is still a significant lack of evidence of how an alternative financial system can resolve effectively the conundrum of a debt saturated global economy.

The Liberal School Perspective maintains that the failure to manage properly deleveraging, collateral debt obligations, credit swaps and other multiple systemic risks is responsible for the continued global economic stagnation as well as endemic indebtedness. They place the problems right at the apex of the speculative stock market framework and with the mainstream view that the inherent systemic market risks will be resolved by the market itself.

The mainstream economists contend that there is no justification for the fundamental transformation of the current global market conditions. Nonetheless, there is schism amongst them in terms of defining and appreciating the reality they are confronted with. On one hand, there is acceptance that the global financial system is experiencing frequent cyclical market crises as a consequence of failure to manage the complexity and contradictions of international stock and forex markets. On the other hand, markets are regarded highly efficient and properly organised. Any deviation from the norm is subjected to immediate self-correction imposed by the efficiency of the markets and there is nothing improper about financialisation and debt saturated markets according to another of authors (see for example Wray, 2017; Fiebiger, 2014; Benes and Kumhof, 2012; van Der Zwan, 2014). The approach puts emphasis on the role of human actors making changes usually in the form of reforms to the status quo. The major weakness of this approach however relates to its apparent neglect to develop a knowledge body that sheds light into how financialisation is reliant on a debt-centric economic order.

The mainstream economists argue that the trajectory of debt over long periods does have a positive effect in the growth of an economy. Modern financing, it is argued, is based on debt creation, pointing out that the organization of the global financial system is deeply entrenched in debt creation almost making it impossible to test other alternative avenues (Prescatori, Sandri and Simon, 2014; Reinhart and Rogoff, 2009; Iron and Bivens, 2013; Cochrane, 2015).

At the height of systemic indebtedness and unrestrainable financialisation, a conservative economist such as Krugman (2015) argued that sovereign debt is indispensable for national economic growth. The explosion of credit creation and maximization of profits are being accompanied by the introduction of multiple customised and generic financial instruments for government and private debt consumption. These issues need to be addressed by policy makers.

The low interest rates in South Africa over a period of 16 years were not by default, but a product of a carefully designed credit creation policy. The credit creation policy and the monetary policy worked in tandem to ensure that the credit linked affordable interest rates become a unique value proposition to expand the debt market. This was meant to guarantee that the financialisation dividends are not affected by diminishing returns in the long run. The low interest rates strategy is driven by endogenous and exogenous factors connected to one purpose of expanding shareholder value from the intensely financialised credit markets. The burden of administrative fees, finance and interest costs are borne by customers whose level of income does not match the size of their increasing debt portfolio. The interest rates, though affordable are the means to an infinite debt commitment. Neither the government nor the commercial bank customers seem to have the requisite skills to move out of a structural debt-phenomenon.

The opportunity to use this situation for productive investment for growth in the real economy was lost. South Africa lacked financial and economic wisdom at

the helm to influence the monetary policy and the credit creation policy to achieve economic advancement.

According to Karl Marx (Das Kapital, vol. 3), interest bearing capital plays a key role in the creation of systemic indebtedness. The notion of the interest charges lies at the core of the banking system. An interest-based debt comprises net capital value invested in the system. In other words, the time value over the period of the interest paid for a loan provides more return than the principal amount. Debt is always reasonably manageable but gets into default due to high levels of interest rate charges over long periods of years.

To conclude, the study calls for an urgent comprehensive policy intervention to assess and recommend actionable transformation solutions on the structure of the economy. The economy requires policy changes that will ensure that there is enough energy, water supply, job creation, productive investments to grow the economy. The SARB and the National Treasury must take a lead in the development and implementation of policy that will release the government from unnecessary debt obligations. The policy must have clear guidelines to inform the debt-to-GDP ratio reduction plans accompanied by economic revitalisation activity. The aggravation of debt by way of credit creation practices must not only come under scrutiny but must be reformed to breakdown the current barriers that prevent active participation by the secondary economy dominated by job creating entrepreneurs.

The monetary policy is the central component of economic activity, unless it is used properly, credit creation practices will hinder the government and the public to take full participation in the development of the economy. The role of the monetary policy should not be restricted but liberated to influence meaningful decision making in the broader economy.

The policy makers and leaders of the economy can jointly exploit the period of low corporate taxes and low inflation to expand export markets for South African goods and services. Economic activity thrives better where there is a clear

implementable regulatory framework unhindered by rigid bureaucratic obstacles. In fact, there is no good or bad policy. Policy certainty means actionable and implementable legislation in the primary, secondary and tertiary sectors of the economy.

Another area that requires key policy development is how to deal with those who are in debt but are unemployed? This is where bold decisions need to be made.

Finally, changes in the policy and legislation is required to effectively deal with sovereign debt as well as sovereign wealth generation agency. The government requires innovative and sustainable solutions to increase its revenue base beyond tax collection. Furthermore, a revamped legislation to manage government expenditure behaviour is critical and this will be anchored around a clear disruptive debt services cost plan that will effectively reduce the costs of interest payment to local and foreign debt markets.

7.9 LIMITATIONS OF THE STUDY

The findings of the study need to be interpreted with caution because of the limitedness of the sample size. Time series data had 28 observations which were reduced for example for financial reform index due to unavailability of data. The limitedness of the sample also affected the model identification and model parsimony as was illustrated by the low R square values in the regression outputs that looked at the effect of financialisation and indebtedness on economic development.

The study would have benefited from a qualitative analysis of interview data from key officials from commercial banks. However, non-availability of commercial bank officials made it impossible to look at first-hand account of issues related to financialisation and indebtedness.

7.10 FUTURE STUDY

The following future research and studies are proposed:

- Conduct a qualitative investigation and research to shed light into underlying factors which influence the credit creation policy and the extent to which these factors influence systemic indebtedness.
- Compare the financialisation variables series to check if there is an correlation or not (co-trending).
- Further empirical study to investigate the correlation between interest rates, finance charges including banking fees and customer debt in view of Tesseman and Kruger's interest rate commission agent banking system model (2015).
- The banking system requires a credible intervention mechanism in order to create a transparent and qualitative regulation of credit creation. Such a tool would ensure positive credit allocation for the benefit of multiple key sectors of the economy.
- No literature has dealt with a banking framework focused on debt minimization and the renewal of a stagnant economy. This is the opportunity for further study to demonstrate how sustainable growth can be achieved through effective participation of commercial banks. Therefore, this provides an opportunity to develop a model that can be tested over time at different levels and conditions to ensure that the outcome is positively linked to debt minimization and economic renewal.
- Development of debt minimization tools linked to Artificial Intelligence (AI) protocol in order to optimise customer experience and create long-term account sustainability based on responsible credit management.
- Develop a new customised credit creation system based on current and future balance sheet strength to unlock entrepreneurial potential for job creation and economic revitalisation.
- Evaluation of the fitness and robustness of the economic policy and the monetary policy to manage structural transformation in the economy.

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REFERENCES

Aalbers, M.B. (2017). The Variegated Financialisation of Housing, International Journal of Urban and Regional Research, 41

Aitken, R. (2007). Performing Capital, Toward a Cultural Economy of Popular and Global Finance. New York, Palgrave Macmillan.

Akpomiemie, E.I.G. (2013). p. 1—78: Market Interest Rate Fluctuations: Impact on the Profitability of Commercial Banks. University of the Witwatersrand.

Alleweldt, F., Kara, S., Graham, R., Kempson, E., Collard, S., Stamp, S. & Nahtigal, N 2014, The over-indebtedness of European households: Updated mapping of the situation, nature and causes, effects and initiatives for alleviating its impact, Berlin: Civic Consulting.

Altunbas, Y.; Gambactora, I., Marques, D. (2009). *Securitization and the Bond Lending*. European Economic Review, Vol 53, p. 996-1009.

Amoroso, L. (2015). *Spinoza Vico: A new science of interpretation in J. Malps & H.H. Gander (eds)* The Routledge Companion to Hermeneutics (p.39-49). Abington Routledge.

Arrow, K.J.; Debreu, G. (1954). Existence of an equilibrium for a Competition. Econometrica. 22 (154) p. 262-290.

Ashman, S.; Fine, B. (2013b). Neoliberalism, Varieties of Capitalism and the shifting of contours of South African Financial System Transformation no 81/ 2 p.144-178.

Ashman, S.; Fine, B.; Newman, S (2011b). Amnesty International. The Nature, Scale and Impact of Capital Flight from South Africa. *Journal of Southern Africa*, Vol, 37 no1 p. 7-25.

Ashman, S.; Fine, B.; Newman, S.; (2011). The Crisis in South Africa: Neoliberalism, Financialisation and uneven and combined development. Social Register, 47 p.174 195.

Ashman, S.; Mohamed, S.; Newman, S. (2013). The Financialisation of the South African Economy and its Impact on Economic Growth and Employment. UNDESA paper.

Ashman, S.; Mohamed, S.; Newman, S. (2013). The Financialisation of the South African Economy and its Impact on Economic Growth and Employment. UNDESA paper.

Aziakopno, MJ.; Kleiner, S.; Sander, H. (2012). *Banking Market Integration in SADC countries Evidence from Interest Rate Analysis*. Globulus Working Paper no. 2 2009-1, p. 2-20.

Baert, P.; Weinberg, D.; Motter, V. (2011). *Social constructionism and deconstructionism in I.C. Jarrier & J. Zamoree-Bonilla (ed).* The Sage Handbook of the philosophy of Social Sciences, p. 475-486. London, Sage.

Baker, D.; Epstein, G.; Pollin, R. (1988). *Globalization and Progressive Economic Policy*. Cambridge: Cambridge University Press.

Bank of England, *Financial Stability Report*, Issue 21 April 2007.

Baradaran, M. (2010). *The ILC and The Reconstruction of US Banking.* Southern Methodist University Law Review, Vol 63.p. 101.

Baraga, F.; Chernomas, R. (2012). Profits from Production and Profits from Exchange: Financialisation, Household Debt and Profitability in 21st Century Capitalism. Science and Society. 76 (3) p. 319-339.

Barros, P.; Managi, S.; Matousek. R (2012). The technical efficiency of the Japanese banks: Non- radial directional performance measurement with undesirable output. OMEGA, p1-4.

Basson, N.; Ojah, K.; (2011). The Macroeconomic Determinant of Banking Efficiency: An Empirical Analysis of South Africa Against the Rest of The World. p. 37-40. Wits University.

Baude, C.; Durand, C. (2012). Financialisation and Globalization and the Making of Profits by Leading Retailers. Socio Economic Review, 10 (2) p 241-266.

Benes, J.; Kumhof (2012). *The Chicago Plan Revisited*. IMF Working Paper WP/12/202 p. 4-70.

Betti, G., Dourmashkin, N., Rossi, M. & Ping Yin, Y 2007, 'Consumer over-indebtedness in the EU: measurement and characteristics. Journal of Economic Studies, 34, 136–156.

Bhaskar, R. (1998). *A Realist Theory of Science*. Hassocks: Harverster Press.

Bhaskar, R. (2011). Reclaiming Reality. A Critical Realism and Realist Research in Human Geography: A Method of Philosophy in Search of a Method.

Bhaskar, R.; Hartwig, M. (2010). The Formation of Critical Realism: A Personal Perspective.

Bhorat, H. van der Westhuizen C, and Jacobs, T. 2009. Income and Non-income inequality in Post-Apartheid South Africa: What are the Drivers and Possible

Policy Interventions? Development Policy Research Unit, DPRU WORKING PAPER 09/138.

Bigelli, M.; Sanchez-Vidal, J. (2012). Cash holdings in Private Firms. *Journal of Banking and Finance* (36) (1) P.26.

Bond, P. (2013). Debt, uneven development and capitalist crisis in South Africa. P. 1-25.

Boote, DN and Beile, P. (2005). Scholars before researchers: On the centrality of the dissertation literature review preparation. Educational researcher. 34 (96): 3-15.

Bottazzi, G,; Grazzi, M.; Secchi, A.; Tamagni, F. (2011). Financial and Economic Determinants of Firm Default. *Journal of Evolutionary Economics.* 21 (3) p. 373.

Bracking, S. (2012). *The Financialisation of Power in Africa.* (Routledge, 2012).

Brainard, W.; Tobin, J. (1977). *"Asset Markets and the Cost of Capital" in Balassa, B and R Nelson (eds) Economic Progress*, Private Values and Public Policy: Essays in Henar of Wilhart Fellner. New York: North Holland 1977.

Brennan, C. & Gallagher, K 2007, 'Consumer over-indebtedness: a review of the quality of money advice services in Scotland', International Journal of Consumer Studies, 31, 623–629.

Brooks, C. 2008. Introductory Econometrics for Finance. Cambridge: Cambridge University Press.

Brown, E. (2013). The Public Banking Solution. From Austerity to Prosperity. Third Millennium Press.

Bryan, Dick, and Rafferty (2006b). Financial Derivatives. The New Gold? Competition and Change. 10 (3): p. 265-282.

Bryman, A. (2012). *Social Research Methods*. 4th ed. Oxford: Oxford University Press.

Bryman, A. (2016). *Social Research Methods*. 5th ed. Oxford: Oxford University Press.

Bunge, M. (1993). Realism and antirealism in social science. Theory and Decision.

Burch, D.; Lawrence, G. (2013). Agriculture and Human Values: Financialisation in agri-foods supply chain: private equity and the transformation of the retail sector.

Burrows, R. (1989). Some Notes towards a Realistic Realism: *The International Journal of Sociology and Social Politics* (9): p. 46-63.

Campoimi, A.; Faia, E.; Winkler, R (2012). Fiscal Calculus and the Labour Market, B.E. *Journal in Macroeconomics.*

Capuli, P.; Balnaves, M (2001). I*ntroduction to Quantitative Research Methods*. Sage Publications.

Cioran, Z. (2014). Elsevier. Monetary Policy, Inflation and the causal relation between the inflation rate and some of the macro economic variables, IECS, 2014, 16-17 May 2014, Sibiu, Romania.

Charles Hugh of the two minds, (July, 1, 2011). Deligitimization, DeFinancialisation, and Deglobalization have been unleashed – Business Insider.

Chebet, Sarah, (2008) Factors influencing The Demand for Credit By the Private Sector in Kenya. University of Nairobi, Kenya.

Christen, M.; Franklin, L.R. (2002). The Concept of Emergence in Complexity Science. Finding Coherence between Theory and Practice Institute of Neuroinformatics, University ETH Zurich.

Christophers, B (2011). *Making Finance Productive*. Economy and Society 4 (1) P. 40 (1).

Christophers, B. (2013). Banking Across Boundaries: Placing Finance in Capitalism: Chichester Wiley-Blackwell.

Cochrane, J.H. (2015). *A New Structure for US Federal Debt. P. 1-14*. Hoover Institution. Economics Working Paper 15108.

Cohen, J.; Cohen, P.; West, G.; Aitke, LS. (2013). *Applied Multiple Regression Correlation Analysis for Behavioral Science*, Lawrence Eribaum, Mahwah.

Comert, H; Epstein G (2011). Inflation Targeting in South Africa: Friend or Foe for Development in Economic History of Developing Regions. Vol 26 supp. 1

Council of Mortgage Lenders (CML), (2014): Housing and Mortgage Forecasts, December, 2008.

Cresswell, J.W.; Hanson, W.E.; Plano, C; Morales, N. (2007). *Qualitative Research Designs. Selection Implementation*. The Counselling Psychologist. Vol. 35, no. 2. p. 23-264.

Cresswell, J.W.; Miller, D.C. (2000). *Determining validity in qualitative inquiry*. Theory and Practice. Vol. 39 no.3 p. 124-130.

Creswell, J.W.; Plano, C.V.L. (2011) Designing and conducting mixed methods research. Los Angeles, CA. Sage Publications.

Cromwell, J. et. al. (1994) Multivariate Tests for Time Series Models, Issue 100. Sage University

143

Crotty, M. (1998). *The foundations of Social Research*. London, Sage London.

Currie, W. L. and Lagouarde-Segot T. (2017). Financialisation and information technology: Themes, issues, Part 1, Journal of Information Technology, 32: 211-217.

Dadam, V.; Viegi, N. (2015) Labour Market and Monetary Policy in South Africa. Economic Research Southern South Africa.

Danemark, B.; Ekstrom, M.; Jakobson, L.; Karlsson, J.Ch. (1997). *Explaining Society. Critical Realism in Social Sciences.* Routledge Press. London: New York.

De Jager, P. (2015). *For Banks Fair Value Adjustments Do Influence Dividend Policy.* South African Business Review, p. 1-37. University of Cape Town. Department of Finance and Tax.

https://www.cia.gov./library/publications/download/download-2014.

De Wet, J.H. v H. (2013). Capital Structure and Regulations Implications for South Africans Banks. Corporate Ownership & Control, p. 797-808. SSRN.

Delis, M.D.; Kouteras, G.P. (2011) Interest Rates and Bank Risk Taking. *Journal of Banking and Finance 35, p. 840-855.*

Deutschmann, C (2011). Limits to Financialisation – *European Journal of Sociology* 52, p. 347-389.

Detzer, D. (2016). Financialisation, Debt and Inequality – scenarios

based on a stock flow consistent model. FESSUD Working Paper Series no. 151, .1-61.

Dobbs, R.; Lund, S.; Mutalchieva, M. (2015). *Debt and not (much) developing.* McKinsey Global Institute Report (2015).

Dodig, N. Hein, E. & Detzer, D 2015, 'Financialisation and the financial and economic crises: Theoretical framework and empirical analysis for 15 countries', Institute for International Political Economy Berlin, Berlin.

Download World-FactBook (2014) – Central Intelligence Agency.

Du Randt, R. (2015), Empirical Study of Potential Risks of Shadow Banking in South Africa. P. 1-39. University of South Africa.

Dumenil, G.; Levy, D. (2004). *Capital Resurgent. Roots of Neoliberal Revolution*: Cambridge and London: Harvard University Press.

Eminike, K.O.; (2016) Intellectual Economics. How Does Monetary Policy and Private Sector Credit interact in a Developing Economy? Elsevier. Journal homepage:

www.elsevier.com/locate/intele. Department of Accounting and Finance, Kampala International University.

Epstein, G.A. (2005). Financialization and the world economy. Northampton, MA: Edward Elgar.

Engle, R.F. (1983). "Estimates of the Variance of U.S. Inflation Based upon the ARCH Model," Journal of Money, Credit, and Banking, 15, 3, 1983, 286-301.

Faia, E. (2011). Macroeconomic and Welfare Implications of Financial Globalization. *Journal of Applied Economics* 14 (11) p. 119-144.

Fay, B. (1997). *Social Theory and Political Practice*. London: George Allen and Unwin.

Fetters, D.; Michael, D.; Molina Azorin Jose, F. (June, 2017). The Mixed Methods Integration Trilogy and its Dimensions. *The Journal of Mixed Methods Research* Starts a New Decade.

Fiebiger, B. (2014). "Chicago Plan Revisited": a friendly critique. *European Journal of Economics and Economic Policies.*

Fine, B. (2010). *Locating Financialisation. Historical Materialism.* 18, p. 97 -116, University of London.

Fine, B. (2013). *Towards Material Financialisation*. FESSUD Working Pape Series. http://fessud eu/up-content/uploads/2013/04/Towards-a-Material-culture-of-Financialisation-fessud working-paper-15-pdf.no 15.

Flick, U.; Metzer, K (eds) (2014). *The SAGE Handbook of Qualitative Data Analysis*. Sage: Los Angeles.

Flood, R.P.; Garber, P.M. (1983). Collapsing Exchange Rate Regimes. *Journal of International Economics* (1984) p. 1-13.

Fourie, A.P. (2013). Money and Output: The Missing Link: A Time Series Analysis. p. 1-37. SSRN, Rhodes University.

Freeman, R.B. (2010). *It's Financialisation!* - International Labour Review 2010, Vol 149 no.2.

Frels, R K. (2010). The experiences and perceptions of selected mentors: an exploratory study of the dyadic relationship in school-based mentoring. (unpublished doctoral dissertation. Sam Houston State university, Huntsville, TX.

Friedman, M.; Friedman, R (1980). Free to Choose. London, Secker & Warbur.

Friedman, M.; "The Case of Flexible Exchange Rates" – Essays in Economics, Chicago: Chicago University Press, 1953.

Germain, R. (2012). Governing Global Finance and Banking Review of International Political Economy. 9 (4) p. 530-535.

Gibbs, L.; Willis, M.; Green, K.; Welch, N.; Daly, J. (2007). What have sampling and data collection got to do with a good qualitative research? Australian and New Zealand. *Journal of Public Health*. 31(6) P.540-544.

Giddens, A. (1984). *The Constitution of Society.* Bekerly University CA, University of California Press.

Gloukoviezoff G. (2007) From Financial Exclusion to Overindebtedness: the Paradox of Difficulties for People on Low Incomes?. In: Anderloni L., Braga M.D., Carluccio E.M. (eds) New Frontiers in Banking Services. Springer, Berlin, Heidelberg

Gray, D.E. (2013). *Doing Research in the Real World*. (3rd ed) Sage Publications.

Guba, E.; Lincoln Y. (1994). Competing Paradigm in Qualitative Research.

Habermas, J. (1980). *Communication and Evolution of Society.* Trans. Thomas A. Mcarthy, Boston: Beacon, 1979.

Hardie, I. (2011). "How much can governments borrow" Financialisation and emerging markets government borrowing capacity: Review of International Political Economy 18 (2) p. 141-167.

Hardie, I. (2012). Financialisation and Government Borrowing- Capacity in Emerging Markets. Basisngstoke, Palgrave MacMillan.

Harding, J. (2013). *Qualitative Data Analysis from start to finish*. London. Sage Publications.

Harre, R.; Madden, E. (1975) Causal Powers. *Theory of Natural Necessity.* Blackwell Publishers.

Hart, O.D.; Krepps, D.M. (1986). Price Destabilizing Speculation. p. 927-952 Journal of Political Economy.scholar.harvard.edu/files/hart/files.jpe_1986b.pdf.

Helleiner, E.; Seabrooke, L.; Ertuk, I.; Froud, J.; Lever, A.; Williams, K.; Morgan, G (2011). Reforming global financial architecture/ International financial reform after the crisis/ The costs of failure/ crisis of confidence/ International organizations and learning after the financial meltdown/ Changing the metaphor/ Finance as circuit/ Global financial architecture and national capitalisms. Socio Economic Review 9 (3) P. 567-596.

146

Herendeen, J.B. (1974) The Role of Credit Theory of the Household. Journal of Consumer Affairs.

Herera, C Grossman, J B, Kauh, T J, Feldman A F and McMaken, J. (2007). Making a difference in schools: the big brothers big sisters school-based mentoring impact study. London: Sage.

Herzog, D. (2016). *Data Literacy*. Sage Publications Inc United States of America.

Hill, C.E. (2012). Consensual quality research: A practical resource for investigating social science phenomena. Washington DC. American Psychological Association.

Hudson (2012). "Paul Krugman's Economic Blinders". Counterpunch.

Hudson, M. (2011) How Economic Theory Ignore the Role of Debt. University of Missouri, Kansas City, USA. P.1-23. Real Economic Review, Issues no 57.

Hurt, S.R. (2015) Third World Debt. Encyclopaedia Britannica. htttps:// global.britannica.com//topic/Third World-debt.

Huseyin, A.A. (2009). Financialisation: A Review of Three Perspective: Theories of Contemporary Capitalism, p. S6 125, 03, p.1-21. A Review of _ three pers% 20 (2). pdf.

Hussman, J.P. (1992). *Market Efficiency and Inefficiency Rational*. p. 1-33. Stanford University.

Hyde, A. Vachon, T and Wallace M (2018). Financialisation, Income inequality and Redistribution in 18 Affluent Democracies, 1981-2011, Social Currents 5,(2): 193-211

Ilsup AHN (2013). *Deconstructing the Economy of Debt*: Karl Marx, Jurgen Habermas and an Ethic of Debt, Trans-Aumentes, 6. No.1, Feb 2013, p. 5-32. EWHA Institute for Humanities.

ING Group Study (2014). Global Debt Report.

Innes, M, edited by Wray, L.R. (2004) Credit and State Theories of Money. The Contributions of A. Mitchell.

Institute of Islamic and Banking and Insurance.

International Monetary Fund (2008b). Global Financial Stability Report. Financial Stress and Deleveraging, Macro-Financial Implications and Policy (October 2008), IMF multimedia services Division: Washington.

International Monetary Fund (2016). World Economic and Financial Surveys, World Economic Outlook Database.
https://www.imf.org/external/pubs/ft/weo/2016/02/weodata/index.aspx

Irons, J.; Bivens, J (2010). Government Debt, and Economic Growth: Overreaching Claims of Debt "Threshold" suffer from Theoretical and Empirical Flaws. Economic Policy Institute Briefing Paper # 271 p. 1-7.

Isaacs, G. (2014) The Financialisation of the South African Economy and the Havoc it Wrecks. South African Civil Society Information Services. (SACSIS).

Ivankova, N.V. (2015). *Mixed methods applications in action research. From methods to community action.* Thousand Oaks, CA. University of Alabama, Birmingham. Sage Publications.

James, D. (2017). Deductions and counter deductions in South Africa, Journal of Ethnographic theory, 7(3) p. 281-304.

Jeffers, E. and Baicu C. (2013) The interconnections between the shadow banking system and the regular banking system. Evidence from the Euro Area. (CITYPERC paper).
http://papers.ssrn.com/sol3/papers.cfm?abstractfiid=2220822

Johnson, B; Christen, L.; (2008). Reviewing Literature and developing questions. Educational Research Quantitative, Qualitative and Mixed Approaches. (4TH ed) Sage, Thousand Oaks: CA.

Kadtler, J. (2011). Financialisation of Capitalist Economies – Bargaining on conventional Economic Rationalities. Historical Social Research, 38, p. 169-191.

Kalinowski, T. (2013). Regulatory International Finance and the Diversity of Capitalism: Socio Economic Review 11(3) P. 471 496.

Kaltenbrunner, A. (2011). Currency Internationalization and Exchange Rate Dynamics in Emerging Markets. SOAS, London.

Karacimen, E (2011). Political Economy of Consumer Debt in Developing Countries SOAS, London.

Karwoski, E; Stockhammer, E (2016). Financialisation in Emerging Economies: A Systematic Overview and Comparison with Anglo-Saxon Economies. *Economics Discussion Papers 2016-11*

Karcher, M J and Herera, C. (2008). *School-based mentoring. Research in action* 6. (ERIC Document Reproduction Service no. ED 502227).

148

Kennedy, M. (1995). Creating an Exchange Medium that works for everybody and protects the earth. Stranger Journalism.

Keynes, J.M. (1930). *A Treatise on Monetary Reform*. London: Macmillan.

Kohl, S. (2018). More mortgages, more homes? The effect of housing financialisation on homeownership in historical perspective, Politics and Society, 46(2): 177-203.

Kolapo, T.F.; Ayeni, R.K.; Oke, M.O. (2012) Credit Risk and Commercial Bank Performance in Nigeria: A Panel Model Approach. *Australian Journal of Business and Management Research.* Vol. 2 No. 02 (p. 31-38).

Kotz, D.M. (2008). *Neoliberalism and Financialisation*. p.1-21, University of Massachussetts. Kumhof, M.; Ranciere, R. (2010) Inequality and Crises, IMF Working Paper WP/10/268.

Kotz, D.M. (2008). *Neoliberalism and Financialisation.* P. 1-21, University of Massachussetts. people.umass.edu/dmkotz/neoliband_Fin 08_03.pdf.

Krippner, Greta R 2005), "The financialization of the American economy", SocioEconomic Review, 3: 2, 173-208.

Krippner, G.R. (2011). *Capitalizing on Crisis*: The Political Origins the Rise of Finance. Cambridge Harvard University.

Krugman, P. *Debt is Good* - The New York Times. www.nytimes.com /2015/08/21/paul-krugman-debt-is-good-for-the-economy-.html.

Krugman, P. *The Record of Austerity-* The New York Times. krugman.blogsnytimes.com/201501/06//the record–of-austerity.

Kumhof, M.; Ranciere, R. (2010). *Inequality and Crises*. IMF Working Paper WP/10/268.

Kuznet, S 1955. Economic growth and income inequality. American Economic Review , 45(1): 1–28.

Lapavitsas, C. (1997). Two Approaches to the concept of Interest Bearing Capital. *International Journal of Political Economy* 27 (1) p. 85-106.

Lapavitsas, C. (2009a) "*Financialisation, or the search for profits in the sphere of circulation".* Discussion Paper 10, Research on Money and Finance.

Lapavitsas, C. (2009b). Financialisation and Capitalism: Crisis and Financial Expropriation. Historical Materialism 17 (2) p. 114-148.

Lapavitsas, C. (2011). Theorizing Financialisation. Work, Employment and Society 25 (4) p. 611-626.

149

Lapavitsas, C. (2013). Profiting Without Producing: How Finance Exploits Us All. London and New York.

Lapavitsas, C. (2014). State and Finance Capitalism: Centre for London Social Studies, P, 5-17.

Lapavitsas, C. (2016). *The Profits of Financialisation*. Monthly Review, volume 68, Issue 03 (July/August) The Profits of Financialisation monthlyreview.org./2016/07/01/the-profits-of-Financialisation.

Lapavitsas, C.; Powell, J (2013). Financialisation Varied: a Comparable Analysis of Advanced Economies. *Cambridge Journal of Regions, Economy and Society* 6 (3) p. 359-379.

Lapavitsas, C.; Saad-Filho (2000). The Supply of credit money and capital accumulation: A Critical View of Post Keynesian analysis. Emerald Group Publishing Limited.

Lazzaratto, M. (2012). *The Making of an Indebted Man*. P. 13-161. Published by Semiotext (e), Los Angeles, CA 90057. Printed in the United States of America.

Lim,S.C.; Tay, N.S. (2007). Complexity and the character of stock returns: Empirical evidence and a model of asset prices based on complex investor learnings. Management Science 53 (7) p. 1165-1180.

Little, T.D. (2013). *The Oxford Handbook of Quantitative Methods*. Oxford University Press.

Lopez –Espinosa, G.; Moreno, F.; Perez de Gracia F (2011). Bank net interest margin in the 2000's. a macro accounting of international perspective. *Journal of International Money and Finance* 30p. 1213-1214.

Luqman, O.S. (2014). The Effects of Credit Risks on The Performance of Commercial Banks in Nigeria. Olabisi Onabanjo University (OOU).

Lysandrou, P. (2011a). Global Inequality Wealth Concentration and the Sub-prime Crisis. A Marxian commodity." Theory Analysis Development and Change." 42 (1), p. 182-208.

Macleod, H.D. (1891). *Theory of Credit.* Vol.2.

Magdoff, F.; Forster, J.B. (2014). *Stagnation and Financialisation:* Volume 66, Issue 01 (May) monthly review. Org/2014/05/01/stagnation and Financialisation.

Manzini, E.; (2015). Design, when everybody designs: An introduction to design for social innovation. Business/Management Innovation. MIT Press.

Mardock (2014) "The conversation/high-debt does not hurt economic growth"-imf-23247.

Marx, K., & Engels, F. (2000). Das Kapital: A critique of political economy (1888). Washington: Regenery.

Masso, M. (2016). The effects of government debt market financialization: The case of Spain. *Competition & Change* 2016, Vol. 20(3) 166–186

Martin, R. (2002). *Financialisation of Daily Life*. Philadelphia, Temple University Press.

Mawdsley, E. (2018). Development Geography 11: Financialisation, Progress in Human Geography, 42(2): 264-274.

Mcleay, M.; Radia, A.; Thomas, R. (2014) Money Creation in the Modern Economy. https// www.bank of England. co. uk// media/boe/files/quarterly-bulletin/2014/money creation in-the- modern-economy.

Mcleod, H.D. (1891). *Theory of Credit.* Vol.2.

Mcfarlane, L., Ryan-Collins, J.; Bjerg, O.; Nielsen, R.; Mclann, D. (2017). Making money from Making Money. Seigniorage in the Modern Economy. http//neweconomics.org/wp-content/uploads 2017/05/NCF making money out of making money-amendment E PoP.

Moloi, T. (2014). Banking Regulatory and Market Framework in South Africa, p. 2-30.

Monyai, S. (2010). Introduction to Statistics Inference. Department of Statistics & Operation Research, University of Limpopo, Polokwane, South Africa.

Mouton, J.; Marais, H.C. (1996). *Basic concepts in the methodology of social sciences*. Pretoria, Human Sciences Research Council.

Muhanna, E (2006) Inflation Targeting and its impact on Monetary Policy: A South African Insight. Banks and Bank Systems Journal. LLC Consulting Publishing Company Business Perspectives.

Naraidoo, R.; Raputsoane, L. (2015) Debt Sustainaibility and Financial Crises in South Africa. Department of Economics, University of Pretoria, Pretoria, South Africa.

National Treasury, 2018, National Budget 2018. Government Debt and Contigent Liabilities.

Nelson, C.R. Schwert, G.W. (1982). Testa for predictive relationships between time series variable. A Monte Carlo Investigation. *Journal of American Statistical Association*, 77 (379) p. 11-18.

Ngulube, P.; Ngulube, B. (2014) Mixed Method Research in South Africa. *Journal of Socio and Managerial Sciences*. An Investigation of Trends in Literature.

Onaran, O. and Tori D. (2017). Productivity Puzzle? Financialisation, inequality, investment in the UK. Greenwich Political Economy Research Centre, PB16-2017.

Onwuegbuzie, A.J.; Combs, P.J. (2011). *Data Analysis in Mixed Research.* Houston State University, USA.

Onwuegbuzie, A.J.; Johnson, RB. (2006). *Validity in Mixed Research*, Vol 13, no 1 p. 48-63. University of Alabama.

Onwuegbuzie, A.J.; Leach, AL.; (2006). Linking Research Questions to Mixed Method Data Analysis Procedure. *The Qualitative Report*. Sage Handbook of Mixed Methods in Social Behaviour and Research.

Onwuegbuzie, A.J.; Leech, N L and Collins, K M T. (2012). Qualitative Analysis Techniques for the Review of the Literature. *The Qualitative Report*. 17 (56) p.1-28.

Orhangazi, O. (2011). *"Financial vs Real": An overview of contradictory role of finance.* Research in Political Economy (27) p. 121-148.

Palley, T.I. (2007). *Financialisation: What it is and Why it Matters*. P. 1-38, Political Economy Research Institute.

Patel, P. (2009). *The Introduction to Qualitative Methods*. Harvard Law School.

Phillips, C.A. (1920). *Bank Credit*. New York: Macmillan.

Phillips, K. (1994). Arrogant Capital: Washington, Wall Street, and the Frustration of American Politics (1st ed). Boston: Little, Brown and Co.

Pixley, J.; Harcourt G. (2013). *Financial Crises and the Nature of Capitalist Money*. Palgrave Macmillan.

Powell, J. (2013). Surbodinate Financialisation: A study of Mexico and its Non-Financial Corporations. SOAS University of London.

Prescatori, A.; Sandri, D.; Simon, J. (2014). *Debt and Growth: Is there a Magic Threshold?* International Monetary Fund (IMF) Working Paper WP/14/34 p. 2-14.

PwC Analysis of Major Banks of South Africa Report, 2016.

Rahmatian, A. (2015). *Financial Indebtedness as a Political Strategy*. Critical and Legal thinking: Law and Political.

Ratajczak, M (2011). *Financialisation of the Economy: Views from Institutional Perspective*, Ekonomica p.201-209, Economics 3 (15) – 2011.

Reinhart C. (2012). *The Return of Financial Repression.* CEPR Discussion Papers. (DP 8947).

Reinhart, C.; K.S. (2009b). *Growth in Time of Debt. American Economic Review*: Papers and Procedures 100 (2010): p. 573-578.

Resnik, D.B. (2015). *What is Ethics in Research and why it is important.* National Institute Environmental Health Sciences.

Robert, C.P. (2010). *Monte Carlo Statistical Methods.* Springer, New York.

Roberts, C.W. (2000). A Conceptual Framework for Quantitative Text Analysis. Quality and Quantity.

Rodriques, N.; Martin, N (2010). "The entire world is living in a debt backed money box". Economic Edge.

Roos, J (2013). The Making of the Indebted State: Debt, Discipline and Democracy under Neoliberal Condition, p. 1-20. European University Institute.

Saldana, J. (2009). The Coding Manual for Qualitative Researches. Thousand Oaks, CA.

Servet, J.M.; Saiag, H (2013) - Microfinance, Debt and Over-Indebtedness. 1st Editioon. London: Routlege.

Ryan-Collins, J.; Greenhorn, T; Werner, R.; Jackson, A.; (2011) Where does money come from? A Guide To Monetary and Bankng System. London: New Economic Foundation.

Saunders, M; Lewis, P. Thornhill, A. (2009). *Research Methods for Business Students.* 5th (ed) Pearson, Harlow, England.

Saunders, S.; Tosey, P. (2013). *Layers of Research Design.* University of Birmingham. Birmingham Business School.

Sayer, A. (2000). *Realism and Social Sciences.* Sage Publications.

Schoeman, M.J; Creamer, K. (2015) Public Debt and Post-Crisis Fiscal Policy in South Africa.

Schularick, M.; Taylor, A. (2012). *Credit Booms Gone Bust: Monetary policy Leverage Cycles, and Financial Crises.* 1870-2008, American Economic Review, 102 (2), 1029-1061.

Schumpeter, J. (1954). *History of Economic Analysis*, Oxford University Press.

Sierminska, E. (2014). Indebtedness of Households and the Cost of Debt by Household Type. And Income Group. Research Note 10/ 2014. European Commission.

Singh, D.; La Brosse, JR (2011). OECD. *Journal Financial Market Trends*. Vol. 2011-Issue 2, OECD 2012.

Sobh, R.; Perry, C. (2005). Research Design and Data Analysis in Realism Research. *European Journal of Marketing*. Vol 40 no11/12, 2006 p. 1194-1209.

Sotoriopoulos, D.; Lapatsiorias S. (2014). *Financialisation and Marx: Some Reflections on Bryan's, Martin's and Rafferty's Argumentation*. Review of Radical Political Economics 46 (1): p. 87-101.

South African Reserve Bank (2018) Economic and Financial Data for South Africa. https://wwwrs.resbank.co.za/webindicators/EconFinDataForSA.aspx

South African Reserve Bank (2015). Changing Patterns of Financial Intermediation Implications for Central Bank Policy. BIS Policy no 83, p. 1-24. SARB (2015).

Starkey, M. (2017, September). Interactive mindmaps in economics. http//www. Economics network .ac. uk. archive /starkey_mindmaps

Stewart, I.; Donaldson, C.A.C.; Mark M.M. (2015). Credible and actionable evidence: The Foundation for Rigorous and Influential Evaluations. Sage Publications Inc, California.

Stiglitz, I. (2003) *"Odious Rulers, Odious Debts"*. The Atlantic Monthly 292 4 (2003): p. 39-45.

Stockhammer, E. (2012). *Financialisation. Income Distribution and the Crisis*. Investigacion Economica 7/ (279), P. 39-70.

Swartz, N. (2013). Risk Management in Islamic Banking. *Africa Journal of Business Management.* Vol 7 (37) P. 3799-3809. DOI 105897/AJMM12. 741.I SSN 1993-8233.

Tannen, D.; Hamilton, H.E.; Schiffrin, D. (2015). *The Handbook of Discourse Analysis, 2nd edition*. Wiley Blackwell.

Tashakkorie, A.; Teddie, C. (2010). Sage Handbook of Mixed Methods in Social Behavioural Research.

Tesseman, A.T.; Kruger, J.W. (2015) An Interest Rate Commission Agent Banking System. Journal Of Global Economics, Vol 3(4): 160

Thimothy, T. (2013). Handbook of Quantitative Methods for Educational Research. Sense Publishers.

Thlaku, T. (2011) An Evaluation of the Monetary Transmission Mechanism in South Africa. School of Economics, University of Cape Town.

Thorpe, R.; Lowe, A. (2002). *Management Research.* An Introduction 2nd edition, Sage Publications, London.

Topson, A.O.; Clement, A.O.; Olu, A.B. (2017) The Implications of Credit Creation by Banks on Economic Growth of Nigeria.   Research Journal of Finance and Accounting, Vol 8, no 10, 2017.

Tracy, S.; (2012). Qualitative Research Methods. Collecting evidence, crafting analysis, communicating impact. John Wiley & Sons publications.

UNDP (2018). Human development indices and Indicators. http://hdr.undp.org/sites/default/files/2018_human_development_statistical_update.pdf. 20.11.2018.

Van der Zwan, N (2014). *Making Sense of Financialisation. Socio Economic Review*. 12(1): p. 99-129. Amsterdam Institute of Advanced Labour Studies.

Vasilachis de Gialdino, I. (2010). Ontological and Epistemological Foundations of Qualitative Research. Qualitative Social Research Forum, Vol, 10, no 2 Art 30.

Vermeueulen, J.C. (2017) Inflation and Unemployment in SA. Is the Phillips Curve still dead? Volume 1 2017, Southern African Business Review DHEI accredited: ISSN 1998-8125

Vessio, M.C. (2005). The Effects Of The In Duplum Rule Clause 103 (5) of The National Credit Bill 2005 on interest. (LLM Dissertation) University of Pretoria (2005).

Vivian, R.W.; Spearman, N. (2015). *Some Clarity on Banks as Financial Intermediaries and Money "Creators"*. Economic Research Southern Africa. p. 1-22.

Wai-SumChan; Yiu-kuen Tse (2018) Financial Mathematics for Actuaries. World Scientific Publishing.

Werner, R. (2013). *Quantity Theory of Credit and some of its applications*. University of Southampton. United Kingdom.

Werner, R. (2014). *How do banks create money and why can other firms not do the same?* International Review of Financial Analysis Vol. 36, Dec 2014, p. 71-77.

Werner, R.A. (1992). "Towards a quantity theory of disaggregated credit and international capital flows". Southampton University.

Werner, R.A. (1992). "Towards a quantity theory of disaggregated credit and international capital flows".

Werner, R.A. (1997). "Towards a new monetary paradigm: A quantity theorem of disaggregated credit, with evidence from Japan". Kredit und Kapital 30 (2) p. 276-309.

Widmer, F. (2011). Institutional Investors, Corporate Elites and the Building of a Market for Corporate Control. Socio Economic Review 9. P. 671-697.

Wolfinger, N.H. (2002). On writing fieldnotes: Collection strategies and background expectancies. Qualitative Research Vol.2 no. 1, p. 85-95.

World Bank (2018). South African Economic Outlook. http://pubdocs.worldbank.org/en/798731523331698204/South-Africa-Economic-Update-April-2018.pdf

World Bank (2018). Gini Index (World Bank Estimates). https://data.worldbank.org/indicator/SI.POV.GINI?locations=ZA. 12.10.2018.

World Economic Outlook- UPDATE (Jan 2016) Subdued demand, Diminished Prospects. https://www.imf.org/external/pubs/ft/weo/update/01/pdf/0116.pdf.

Wray, L. (2014). *"What Are Taxes For? The MMT approach*; New Economic Perspectives 15.5.2014.

Wray, L. (2014) "What Are Taxes For? The MMT approach; New Economic Perspectives 15.5.2014. http://neweconomicperspectives.org/2014/05/taxes-mmt-approach.html.

Wray, L. R. (2011). *Minsky's Money Manager*: Capitalism and the Global Financial Crisis. *International Journal of Political Economy*, 40 (2) p. 5-20.

Yin, R.K. (2014). *Case study research design and methods.* (5th ed) California. Sage Publications. Yirenki-Boateng, S. (2001) Rural Afforestation Programme for Sustainable Rural Development: How Realist Conceptualization Can Help.

Xiong W, Han Fu, Yougui Wang (2017). Physica A: Statistical Mechanics and its Applications. Elsevier. Volume 465, 1 January 2017, pp 425-437.

Yirenki-Boateng, S. (2001). *Rural Afforestation Programme for Sustainable Rural Development:* How Realist Conceptualization Can Help.

Zalewski, D.A.; Whalen, C.J. (2010). Financialisation and Income Inequality; a post Keynesian institutionalist analysis. *Journal of Economic Issues*. 2010.

APPENDIX 1: TIME SERIES STUDY DATA (1990-2017)

Year 1990-2017	(1990-2017) GDP (ZAR Million)	(1990-2017) Stock of foreign Liabilities (% GDP)	Stock Market Value Traded (ZAR Million)	(1990-2017) Stock value Traded % of GDP	household loans (ZAR Million)	(1990-2017) household loans (% GDP)	(1990-2017)Household Debt to Disposabl	(1990-2017) Financial Reform Index	(1990-2017) Human Development Index	(1990-2017) Asset Price Volatility	(1990-2017) Stock of foreign liabilities (%GDP)
1990	298 971	20,1	23 912	8%			52,1	11,25	0,618		20,1
1991	342 245	20,1	22 231	6%			54,2	11,25	0,626		20,1
1992	383 723	19,3	22 134	6%			52,6	11,25	0,635		19,3
1993	438 884	20,1	44 077	10%			53,6	12,25	0,641		20,1
1994	496 233	21,2	70 104	14%	160 663	32%	54,8	14,25	0,645		21,2
1995	563 870	22,7	63 247	11%	183 671	34%	57,5	17,25	0,649		22,7
1996	634 611	23,4	117 099	18%	219 425	35%	60,7	17,25	0,647	11,1388	23,4
1997	703 117	25,7	206 734	29%	244 374	35%	53,3	17,25	0,644	12,3961	25,7
1998	761 658	27,5	319 334	42%	255 756	34%	53,3	17,25	0,633	23,9464	27,5
1999	834 753	28,7	448 439	54%	263 983	32%	56,5	17,25	0,634	26,2248	28,7
2000	946 324	27,1	536 877	57%	288 563	30%	54,1	18,25	0,63	19,5357	27,1
2001	1 046 144	25,5	606 136	58%	315 043	30%	53,9	18,25	0,61	19,8934	25,5
2002	1 217 265	29,4	808 657	66%	333 226	27%	52,4	18,25	0,617	21,0782	29,4
2003	1 325 766	22,4	752 249	57%	378 530	29%	55	18,25	0,615	19,9648	22,4
2004	1 476 623	19,7	1 031 207	70%	478 741	32%	57,9	18,25	0,613	17,1333	19,7
2005	1 639 254	18,9	1 278 630	78%	585 541	36%	65,2	18,25	0,614	13,7772	18,9
2006	1 839 400	22,2	2 121 500	115%	726 270	33%	76,3		0,616	17,7434	22,2
2007	2 109 502	25,8	2 980 110	141%	867 635	41%	84,1		0,621	20,4779	25,8
2008	2 369 063	26,1	3 263 065	138%	1 003 398	42%	85,7		0,633	23,5825	26,1
2009	2 507 677	27,9	2 796 077	112%	1 033 385	41%	84,1		0,642	34,376	27,9
2010	2 748 008	29,6	2 990 123	109%	1 105 520	40%	81,6		0,649	23,9153	29,6
2011	3 023 659	28,3	3 286 828	109%	1 174 821	39%	79,5		0,657	17,1075	28,3
2012	3 253 852	35,8	3 431 584	105%	1 291 128	40%	79,4		0,664	16,8302	35,8
2013	3 539 977	37,2	3 981 618	112%	1 362 166	38%	79,4		0,675	13,3794	37,2
2014	3 805 350	41,3	4 050 044	106%	1 411 852	37%	78,3		0,685	13,5433	41,3
2015	4 051 421	39,1	5 015 413	124%	1 475 034	36%	76,3		0,632	14,4063	39,1
2016	4 350 314	48,3	5 892 768	135%	1 485 780	34%	73,8		0,636	17,9375	48,3
2017	4 651 785	43,6	5 473 433	118%	1 542 829	33%	71,7		0,699	14,8816	43,6

APPENDIX 2: TIME SERIES STUDY DATA 2008-2017

Year 1990-2017	(1990-2008) GDP (ZAR Million)	(1990-2008) Stock of foreign Liabilities (% GDP)	Stock Market Value Traded (ZAR Million)	(1990-2008) Stock value Traded % of GDP	household loans (ZAR Million)	(1990-2008) household loans (% GDP)	(1990-2008)Household Debt to Disposable Income	(1990-2008) Financial Reform Index	(1990-2008) Human Development Index	(1990-2008) Asset Price Volatility	(1990-2008) Stock of foreign liabilities (%GDP)
1990	298 971	20,1	23 912	8%			52,1	11,25	0,618		20,1
1991	342 245	20,1	22 231	6%			54,2	11,25	0,626		20,1
1992	383 723	19,9	22 134	6%			52,6	11,25	0,635		19,9
1993	438 884	20,1	44 077	10%			53,6	12,25	0,641		20,1
1994	496 233	21,2	70 104	14%	160 663	32%	54,8	14,25	0,645		21,2
1995	563 870	22,7	63 247	11%	189 671	34%	57,5	17,25	0,649		22,7
1996	634 611	23,4	117 099	18%	219 425	35%	60,7	17,25	0,647	11,1388	23,4
1997	703 117	25,7	206 794	29%	244 374	35%	59,9	17,25	0,644	12,3961	25,7
1998	761 658	27,5	319 334	42%	255 756	34%	59,3	17,25	0,639	23,9464	27,5
1999	834 753	28,7	448 439	54%	263 983	32%	56,5	17,25	0,634	26,2248	28,7
2000	946 324	27,1	536 877	57%	288 569	30%	54,1	18,25	0,63	19,5357	27,1
2001	1 046 144	25,5	606 136	58%	315 043	30%	53,9	18,25	0,61	19,8934	25,5
2002	1 217 265	29,4	808 657	66%	333 226	27%	52,4	18,25	0,617	21,0782	29,4
2003	1 325 766	22,4	752 249	57%	378 530	29%	55	18,25	0,615	19,9648	22,4
2004	1 476 623	19,7	1 031 207	70%	478 741	32%	57,9	18,25	0,613	17,1333	19,7
2005	1 639 254	18,9	1 278 690	78%	585 541	36%	65,2	18,25	0,614	13,7772	18,9
2006	1 839 400	22,2	2 121 500	115%	726 270	39%	76,3		0,616	17,7434	22,2
2007	2 109 502	25,8	2 980 110	141%	867 635	41%	84,1		0,621	20,4779	25,8
2008	2 369 063	26,1	3 263 065	138%	1 003 398	42%	85,7		0,633	23,5825	26,1

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APPENDIX 3: STUDY DATA 2009-2017

Year 1990-2017	(1990-2008) GDP (ZAR Million)	(1990-2008) Stock of foreign Liabilities (% GDP)	Stock Market Value Traded (ZAR Million)	(1990-2008) Stock value Traded % of GDP	household loans (ZAR Million)	(1990-2008) household loans (% GDP)	(1990-2008)Household Debt to Disposable Income	(1990-2008) Financial Reform Index	(1990-2008) Human Development Index	(1990-2008) Asset Price Volatility	(1990-2008) Stock of foreign liabilities (%GDP)
1990	298 971	20,1	23 912	8%			52,1	11,25	0,618		20,1
1991	342 245	20,1	22 231	6%			54,2	11,25	0,626		20,1
1992	383 723	19,9	22 134	6%			52,6	11,25	0,635		19,9
1993	438 884	20,1	44 077	10%			53,6	12,25	0,641		20,1
1994	496 233	21,2	70 104	14%	160 663	32%	54,8	14,25	0,645		21,2
1995	563 870	22,7	63 247	11%	189 671	34%	57,5	17,25	0,649		22,7
1996	634 611	23,4	117 099	18%	219 425	35%	60,7	17,25	0,647	11,1388	23,4
1997	703 117	25,7	206 794	29%	244 374	35%	59,9	17,25	0,644	12,3961	25,7
1998	761 658	27,5	319 334	42%	255 756	34%	59,3	17,25	0,639	23,9464	27,5
1999	834 753	28,7	448 439	54%	263 983	32%	56,5	17,25	0,634	26,2248	28,7
2000	946 324	27,1	536 877	57%	288 569	30%	54,1	18,25	0,63	19,5357	27,1
2001	1 046 144	25,5	606 136	58%	315 043	30%	53,9	18,25	0,61	19,8934	25,5
2002	1 217 265	29,4	808 657	66%	333 226	27%	52,4	18,25	0,617	21,0782	29,4
2003	1 325 766	22,4	752 249	57%	378 530	29%	55	18,25	0,615	19,9648	22,4
2004	1 476 623	19,7	1 031 207	70%	478 741	32%	57,9	18,25	0,613	17,1333	19,7
2005	1 639 254	18,9	1 278 690	78%	585 541	36%	65,2	18,25	0,614	13,7772	18,9
2006	1 839 400	22,2	2 121 500	115%	726 270	39%	76,3		0,616	17,7434	22,2
2007	2 109 502	25,8	2 980 110	141%	867 635	41%	84,1		0,621	20,4779	25,8
2008	2 369 063	26,1	3 263 065	138%	1 003 398	42%	85,7		0,633	23,5825	26,1

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