RURAL VERSUS URBAN WEALTH INEQUALITY IN SOUTH AFRICA

By

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A dissertation submitted in fulfilment for the requirements of the Doctor of Philosophy Management Sciences

In the Faculty of Management Sciences, Public Administration, Durban University of Technology.
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APPROVED FOR FINAL SUBMISSION

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DECLARATION

The Registrar (Academic)
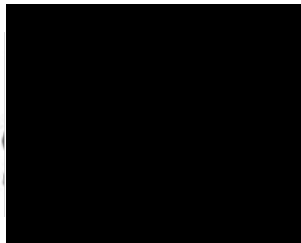**Durban University of Technology**

Dear Sir or Madam

I, Erard Farrel, Student No **20107558**

Hereby declare that the dissertation entitled:

Rural versus Urban Wealth Inequality in South Africa

Is the result of my own investigation and research and that it has not been submitted in part or in full, for any other degree or any other institution of higher learning. Subsequently, other sources are acknowledged and giving explicit references.

Signed:

Date: 18/10/2018

Rural versus Urban Wealth Inequality in South Africa

Erard Farrel

A research thesis submitted to the Faculty of Management Sciences,
Durban University of Technology, Durban, in partial fulfilment of the requirements for
the degree of Doctor of Philosophy: Management Sciences

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Abstract

This study sought to understand wealth creation amongst South Africans living in rural areas versus those living in urban areas. The study made a distinction between income inequality and wealth inequality and acknowledges that while income and wealth are different, the two variables are intertwined. The relationship between the two is based on the notion that accumulated wealth diminishes the incentive to seek labour income. As such, it is possible to have households with low wage income but high wealth income in terms of assets. Given the different modalities of generating savings in rural areas in comparison to urban areas is it possible that the drivers of savings, wealth and income are different in rural and urban households? Is it even possible that rural households are wealthier than urban households? These questions are addressed plausibly using Life cycle theory.

Studies show that in South Africa income inequality is increasing and the poor are getting poorer (Hamilton, 2014:48). Previous studies however, do not make a clear distinction between wealth inequality and income inequality. Dearth of empirical work that looks at sustainable wealth inequality between rural and urban households give a distorted picture of the living standards and welfare scene in South Africa. The purpose of this study was to fill this gap in knowledge. Accordingly, the study had three key objectives. The first objective was to construct a composite measure of wealth using General Household data. The second objective was to examine urban/rural differences in the magnitude and composition of wealth. The third objective was to test the hypothesis that household income and consumption have an effect on wealth. The study utilised the Ordinary Least Squares model (OLS), a category of time series models to test the effects of income inequality and consumption on household wealth.

The study confirmed that even though rural households are likely to have less income than their urban counterparts, the magnitude of wealth in rural and urban households is almost equal since rural households have little to no debt and consume less than urban households. Furthermore, the study confirmed that while wealth is a much stronger predictor of consumption, than income in a rural setting in an urban setting income is a much stronger predictor of consumption than wealth.

DECLARATION

I, Erard Farrel, declare that this research is my own, unaided work, except as indicated in the acknowledgements, the text and the references. It is submitted in partial fulfilment for the requirement for the degree of in the Faculty of Management Sciences at the Durban University of Technology, Durban.

It has not been submitted before, either whole or in part, for any degree or examination at this or any other university.
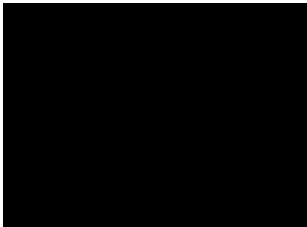
Erard Farrel

Signed at Johannesburg..

On the ....18th .... day of ......October.............................. 2018

DEDICATION

To

My sons, Calum and Koa.

~ Soli Deo Gloria ~

Acknowledgements

I would like to express my sincere thanks and gratitude to the following people for making this journey possible.

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Contents

Table of Tables

Table of Figures

Chapter One: Introduction

1.1 Study Overview

The number of South Africans living in poverty has increased from 20% of the total population in 2010 to 21.5% in 2014 (Lehohla, 2014). Unemployment levels have also increased to 26.4%, the highest level since 2003, when it hit 30% (Statistics SA, 2015) resulting in South Africa's poor getting poorer.

In the 1998 parliamentary debate on reconciliation and nation-building, then Deputy President Thabo Mbeki argued that South Africa comprised 'two-nations' divided by poverty and inequality (Everatt, 2003). Not much has changed since then. Inequality is a pressing concern in South Africa and has been directly linked to economic growth, poverty and race (Sharma, 2012). Literature (World Bank, 2013) has shown that South Africa has the highest level of inequality in comparison to other countries in the Sub-Saharan region. According to the World Bank GINI Index, South Africa has a rating of 65, making it the most unequal country in the world (The World Bank, 2014).

According to Reza et al. (2013) income inequality in South Africa is more prominent in rural areas where the wage income share of individuals is quite low in comparison to their counterparts in the urban areas (Bhorat, van der Westhuizen C, and Jacobs T (2009). Bhorat *et al's* (2009) study show that individuals living in rural areas had an average annual growth per capita income between less than zero to more than 10%, whereas the growth rates for rural areas ranged between more than two and less than five percent. The authors pointed out that the narrow range of growth rates in rural areas explain why income inequality for individuals living in rural areas did not change significantly over time. As pointed out by De Villiers, (2003) and Chetty (2011) inequality is driven by unequal opportunities to access education and capital. Income inequality is not the only inequality that policy makers have to contend with. South Africa is also saddled with non-income inequality which is characterised by unequal access to basic services and private assets (Okojie and Shimeles, 2006). Non-income inequality has been firmly established in political and economic exclusion that took a colonial and racial form entrenched in the apartheid system. The number of South Africans living in poverty has increased from 20% of the total population in 2010 to

21.5% in 2014 (Lehohla, 2014). Unemployment levels have also increased to 26.4%, the highest level since 2003, when it hit 30% (Statistics SA, 2015) resulting in South Africa's poor getting poorer.

1.2 Problem statement

While there seem to be evidence that income inequality has decreased post 1994, literature does not clearly elucidate whether economic policies post 1994 have increased or decreased wealth in households. Furthermore, it is not clear whether rural households are more or less wealthier than their urban counterparts. In this context wealth is defined as a measure of the value of all of the assets of worth owned by a person.

While Gini coefficients can be used to compare income distribution over time (Litchfield, 1999), there are few studies that have measured household wealth differences amongst rural and urban communities. Authors such as Bhorats, van der Westhuizen and Jacobs (2009); Hodge (2009) and Lebbrandt, Woolard and Woolard (2000), have looked at income inequality. However, these studies did not distinguish between income earned by people living in rural areas versus those living in urban areas. Even Blau and Graham's (1989) wealth model and Booysen, van der Berg, Burger, von Maltitz and du Rands (2005) study that developed a wealth index, did not distinguish between rural and urban household wealth. This study aims to fill this gap, first by distinguishing between wage income and wealth and also by examining urban/rural differences in the magnitude and composition of wealth. Different studies have defined wealth differently. For example Jappelli and Modigliani (1998) define wealth as the sum of pension wealth and private wealth. The authors (Jappelli and Modigliani) point out that except for capital gains and losses the first difference of total wealth is total saving, and the first difference of private wealth is private saving. According to Japelli and Pistaferri (2000) wealth, in the net worth in other words the sum of household's financial assets and net real assets. Japelli and Pistaferri (2000) define financial wealth as the sum of transaction and saving accounts, certificates of deposit, government bonds, corporate bonds, stocks, mutual funds and management investment accounts, cash values of life insurance, cash values of defined contribution pension funds, and foreign assets.

1.3 Purpose and significance of the study

This study sought to identify the key measures of wealth in a rural setting by advancing the following hypothesis:

H1: Wealth is a consequent of inheritance and income less consumption during the working period.

H2: There is no difference in the amount of wealth between rural and urban households.

H3: The propensity to consume from wealth is higher in rural households than is the case in urban households, than the propensity to consume from income.

This study also looked at which of the two variables, between household consumption and household income has the highest predictive power for household wealth.

Thus the objectives of this study were to:

1. To build on Booysen *et al's* work by constructing a composite measure of wealth using General Household data.
2. To examine urban/rural differences in the magnitude and composition of wealth.
3. To test the hypothesis that household income and household consumption have an effect on wealth.

In addressing the research objectives this study is envisaged to contribute to policy formulation that addresses inequality in South Africa. In particular, the study is envisaged to inspire targeted policy interventions for rural and urban communities.

1.4 Research design

This thesis seeks to test the lifecycle theory in a South African setting by looking at the consequences of inheritance and income less consumption in rural and urban households (Hypotheses 1 and 2). The study also tests the hypothesis that rural households have a higher propensity to consume from wealth than urban households. It therefore becomes natural to apply a deductive research design, where the

prescriptions of the lifecycle theory are tested through the creation of three hypotheses as explained above.

Data for the study is gathered at various intervals and is not cross sectional. That is, it is not gathered at one point in time from individuals or groups. The data is rather timeseries data collected at equally spaced time intervals. As will be explained in the section below different time series data sets were used to test each of the three hypotheses of this study. This type of research design builds on the assumption that there is a causal relationship present (Brooks 2008, 88). As such, the goal of research is to obtain a significant amount of variance in order to be able to assess the influence of independent variables.

This design is optimal because the effect of income, consumption and inheritance would add more information on the influence on wealth over a period than would have been the case if cross-sectional data were used. As such replicability and external validity of the research design is greatly enhanced given that variables and measurements are clearly stated as is required in a deductive research design.

1.5 Assumptions

1.5.1 Philosophical assumptions

o Ontological assumptions:

This study is founded in a positivist philosophical approach which applies the principle of natural sciences on a social reality (Bryman, 1990). The positivist view of reality is common when testing hypotheses with observable phenomenon, such as income, consumption and wealth as is the case with this study. "Positivists usually use quantitative methods as research tools, as these are objective and the results generalizable and replicable" as stated by Marsh and Furlong (2002:18). The applied analytical techniques dependably result in numbers, which are then investigated for a legitimate result. The point is to have immediate and correct causations which are irrefutable (Bryman, 1998). Being able to translate the positivism makes the truth claims in the form of the outcomes of the hypotheses tested in this study to be generaliseable in similar environments to South Africa.

o *Axiological assumptions:*

This study's axiological assumption is based on the legacy left behind by apartheid in South Africa. This study assumes that by removing the injustices imposed by apartheid, inequality and poverty can be alleviated in South Africa.

o *Causality assumptions:*

This study assumes that various causal relationships exist between the variables in this study. As such, the goal of research is to obtain a significant amount of variance in order to be able to assess the influence of independent variables. The two critical assumptions are firstly, the assumption that a causal relationship between economic development, poverty reduction and economic growth exists. The second assumption explores a causal relationship between poverty reduction and economic growth in South Africa.

1.5.2 Theoretical assumptions

This study looks at the Life cycle theory and makes the following theoretical assumptions:

- A household's or person's consumption level depends greatly on long-term future income expectations and not only on current earnings.
- People design their spending habits over their lifetimes, considering any future income they plan on receiving.
- This study also puts forward the assumption that sources of wealth in rural areas are different to wealth sources in urban areas.

1.6 Delimitations

This study utilizes time series data rather than cross sectional data between 1946-2015 at a National level as well as data for the Eastern Cape and Gauteng provinces. The study also identified Statistics South Africa, the World Bank, The South African Reserve Bank as sources of data. While previous studies measured

household wealth using ownership of certain assets such as ownership of refridgerators, televisions and telephones, this study looks at property ownership as a true measure of wealth.

1.7 Operational Definition of Concepts and Variables

The following definitions that have been outlined in the literature review chapter include: national wealth, national income, national consumption, household wealth, household income and household consumption. The methodology chapter also outlines definitions of the analysis tools used in this study like Ordinary least squares, Granger causality, Adjusted Dickey Fuller test including R-squared. Statistical concepts definitions are also detailed in chapter 5 where the findings of this study are outlined.

1.8 Structure of the Thesis

Chapter one introduces the study. It looks at the current economic situation in South Africa and provides rationale as to why the research was worthwhile pursuing. Studies have shown that South Africa's poor are getting poorer although the government has implemented various policies to alleviate poverty. A scarcity in research on rural versus urban wealth and income inequality was a key driver in this study.

Chapter two provides context as to why the selected research topic was chosen. It provides a background to the root causes and effects of wealth and inequality in South Africa as well as the repercussions of these causes on both a micro and macro level. It is prevalent from the historical information uncovered that South Africa's past had a major influence on the current economic situation. Segregation policies like apartheid promoted inequality and was the main cause of the vast discrepancies in the levels between rural and urban wealth.

Chapter three is divided into two sections. The first section is the Literature review which looks at popular theories as well as previous research which was undertaken in order to guide the direction of this study. The Literature review starts off by firstly defining the Life Cycle Hypothesis theory. It then goes on to explain the evolution of

the theory by looking at contributions by theorists such as Adam Smith who laid the foundation for modern wealth economists as well as contributions to the Life cycle theory by John Maynard Keynes who is recognised for the creation of Keynesian economics. The Life cycle Hypothesis model as created by Modigliani and Brumberg (1954); Modigliani and Ando (1957); and Ando and Modigliani (1963) is then described. The Literature review is then concluded by looking at contradictions and opposing theories to the Life cycle theory. The Conceptual Framework makes up the second component of chapter three. It begins by showing the relationship between the different variables measured in this study in order to develop a conceptual model and then goes on to state the 5 Life cycle theory equations as expressed by Modigliani and Ando.

Chapter four describes how the hypotheses were tested in order to create new knowledge around the Life cycle theory. The chapter started off by looking at the epistemological basis of the study followed by a discussion of how the study was designed. Data was then described, detailing the data sources and how the variables are measured. This was then followed by a section that outlines the variables and *apriority* expectations. Thereafter the chapter discusses how the models expressed in the three hypotheses of the study are specified and how they are estimated. Multiple OLS regression analysis was outlined in detail including its uses and how the results are tested for integrity. The Eviews statistical package was chosen because of its capacity to test hypotheses using time series data that have been collected over a period of time on one or more variables.

Chapter five focuses on the study's findings. Chapter five also aggregated all the variables and looked at the relationship between independent variables to the dependent variables. Chapter six ties all the chapters together. It provides the aim of the study, the theory which helped design the research approach, variables used as well as the results of the research. Most importantly, chapter six explains how this research has contributed to knowledge. The impact that this study has in practice as well as limitations of the study conclude the chapter.

1.9 Concluding Summary

This chapter introduced the research topic and explained the conceptual basis of the questions the study seeks to address. The significance of the study as well as its overall purpose in shaping economic policy was discussed. The rest of this thesis is structured as follows: the next chapter presents a background to the study and looks at contributing factors to the existing problems which have been identified. Chapter three presents a critical evaluation of literature on the dependent and independent variables of the study. Chapter three also covers the theoretical ground of the hypotheses this study seeks to test as well as the conceptual framework which helped direct the study. Chapter four details the methodological processes followed to address the research question of the study. Chapter five presents the findings which are discussed in the final chapter of this study.

Chapter Two: Background to the study

2.1 Introduction

The following chapter provides an insight into South Africa's history and the factors which contributed significantly to the rise and establishment of inequality in South Africa. Every story has a beginning and as the cliché' goes 'you can't know where you are going unless you know where you have been'. It is very important for the study as one needs to understand the root cause of the problem in order to help find a solution to it. This chapter discusses the contributing factors to wealth and income inequality in South Africa and also the repercussions of those factors on both a micro and macro level. Levels of poverty and sources of income are then compared between rural and urban areas. Each section in this chapter has been divided into two. The first sub-section speaks to earlier literature which was published prior to 2010 and the second sub-section contains more recent literature which was published post 2010. Finally, the chapter culminates with literature on sustainable wealth creation.

2.2 History as a Contributor to Inequality

Poverty is a reality in South Africa. One does not need to scrutinise findings of the numerous studies being undertaken to see the squalor in which a great number of impoverished South Africans live. While poverty has been in existence for as long as civilization itself, the sheer extent of inequality and poverty in South Africa is a legacy left behind by apartheid.

Louw (2004:33) reports that that the foundations of the politically-sanctioned apartheid system goes all the way back to when settlers colonised South Africa. Dutch settlers had the misconception as being 'the white clan of Africa' and separated and different to other clans in Africa. Capitalism started growing quickly once gold was discovered in the middle of the nineteenth century. The majority of capital used for mining belonged to the British. A change in ethnic progressive systems started taking shape, while the British instilled themselves as having predominance within society and exerting undue influence, while Dutch settlers fell behind and progressively proletarized. Louw (2004:33) describes how conflicts due to land between groups

fuelled tensions which prompted the Anglo (English) Boer (farmer) War during the late nineteenth century. The English went on to win the second war which saw them creating a state intended to promote interests of those involved with mining capital, which required cheap labourers and land (Louw 2004:33; Terreblanche 2002:1). Land possession losses adversely affected Africans and the Dutch. Africans were additionally constrained and the law forced them to work as vagrant labourers in order to guarantee a constant flow of cheap labour (Wolpe 1990:73).

Beinart (2001:231) describes how the Dutch opposed the way they were treated and looked for solidarity which was based on race and class. The resistance by the Dutch ended with the Rand revolt which took place in 1922 when Dutch labour organisations drove a general strike. In order to maintain colonial rule and political rule, the British started to integrate essential Dutch political leaders into government and started to implement supremacist and racial labour market and social policies for the betterment of the Dutch (Beinart 2001:231). Beinart's study observed how race in this manner turned into the focal political classification for creating solidarity in the power alliance. Leubolt (2009:36) talks about exclusion which was formally done.

This encouraged the 'two nations project' which isolated both blacks and whites. Inclusion was essentially concerned about the Dutch ethnic minority to be socially inspired to British standards. The primary mechanism was through government policies regarding minorities in the public sector combined with the intensification of state exercises (Louw 2004:33). Wolpe (1990:74) discusses the class strains between the two colonizing sides which were limited to the impediment of the rest of the groups, for whom racism, class domination and prejudice became interwoven.

Louw (2004:33) describes how apartheid lead to the formulation of the 'many nations' project by radicalizing the 'two nations' project during 1948 – 1994.Louw's study examined how apartheid's focus on 'divide and conquer' took after a belief system of 'separateness' of various 'tribes' while sustaining racism. While upholding a type of subjection on the African population in South Africa, the colonialists at that point endeavoured to isolate Africans along race and ethnic criteria, while encouraging legislation to advance the Dutch (Louw 2004:33).

However, this continuous oppression and the "constant aggravation of racism promoted the anti-apartheid movement to grow stronger. The African National Congress had started off as a rather small movement of middleclass Africans trying to promote their position in the labour market. Under apartheid, it joined forces with the South African Communist Party (SACP) and thereby shifted to the left (Leubolt 2015:62). Those who fought for freedom labeled themselves as 'black' and it was race which fuelled the togetherness of the different black groups and aided in "resisting the different racial and ethnic division criteria introduced by the apartheid regime". The primary focus of this battle was institutionalised racism. Liberals saw racism as the downfall to capitalism while socialists considered it to be advantageous. Multi racialists needed to abolish racism, while pro Africanists needed African supremacy (Leubolt 2015:62). Sound judgment was the interest for majority vote, paying little respect to race (Alexander 2002). In this way, the administration, as well as its critics, organised around race (Leubolt 2015:63).

Because of colonialism by settlers in South Africa, capitalist behaviour started to develop. This was linked to gold mining and spoke to capitalism which was ethnically separated with British whites being at the pinnacle of the hierarchy.

Tensions were being strongly voiced by the Dutch labour movement, achieving the establishment of 'racist Fordism'. 'Racist Fordism' was also radicalized by apartheid's racial segregation which featured basic continuities to the cases of 'racist Fordism'. Prior to the end of the 1960s, 'racist Fordism' began to demonstrate manifestations of an economic crisis, as the supremacist regulation of the labour market became more dysfunctional (Leubolt 2015:63).

The mining sector which was dominant had a requirement for skilled as well as semi-skilled workers and much fewer unskilled labourers. Therefore, criticizing liberal voices against the economic dysfunctionalities picked up momentum – within the freedom movement as well as the power bloc. This saw the capitalist's voice steadily growing stronger (Leubolt 2015:64).

Mounting pressure from international communities coupled with economic trade sanctions contributed to the downfall of the apartheid regime which began the end to apartheid. In spite of these conditions for development, the progress to the post-apartheid economy was advantageous to the adherents of apartheid. Despite the fact that the change to a regime which was non-racist occurred during the 1970s,

momentum was gained only after the the first democratic elections which took place in 1994. This was an opportunity for members of the "lower class" population to start creating fiscally stable futures for themselves.

2.3 What's changed? South Africa's current financial situation

The following sections detail how South Africa has changed over the years and goes into detail to explain what the current financial situation in South Africa looks like.

2.3.1 Earlier literature on livelihood and economic well-being in rural South Africa

The Land Act of 1913 and the creation of homelands are just a few of the legacies left behind by South Africa's history and these legacies contribute to the current situation regarding housheold stability in South African rural areas. Dual economic policies have influenced high levels of income inequality, rural poverty, corruption and poor service delivery as reported by (Bryceson 2004:617; Kessides 2005:1; Mertz et al. 2005:209; Klasen and Woolard 2008:1; Sherbinin et al. 2008:38). Wu and Pretty (2004:81) and Barrett (2005:45) claim that these legacies influenced and helped define household characteristics such as their geographic location, initial asset status, family size, education, health, mortality, outmigration and employment. A lack of assets has a destabilising effect because it results in an inability to fund household expenses. In addition, it forces households to adopt low-return survival strategies that perpetuate household instability because of an inability to generate future assets (Sen 2003:513; Barrett 2005:45; Lay et al. 2008:2713). Various variables have in this manner destabilised numerous South African rural households. Also, development initiatives have had very little effect on alleviating poverty (Landau 2006:308; Klasen and Woolard2008:1) due to the fact that destabilised rural households were previously unable to participate in these projects (Barrett 2005:45).

"South Africa produces enough food to feed its population, but experiences rapidly increasing rates of household food insecurity" (van der Berg 2006:201). Although employment has risen in the country, it has not attained the level where it can significantly address the issue of income poverty (Aliber 2009:384). Furthermore, while

the national government provides social grants which help to minimize the rate and effect of food insecurity within the country, 40-50% of South Africans live in poverty (Machethe 2004:1 citing Terreblanche 2002). Rose and Charlton (2002:384) show that "approximately, 35% of the total South African population (about 14.3 million people) experience hunger and malnutrition". Studies carried out by Woolard et al. (2001:5) showed that "65% of those identified as 'poor' and 78% of those identified as 'chronically poor' reside in rural environments" (Woolard et al. 2001:5).

2.3.2 Recent literature on livelihood and economic well-being in rural South Africa

South African households' financial information is mostly expressed in terms of their income, poverty and the impact of price increases on their cash flows. However, this is a very narrow view as it only focuses on household income and expenditure. Households also possess balance sheets which affect and are affected by households' financial decisions and behaviour (Momentum and UNISA 2012:3). Studies have shown that many households are income-poor but rich in assets, indicating the importance of also monitoring household wealth to arrive at a more comprehensive understanding of the true financial health of households in South Africa (All Media and Products Survey 2012:1). Despite nominal increases in net wealth, household wealth is not performing well at all – especially against the background of real growth in disposable income over the mentioned period (All Media and Products Survey 2012:1). On average, real household wealth per household decreased over the period 1975 – 2012 (Momentum 2012:3). Changes in the wealth of the household sector affect final consumption expenditure by households and accordingly, final demand in the economy (Kuhn 2010:215).

Sartorius et al. (2011:2) showed how household characteristics such as geographic location, initial asset status, family size, education, health, mortality, outmigration and employment influence the ability of a household to generate future assets, and assets underpin the lifespan (stability) of a household.

A household's employment and income are the primary determinants of the type of access a household has to better food as well as food security. Problems linked to a

household's access to food are slightly avoided by social grants. Early signs show that the security net provided by grants is slightly effective. Any incentive that poor households could have had to utilize land to increase the food supply in a household may have been reduced by the poor households receiving grants. A study by Statistics South Africa which was carried out in 2011 showed that only a fraction of households in South Africa participate in any form of farming be it subsistence or commercial.

Abdu-Raheem, (2011) showed that the majority of those South Africans affected by hunger and under nutrition were children, women and the elderly. A study by the World Bank in 2010 provided an estimate that 39.26% of South Africa's population live in rural areas. Household consumption is a direct effect of income levels and poverty in a household. Studies by Statistics SA showed that the average poor household spends approximately five times less than the average non-poor household, with the largest contributor being food (Statistics SA 2014:1). Roughly half of all food expenditure for both poor and non-poor households goes toward breads, cereals, meat and fish; however, non-poor households see a larger share go towards meat and fish, while the inverse is true for poor households. The average expenditure in urban households was two-and-a-half times larger than in rural households between 2006 and 2011 (Statistics SA 2014:1).

2.4 Macro and Micro Effects of Poverty

The following sections detail the effect poverty has on the economy at both a macro as well as micro level.

2.4.1 Earlier literature on the effects of poverty and inequality on society

Society's perception is that high-income parents pass on their wealth to their children. The disadvantages faced by low-income children are as a result of monetary poverty. There are a number of reviews summarising the state of knowledge on these issues for example those illustrated by Bruniaux and Galtier (2003:1). There is therefore a 'social gradient' in health, which means that every step up the socio-economic ladder leads to an increase in health (Morris et al. 2000:381).

Income and wage inequality is unsafe in light of the fact that it places individuals in a chain of command or hierarchy that builds status rivalry and causes stress, which results in poor health and other negative results. Some investigations highlight the role of various factors, namely individual income, culture and social policies. Sometimes it is suggested that inequality in income may positively affect economic growth and development by providing motivators to work, yet there is no strong evidence to support this (Morris et al. 2000:381).

Loury (1981:851) reported that, "Legally, poor parents will not be able to constrain their children to honour debts incurred on their behalf. Nor will the newly matured children of wealthy families be able to attach the (human) assets of their less well-off counterparts, should the latter decide for whatever reasons to not repay their loans… Moreover, the ability to make use of human capital is unknown even to the borrower." "From this perspective, financial market imperfections will impede efficient human capital accumulation with deleterious effects on economic opportunity" (Demirguc-Kuntand Levine 2009:8).

In the event that the appropriation of initial wealth is exceptionally skewed, at that point few individuals accumulate capital, which diminishes total effectiveness, moderates development, and entrenches disparity. Within frictions in financial markets, the underlying wealth that has been accumulated is essential for both long term development as well as being able to determine inequality. Owing to improvements in the current financial system, poor individuals can contribute towards investing in capital by borrowing funds, quickening total development and diminishing income inequality (Demirguc-Kuntand Levine 2009:8). Human capital is characteristically unique in relation to physical capital, proposing that these are models of development and imbalance. In particular, "human capital is exemplified in people and interest in human capital is probably going to be portrayed by reducing returns at the individual level".

The Spirit Level (Wilkinson and Pickett 2009:1) was written as an accessible overview of the evidence on the link between income inequality and health and social problems

(Morris et al. 2000:381). Clarkwest (2008:1871) pointed to a number of previous studies which found no harmful effect of income inequality on population health over time (for example Mellor and Milyo 2001:522). Lynch et al. (2004:355) found that in the twentieth century the greatest declines in mortality occurred in US regions where inequality increased most. The extent of material inequality is a major determinant of psychosocial welfare in modern societies and its impact on health is but one of the social costs it carries with it (Wilkinson 1996:75). The research showed how social ills such as violence, drug use, depression, teenage pregnancy and poor educational performance of schoolchildren are the norm in rural and poverty stricken areas. Studies (Wilkinson 2005:68) show that the root of social problems are usually the same "insecurities, anxieties and other sources of chronic stress as those that affect our ability to withstand disease, the functioning of our cardiovascular and immune systems, and how rapidly we age".

Household wealth and income are important distal determinants of health that are difficult to measure in societies where wage income is negligible and savings are not generally held in the form of money (Morris et al. 2000:381). Morris et al. (2000:381) have provided evidence through various studies that a correlation does exist between income inequality and social ills.

Myer, Stein, Grimsrud, Seedat and Williams (2008:1828) reported that in South Africa there is a strong and persistent negative relationship between levels of socio-economic status and psychological distress, which is consistent with the international literature on the burden of mental diseases and distress. Similarly tuberculosis is heavily concentrated among the poorest socio-economic group which is consistent with the results of Harling et al. (2008:492), who note a high correlation between TB and cigarette smoking, alcohol consumption, low level of educational attainment, unemployment and poverty.

Wealth and income inequality fall within these models where poor families need to borrow money to pay for education. Along these lines, is the immediate utilisation of funds by disadvatged families who didn't have access to financial services that affect opportunities of an economic nature. In underdeveloped markets, sudden changes to household income may put pressure on parents to remove children from attending

schools and force them into seeking employment. This thereby prevents poor families from accumulating capital due to financial underdevelopment. There is a decrease in inequality in identified models where poor individuals borrow from financial institutions to alleviate shocks from changes in income (Demirguc-Kuntand Levine 2009:8).

Edmunds and Potter (1999:53-61) makes mention of the new "Invisible Hand", a feature of which is that it pushes the middle classes in the emerging countries to reach a standard of living high enough so that they will be able to save. This requirement stems from the need to have buyers for securities. The buyers will have to be wealthy enough to be able to afford securities, they will have to be well enough educated to know what securities are, and they will have to have access to telecommunications so that they can place the orders, and track the progress of their investments. The poor in the emerging countries will also have to attain an adequate standard of living. They are not needed as buyers until the time frame 2026 - 2032. At that time they would be buying the securities that the middle classes bought in the years 2006 - 2012. The immediate reason for them to reach an adequate standard of living is so that they do not start social disturbances (Edmunds and Potter 1999:55).

Studies carried out by Edmunds and Potter (1999:53-61) show that the middle classes and the poor in the emerging countries, need to attain higher standards of living. The widening of the income gap is only one effect among many. It grabs headlines, and diverts attention away from the good news that absolute levels of income will rise steadily for most people on earth. The reason is they have to be drawn into the financial economy, to be developed into buyers of securities, and to live well enough so as not to rebel, or cause damage to the value of financial assets. The other main piece of good news is that people have to be reached by telecommunications and education, before they will be buyers of securities. Part of the message they will receive will be heightened awareness of the environment (Edmunds and Potter 1999:56).

Following the seminal work of Amiel and Cowell (1992:3, 1999:209), there has been extensive research on how people perceive and define inequality (e.g., Amiel and Cowell 2002:85; Amiel, Cowell and Gaertner 2012:381; Ballano and Ruiz-Castillo

1993:233; Gaertner and Namazie 2003:229; Harrison and Seidl 1994:61; Traub, Seidl, and Schmidt 2009:385).

Household income is a measure of the combined incomes of all people sharing a particular household or place of residence. It includes every form of income, e.g. salaries and wages, retirement income, near cash government transfers like food stamps and investment gains. Current income, through its effect on saving is expected to have a positive coefficient in a wealth regression although the size of the coefficient may differ by race (Blau and Graham 1990:321). Studies conducted by Bhorat and van der Westhuizen (2009:1) showed a significant increase in income inequality between 1995 and 2000. This research also showed that South Africa is probably the 'most consistently unequal economy in the world'. Wage inequality has been the main contributor to the growing income inequality. Bhorat and van der Westhuizen also showed that increasing levels of inequality prevents significant declines in household poverty levels. According to Leibbrandt et al. (2000:31), real income has been increasing steadily for all population groups in South Africa. Income growth however, has not resulted in a decline in South Africa's historically high inequality but shown an increase in inequality over the post-apartheid years. Leibbrandt (2009:16) looked at inequality by geotype (urban versus rural) and established that urban inequality has increased since 1993, whereas rural inequality seems to have decreased. This is generally linked to the migration of rural dwellers to urban centres, thus increasing urban income discrepancies. Edmunds and Potter (1999:53-61) argue that the way income and wealth is distributed is rapidly becoming more skewed.

The poverty of Sub-Saharan Africa has many dimensions and causes. Part of its underdevelopment is attributable to initial conditions, and an unfavourable international economic environment. The region has to however accept much of the responsibility for its plight because its present state is also largely an outcome of poor policy choice and bad governance (Luiz 2006:633).

Racial inequality is not exclusive to South Africa. Researchers such as Marx (2006) who looked at the defining characteristics of race in Brazil, the United States and South Africa found that due to the "myth of racial de DOI mocracy" in Brazil, perspectives for antiracist policies were far more difficult to implement as compared to South Africa,

(Marx, 2006). Seekings and Nattrass (2005:122) showed that race based inequalities decreased slightly although there was an increase in general inequalities.

It was previously thought that by mobilising the correct level of savings and investments within the South African economy, increases with regards to the rate of aggregate growth could be generated, thus resulting in a growth path of higher equilibrium. This would maintain a higher level of GDP per capita and stock in the form of capital will be maintained. Studies by the United Nations Development Programme in 2001 showed that "income levels across countries have been both diverging and converging".

Easterly and Levine (1997:5), in an influential article, drew attention to the potentially important role of ethnic diversity in influencing economic growth. They argue that cross-country differences in ethnic diversity explain a substantial part of the cross country differences in public policies, political instability, and other factors associated with long-run growth. They went on to also show that ethnic diversity has economic importance as well as contributes to Africa's growth strategy. (Luiz 2006:633).

Economists throughout the ages, from Smith through to Marx and Schumpeter and beyond, have recognised technological advance as a key driving force in the economic growth process. The contribution of technological advance to economic growth has been significant (Baumol 2002:; Fagerberg 1994:1147; Maddison 1987:649; Romer 1986:1002). Fagerberg (1994:1147) found that when comparing the relative contributions by factors of production and technological progress to growth in real per capita GDP in industrialised economies that three-quarters of it was as a result of technology. Lim (1994) finds similarly for developed countries between 1960 and 1985, whilst for developing countries the contribution of technical progress is a mere 14 % and for Africa it is a startling 0 %. Research has also shown that South Africa has a fragile economy as a result of its colonial past and thus a resulting weak social infrastructure. The decline im trade as well as the debt crisis fueled the current situation.

Poverty and inequality can be linked to global wars and terrorism for example in research carried out by Luiz (2006:633) who links the September 2001 attacks in

America to inequality. Luiz states that a world cannot exist in mutual peace if there is extreme poverty and extreme wealth and he then goes on to show that "poverty provides a fertile ground for all forms of extremism". Olson (1996:17) found that on average, poorer countries have substandard institutions and economic policies as compared to richer countries. However, if a poor country adopts relatively good economic policies and institutions, it will definitely catch up with better performing countries and experience growth. Olson also found that the best thing a society can do to increase its prosperity is to wise up.

Research carried out by Simkins (1991:5), estimated that in 1990 there were 17.1 million people living in poverty in South Africa. Although poverty rose in absolute numbers between 1985 and 1990, it declined relatively, with the percentage of households living below the minimum living level falling from 42.8 per cent to 41.9 per cent, even with the low economic growth of the 1980s. In 1990 it would have cost R13.8 billion per year to bring all South African households to the minimum living level. South Africa is also a country of extreme racial inequality. Between 1918 and 1970 the proportion of income of whites to Africans (includes Blacks, Coloureds and Asians) remained static at 70 per cent to 30 per cent, even though real per capita income rose three times (Luiz 2007:107).

Research has shown a positive relationship between financial development and economic growth (Caporale et al. 2004:33; King and Levine 1993:513; Christopoulos and Tsionas 2004:55).

There are 2 controversial views on the relationship between economic growth and poverty in literature. The 'trickle-down theory' contends that economic growth plays an essential role in poverty reduction in any given country – provided that the distribution of income remains constant. Proponents of this view believe that the benefits of higher economic growth in a country trickle down to the poor. As such, poverty reduction policies should be aimed at boosting economic growth (Aghion and Bolton 1997:64; Todaro 1997:16; Roemer and Gugerty 1997:3; Dollar and Kraay 2002:195; Norton 2002:263; Ravallion and Chen 2003:93; Bourguignon 2004:12; Thorbecke 2013:15). On the other hand, the trickle-up theory asserts that "economic growth does not

improve the lives of the very poor; but rather, the 'growth processes' tend to' trickle-up' to the middle classes and the very rich" (Todaro 1997:16).

Development policies need to be focused on improving the standard of living for poor people. In turn, this will result in circles which could promote economic growth (Norton 2002:263; Bourguignon 2004:12; Lopez 2006:1).

The Kuznet (1955:1) curve hypothesis asserts that, as incomes grow in the early stages of development, income inequality initially increases – as a wider proportion of the population partakes in the rising national income. However, if the disparity in income distribution and growth worsens, then there would be an increase in poverty (McKay 2013:15). Thus, the higher the income inequality in an economy, the less effect growth would have on reducing poverty Lustig et al. (2000:58) shows that the higher the income inequality, the less effect growth would have on reducing poverty.

Studies on the relationship between poverty and growth include those by De Janvry and Sadoulet (2000:267), Ravallion and Chen (2003:93), Basu and Mallick (2008:461). De Janvry and Sadoulet further analysed the determinants of change in poverty and inequality in 12 Latin American countries for the period 1970–1994. They found evidence suggesting that per capita aggregate income growth leads to a reduction in the incidence of urban and rural poverty. Ravallion and Chen (2003:93) calculated the distributional component of a poverty measure in China in the 1990s, by fixing the mean relative to the poverty line. In addition, he calculated the mean growth rate for the poor and found that the changes in the distribution of income were poverty reducing only in the early part of the decade. Basu and Mallick (2008:461) made use of several measures to examine the relationship between economic growth and poverty in India. They found little evidence to suggest that economic growth led to a reduction in poverty. They concluded that "the emergence of capital-labour substitution had inhibited the trickling down of the benefits of economic growth to the poor".

Using the ardl-Bounds testing approach, Odhiambo (2009:5) looked at the causal relationships that existed between financial development, poverty reduction and economic growth in South Africa between 1960– 2006. The study identified that a

"unidirectional causal flow from economic growth to poverty reduction existed in South Africa".

One of the major reasons why South Africa's social indicators are relatively poor for an upper-middle income country is that the distribution of income is particularly skewed. This is evident in research conducted by Armstrong which shows the Gini coefficients of a group of countries similar to South Africa. South Africa's Gini coefficient exceeds those of all the comparator countries except Namibia. In most middle-income countries, growth in per capita incomes was accompanied by widespread improvements in standards of living and, hence, social indicators. In South Africa, by contrast, social indicators remain relatively poor, partly because the exceptionally unequal distribution of income has prevented large sections of the population from sharing in the benefits of economic growth (Armstrong 2009:5).

In a paper published by Armstrong (2009:7), he listed the following reasons why consumption should be used as a more accurate measure of poverty rather than income:

"(i) of the two, consumption is more closely related to well-being in the sense of having enough to meet current basic needs;

  (ii) Consumption is usually the better measured aggregate of the two because it is less subject to transitory (shortterm) variation; and

  (iii) Consumption more accurately reflects households' true standard of living and ability to meet basic needs, which depend on current income as well as access to credit markets and households' savings", (Armstrong 2009:7).

Some groups of South Africans experience poverty more intensely than others. These groups are blacks, female-headed households, the aged, less educated individuals, the unemployed, and the inhabitants of rural areas namely KwaZulu-Natal, Limpopo and the Eastern Cape. Income poverty is inextricably linked with other dimensions of indigence: deficient access to essential services, long travelling distances to institutions rendering public services and other amenities, low levels of educational attainment, and unsatisfactory health conditions. Social grants play a key role to alleviate extreme poverty (Armstrong 2009:23).

In the South African context, obtaining a job in the formal sector of the economy is a basic requirement for escaping from poverty. Although the availability of jobs ultimately depends on the rate and labour-intensity of economic growth, individuals stand a better chance of obtaining jobs if they have skills that are in high demand in the labour market and are in close proximity to areas where opportunities exist or may become available. Large portions of the poor in South Africa, however, live in areas where job opportunities are scarce, and their prospects in the job market often are constrained further by little or inferior education (Armstrong 2009:23).

Armstrong speaks about how the basic features of poverty in South Africa are deeply entrenched. He goes on to show how the expansion of social grants has brought much-needed relief for many trapped in poverty. As has been pointed out in many studies, however, lasting progress in the battle against poverty and its manifestations requires accelerated economic growth and fundamental reform of the South African education system (Armstrong 2009:23).

Marx (2006:1), focused on racial identities and racism in Brazil, South Africa and the United States. Perspectives for antiracist policies are described as far more difficult in the Americas than in South Africa. While general inequalities were rising, intra-racial inequalities dropped slightly (Seekings et al. 2005:172). Minimum wage policy should be especially carefully designed. If wage levels are set (and enforced) above market rates, they effectively push low-skilled workers out of the formal economy into the informal economy. They also make legitimate companies less able to compete in foreign markets (Bloom et al. 2001:152).

Economic growth is a powerful tool to reduce poverty. Higher rates of economic growth would create higher levels of employment, thereby reducing unemployment. When growth is associated with higher employment and productivity, incomes of the poor increase leading to higher consumption and investment (United Nations Development Programme 2010:1). Economic growth could benefit the South African government through increased tax revenue collection and reduction in payments on unemployment benefits and social security grants. The improvement in the fiscal position would enable them to spend more on important public services like health, transport and education. Economic growth also improves education outcomes by

promoting school participation, and health development by increasing life expectancies and reducing child mortality rates (Barro and Lee 2001; World Bank 1993).   Countries that grow strongly, and for sustained periods of time, are able to reduce their poverty levels significantly, strengthen their democratic and political stability, improve the quality of the natural environment, and even diminish the incidence of crime and violence (Dollar and Kraay 2002:195; Fajnzylber et al. 2002:1323).

Research has shown that it is not all growth initiatives that are linked to improvements in poverty, education and health (Bourguignon et al. 2008:47). Policies that create growth but do not directly benefit the poor or improve education, and health in a country may not help attain development goals. For example, government policies involving service delivery fail to reach the poor in rural and remote areas, and when some services are provided, they rarely reduce poverty (United Nations Development Programme 2007). Some financial analysts identify financial development as a possible strategy capable of linking economic growth to poverty alleviation and the achievement of millennium development goals. Financial development improves the financial sector in a country so that it more efficiently allocates capital between lenders and borrowers. A more developed financial sector promotes economic growth (Levine 2004:6).   Therefore, financial development may indirectly help achieve development goals by stimulating growth.

Recent research has also shown that financial development directly reduces poverty without increasing income inequality (Beck et al. 2004:109; Rosner 2010:2). Li et al. (1998) found that financial depth strongly and significantly contributes to lowering inequality and to raising the average income of the lower 80 per cent of the population. Research conducted by Honohan (2003:7) showed that in 70 developing countries a 10 percentage point increase in the ratio of private sector credit provided by the banking sector will reduce poverty ratio by 2.5-3 percentage points. Poverty has in fact trended upwards since 2006. For this reason, certain researchers suggest that the "poverty trap" could be increasing rather than it breaking down (Gore 2003:1).

Claessens and Feijen (2006:7) put forward the notion that financial development and household expenditure are highly correlated and that there is evidence that financial

development is a leading indicator for increases in household consumption. As financial development reduces poverty, households purchase essential assets such as houses, start their businesses, receive and enjoy remittances, and people may also be able to pay for health expenses. They could save in order to be prepared for unexpected health costs. As families become healthier, children are more able to participate in school. Children do not have to drop out of school in order to spend time at home to help sick family members. Thus, by improving the real sector of the economy through household consumption, financial development improves household welfare and impacts on MDGs. Financial development also increases investment through the allocation of capital to the private sector.   Access to finance is important for firms. The second leading constraint on doing business after taxes and regulation is finance (World Bank 2000). However, Batra et al. (2003:7:64) ranks the lack of finance as the main constraint in Africa and China.

Research shows that economic growth is diminished due to the impact brought about by financial development, however, this contradicts scholars such as Rioja and Valev (2003) who show that countries which possess intermediate levels of financial development experience more growth than countries which possess higher levels of financial development.

Economic growth is directly linked to increases in living standards, improved human capital, political freedom and positive changes in structure (Luiz 2006:633). Although the living standards in Sub-Saharan Africa have greatly improved, it has not kept pace with improvements elsewhere in the world and the result is that it is falling relatively further behind in the quality of life dimension (Sender, 1999). "Being born an African translates into a shorter life, a life of poverty, ignorance, disease, displacement and worse, little hope" (Luiz 2006:633).

Collier (1999:5) identified five effects of poverty being namely: the destruction of physical and human capital, the reduction of savings, diversion of portfolios from domestic investment to capital flight, disruption of economic transactions, and distortion of government expenditure from the provision of public services to military expenditure. Ali (2001:188) estimated the "cost of civil conflicts by analysing the

economic performance of 15 African countries afflicted by war and found that they always under-performed relative to the rest of the continent".

Sub-Saharan Africa's weaknesses stem from several factors. Khor (2000:55) shows that as a result of the colonial experience these countries were economically fragile to begin with and had weak social infrastructure. This was exacerbated by declines in the terms of trade and the debt crisis. Given the unequal capacities of North and South, the development of technology (especially information and communication technologies) further widened the gap. In addition, many countries in Africa have been characterised by dictatorships, abuse of power and economic mismanagement which have further entrenched the marginalisation. All these factors mean that the continent was not in a position to take on the challenges of globalisation (Khor 2000:55).

Eicher and Garcı´a-Pen˜ alosa (2001:173) showed that in developing countries, growth can leave the poorest poorer because of, for instance, trade liberalization and technological changes, features which would leave those at the bottom of the distribution who also happen to be unskilled behind. More specifically, if growth is being driven by sophisticated sectors of the economy, which require the use of advanced technologies and therefore a certain degree human capital already in place, the unskilled poor, for lacking the necessary skills required by a modern economy, might well be left behind in the income distribution with respect to those with human capital (EicherandGarci' a-Pen" alosa 2001:173).

Psacharopoulos et al. (1995) suggest that income growth had reduced inequality in a sample of Latin American countries in the 1980s. Li, Squire, and Zou (1998:85) use a sample of 49 countries (they use the then newly released Deininger and Squire dataset on income inequality) and panel data methods, to report that initial income reduces inequality. However, Easterly (1999), who also uses a panel of countries, reports that growth plays no role on inequality. de Janvry and Sadoulet (2000:267) investigated 12 Latin American countries during the 1970 - 1994 period, to report that growth, as Easterly had done before, presents negative estimates, but not statistically significant, against inequality (Bittencourt 2014:18).

Dollar and Kraay (2002:195), utilised samples of 92 developing and developed countries over four decades, and the GMM estimator to report that "growth is good for

the poor." They suggest that the shares of the poorest quintile grow 'equiproportionately' to average income. On the contrary, Lundberg and Squire (2003:86), make use of a larger sample than Dollar and Kraay (with 125 countries), to report that economic growth, in fact, increases the Gini coefficient in their broader sample. Moreover, Lopez (2006:74) makes use of decadal dummies interacted with income to better pinpoint the effect of growth on inequality during different periods of time in his panel of countries (he uses the Dollar and Kraay sample). Essentially, he reports that in the 1990s income growth is associated with higher inequality, and he suggests that the trade liberalization and particular technological changes taking place in the 1990s are behind his results. Furthermore, Foster and Sze´kely (2008:35) use data from 34 countries during 1976-2000 (their sample is composed mostly of Latin American countries), to report that the incomes of the poor do not increase proportionately with average incomes. On a slightly different strand of the literature, Kuznet (1955:1) suggests that during the processes of long-run economic development that particular societies go through over time, income inequality increases in the short run, just to decrease in the long run. During recessions, economic instability and periods lacking income growth, the poor and unskilled are the most affected, (Psacharopoulos et al., 1995; de Janvry and Sadoulet 2000:267).

Financial development could most likely adversely affect the extent to which an individual's economic opportunities could be decided by the individual's initiative and skill and may be affected by financial development. Also, does the wealth of an individual's parents, political connections and social status direct and help shape economic horizons? One's financial situation can define the gap between rich and poor and also the magnitude of the gap across generations. By directing the capital allocation, the rate at which the economy grows as well as the labour demand can be altered. This could have profound implications on income distribution and poverty (Demirguc-Kuntand Levine 2009:8).

Piketty (2000) showed how constraints with credit lowered overall economic efficiency levels due to the prevention of skilled and talented individuals who are poor assuming entrepreneurship roles. Banerjee and Newman (1993) have shown when a community are all poor slow growth is experienced as well as low levels of inequality since nobody can become an entrepreneur and everyone would need to rely on subsistence self

employment. They also demonstrated how intial inequality results in rich individuals becoming entrepreneurs who employ workers and receive high returns. This growth leads to an increase in income differences (Banerjee et al., 1993).

Nearly all of the increase in inequality is the result of large gains at the very top of the distribution, with little evidence of rising inequality at the bottom of the distribution (Fisher et al. 2015:630). Contrary to the findings of Piketty (2003:1) and Saez (2006), the capital share of income at the top of the income distribution has risen in recent decades (Glyn, 2009). Labour economists, Katz and Kearney (2008:31) have shown that inequality in hourly wages increased considerably over the same period.

2.4.2 Recent literature on the effects of poverty and inequality on society

Corak (2015:37) reports that a country with more income inequality might also have more inequality in the investments that rich and poor parents can make in their children, and hence a lower degree of generational income mobility. Within any particular society, those with higher incomes do better on a range of outcomes.

International evidence shows that the lower an individual's socio-economic status is, the higher the frequency of a variety of health problems. The case of HIV/ AIDS is similar to that reported by Cleary et al. (2011:632) who found that in urban South Africa, HIV-positive individuals are concentrated amongst the poorer socioeconomic quintiles. A consistent negative association has been reported for birth weight, adult body height, prevalence of health complaints, prevalence of many chronic conditions, prevalence of disability, incidence of long-term work incapacity, perceived general health and adult mortality (Ataguba, Akazili and Mc Intyre 2011:1). There have been numerous studies in Africa which have documented a higher frequency of key diseases amongst lower socio economic status groups (Ataguba, Akazili and Mc Intyre 2011:1). This proves that inequality has a direct impact on income which directly affects a household's overall health, which then has a direct impact on the ability of that household to earn an income and create sustainable wealth for themselves.

Jancewicz (2014:1189) conducted an analysis in which the respondents' answers showed that their choices of the least and the most unequal distributions only partially match the results of classical income inequality measures (Jancewicz 2014:1189). Atkinson and Morelli (2014:1) conducted a series of studies which looked at evidence about long-run changes in economic inequality, primarily income, earnings, and wealth for 25 countries covering more than one hundred years. The range of countries studied accounted for more than a third of the world's population namely: Argentina, Brazil, Australia, Canada, Finland, France, Germany, Iceland, India, Indonesia, Italy, Japan, Malaysia, Mauritius, Netherlands, New Zealand, Norway, Portugal, Singapore, South Africa, Spain, Sweden, Switzerland, the UK and the US (Atkinson and Morelli 2014:1). The study concluded the following:

(i) "It showed that the dispersion of earnings has been increasing in recent decades, the top decile of earnings increased from 1997 to 2008;"

(ii) The study also showed that "overall inequality increased between 2005 and 2008. The gini coefficient was 5 percent higher in 2005 as compared to 1995 but dropped by 2 percentage points between 2005 and 2008";

(iii) There was insufficient evidence as to whether or not inequality fell for a sustained period;

(iv) "Poverty had been falling in recent decades. The percentage of people living in households with per capita income below the national poverty line went from 53 in 1970 to 32 in 2004".

(v) There had been a "U-turn for top income shares over time. The top gross income shares fell up to the end of the 1980s but in recent years they have been rising";

(vi) "There was no evidence that the distribution of wealth followed the same pattern as income", (Atkinson and Morelli 2014:1).

While agreeing with Marx's general analysis that perspectives for anti-racist policies were far more difficult to implement in Brazil than in South Africa, Leubolt's (2015:62) research went on to further highlight the issue of redistribution, being fundamentally linked to issues of class inequalities and poverty.

While Marx focuses on racism, Lieberman includes questions of class and social status. Nevertheless, his focus is mostly on 'elites' and the most formal political

institutions. Identity formation of the marginalized groups remains opaque and institutions beyond the constitutions are only marginally considered (Leubolt 2015:63). Both authors argue that the historical-institutional heritage of the two countries favour equality-related policies in South Africa. More recent empirical findings do not support this point of view: South African indicators showed rising income inequalities since the end of apartheid (1994), from 0.66 in 1993 to 0.7 in 2000 (Leibbrandt et al.2012:19), peaking at 0.72 in 2006, after which the Gini coefficient dropped slightly to 0.7 in 2009 and 0.69 in 2011 (Statistics SA, 2014).

Various authors have shown how financial development impacts positively on poverty (Becketal2004; Honohan 2004; Jalilian and Kirkpatrick 2005; Odhiambo 2009, 2010; Jeanneney and Kpodar 2005) cited in (Atkinson and Morelli 2014:1).

Building on the study by Todaro (1997) that showed how economic growth does not improve the lives of the very poor but rather the middle class and the very rich, Nindi et al. (2015:1) shows how this in turn, results in a worsening of the distribution of income (i.e., increases in inequality), which then increases poverty. The theory asserts that there are reinforcing factors that maintain poverty amongst the poor population and impede them from contributing to economic growth. Literature essentially contends that countries do not grow fast, because they are simply too poor to grow. This is because poverty dampens economic growth–by creating a vicious circle, whereby high poverty levels lead to lower aggregate growth. In turn, low growth results in high levels of poverty (Nindi et al. 2015:1).

Thorbecke (2013:15) and Johannes and Joelle (2011:1) echoed findings by earlier authors such as Norton (2002), Lopez (2006) and Bourguignon (2004) which stated that policies aimed at development should be aimed at improving the poor's living standards which in turn will promote economic growth.

Studies looking at the relationships that exist between poverty and economic growth include studies carried out by Odhiambo (2009a; 2011), Sala-i-Martin and Pinhovskiy (2010), Arif and Farooq (2011), Young (2012), McKay (2013), and Okoroafor and Chinweoke (2013).

Sala-i-Martin and Pinhovskiy (2010:17) estimated income distributions, poverty rates, and inequality and welfare indices for African countries for the period 1970–2006. They

found that the recent spurt in growth in Africa was accompanied by a symmetrical and sustained reduction in poverty, and thus, had a 'trickle-down' effect. In a later study, Odhiamboin 2011, investigated the dynamic relationship between economic growth, unemployment, and poverty reduction in South Africa for the period 1969–2006 using the ardl-Bounds testing approach. The author found no evidence of a causal relationship between poverty reduction and economic growth in South Africa.

Young (2012:58) used "estimates of the level and growth of real consumption to investigate changes in poverty in 29 sub-Saharan and 27 other developing countries. The author found that living standards in sub-Saharan countries have improved during the last two decades–thereby implying a reduction in poverty". McKay (2013:64) analysed the growth and poverty reduction nexus in 25 of the largest sub-Saharan countries in the last two decades, using information from household surveys. The author found that there has been a significant reduction in poverty in most of these countries. However, the reduction in non-monetary poverty was to a lesser extent than that of monetary poverty. Okoroafor and Chinweoke (2013:105) made use of the ols technique to examine the relationship between poverty and economic growth in Nigeria for the period 1990–2011. They found no evidence of a correlation between the two variables. They attributed this to the poor attitude of government towards human-capital development (Nandi et al. 2015:129).

While generally agreeing with Marx's analysis, Leubolt (2015:63) further highlighted the question of redistribution, being fundamentally linked to issues of class inequalities and poverty. Certain researchers such as Leubolt (2015:65) state that blacks in South Africa who receive 'low-income' "benefit from the progressive income tax that was developed in the wake of this history of deliberate racial exclusion".

Authors argue that the historical-institutional heritage favours South African policies which are related to equality. More recent empirical findings do not support this point of view for example, South African indicators showed rising income inequalities since the end of apartheid (1994), from 0.66 in 1993 to 0.7 in 2000 (Leibbrandt et al. 2010:11), peaking at 0.72 in 2006, after which the Gini coefficient dropped slightly to 0.7 in 2009 and 0.69 in 2011 (Statistics SA 2014). There may hence be a link between improvements in the financial sector and the achievement of millennium development goals beyond its effect on economic growth (Akinloye 2015:127). It is widely

acknowledged that the real sector of the economy includes household consumption, investment, trade (exports and imports) and government spending. Thus, any relationship that can increase household consumption, investment, trade and government spending will definitely have a positive effect on the real sector of the economy (Akinloye 2015:127).

Akinloye (2015) showed how targets placed on poverty reduction which are aimed at increasing per capita spending per household (health and clothing), are also linked to economic growth and financial development. An increase in money supply, brought about by financial development, is however a result of poverty reduction and economic growth (Akinloye 2015:127).

Biorklund and Jantti (2011:19) showed that inequality of opportunity for income correlated with overall income inequality more than with national average income, as seen in the comparison between Sweden and United States. The study showed that income growth did play a progressive role in reducing inequality during the period. Moreover, the results suggest that this negative relationship is stronger in the 1990s and early 2000s, a period in which the continent achieved macroeconomic stabilization, political consolidation, and much improved economic performance. On the contrary, during the 1980s (the so-called "lost decade"), the negative income growth experienced by the continent at the time has hit the poor the hardest (the poor usually are the ones to lose their jobs first in recessions), which has consequently led to an increase in inequality (Bittencourt 2014:18).
The poor suffer the hardest from a recession, which suggests that, for the sake of equality, recessions (and the bad policies that tend to cause them) should be avoided as well. Intuitively, the poor are the first ones to suffer from higher unemployment and loss of income during recessions, a fact that tend to lead to higher inequality (Bittencourt 2014:18).

Since income growth has the effect of reducing inequality, a point reduction in income increases inequality (Bittencourt 2014:18). Bittencourt also explains how income growth has played a progressive role on inequality by affecting sectors which tend to absorb poorer workers, for example, the primary and the services sectors. With earnings representing the single largest portion of household income, some argue that

trends in earnings inequality are the key factor behind inequality in income distribution (Fisher et al. 2015:630).

In recent years, there have been numerous inequality metrics developed in order to address distributional questions at the top of the income distribution, including the "affluence measures" proposed by Peichl, Schaefer and Scheicher (2010:88) and the approach to ranking intersecting Lorenz curves developed by Aaberge (2009) cited in (Fisher et al. 2015:630). Income trends are not only across the distribution increasingly towards households and with very high incomes but also across sources of income, from labour to capital income. Households with high income are not necessarily represented by individuals earning a high income as Piketty (2003:55) and Saez(2006:44) argue but rather asset-rich households who are building up and accumulating assets and other high unmeasured incomes from these assets (Fisher et al. 2015:630).

2.5 Poverty and Inequality in Rural versus Urban areas

May (1998:16) defines poverty as "the inability to attain a minimal standard of living, measured in terms of basic consumption needs or the income required to satisfy them".

Kelly (2015:123-139) speaks about the distribution of income and wealth generally being regarded as key performance indicators of a society. Owing to the negative heritage of apartheid education policies (Giliomee 2009:1; Mgobozi 2004:129), equal rights mostly did not translate into better positions for the formerly disadvantaged parts of the population in the labour market, as they were mostly not sufficiently qualified (Buhlungu and Webster 2006:209). By ending apartheid, there would not be an instant change to apartheid policies. It would not mean instant change overnight nor the end of inequality and oppression for the disadvantaged people living in South Africa.

Socioeconomic status (SES) is an economic and sociological combined total measure of a person's work experience and of an individual's or family's economic and social position in relation to others, based on income, education, and occupation (National

Center for Educational Statistics, 2008). When analysing a family's SES, the household income, earners' education, and occupation are examined, as well as combined income, versus with an individual, when their own attributes are assessed. The Human Development Index (HDI) is a composite statistic of life expectancy, education, and per capita income indicators, which is used to rank countries into four tiers of human development. In 2010 the Human Development Report introduced an Inequality-adjusted Human Development Index (IHDI). "The IHDI is the actual level of human development (accounting for inequality)," and "the HDI can be viewed as an index of 'potential' human development (or the maximum IHDI that could be achieved if there were no inequality)" (UNDP 2010).

Smith et al. (2000:199) categorises the following poverty factors: "(a) Insufficient food availability at the national level, resulting in food insecurity at the household level; (b) Insufficient household food production or lack of economic power to purchase food; and (c) Inequitable intra-household access to food". Barrett (2010:825) showed that poverty, which is linked to insufficient food production in the household and lack of capital to purchase food as defined by Smith can be strongly related to food insecurity.

"Studies show that more than half (55,2%) of all households in rural areas were poor compared to approximately a quarter (22,0%) of households in urban areas" (Statistics SA, 2014).Van Der Berg (2010:2) described and analysed the then current poverty and income distribution in South Africa, with a central concern on the relationship between poverty, inequality and growth. In South Africa, poverty, inequality in socio-economic status and inequality in access to basic social services between population groups, provinces, and socioeconomic groups are typical and extensive (Ataguba, Akazili and Mc Intyre 2011:1). Certain economists, Harding (1993) and Parker (1998), think that measurement of material well-being is better measured by lifetime distributions than cross-sectional distributions. Studies show however that there has been a decline in the number of households which live in poverty. Statistics SA (2014) showed that numbers decresed from 42.2% in 2006 to 32.9% in 2011.Contradictory to mainstream belief, studies have shown that the poverty gap and severity of poverty measures have declined between 2006 and 2011. The North West, KwaZulu-Natal and Limpopo are the only provinces that have seen an increase in their share of poor households from 2006 to 2011 (Statistics SA, 2014).

Besley and Burgess (2003) argue that the answers economists provide to ways in which poverty can be reduced has changed several times over the past few decades. Recent economists question the relationship poverty and inequality and what trade-off exists. Kanbur (2005) states that, "if the objective is to reduce poverty, then obviously growth is a plus for poverty reduction and increased inequality is a minus" as cited in (Apergis, Dincer and Payne 2011:132).

For those communities or societies in which most of the individuals involved do not have their lower order needs met (i.e., are mostly concerned with survival issues), then it would seem imperative that emphasis should lie in basic education and training. This is because basic education and training are viewed to involve adaptive behaviour that is directed to satisfy lower-order needs such as getting a job that allows the person to earn a living (i.e., sheer survival and sustenance of biological and safety needs). On the other hand, communities (or societies) in which most of its members are preoccupied with satisfying their higher-order needs (i.e., social, esteem, and self-actualization needs), may stress creativity in education/training, simply because such communities/societies can afford to. Creativity may be viewed as adaptive behaviour designed to satisfy higher order needs, more so than lower order needs (Hawkins 1983:2).

Taking into account the accumulation of both human capital and physical capital, Galor and Moav (2004:1001) described how the relationship between growth, finance and inequality change during development. The two key assumptions that they made were firstly that the "marginal propensity to save inceases with income" and secondly " the rate of return to physical capital accumulation is greater than the return to human capital during the early stages of economic development, reversing in later stages of development". Inequality advances development by diverting assets toward people with a higher inclination to save. During the early stages, financial development usually has a tendency to heighten inequality. During the latter phases of economic improvement, human capital is fundamental for development. Despite the fact that the poor might want to acquire money in order to accumulate wealth, imperfections in the credit market will reduce their economic opportunities. Imperfections in the financial

market contribute negatively on inequality at the higher levels of development as human capital resources become important (Demirguc-Kuntand Levine 2009:8).

Becker (1957) communicated the way that businesses may discriminate employees based by certain characteristics for example race and the colour of their skin. For instance, blacks with the very similar abilities as whites may be paid less as compared to white colleagues since companies could have a self preference for employing whites. Certain companies are prepared to sacrifice profits in order to satisfy their preferences for hiring whites over blacks. Demirguc-Kunt and Levine (2009:8) demonstrated how discrimination can fuel the intergenerational legacy of inequality.

Extensive research exists which looks at poverty at a national level, trends over time as well as its dynamics in certain regions. Most of these studies show that even though th elevels of poverty remain criticaly high some progress has been made in pushing its perimeters back. Among these are studies which have been conducted by Whiteford and Posel (1995), May et al. (1999); Woolard and Leibbrandt (2001); Meth and Dias (2004);Hoogeveen and Özler (2005);Bhorat et al. (2006); Van der Berg et al. (2005, 2007) and Bhorat and Van der Westhuizen (2008) as cited in Gumede (2008:10).

Contrary to existing research, recent research has indicated a decline in South African poverty levels. Bhorat et al. (2006:7), in analysing the shifts in welfare in post-apartheid South Africa, show that access to formal housing grew by 42% between 1993 and 2004. They also show that access to piped water increased by 187% t over the same period. In addition, access to electricity for lighting in the poorest households grew by an extraordinary 578%. Their research, therefore, strongly suggests that the delivery of basic services has had a significantly pro-poor bias. In the same study, Bhorat et al. show that while 40% of all South African households were asset- and service-poor in 1993, this figure had been almost halved to 22% by 2004.

Another recent study, by Van der Berg et al. (2005:17), points to a similar decline in poverty. They found that poverty levels had stabilised in the years between the political transition in 1994 and 2000, and had decreased in the years that followed. This study utilised a poverty line that was set at a household income of R250 per month (or R3

000 per year) in 2000. They concluded that, while there had been an increase in the proportion of people living in poverty between 1993 and 2000, there had been a decrease in the size of this population segment from 18.5 million in 2000 to 15.4 million in 2004. Over the same period, the number of non-poor South Africans rose from 26.2 million in 2000 to 31 million in 2004. Van der Berg et al. (2005:17) showed, moreover, that the real per capita incomes of individuals comprising the poorest two population quintiles had increased by more than 30 per cent between 2000 and 2004. In this regard, their research concludes that for all poverty lines ranging from a per capita income of R2 000 to R4 000 per annum, poverty had decreased since 2002, after a modest rise at the end of the previous decade. They argue that the impact of the recent expansion of social grants on the poor is likely to have been significant, considering that real social assistance transfers from the government increased by some R22 billion (in 2000 rands) during 2003–2005, an amount well in excess of R1 000 per poor person. Bhorat and Van der Westhuizen (2008:45), using poverty lines of R174 and R322 per person per month in 2000 prices, conclude that during 1995–2005 both absolute and relative poverty were reduced. They also show that both poverty lines and the poverty gap index declined.

Sundrum (1990:12) found that sometimes poorer households tend to exaggerate their consumption so as not to reveal the extent of their poverty.

2.6 Income Inequality and Poverty in South Africa

Van Der Berg (2010:2) emphasises how in South Africa with its high levels of racial inequality, inequality in income distribution is especially large and persistent. For an upper-middle income country (in terms of GDP per capita and economic structure), South African social indicators (e.g. life expectancy, infant mortality or quality of education) are closer to those of lower-middle income or even low income countries (Van Der Berg 2010:2). This reflects the unequal distribution of resources and opportunities. A small group of high income earners sharply increases average incomes, but has little impact on average social indicators, which are low because of this very same inequality (Van Der Berg 2010:2).

It is common in present times to ascribe South African inequality and even poverty to racial discrimination and in particular to apartheid. This of course offers only a part of the explanation. In a poor pre-colonial society, colonial settlement and then the mineral discoveries laid the basis for a highly dualistic economy that was from the outset highly in egalitarian. Racial discrimination under first British colonial rule and then apartheid distributed the spoils of economic growth along racial lines, which laid the foundation for patterns of further development and privilege in a society stratified by race. The post-apartheid government implemented policies that explicitly tried to overturn these patterns of privilege (Van Der Berg 2010:2).

The history of inequality in South Africa in recent times going back to 1910. Broadly, between 1910 and 1948, the South African government paid increasing attention to the problem of white poverty. This led to the subsequent growth of a social welfare system. It is during this period that the first nationally-organized welfare organization was established, closely followed by a State Department of Social Welfare. Legislation passed included the first Old Age Pension Act (1928), Blind Persons Act (1936), Unemployment Insurance Act (1937), Workmen's Compensation Act (1941), and Disability Grants Act (1946). Bromberger (1982:166) calls the late 1930s to 1948 the era of 'limited progress towards incorporation and equality'. The United Party showed signs of reducing inequality and promoting its social responsibility by extending social expenditure. In contrast, the period between 1948 and 1961 is termed the 'era of retrenchment', with the National Party assaulting the welfare system, particularly as it pertained to blacks.

Racial differentials increased as expenditure on black welfare services dropped and the welfare system became an apartheid tool. Soon after taking power in 1948, the National Party put into operation a three-pronged program conceived to promote Afrikaner interests. It enacted new discriminatory laws shielding whites from competition on all fronts, the civil service was expanded to provide Afrikaner employment opportunities, and an assortment of social programs were established to redistribute wealth and strengthen the poor white population. In the 1950s the government was committed actively to assist white people. In the 1960s, "signs of thaw" developed as the state followed a less harsh approach, removing constraints on black expenditure (particularly education). Its policy was nevertheless that of erecting

a dual socio-political order. The 1970s finally saw a trend towards "re-incorporation and reduced inequality" as the government committed itself to the socio-economic upliftment of blacks. Racist laws in the labour market were removed, while expenditure on black education and training increased. Wages and transfer payments saw a reduction in racial differentials. This trend continued into the 1980s, the decade of enlightenment, in which the realities of South Africa finally overtook ideological dogmas (Luiz 2007:107).

A study by McGrath and Whiteford (1994:48) has calculated South Africa's gini coefficient at 0.68. However, they claim that inequality in South Africa is no longer simply a racial issue, as inequality within the black population was estimated at 0.62 (a sharp increase from 1975 when it stood at 0.47). Among whites it has risen from 0.36 to 0.46. Of income differences, 75 per cent can thus be attributed to intra-group disparities and only 25 per cent to the black-white gap. Overall, inequality between races has diminished and yet South Africans of all races are worse off now than they were two decades ago. But the position of white South Africans has diminished most. For instance, the poorest 10 per cent of whites' current median income is 28 per cent of what it was in 1975 (McGrath and Whiteford 1994:48). These statistics illustrate that the market is effectively undermining the racist legacy of apartheid, but it is still too slow and superficial in that fundamentally it is not restructuring the economic base of this country. Studies have identified four broad approaches for meeting the dual objectives of reducing poverty and narrowing income inequality, namely: (1) high rates of economic growth with a trickle down; (2) static redistribution; (3) redistribution with growth; and (4) growth through redistribution.

Moll (1991), however, believes that substantial unused capacity does not exist in South Africa and that it will therefore lead to bottlenecks in supply, with subsequent inflation, higher imports, and balance of payment problems. Budget deficits might occur without any real gains in terms of economic growth. The supply side of the economy hence needs to be addressed simultaneously. In the demand restructuring version, income redistribution to the poor is claimed to boost the relative demand for essential wage goods, which are regarded as having a low import propensity and requiring labour intensive production. The pattern of aggregate demand therefore becomes more compatible with the factor endowment. Income redistribution to the

poor, it is believed, will promote the demand for labour and the growth rate of income (McGrath 1994:48). Empirical evidence, however, indicates that the poor do not always consume more labour intensive products, while manufactured goods are consumed on a fairly widespread basis by the poorer groups as well. Moll calls this "macro-economic populism" a dangerous fantasy that is condemned to early failure due to the imbalances that inevitably accompany it. McGrath (1994:48) believes that "the history of South African income distribution has shown that income inequality will only narrow with economic growth if the gains from that can be redirected towards particular target groups". The trickle down from higher growth rates will be too slow to result in marked increases in the incomes of the poor and the unemployed in the short run. In South Africa, "redressing the great shortfalls to blacks in pensions, educational, health and housing services can provide the focus of (an alternative) policy of 'redistribution with growth'" (McGrath 1994:48).

The eradication of extreme poverty and hunger comprises the first, and possibly the most important, of the Millennium Development Goals of the United Nations. Despite meeting the target of halving global extreme poverty rates (by 2015), five years ahead of schedule, More than 1.2 billion people are still living on less than $1.25/day (United Nations, 2014). Many countries in Sub-Saharan Africa and Asia are lagging behind in meeting the millennium development goals. In Sub-Saharan Africa for instance, there has been very little reduction in the proportion of the poor in the region. Approximately 48% of the population in the developing countries was still living below the $1.25/day international standard, in 2010. In contrast, 58% of the population was living below the poverty line in 1999 and 52% in 2005 (WorldBank 2014).

It is crucial that more family units utilize accessible land as an employment and salary generation opportunity. This could possibly lessen the reliance on grants by particularly rural households. The farming sector needs to be radically transformed because there have been signs that those who do farm have much poorer access to food than the entire population in its entirety. Constraints such as the high cost of agricultural equipment as well as the inaccessibility to land and markets to sell the produce need to be addressed before any strategies aimed at reducing inequality, poverty and hunger can be implemented (Statistics SA 2012, 2014).

Delgado (1998:165) showed that smallholder farming could be a major contributor to creating sustainable employment for human wellbeing and to ensure political stability in sub-saharan African countries. Lele and Agarwal (1989:10) show that small-scale agricultural production helps reduce rural poverty and food insecurity. Machethe et al. (2004:47) report that of the total household income in rural South African households, smallholder farming constitutes the greatest single source of that income; it accounts for over 40% of the total household income. Other sources of income identified by Machethe et al. (2004:47) were "non-farm income including pension remittances, wages, family businesses and other sources each of which was less than 40% of the total household income".

A strategic vision for 2030 has been outlined for South Africa's rural economy in the form of The National Development Plan (NPC, 2011). This vision incorporated a variety of mediations that contributed to increasing rural communities' capabilities, however the specifics of the vision itself gives solid consideration towards farming activities. One of the key points of the NDP, states that "(a)s the primary economic activity in rural areas… (a)griculture has the potential to create close to 1 million new jobs by 2030…" (NPC, 2011). Research conducted by Daniels, Kekana and Musundwa (2013:2) looked at the National Income Dynamics Study (SALDRU, 2013a, 2013b, 2013c) keeping in mind the need to look at what profile changes there were in rural employment and livelihoods during 2008 - 2012. Their study concentrated particularly on the contribution of farming in rural areas, from both an income generating and subsistence perspective. Daniels was able to confirm how NIDS can reveal insight into progress made in achieving the NDP's objectives and targets. (Daniels, Kekana and Musundwa (2013:2).

Research has shown a direct link between education and sustainable wealth creation. Findings from the Poverty Trends in South Africa report released by Statistics SA showed a strong link between increased level of education and decreased levels of poverty (Statistics SA, 2014). There are three basic approaches that can be taken in estimating the distribution of wealth – (1) a census or survey; (2) data collected for some administrative purpose; and (3) an investment income approach. The first of these is the most direct and desirable (Kelly 2015:123).

2.7 Sources of Income in Rural areas versus Urban areas

"There is not one distribution of income but many: income is distributed across racial groups, income classes, present and future generations, and so on. Moreover, a given distribution is not a one-dimensional magnitude: it has as many dimensions or components as there are relevant 'classes'" (Bromberger 1982:166).

Research has shown and the general consensus is that livelihoods in urban areas can be seen as mostly formal whereas in rural areas there is a stark contrast where the majority of the population is either informally employed or self-reliant in generating an income. Scoones (1998:1) researched rural occupations using a structure that concentrated on the benefit possessions and income generating activities of various disadvantaged rural groups, particularly Dirisanang and Khomani San who reside in the Northern Cape. The investigation found that both the recipients had resource possessions so low that it kept them from developing the land and identified 2 sources of main income namely public donations for the poor and earning wage incomes for those classified as non-poor (Bradstock 2006:75). Income inequality remains particularly high within the African population and apart from a minute decrease identified between 2005-2008 has risen in South Africa post-apartheid (Leibbrandt et al. 2009:26).

The concept of de-agrarianisation is occurring as households turn out to be more reliant on government social grants while digressing from farming. Besides, Tribal Authority Areas (TAAs) hold a collective type of land residency that infers altogether different social and behavioral standards in these zones contrasted with formal provincial territories. Previous research has found that there are definitely different labour markets, subsistence farming trends and movement amongst TAAs and formal rural regions (Daniels, Kekana and Musundwa (2013:2). For the rural sector in general, selected findings include that rural migrants who have moved to urban areas between 2008-2012 have a higher probability of being employed than rural stayers; that among the employed population, the major transition out of agriculture was to the transport, storage and communication sector while the major transition into agricultural employment was from the wholesale and retail sector; and finally that there is indeed evidence that de-agrarianisation is taking place in the NIDS rural sample, with

individuals much more likely to transition out of either commercial or subsistence agricultural activities than to start doing these activities Daniels, Kekana and Musundwa (2013:2).

Studies show that recipients favored securing income generating employment instead of taking part in small scale farming exercises, particularly in situations where households had no means to capital, water supply and work opportunities. Puttergill et al. (2011:28) propose that the explanation behind this is moving group inclinations towards a consumer based way of life in which definite monetary income assumes a key part.

As indicated by Carter and May (1999:1), rural poverty in South Africa is described as "low returns to uneducated labour" and most of the time were unsuccessful when it came to utilizing the land that they possessed. Their study concluded that extra claims on other financial or social resources were important to eradicate destitution. Bradstock (2006:75) noticed that there is vast difference between black South Africans living in rural areas and their continental African rural counterparts. This vast difference is mainly attributed to apartheid since black South Africans were previously disadvantaged and banned for more than 100 years during apartheid to take up farming as their main livelihood.

Bryceson (2002:29) reported that non-agricultural exercises contributed 60-80% of income in South Africa's rural households. These figures can likewise be ascribed to the liberal pensions for South Africans living in rural areas since these pensions contribute to increases in disposable income for the elderly who live in rural areas. The elderly make up a considerable portion of the rural population. This then boosts purchasing power by rural dwellers and investment in general (Bank and Qambata 1999:1; Manona 1999:32; McAllister 1999:5). According to Dovie (2001:4), the estimation of non-agricultural initiatives to income in rural households need to be contemplated because of the way that analysts regularly disregard the immediate household utilisation of farming resources and mostly focus on market values when it comes to valuing the contribution made to household income in rural areas by non farming activities. Dovie likewise evaluated all earnings and found that farming

activities (animals and natural resources) represented around 57% of aggregate yearly worth per family (Dovie 2001:4).

In rural areas, various cash savings exists. For example, Shackleton, Shackleton and Cousins (2001:12) showed that by only focusing on market values in estimating the contribution made to income in rural households by non-agricultural activities, the results obtained will neglect to consider the money saved from utilising free resources like wood fuel, timber used in construction, fruit and vegetables rather than buying them (Shackleton et al., 2001). Another direct cash saving means is the use of livestock in home use and the generating of additional income through trading the lifestock. Besides, goods and services which are traded locally are sold at much lower prices when compared to major outlets and stores. The research likewise demonstrated that the lower costs allow both buyers and sellers in the region to save. These sorts of studies propose that considering the immediate value of using resources reveals some insight into the criticalness of strategies which are land-based in subsistence farming. Research recognizes that land-based strategies likewise contribute to rural monetary security as compared to practical research on the sustainability of rural livelihoods. (Shackleton, Shackleton and Cousins, 2001:122).

The average size of formal rural households in 2012 did not differ much from urban informal counterparts, in spite of the fact that the normal income of rural households was lower as compared to their counterparts in urban areas. Households in rural areas were better off contrasted to urban informal households between 2008 and 2012. The study conducted by Daniels urban formal households have significantly greater incomes on average than the other three categories.

An important indicator of rural livelihoods is the level of participation that households part take in when it comes to non-income generating farming activity. Daniels, Kekana and Musundwa (2013:58) found that with the about one third of farming activities between 2010-2012 involved livestock and another third involved poultry. The study's findings likewise demonstrated that crops were the most predominant farming activity which families embraced and horticulture and plantations make up a little segment of the farming activities for the agribusiness dynamic TAA households (Daniels et al. 2013:58).

Institutional and economic changes have created a greater emphasis on worldwide "free market" capitalism, high returns to the entrepreneurs – the inventors and creative users of capital (Acemoglu 2002:1). These changes have been combined with tax advantages for both capital income and high incomes, and have led to the worsening of the social and political position of labour more generally (Levy and Temin 2007:5). All of these factors have contributed to the shift to higher capital versus labour income. Even greater global trade and further technological change should only intensify these changes (Blinder 2007:5; Freeman 2007:16). While some claim labour incomes will rise more in the future than will capital incomes due to world population aging (Krueger and Ludwig 2006:2), others see high and rising returns to asset holdings for those with productive assets such as pension savings (Poterba, Venti, and Wise 2007:1; Love and Smith 2007:4).

The gap in income is large between rural and urban areas by comparing the household income per capita differences. The normal month to month income per capita in rural households is just 25% of the norm when compared to urban areas. This is likewise clear in the average month to expenditure per capita for households for the two groups. Daniels, Kekana and Musundwa (2013:2) calculated the marginal propensity to consume as the ratio of household monthly expenditure per capita to household monthly income per capita, and observed that despite much lower average incomes, rural dwellers had a lower marginal propensity to consume (0.81) as compared to urban dwellers (0.87), suggesting that rural individuals tend to save a greater portion of their incomes. It was also observed that urban dwellers had a higher average age than that for rural dwellers and urban dwellers tend to possess more years of education than their rural counterparts (Daniels, Kekana and Musundwa (2013:2).

The matrix for South Africa's population in the different areas who are within the working age group showed that between 2008-2012 the rate of individuals who migrated from rural to urban areas was higher than vice versa. The percentage was 7% for rural-urban migration and 4% for urban-rural migration (Daniels, Kekana and Musundwa 2013:2). It showed that there were distinctive progression for the extended classifications. Proportionately, there were more people moving away from formal rural areas than tribal authority and the biggest rate of outwards migration occurred from

urban informal areas. Most of these migrations were to urban formal areas. (Daniels, Kekana and Musundwa 2013:2).

Daniels also observed that governement grants contributed to increases in monthly household income. The study showed a more noteworthy inclination towards getting social grants for rural people and major development in the extent of receiving grants by rural households. There are numerous factors that influence rural livelihoods and many of these factors are specific to South Africa. Most of these factors stem from apartheid's sordid legacy. Apartheid's policies restricted black South Africans from acquiring productive assets and thereby preventing black individuals from contributing to economic growth (Daniels, Kekana and Musundwa 2013:5).

Agricultural activities are a major contributor to income and subsistence in rural households, however, there is a tendency to move away from non-employment agricultural activities. Research carried out by Daniels, Kekana and Musundwa (2013:2) showed that most those people who belonged to households in which some form of non-income generating farming activities in 2008 had ceased those activities by 2012. The investigation additionally demonstrated that there was almost no movement the other way too. Just a few of the individuals who weren't in households associated with non-income generating farming activities in 2008 adopted these activities by 2012 (Daniels, Kekana and Musundwa 2013:6).

Studies by Statistics SA (2012) showed that urbanisation and the decline in agricultural activities in numerous rural areas in South Africa, including those who previously farmed who self-subsistence, has created a 'wage economy' in South Africa whereby most rural households now consume more food that they purchase than food they grow themselves. A household's ability to access food has therefore become dependent on a household's income in the form of cash and as a result, households with little or no access to cash will most likely struggle to obtain food. Research also found that household income is positively related to a household with a diet that is diversified (Statistics SA 2012). This proves that household consumption is directly linked to household income.

Research by Statistics SA show that fewer than 25% of South African households are involved in farming, be it commercial or even as a hobby. These figures contain an expansive variety in the degree to which South African households practice farming between the different regions and provinces. Urban households, for example, Gauteng (5,9%) and Western Cape (7,3%) are to the least extent liable to take an interest in farming while rural households like regions of Limpopo (52,7%), Eastern Cape (37%) and Mpumalanga (33,9%) are well on the way to take part in farming. Under 2% of South African households practice agriculture and farming as smallholders. The most astounding rate is noted by the Northern Cape (4,7%), trailed by Northwest (3,9%) and KwaZulu-Natal (2,6%). The lowest level of smallholders are seen in Gauteng (0,1%) and Western Cape (0,6%). Subsistence agriculture is considerably more predominant with 18,4% of families partaking this type of farming. Rural households in Limpopo (49,4%), Eastern Cape (33,2%) and Mpumalanga (30,8%) are destined to take part in subsistence agriculture and farming. Just 2,5% of Western Cape and Gauteng households are engaged with farming for self subsistence purposes. (Statistics SA 2012).

World Vision (2006:1) describes the original Chambers and Conway definition as "a livelihood comprises the capabilities, assets (stores, resources, claims and access) and activities required for a means of living; a livelihood is sustainable which can cope with and recover from stress and shocks maintain or enhance its capabilities and assets and provide sustainable livelihood opportunities for the next generation and which contributes net benefits to other livelihoods at the local and global levels in the short and medium term". Households endeavor to expand their work strategies by streamlining the utilization of their capacities and resources. Households with broadened resources and work techniques can adapt better to those with more constrained resources and limited resources (De Satgé 2002:19), thereby providing a safety net for affected households. Differentiated sources could incorporate a blend of wages received as a result of employment, social grants, and even food which has been generated through farming activities.

A household's resources and assets determine the ability of that household to earn a living. De Satgé (2002:19) isolate resources into five sorts of capital, of which the majority are estimated in the General Household Survey, in particular:

• Human capital incorporates the training, the household members' health wellbeing and the household's ability to use salary through employment;

• Social capital incorporates every single social asset, for example, informal communities, which households can rely on to achieve their objectives and goals. Social capital however isn't estimated in the General Household Survey;

• Natural capital alludes to the land and common assets to which households can access. Constrained data is accessible from the General Household Survey.

• Physical capital is fundamental to accomplish objectives and incorporate access to essential services, for example, water, sanitation, power, water and in addition hardware and mediums of correspondence, (Statistics SA 2012).

- Financial and monetary capital can include income which is obtained from various sources such as remittances, salaries and wages and also the cash value of crops, livestock and other inputs, (Statistics SA 2012).

Using available property and skills, families try and attain their livelihood goals by participating in various production activities. Those activities could be as numerous as contributing to the household's income through employment, along with remittances; becoming accomplishing crop and livestock manufacturers, running a business, or maybe being concerned for young or old family members. It is vital to notice that the possession of farm animals does now not always represent a livelihood hobby (World Vision 2006:12).

According to Statistics SA, poverty in households is a common issue in South Africa. The spread and severity of the poverty is unevenly distributed. The Western Cape and Gauteng provinces generally have a low percentage of poor households since they are mostly urbanized provinces. Limpopo, Eastern Cape and Mpumalanga are rural provinces with the highest percentages of poor households (Statistics SA 2012). According to the FAO (2009), poor, female headed households are the most likely affected by shortages of food and food security (Statistics SA 2012).

Studies carried out by Baiphethi and Jacobs (2009:460) show that historically rural households were capable of producing most of their food. However, in recent times both urban and rural households have become consumers and are not producers of

their own food. The study also went on to discuss that unlike rural dwellers in sub-Saharan Africa, South African rural households are likelier to purchase goods and food and less likely to work the earth to produce food or generate an income.

In spite of the fact that households are ceaselessly seeking opportunities to differentiate their livelihoods and diminishing their dependence on cash markets, households for the most part take part in exercises aimed at increasing and maximizing their source of income which is not linked to farming (Baiphethiand Jacobs 2009:460).

Farming consists of yields, livestock and the use of fishing services and forestry and includes the creation of sustenance, fiber and related items. The agricultural segment is partitioned into business (commercial) and subsistence segments at either end of the spectrum which flanks developing/small scale farmers in the middle (DOA 2002:1). Evidence exists that there is a vibrant urbanfarming culture in the rest of the African continent. As indicated by Maxwell (in Baiphethi and Jacobs, 2009:460) urban individuals participate in farming to create sustenance as a means to earn an income, to consume at home or as just a source of food.

Studies (Altman et al., 2009) demonstrate that rural families who participate in subsistence farming are not really more secure from a food point of view since a large number of those families take part in subsistence farming as an extra business opportunity. Utilizing the Labor Force Survey, Aliber (2009) cited in Altman, Hart and Jacobs (2009:356) demonstrated a stamped increment in the quantity of black households that honed in on farming between 2001 - 2004. He identified that the expansion in the quantity of households that farm as an additional source of sustenance has been to the detriment of households that participate in farming as a primary source of nourishment (food), maybe in light of the fact that farming is being utilised less seriously in the wake of other money creating exercises (Statistics SA 2012:1).

According to Statistics SA, access to water is a basic need and that support programs will have to be expanded in order to solve farmer's needs. This would help by including the advancement of suitable harvests and livestock; enhancing profitability while

keeping up existing production limits; lastly, to help farmers to move into business and market orientated production also (Statistics SA 2012:1). Casual markets including a substantial number of small traders are normal throughout South Africa and ladies make up around 66% of sellers. Although a significant part of the goods is sourced from smallholders (Baiphethi and Jacobs 2009:460), smallholders can't contend with expansive business ventures as far as cost and volume. At the point when farming does not permit rural household an adequate livelihood, frequently because of poor market access and low efficiency, families begin to take part in excess of one vocation creation movement (Matshe 2009:8), regularly expanding their dependence on non-farming income sources. Given every one of the difficulties experienced by rural families, it isn't astonishing to discover that there has been a decrease in the farming production in the previous home lands Aliber(2009:384); Baiphethi and Jacobs 2009:460).

Rural households can hone an assortment of employment techniques, including social grants, wages, salaries, income from farming. These combined give an variety of strategies one could follow to obtain an income and food. Occupations are secure when families have secure responsibility for, access to assets and income generating exercises. The idea of employment expands the comprehension of food security as more than just nourishment, and fills in as a suggestion to think about every capability, resources and activities needed as a mean to survive. Employment based methodologies have been utilized since the middle of the 1990s to deconstruct and analyse food security and poverty and have been especially useful in refining and analysing socio-economics (Statistics SA 2012:1).

Government grants have turned into an irreplaceable well-being net for poor rural households and were the principle means of income in 43,7 % of families as reported by Statistics SA (2012:1). It is evident in literature that the farming profitability in rural territories is low and that rural households progressively endeavor to expand their occupation strategies through non-agricultural exercises. The close nonattendance of income from farming exercises provides reason to feel ambiguous about the benefit if any that farming plays in addressing shortages in food supply. (Statistics SA 2012:1).

Studies by Statistics SA show that expanded family units (containing the immediate family memebers and other relatives) appear to improve the situation in rural regions as compared to extended households living in urban areas. Urban households consisting of extended families are at a greater risk of experiencing hunger. Likewise, it can be demonstrated that households that consist of fewer than 5 members are the least likely to encounter shortages in food supply both in urban and rural areas. It has been proven that both rural and urban households which consist of more than 10 members would be more vulnerable to experiencing food shortages while urban households with between 5 and 9 members are at a greater risk of experiencing hunger as compared to rural households (Statistics SA 2012:1).

It is vital that the opportunities owing to having a great amount of land are misused however much as could be expected with a specific end goal to guarantee progression on zero hunger and poverty reduction plans.

Lopez (2002:18) demonstrated that since the majority of rural population consists of poor individuals whose main livelihood is farming, in order to ensure long lasting resolution to alleviating rural poverty and food insecurity, emphasis needs to be placed on factors which can enhance smallholder farming.

Worldwide studies on rural employment focus on a developing concern that poor farmers staying away from farming opportunities linked to commercialisation and are somewhat concentrating on more stable income (Bryceson 2002:725; Puttergill, Bomela, Grobbelaar and Moguerane 2011:597; Rigg 2006:187). Poor farmers appear to focus on subsistence farming such as using home gardens to grow produce for self consumption.

According to the World Bank (2000), a multidimensional approach is required when one needs to find a way out of poverty and food insecurity. De Janvry and Sadoulet (2001:9) identified four pathways which households could use to address their food insecurity and poverty: an 'agricultural path'; a 'multiple-activity path'; an 'assistance path'; and an 'exit path'. In addition, Haggblade, Hazell and Reardon (2010:1429) identify a fifth path, a 'micro-enterprise path'. The Agricultural path refers to using agricultural production by the rural poor who have access to land and other farming

resources. However, of challenge to the long-term usefulness of this path is a prediction made by Cour et al. (1998:24) that people following this path are likely to be marginalised in the future by commercial farmers who are able to apply technologies and marketing systems that current developments demand. This path constitutes the focus of integrated rural development interventions for some time now, and has met with mixed success due to difficulties in adoption of existing rural development packages by rural communities (World Bank 1997:1).

The Multiple-activity path refers to rural households using non-farm income sources as their main source of livelihood and agricultural production as secondary source. Households in this path often use off-farm income to finance their farming activities. They are caught between two limited income sources. While these households have land, they are not strategically located for markets which limit income from farming. Off-farm job opportunities are also limited, restricting off-farm income. They must use both income sources (De Janvry 2001:9). Furthermore, López and Valdés (2000:5) noted that the income earned by households in this path was lower on average as compared to that for those who rely completely on off-farm sources of income.

De Janvry and Sadoulet (2011:5) discuss the assistance path which "refers to extremely poor households which depend on transfers (e.g. remittances from a family member working away from home) as their primary source of income. It includes households without other resources for which remittances are their permanent source of income and households that have other resources but, due to immediate circumstances, use remittances as a temporary income source and as a safety net, protecting them from having to sell off their productive assets. Such households use this pathway to prevent themselves from losing their assets and thereby degenerating from their transient poverty condition to perpetual poverty" (De Janvry 2001:9).

The exit path refers to the situation in which rural poor migrate from their rural environment to urban centres for the express purpose of escaping poverty. Although this seldom features in the discussion of agricultural and rural development, it has been identified as a means used frequently by rural families to cope with poverty and food insecurity (De Janvry 2001:9). Haggblade, Hazell and Reardon (2010:1429)

describe the micro-enterprise path as the situation in which rural poor own and manage businesses for a livelihood, which are sometimes related to agriculture. These businesses often include merchandise and food shops, processing services and storage facilities (Haggblade, Hazell and Reardon 20:1429). Further, Rivera (2004) indicated that people using this path are often better off than those who are solely reliant on agriculture. Orr et al. (2002:18) indicate that establishment of an individual or a family micro-enterprise is important for the poor to earn an income.

De Janvry and Sadoulet (2000:267) note that a key factor in exploiting employment potential, is to educate rural youth for off-farm employment thereby breaking the circle of inherited circumstances. The reality is that smallholder farmers are often poorly positioned in the value chains that link them to markets and thus missed opportunities when it comes to income and growth opportunity (Ponte 2005:8). A large number of poverty affected smallholders rely on informal rural markets to trade and earn an income. However, they are frequently out-competed in these markets not simply on price, but because most of the produce sold in these markets is supplied by vendors who prefer dealing with reputable sellers who can supply them in large volumes (Jacobs 2009:85). Income inequality has risen in post-apartheid South Africa, aside from a slight drop between 2005 and 2008, and remains particularly high within the African population (Leibbrandt et al. 2009:26).

Consumption patterns provide a true reflection of the ability of a household to buffer its standard of living through saving and borrowing irrespective of income fluctuations. Consumption is therefore the outcome of income flows which exhibits less variation than income. Consumption and expenditure estimates often reflect the welfare of low income households in developing countries where a major proportion of households derive their income from informal activities and agricultural production (Deaton 1997:7).

2.8 Creating Sustainable Wealth

Kelly (2015:123) defines personal wealth as net worth, that is, as the current values of their major assets (owner-occupied housing, equities, cash deposits, superannuation,

investment properties) less the current value of their major liabilities (home mortgage and other property loans).

De Gruyter (2015:13) reports that "even if individuals are afforded equal opportunity, the inequality in wealth and income will still arise due to variations in skill, ability, willingness and luck". Macroeconomic theory describes how the key macroeconomic variables (GDP, employment, inflation, interest rate) are determined. Classical economics dominated capitalist economies prior to the advent of Keynesian economics in 1936 and is commonly referred to as "classical economics". Classical economists (Smith, A; Say, J; Ricardo, D; Malthus, T; Mill, JS) believed in free markets and the notion that the economy would always achieve full employment through forces of supply and demand.

Gine and Townsend's (2004:269) wealth model stimulated how employment, income distribution, entrepreneurship and economic growth is affected by increases in the number of households with access to credit. It demonstrated how fast the GDP per capita gre in Thailand thorugh financial freedom coupled with increases in credit access. This could be attributed to the move away from subsistence farming towards the intermediated sector thus leading to increases in employment and income.

Pender, Reeder and Marre (2012) state that in order to create sustainable wealth in a community, information is needed about the community's asset base in order to design and implement adequate rural development strategies. Unfortunately, data and research measuring rural wealth are quite limited. Studies conducted by the Institute of Sustainable Communities identify the following forms of capital (financial, Natural, social, individual, built, intellectual and political) as community wealth. They believe that any rural development strategy that builds many forms of wealth is more likely to create prosperity and local benefits that will remain in the community over time (Institute for Sustainable Studies 2015:1).

Numerous theorists such as (Japelli and Modgliani 1998:1; Jappelli and Pistaferri 1999:1; Piketty, Postel-Vinay and Rosenthal 2010:1;) put forward the notion that wealth can either be inherited or gained by accumulating and saving current income. Hefferan (1982:47), using data from the 1972-1973 Consumer Expenditure Survey, found that the decision to save and the level of saving are influenced by income, level

of wealth and family characteristics and that saving patterns vary among people in different geological locations. Davis and Schumm (1987:56) investigated savings behaviour and satisfaction with savings of low- and high-income households using data collected from 13 states in 1977-1978. They found that above the threshold level, savings rose very rapidly as income increased. Jing and Noring (1994:1-5) have shown that since an individual's wealth and income are intertwined, a correlation can be made between an individual's current income and the creation and management of sustainable wealth

Other scholars, (for example Bhorat, van der Westhuizen and Jacobs2009:1; and Zucman et al. 2014:8) have recognized that the magnitude and distribution of wealth plays an important role in the distribution of income. Modigliani and Brumberg'slife-cycle theory predicts that net worth will be in a continual growth phase over an individual's working life.

Evidence is mounting that health is also a key determinant of economic performance, counter to the frequently made assumption that causation runs only from wealth to health. The World Health Organisation Commission on Macroeconomics and Health has found substantial evidence showing that improved health of the population contributes to higher economic growth and poverty alleviation (Bloom et al. 2001:152). Intergenerational income is affected by savings behaviour. This is the most clear way in which wealthier families remain comparatively wealthy. Wealthy parents have more and pass on more assets to their children as compared to poor ones (Demirguc-Kuntand Levine 2009:8).

An insight into the lifecycle patterns of wealth inequality can be obtained by using net worth Gini coefficients. It suggests reducing inequality during the first half of the working life and gradually increasing inequality during the last third of the working years (Kelly 2015:123).

BEE (Black Economic Empowerment) is a "policy aimed at empowering the previously disadvantaged in South Africa, however entrepreneurship is a means by which disposed people can change their social life, from poverty to wealth" (Ndedi 2009:463). Statistics show that the wealthy buy more securities than the middle class or the poor.

This proves that financial wealth would accumulate faster if the distribution of wealth becomes more skewed. At least for the short run, the financial engine and economy will have more power if the income gap and the wealth gap widen. The middle class and the poor must also become absolutely better off in terms of financial wealth else they will vote to revert to a closed or premodern economy (Edmunds and Potter 1999:53).

Bloom et al. (2001:152) reports that private household savings are one of the most powerful ways of financing growth, as shown in the East Asian experience. Bloom's study goes on to explain how individual savings are, in turn, dependent on demography and longevity. People save at different points in their lives, and they save for different purposes, most notably, their retirement.

Encouraging private savings and efficiently allocating them to investment requires reform of macroeconomic policy and financial institutions. Governance affects how much a country saves and whether those savings are productively invested. Latin America provides an example of a region where savings are low, while East Asias much higher savings rates contributed substantially to its development.   The demographic transition can encourage people to save but only if saving seems relatively safe and relatively profitable. In order to promote saving, governments must attempt to provide price stability, as incentives to save are higher in environments with low inflation, and encourage competition, transparency and efficiency in the financial institutions (Bloom et al. 2001:152).

In recent years, middleclass households have made saving a high priority. This is mainly attributed to individuals coming to the realisation that government subsidies will probably not provide a high standard of living. These households main focus is on securing a comfortable retirement, being able to finance their children's education and leave inheritance to heirs. This would require action and planning as well as some sacrifice of current consumption during their working years. It is also vital for these households to succeed in saving enough to pay for their retirement, because should one fail then they would need to be supported. The cost of supporting them would be a heavy burden on the younger generation (Edmunds and Potter 1999:54).

Internationally, there are a considerable number of studies of wealth distribution, but comparisons of cross-sectional and lifetime wealth are rare. The majority of papers on wealth distribution are concerned with distributions becoming more unequal over time; comparisons of different groups within a country; and comparisons between countries (Parker 2003:23; Klevmarken, Lupton, and Stafford 2003:322; Wolff 1996:433; Scholz and Levine 2004:895). There are very few studies on the differences between cross-sectional and lifetime wealth distributions. There are however, a considerable number of these comparisons for income (for example Harding 1993:221; Bjorklund 1993:377; Falkingham and Hills 1995:112; Nelissen 1998:223). It is important to know whether the lifetime distribution of wealth is more or less equal than the cross-sectional or annual distribution. Many economists agree that the distribution of well-being would be better measured by a lifetime income distribution rather than an annual income distribution (Carlton et al., 1978). In addition, the view that lifetime income provides a better insight into well-being is the basis of Friedman's 'permanent income' hypothesis.

Ensuring security and household food security in particular, is generally accepted as an important step in improving the living conditions and standard of living for rural dwellers. One way in which this can be realized is through agriculture at a small scale, which can be promoted through relevant agricultural programmes. However, food security programmes and extension approaches and agendas often are not compatible (Abdu-Raheem et al., 2011). Surveys repeatedly show large proportions of poor people dissaving (Deaton 1997:5). Research by Caudron in 2001, who investigated working conditions in rural areas, found that less than half of all workers, including those in different age groups and at different income levels, are satisfied with their working conditions (Veninga 2002:60).

Millennium development goals of combating the extremity of poverty is on the agenda of many African governments. By eradicating extreme poverty, previously disadvantaged households would be able to create sustainable wealth. "The Millennium Declaration created eight development goals for nations which were to be met by 2015. They are targets to reduce poverty while promoting education, gender equality, health, environmental stability and global partnership" (Sachs 2005:5).

Millennium Development Goals are linked to sustainable economic growth in that they are: 'ends in themselves' and 'capital inputs' (Sachs 2005:5). By the Millennium Development Goals being ends in themselves, they have the capability to launch the people to better and improved standards of living; whereas as capital inputs, they contribute to productivity and ultimately sustainable economic growth. Sachs (2005:5) identified five links between Millennium Development Goals, economic growth and capital accumulation. The first and second links relate to human capital and infrastructure development which are achieved through Millennium Development Goals targeting poverty and disease reduction, clean water provision and sanitation and proper housing, respectively. The third has to do with knowledge capital, and is harnessed from Millennium Development Goal 8 that seeks technological innovation and diffusion. The fourth link has to do with increases in household income which is to be realised through Millennium Development Goals for the reduction in income poverty. The last link relates to the development of natural capital. It concerns the aspect of environmental and ecological sustainability through maintaining a country's stocks of wild flora and fauna. It would therefore appear that meeting the goals for hunger, education, gender equality and health is vital for overall economic growth and development (Akinloye 2015:127).

2.9 Efforts to Combat / Alleviate Poverty

"For the black, and especially African majority, suddenly a new dawn broke. After these masses had cast their votes, they still had nothing in their stomachs and their pockets… but they yet had a spring in their step because they knew that a new dawn had proclaimed the coming of a bright day." (President Thabo Mbeki, State of the Nation Address, Feb. 2004) cited in (Perret et al. 2005:1).

Since the first democratic elections in South Africa, there has seen many policies aimed to empower previously disadvantage persons. In 1994 the ANC adopted the Reconstruction and Development Programme (RDP) as a policy framework to guide in transforming South Africa from a divided society to one that provides equal opportunities for all its citizens (Ndedi2009:463). South Africa is an interesting case study because its unique experience with apartheid exacerbated inequalities in

employment outcomes across various social groups and geographically that persist till date (Standing et al., 1996). During the existence of apartheid, many blacks in South Africa were unemployed. However, with the new democratic government that came into power, the focus was on poverty alleviation of this part of the population. Black Economic Employment and other approaches to black affirmative action, became the means by which to integrate the previously disadvantaged population within the South African economy (Ndedi 2009:463).

Economic theory suggests that the gap between black and white wealth levels would have been smaller if former slaves had received free land when emancipated (Miller 2011:71). These finding show that there could have been a decrease in the wealth inequality gap in South Africa had the democratic government which came into power redistributed land to victims of apartheid who originally had the land forcefully taken from them. The studies also show that land redistribution is a must if the evils of apartheid are to be fixed.

Timmons (1999:7) showed that in 1996 many of the RDP targets were not met. Two years later, in 1996, the ANC adopted the Growth, Employment and Redistribution (GEAR) macroeconomic, "a strategy for rebuilding and restructuring the economy in line with the main principles of the RDP. Where the RDP had promised basic services for all". GEAR promised "public-private sector partnerships" based on "cost recovery". Where the RDP set targets for reducing unemployment, GEAR called for "greater labour market flexibility". And where the RDP made a great show of highlighting the systematically enforced racial divisions in the economy, and the system's structural inequalities, GEAR talked about "economic stability", "sound fiscal policy", "foreign direct investment" and "strong export performance. According to Patrick Bond, who was involved in drawing up the original RDP, almost a million jobs have been lost to GEAR. South Africa's unemployment rate is now conservatively estimated at 25 % (Statistics SA 2014). GEAR was drawn up by 15 economists; two of them from the World Bank, the others were from various African banks, the Reserve Bank of South Africa, neo liberal think tanks and corporations. Only one economist had any footing in the South African Democratic movement, and only one was black percent - and may be as high as 40 percent according to the origin of the sources (Statistics SA 2014:1).

South African equality-orientation is geared towards anti-racist politics and resulted in the emergence of an 'anti-racism consensus' in the 1990s. The institutionalization of the discourse in policies was furthermore influenced by the policies carried out under the apartheid regime in two important directions. Firstly, apartheid policies were geared at the social uplifting of the Dutch visávis the British via affirmative action policies, which could be viewed as archetypical South African equality-oriented policies. Secondly, apartheid education policies for the discriminated parts of the population were geared at producing a cheap low-skilled workforce. This did not only create tensions since the 1970s, when the transformation of the mode of production changed the requirements of the labour market, demanding a higher skilled workforce, but also resulted in problems in the Post-Apartheid era owing to the growing importance of affirmative action policies, private companies are heavily incentivized to employ formerly disadvantaged people at all levels, including the middle and higher tiers of management. This resulted in competition for a high-skilled 'black' workforce which is scarce due to the continuing influence of the apartheid education system. Therefore, capacity problems for both the public sector and the governing tripartite alliance have been created, which are difficult to solve in the short run. These problems restrict possibilities to invest into social services, which require sufficiently skilled personnel, especially when it comes to the education policies field (Picard 2005:17; Holdt 2010:54).

According to Paul Browning quoted by Steve Biko (1978), the goal of BEE is to assist in the process of dismantling apartheid and creating a non-racial representative government in South Africa. The empowerment strategy has two distinct elements. The first is the breaking down of social barriers as result of increased black incomes. This will lead to changes in lifestyles and greater communication between blacks and whites. This in turn will ease the process of political change. The second is the creation of wealth within the black community so that in a capitalist society blacks will be able to vote with their money (Madi 1997:42). Race-based approaches to occupational segregation focus on skill deficits or differences in qualifications between racial groups, while gender-based approaches highlight differences in "preferences" between women and men (Kaufman 2010:2).

According to Kingsnorth (2004:67), "twenty-two million South Africans, out of a population of 42 million, still live in absolute poverty". Initiatives such as BEE and BBBEE were launched during the same period to try to eradicate the injustices of the past. However, these policies were limiting in the sense that many experts and common folks didn't see the actual beneits of these (Ndedi2009:463). Ndedi's research attributed the results to unemployment levels and the lack of proper housing among the previously disadvantaged population, the poor levels of education as well as high rate of population growth.

South African equality-oriented policies did not succeed in reducing income inequalities, as possibilities for social uplifting are restricted to a rather small group of formerly disadvantaged people who had sufficient access to education and the necessary social capital (links to the governing tripartite alliance) to benefit from the affirmative action program BEE. Critics also point out that the "emergence of a BEE-elite" (Freund 2007:4) leads to the co-optation of former equality-oriented activists into the inequality regime (Bond, 2009). Despite the incorporation of some members of the formerly disadvantaged groups into the upper echelons of society, South Africa largely remains a 'two nations project' where it is difficult to frame an equality-oriented discourse on a common interest (Leubolt 2015:62).

Although the apartheid vision of 'separate development for separate groups' ended in 1994 when Nelson Mandela was elected President, South Africa continues to struggle with high levels of inequality and sluggish economic growth. The Gini coefficient increased from 0.59 in 1994 to 0.69 in 2012, making it one of the most unequal countries in the world. Despite being classified as an upper middle-class country, 47 per cent of the South African population was classified as poor in 2012, with disproportionately more Africans than Whites. Rural poverty is concentrated in the former homelands where 72 per cent of the poor, primarily Africans, reside (May 2000:16).

The current state of education in South Africa leaves much to be desired. As compared to whites, the proportion of Africans with a university education has barely increased since 1994 because of the poor quality and success rate of their secondary schooling (Leibbrandt et al. 2010:21). A study showed that it would be easy for Coloureds and

Whites to gain employment in skilled or specialist jobs after completing secondary school, but in order for Africans and Indians, a college or university degree is required for the same type of employment, indicating their relative disadvantage in the labour market (Parashar 2014:747). After being particularly marginalized during apartheid, their (Africans and Indians) increasing labour force participation and post-apartheid rural-to-urban migration has created a tight urban labour market. Using queuing theories, one could argue that if the number of jobs is relatively fixed in any labour market and if employers assume that a subordinate group lacks desired 'attributes', then that group, for example, African women, is discriminated against and relegated to the bottom. This, in a way, also reflects a dual or segmented labour market where women and minority groups are concentrated at the bottom. Hence, urban residence is not accompanied by an erosion of racial group identification in South Africa. Instead, women compete with men and each other for jobs, and those privileged by their race are placed higher on the queue (Parashar 2014:747). Although post-1994 redistributive policies have been successful at increasing general education levels, greater effort is still required to reduce school dropout rates and equalize access to good quality learning, particularly in (African) schools and areas disadvantaged during apartheid (Parashar 2014:747).

The Employment Equity Act No. 55 of 1998 (Republic of South Africa, 1998) aims to ensure that the legacies of apartheid in the South African workplace are redressed. In this regard, employment equity will, over time, be achieved by promoting equal opportunity and fair treatment through the elimination of unfair discrimination and through the implementation of affirmative action measures to advance black people, women and people with disabilities (referred to as designated groups). The Act defines black people as Africans, Coloureds (mixed race) and Indians. In this pursuit, the Employment Equity Act endeavours to ensure the equitable representation of people from designated groups in all occupational categories and levels in the workforce (Thomas 2002:237).

Statistics SA (2014) published a Poverty Trends report which show that there has been a significant decline in poverty from 57,2% to 45,5% between 2006 - 2011. Also, the poverty gap and severity of poverty measures have also improved from 2006, despite

the increases seen in 2009, reflecting the pro-poor approach adopted in South Africa (Statistics SA, 2014). The report also showed that unfortunately, levels of inequality remain relatively unchanged over this period which shows that the South African government still has a long way to go before poverty and inequality can be demolished.

Due to the scarcity of formerly disadvantaged skilled personnel who could be employed in higher tiers or senior management roles in private companies resulting tension was created due to the unavailability of such skilled individuals. Private companies were being incentivised to employ formerly disadvantaged individuals in these roles but were finding it difficult to fill these rolls. Contrary to the developments concerning affirmative action policies, economic policies were only slightly modified. Although the three quality-oriented policies of this period already were much more successful in promoting some former disadvantaged persons to higher levels in the professional hierarchies in both public and private sectors Leibbrandt et al. (2010:11) show that the majority of the (predominantly African) poor were not able to improve. This is reflected in the worsening of the intra-racial Gini coefficients among Africans from 0.54 in 1993 to 0.62 in 2008, while the general Gini rose from 0.66 to 0.7 in the same timeframe (Leibbrandt et al. 2010:11). Statistics showed that a further deterioration in income inequalities was caused by additional increases in the rates of under employment (Statistics SA 2002; 2008).

An issue with the approach taken by the South African government as stated in Neo classical economics is that activist fiscal policy is unnecessary to increase employment and production (Maisonnave et al., 2013). The research also states that fiscal policy would not be 'pro-poor' because all households (including the poor) are hit by an increase in VAT.

The rich cultural and ethnic diversity of South Africa adds increased pressure on redistribution through affirmative action. Irrespective of the country being studied, any form of affirmative action for one group will imply an ethnic discrimination for another. This redistribution of benefits may lead to conflict within the different groups which will obviously undermine growth, Wyzan (1990:54). Competition between the different ethnic parties often leads those parties attempting to outdo each other in pressing the demands of their communities (Wyzan 1990:54).

73

Statistics have shown that social assistance programmes have been effective in reducing poverty and inequality (Barrientos et al. 2014:14). Furthermore, the key areas where lessons from social assistance in Brazil can be relevant to countries in Africa include human development and productivism. The bulk of the relevant studies conclude that antipoverty programmes reduce labour force participation among children and older adults but have marginal labour supply effects among adults of working age (Barrientos et al. 2014:19).

Technological and social processes such as urbanisation, industrial expansion, and increasing levels of education have influenced the types of available work and available work forces, particularly of women (Anker 1998:65). An increasing demand for skill, coupled with formalisation, rationalisation, and efficiency restricts employer subjectivity in hiring job candidates based on ascriptive characteristics such as race and sex (Kmec et al. 2010:15). When high-skilled positions experience growth, employers must either defer hiring until more members of their 'preferred' group obtain training or hire from race-sex groups further down the labour queue (Kaufman 2002:58). Thus, economic growth reduces the importance of potential workers' ascriptive classification, leading to increasing occupational desegregation. However, service sector specialization counteracts these integrative tendencies by increasing differentiation, primarily in white-collar occupations (Charles 2003:2).

Leibbrandt et al. (2010:11) had shown growth in the domestic sector despite labourers continually being underpaid and not legally protected. Most of these labouers were African women. The post-apartheid labour market remained fragmented in terms of gender, race, and region. An increase in the working-age population had created a large pool of low-skilled African, youth, and women workers (Leibbrandt et al. 2010:11). Kingdon and Knight (2007:4) showed that labour force participation rates were highest among Whites, followed by Coloureds, Africans, and Indians, and had attributed the surge primarily to higher education levels, loss of male employment, HIV/AIDS mortality and increasing feminization of households and poverty. A rural-urban labour divide also exists, which is compounded by an apartheid-era structural imbalance between the geographical locations of jobs with most activity concentrated in Gauteng, KwaZulu-Natal, and Western Cape (Standing et al., 1996). Despite

labour legislations that support entrepreneur initiatives and Black Economic Empowerment, previously disadvantaged groups continue to remain economically excluded. Research shows that sustained and underemployment is an effect of higher wage bargaining by trade unions and the implementation of firmer labour laws that force employers to subcontract or downsize in order to sustain or increase company profits (Bhorat et al., 2002).

As stated by (Lam, 1999; Louw, Van Der Berg and Yu 2006:201; Leite, Mc Kinley, & Osorio, 2006), "apartheid has long made for a glaring level of inequality specifically in the cases of South Africa. In the rest of Africa, economic inequalities remain largely understudied". While equity has recently been raised by the World Bank as a fundamental determinant of economic development (World Bank 2005:1). Cogneau promotes that equality studies are still at its infant stage and research has a long way to go.

According to Cogneau (2015:18), a child whose father is a farmer is automatically disadvantaged socially, irrespective of the country studied. "An individual's characteristics that influence his/her outcome but over which he/she has no control (here father's education and occupation and region of birth), and what is due to "effort" for which the individual is held responsible or more generally to all the factors considered irrelevant to the establishment of illegitimate inequality" Cogneau et al. (2015:18).

A study by Demirguc-Kunt and Levine (2009:8) concluded that:

(i) "The relationship between population group and poverty levels is strong with more than half (54,0%) of black Africans living in poverty";

(ii) "Age and poverty are also intertwined – children (55,7%) and youth aged 18 to 24 (50,7%) displayed the highest levels of poverty while those individuals aged 45 to 54 (33,6%) displayed the lowest levels of poverty";

(iii) "Education remains an important tool in the fight against poverty – while two-thirds (66,0%) of adults with no formal education were found to be poor, this was true for only 5,5% of those with a post-matric qualification";

(iv) "Levels of poverty differ significantly across the provinces, with Limpopo (63,8%), Eastern Cape (60,8%) and KwaZulu-Natal (56,6%) displaying the highest levels of poverty";

(v) "The rural/urban divide is stark in terms of poverty – not only were levels of poverty more than twice as high in rural areas (68,8%) than in urban areas (30,9%), but the majority (58,3%) of poor people in South Africa were living in rural areas";

(vi) "Inequality is a key challenge in South Africa with a high Gini coefficient of 0,65", (Demirguc-Kuntand Levine 2009:8).

In order to increase the availability of economic opportunities, decrease ongoing inequality and streamline the income distribution, improvements targeting financial contracts and financial markets are required (Demirguc-Kunt and Levine 2009:8). This shows that having access to credit markets helps parents increase the investment in their children's education and thereby reduces the possibility of children having to leave school and forced into the labour market when the family's income is suddenly reduced.

Implementing changes to financial systems could be detrimental or even have negative effects towards the different thoughts around inequality. According to Galor and Moav (2004:1001), during the economic development peocess, studies show that there is a relationship between growth and inequality in terms of the theoretical structure. (Demirguc-Kuntand Levine 2009:8).

Beck (2009); Gine and Townsend (2004:269); Townsend and Ueda (2006:100), showed how economic opportunities could be affected by financial development of families without directly changing the way that these families utilise financial services. The demand for labour could be boosted by financial development which enhances economic activity. Inequality will be reduced if the indirect effect of financial development brought about by the increased demand for low skilled workers. If the use of financial services by the poor does not increase as a result of financial development then the distribution of income could be tightened by the demand for labour which is provided by poor individuals. Development which focuses on both the economy as well as the people leads to a increase in demand or low and high income

earners, Jerzmanowski and Nabar (2007:6). Inequality could receive a boost from the labour market should financial developement cause a disproportionate postive impact on demand created for skilled labourers. The distribution of opportunity and the distribution of income can be distinguished in theory (Demirguc-Kuntand Levine 2009:8).

Statistics has shown that agriculture needs to remain a critical component of government's strategy in targeting food insecurity and household poverty in rural areas. Polices centred around land reform have all failed. The programme has fallen woefully short of its targets for land redistribution, and small black farmers continue to be marginalised and impoverished (Lahiff, 2008). Walker (2005:132) has noted that land reform relates to more than poverty and hunger. While land reform policy in South Africa has tended to be narrowly focused on technical discussions of livelihood sustainability and commercial viability, public debates about land in South Africa derive their political prominence and symbolic importance from the much broader context of the political transition, the legacy of colonialism, and still largely unresolved questions about race, equity and national identity (Walker 2005:132).

Barrientos (2014:1) illustrated the following strategies which need to be included when it comes to including lower income earners into the economy:
(i)   Incorporating informal labourers under social insurance;
(ii)   "conventional social assistance transfers to older and disabled people in poverty";
(iii)   "human development income transfer programmes focused on extreme poverty".

Statistics SA (2014:1) reports that South Africa was able to reduce poverty between 2006-2011 despite experiencing a recession in 2008. This was attributed to a growing safety net, growth in income, higher than inflation salary increases and reducing the pressure on households which was caused by inflation. Poverty alleviation in South Africa has been aided by multiple factors. The increases in grants could be the most significant from all the factors. Statistics SA (2014:1) reported that there has been little to no change in the years under review when it came to inequality. The focus of the NDP was to reduce the Gini coefficient of South Africa to 0,6 by 2030. In order to meet

these targets more emphasis has to be placed in combating the existing structural issues which contribute to inequality in South Africa.

Zu and Zia (2012:2) claim that a relationship can be found between financial literacy and an individual's income level. Numerous studies focus on whether or not a causal relationship exists between financial literacy and wealth accumulation. Creating sustainable wealth entails the affected individuals acquiring the necessary skills and education. Zu and Zia also show how financial outreach can be a lot more limited in low income countries. Also, access to sophisticated goods and products are only accessible to a tiny percentage of the greater population. More focus is then placed on financial literacy in trying to increase the accessability and adoption of finacial services. People who live in low income countries generally place too much of reliance on microenterprise activities when it comes to their livelihood. Obtaining the necessary know how and skills is therefore more relevant when it comes to financial capability as compared to the typical wage earning employee in developed countries (Zuand Zia 2012:2). Their research also shows that there are racial as well as geographic disparities exist when it comes to financial literacy.

2.10   Summary

This chapter provided context as to why the selected research topic was chosen. It provided a background to the root causes and effects of income inequality and wealth inequality in South Africa. The repercussions of those factors on both a micro and macro level were discussed further. Levels of poverty and sources of income were compared between rural and urban areas. It is prevalent from the historical information uncovered that South Africa's past had a major influence on the current economic situation. Although strides were taken by numerous parties to undo the injustices of the past, South Africa still has a long way to go before the effects of history can be undone.

Each section in this chapter has been divided into two. The first sub-section speaks to earlier literature which was published prior to 2010 and the second sub-section

contains more recent literature which was published post 2010. Finally, the chapter culminates with literature on sustainable wealth creation.

The following chapter discusses the theoretical and conceptual framework around the study. The chapter commences by first defining the Life cycle theory. It then proceeds to review the Life cycle theory as conceived by Modigliani (1950s) and Modigliani-Ando-Brumber (1954).

Chapter Three: Theoretical framework and Critical evaluation of Literature

3.1 Introduction

This chapter identifies gaps in the manner income, savings and wealth are looked at. One of the knowledge caveats identified is applying market values in valuing contribution to rural household income. Cash saved from using freely available natural resources such as construction wood and stones; wild grass for building thatched roofs; wild fruits as well as herbs is not considered in the assessment of household income. Trading and use of livestock is another direct source of income that is not considered when computing household income in rural areas. As will be argued in this chapter, studies that looked at income inequality used consumption and expenditure as a proxy for income (see for example, Bhorats, van der Westhuizen and Jacobs (2009); Hodge, 2009; Lebbrandt, Woolard and Woolard, 2000; Blau and Graham's,1989). The research problem articulated in Chapter One shows that there is paucity of data on real income, savings and wealth in rural areas. As such, consumption and expenditure data is used as proxies for measuring household income. Given the different modalities of generating savings in rural areas in comparison to urban areas is it possible that the drivers of savings, wealth and income are different in rural and urban households? Is it even possible that rural households are wealthier than urban areas? These questions are addressed plausibly using lifecycle theory because of how the theory makes a clear distinction between savings, income, consumption and wealth.

This chapter commences by first defining Life cycle theory. This is followed by two sections that review the works of Life cycle theory as conceived by Modigliani (1950s) and Modigliani-Ando-Brumberg (1954). To build a case for the conceptual framework of this study the chapter looks at the conflicting and inconsistent findings in the application of the lifecycle theory as well as common themes and consistencies in findings of studies that applied the life cycle theory. The chapter concludes by presenting the conceptual framework of the study drawing from inconsistencies and common themes emerging from literature.

3.2 What is Life cycle theory?

Life cycle theory is an economics model that tries to explain individuals 'consumption patterns. The theory says that individuals plan how much they spend on consumption and savings over their life cycle. They accumulate wealth and save during their working years only to dis-save once retired. One of the key assumptions of the Life cycle theory is that individuals choose to live stable lifestyles and keep their consumption patterns stable and constant through each stage of their lives. Table 3.1 below provides a summary of the evolution of the Life cycle model by listing contributions by various theorists. This evolution of the Life cycle theory will be elaborated on in detail further on in this chapter.

TABLE 1: LIFE CYCLE THEORY – DEFINITIONS

| Theorist	Summative Definition
Adam Smith (1776)	Adam Smith's work paved the way for modern economists since he provided the foundation in trying to understand wealth creation.
John Maynard Keynes (1936)	*Keynesian economics:* Keynes saw savings as another form of goods and that the percentage that individuals allocated to savings grew as their income increased.
Modigliani and Brumberg (1954); Modigliani and Ando (1957); Ando and Modigliani (1963)	*Life cycle Hypothesis theory:* This hypothesis presumes that people design their spending habits over their lifetimes, considering any future income they plan on receiving. For this reason, they assume debt. During middle age is when they start to save in order to maintain their lifestyles once retired. The main reason for saving is to accumulate enough so that what has been saved can be consumed later during retirement. Savings is positive for young households and negative for the retired.

3.3 Earlier foundations of Life cycle theory

Research by Adam Smith, whose study was the "precursor to the modern academic discipline of economics", as illustrated by Skousen (2016: 6), contributed significantly to lifecycle theory. Smith (2000: as cited in Svodoba 2013:99) illustrated how rational interest in one's self can lead to economic prosperity.The literature paved way for understanding how nations create wealth. Levy and Peart (2005:125) emphasise Smith's opposition to inequality, slavery and colonialism in creating and sustaining one's wealth. Smith also discussed the relationship between growth of private property and civil government (Levy and Peart, 2005:127). Adam Smith's work influenced economists such as Karl Marx. Wang (2013: 134) discusses Karl Marx's theory of human nature which speaks to humans being capable of "making or shaping their own nature to some extent". Marxism builds on a materialist understanding of societal development, taking as its starting point the necessary economic activities required to satisfy the material needs of human society and relates wealth to social class (Marx 1932 cited in Dahrendorf 1959: 1).

Adam Smith's work laid the foundation for modern economists like John Maynard Keynes. John Maynard Keynes, who in 1930 founded Keynesian economics during the Great Depression and believed that government should use fiscal policy to increase aggregate demand. Maisonnave (2013: 24), further strengthened Keynes belief by illustrating how increases in government spending will lead to job creation which will increase economic activity, income levels and economic growth. Increased income levels will lead to an increase in the demand for goods and services and thus create new jobs (Keynes 1936:133). Modern Keynesians agree that monetary policy is required in addition to fiscal policy to manage aggregate demand (Blinder 2008: 1). As pointed out by Benchimol (2012: 6) an increase in the money supply will lead to a decrease in the interest rate which will increase private investment and consumption thereby increasing the aggregate demand in the economy. However, according to the Keynesian system, and as discussed by Blinder (2008:1), an increase in aggregate demand generates higher employment as well as higher inflation which means that a balance would need to be struck between employment and inflation.

According to Levendis (2007: 309) the assurance of wages to Keynes was more convoluted. To begin with, he contended that it is not genuine but rather nominal wages that are negotiated between businesses and labourers, instead of a trade relationship. Second, nominal wage cuts would be difficult to implement due to legalities around employment and wage contracts (Levendis 2007: 309). Even traditional economists conceded that these exist and unlike Keynes, they supported cancelling minimum wages, unions, and long term contracts, expanding flexibility in the labour market. To Keynes, individuals will oppose wage decreases, even without unions, until they see different wages falling and a general fall of costs (Herr 2011: 3). Arnold (2008: 205) illustrates Keynes notion whereby he rejected the idea that cutting wages would cure recessions. He analysed the reasons for this thought and discovered them all unreliable. Keyne's research also considered the most probable outcomes of cutting wages in recessions, under different distinctive conditions which gave evidence that such wage cutting will probably aggravate the situation in a recession instead of improving it (Blinder 2008: 3).

Furthermore, if wages and prices were falling, people would start to expect them to fall. This could make the economy spiral downward as those who had money would simply wait as falling prices made it more valuable – rather than spending. As Irving Fisher (1933) argued in his Debt-deflation theory of Great Depressions that deflation could cause an even deeper recession as falling prices and wages made pre-existing nominal debts more valuable in real terms.
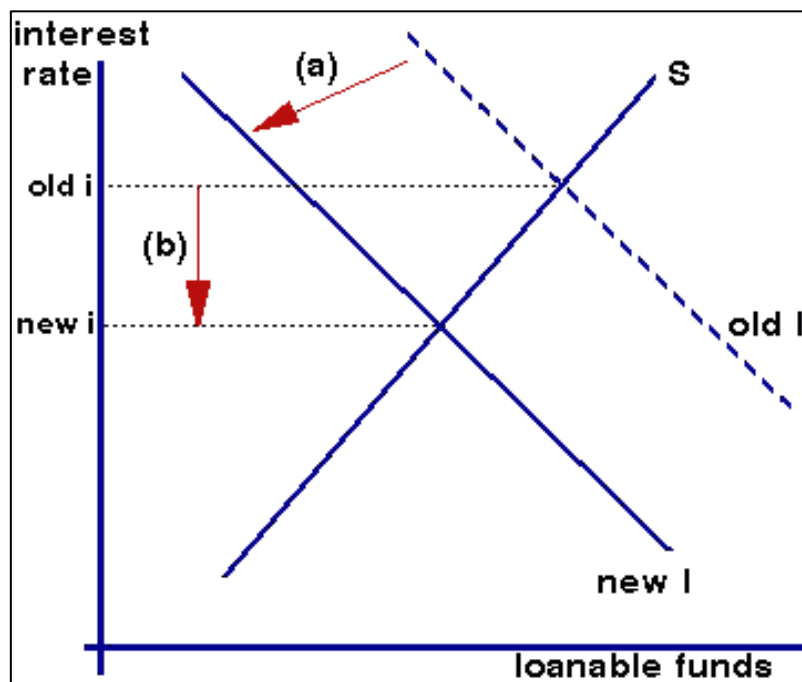
Source: Keynes (1936:133)

It is believed that excessive saving would cause serious problems (Keynes1936 cited in Hayek 1975: 197 and Dymond 2015: 36) for example if an individual had to save beyond planned investment then the excessive saving could lead to a recession or even depression.

Keynes (1936 cited in Dymond 2015: 36) illustrates that investments could fall due to pessimistic business expectations, over-investment in early years or falling consumer demand. These could all result in excessive savings which would cause the economy to decline if saving does not immediately fall into step.

Classical economists, as acknowledged by Mukherjee (2002: 616), argued that increases in savings would cause interest rates to fall. The above diagram (Figure 3.1), adapted from the only graph in The General Theory, captures interest rate on the y-axis and loanable funds on the x-axis (Keynes 1936: 133). Assume that fixed investment in capital goods falls from "**old I**" to "**new I**" (**a**). Second (**b**), the resulting excess of saving causes interest-rate cuts, abolishing the excess supply: so again the

study showed saving (**S**) equal to investment. The interest-rate (**i**) fall prevents that of production and employment (Keynes 1936:133).

Keynes (1936: 133) had a serious contention against this free enterprise reaction. The below diagram shows his contention in the falling fixed investment (A). To begin with, Keynes illustrates that saving doesn't decline much as loan costs decline since the impact of income and substitution of falling rates move in opposite directions (Keynes 1936: 133). Secondly, spending does not rise much as interest rates fall since arranged fixed investments is constructed for the most part with respect to long term desires of future gains (Keynes 1936: 133).

So **S** and **I** are drawn as steep (inelastic) in the graph. Given the inelasticity of both demand and supply, a large interest-rate fall is needed to close the saving/investment gap. As drawn, this requires a negative interest rate at equilibrium (where the **new I** line would intersect the **old S** line). However, this negative interest rate is not necessary to Keynes's argument.

FIGURE 2: AN ILLUSTRATION OF THE IMPACT OF EXCESSIVE SAVINGS ON INTEREST RATES
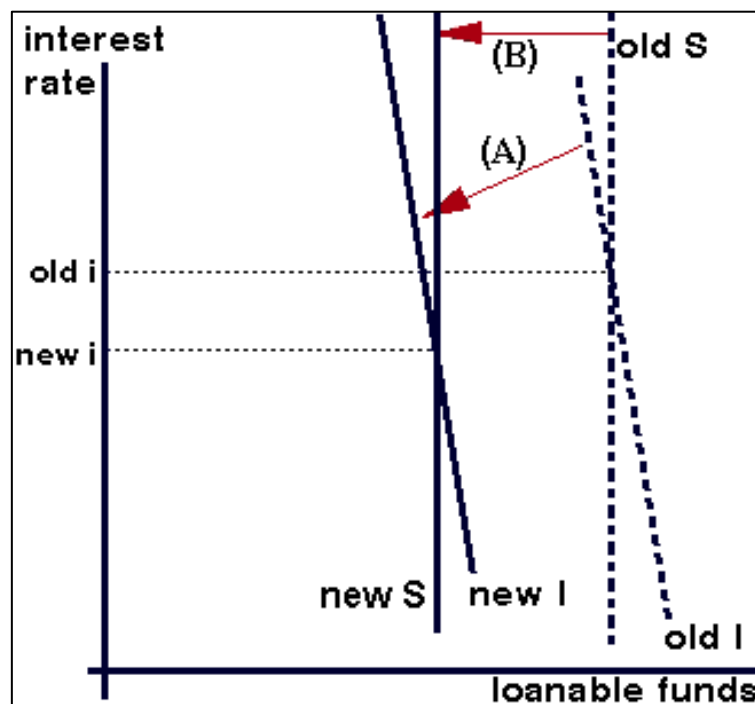
Source: Keynes (1936:134)

Keynes (1937 cited in Tily 2012: 25) also argued that saving and investment are not the main determinants of interest rates, especially in the short run. Instead, the supply of and the demand for the stock of money determine interest rates in the short run. Neither changes quickly in response to excessive saving to allow fast interest-rate adjustment (Keynes 1936:135).

Finally, Keynesin 1936 as acknowledged by Dymond (2015: 37) suggested that, because of fear of capital losses on assets besides money, there may be a 'liquidity trap' setting a floor under which interest rates cannot fall. As explained by Sutch (2014: 26) while in this trap, interest rates are so low that any increase in money supply will cause bond-holders (fearing rises in interest rates and hence capital losses on their bonds) to sell their bonds to attain money (liquidity).

In the diagram, the equilibrium suggested by the **new I** line and the **old S** line cannot be reached, so that excess saving persists. As depicted by Krugman (1998: 1), some see this latter kind of liquidity trap as prevailing in Japan in the 1990s. Most economists, as illustrated by Lavoie (2015: 1), agree that nominal interest rates cannot fall below zero. However, some economists reject the existence of a liquidity trap (Bronfenbrenner and Thomas 1960 and Meltzer 1963 cited in Sutch 2014: 26).

Dymond (2015: 37) acknowledges that even if the liquidity trap does not exist, there is a fourth and most important element to Keynes's critique, namely saving which entails not spending all of one's income. Thus, it means insufficient demand for business output, unless it is balanced by other sources of demand, such as fixed investment as illustrated by Eltis (1966: 70). Therefore, excessive saving corresponds to an unwanted accumulation of inventories.

This pile-up of unsold goods and materials encourages businesses to decrease both production and employment (Eltis 1966: 72). This in turn lowers people's incomes – and saving, causing a leftward shift in the **S**line in the diagram (step B). For Keynes (1936 cited in Dymond 2015:37), the decline in income did the majority of the work by putting an end to excessive saving and permitting the loanable assets market to achieve equilibrium.Instead of interest-rate adjustment solving the problem, a recession does so. Thus in the diagram, the interest-rate change is small.Whereas the classical economists assumed that the level of output and income was constant

and given at any one time (except for short-lived deviations), Keynes saw this as the key variable that adjusted to equate saving and investment (Keynes 1936 cited in Dymond 2015: 37).

Keynes (1936 cited in Blinder 2008: 1) reports that a recession undermines the business incentive to engage in fixed investment. With falling incomes and demand for products, the desired demand for factories and equipment will fall. This accelerator effect would shift the I line to the left again, a change not shown in the diagram above. The problem of excessive saving is then created which encourages the recession to continue as claimed by Keynes (1936: 227).Keynes identifies an interaction between excess supplies in different markets, as unemployment in labour markets encourages excessive saving – and vice versa (Keynes 1936: 228).As opposed to costs conforming to achieve balance, the fundamental story is one of quantity modification permitting recessions and possible accomplishment of equilibrium in underemployment.

The key theoretical framework that underpins this study is the Life cycle theory which is a multidisciplinary theoretical framework used in management, economics, public administration, development and wellbeing studies. As discussed by Pretorius and Knox (1995: 1), Franco Modigliani together with his student Richard Brumberg developed the Life-Cycle Hypothesis as a counter to the classical Keynesian model of spending, which stated that people increase their spending as their income increases. Modigliani proposed that consumers would aim for a stable level of income throughout their lifetime, saving during their working years and spending during their retirement and unlike Milton Friedman's model which assumed that people would save for their descendants, Modigliani claimed that people save only for their own retirement (Modigliani and Brumberg 1963 cited in Pretorius and Knox 1995: 1).

3.4 The Modigliani Theory of the Life cycle

The Modigliani–Ando–Brumberg model of life cycle was developed and presented in a number of articles written in the 50s and early 60s by Franco Modigliani in collaboration with Richard Brumberg and Albert Ando. Looking at the hypotheses of Keynes and Modigliani, Keynes (1936 cited in Bazhenova and Krytsun: 2013:76)

based his belief on the fact that consumption is an important factor in consumption propensity which showed that increases in consumers' total income was also starting to grow but not as much. Employment, prices as well as the output are based on savings and consumption with this dependence manifested through savings and consumption. Chepinoha (2011: 848) illustrated how a slight increase in revenue leads to part of it being removed which then causes a decrease in the demand for consumer goods and services.

As described by Jappelli and Modigliani (1998:10) lifecycle theory argues that when people are young they initiate savings plans and consume in a manner that allows them to save for retirement. The theory as described by Jappelli and Modgliani(1998 cited in Deaton and Paxson 2000: 212) suggest that saving is positive for young households and negative for the retired. According to the National Research Council (2001: 6), although the life-cycle theory was developed by economists in the 1950's, it has been used by policy makers to design policies that make provisioning for retirement and to look into population ageing and threat to sustainability of the public insurance systems.

The Life Cycle Hypothesis is based on the following model:

$$maxU_t = \sum_t U\,(C_t)(1+\delta)^{-t}$$

………Equation 1

subject to

$$\sum_t C_t\,(1+r)^{-t} = \sum_t Y_t\,(1+r)^{-t} + W_0,$$

…………………………………………………………………………………………Equation 2

where

$U(C_t)$ is satisfaction received from consumption in time period t,

C_t is the level of consumption at time t,

Y_t is income at time t,

δ is the rate of time preference (a measure of individual preference between present and future activity),

W_0 is the initial level of income producing assets.

FIGURE 3: AN ILLUSTRATION OF THE MODIGLIANI–ANDO–BRUMBERGLIFECYCLE THEORY
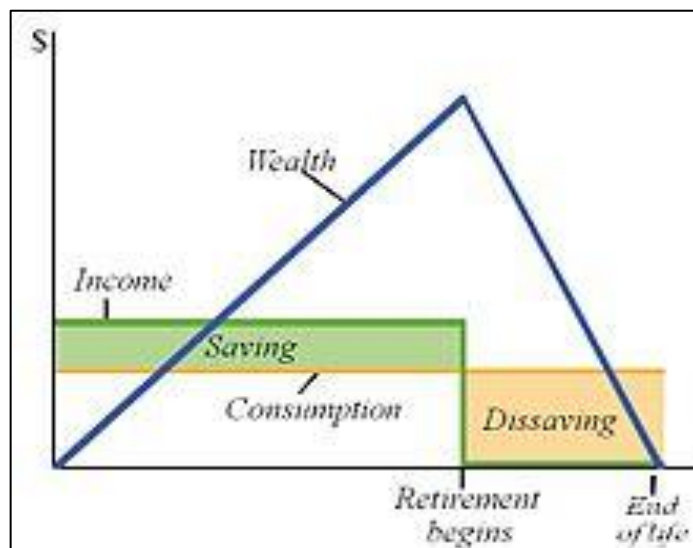
Source: Makiw (2009: 1)

Typically, a person's MPC (marginal propensity to consume) is relatively high during young adulthood, decreases during the middle-age years, and increases when the person is near or in retirement (Mankiw 2009:1 and Barro, 2001:2). The Life Cycle Hypothesis model defines individual behaviour as an attempt to smooth out consumption patterns over one's lifetime somewhat independent of current levels of income. This model, as confirmed by Mankiw (2009: 1), states that early in one's life consumption expenditure may very well exceed income as the individual may be making major purchases related to buying a new home, starting a family, and beginning a career. At this stage in life the individual will borrow from the future to support these expenditure needs. In mid-life however, these expenditure patterns begin to level off and are supported or perhaps exceeded by increases in income. At

this stage the individual repays any past borrowings and begins to save for her or his retirement. Upon retirement, consumption expenditure may begin to decline however income usually declines dramatically. In this stage of life, the individual dis-saves or lives off past savings until death (Mankiw 2009:1).

<u>Life cycle Hypothesis:</u>

As explained by Modigliani et al. (1954 cited in Hall 1978: 971) the hypothesis can be explained by assuming that there is an individual who expects to live for another T years and has wealth of W. The consumer also expects to annually earn income Y until he retires R years from now. In this situation, the consumer's resources over his lifetime consist both of his initial wealth endowment, W, and of his lifetime earnings, RY. An important point to note is that the interest rate is assumed to be zero. If the interest rate were positive, you would have to account for the interest earned on savings. The consumer can distribute his lifetime resources over the remaining T years of his life. He divides $W + RY$ equally among T years and in each year he consumes (Modigliani et al. 1954 cited in Hall 1978: 971).

$$C = \frac{W + RY}{T}$$

…… Equation 3

The consumption function of this person can be written as

$$C = \frac{1}{T}W + \frac{R}{T}Y$$

…….Equation 4

If every individual in the economy plans consumption in this manner, then the aggregate consumption function will be quite similar to the individual one. Thus, the aggregate consumption function of the economy is:

$$C = aW + bY,$$

……………………………………………………………………………………..…Equation 5

where *a* is the marginal propensity to consume for wealth and *b* is the marginal propensity to consume for income.

Implications of the hypothesis:
From the equation given above, it is clear that if the income falls to zero the amount of consumption will be equal to *aW*, however, this is not a fixed value, as it depends on wealth(Modigliani et al. 1954 cited in Masson 1988: 256). Moreover, according to the given consumption function, the average propensity to consume is:

$$\frac{C}{Y} = a\frac{W}{Y} + b$$

……………………………….…………………………………………………………...Equation 6

Masson (1988: 256) emphasises Modigliani's thoughts that since wealth does not change proportionately with income from individual to individual or from year to year, we should get the result that high income leads to a low average propensity to consume while looking at the data across persons or over short periods of time. However, generally over a long period of time, wealth and income increase together, which leads to a constant ratio W/Y and thus a constant average propensity to consume (Masson 1988: 256). To further analyse the implications of the life-cycle model, this study needed to consider the case of a stationary economy in which population and productivity are constant through time. Then, these assumptions would need to be relaxed one by one.

A significant number of scientists, as cited by the World Health Organization (2010: 54), believe that the relationship between income and savings is influenced by various social factors such as education, race, national identity, professional staff, etc., but more specifically describe the mechanism failed. Bazhenova (2013: 4) confirms that questions have emerged with regards to the process of deciding the distribution of an individual's income on consumption and investments and affecting his decision.Bazhenova (2013: 4) acknowledges that the Modigliani life cycle theory implies that the appropriation of income on consumption and saving is shaped on the

human yearning to circulate their income in the stages of life, to mirror the distribution requirements amid these periods, that is, the individual must save to eat in various periods if a loss in income happens. Modigliani attempted to enhance the consumer Keynes function to identify a rational reason for macroeconomic conduct in the activities of people, as initially depicted in the Modigliani life cycle model which was expected to clarify the pattern formation of the investment funds of people (Bazhenova 2013: 4).

3.5 Conflicting and inconsistent findings in the application of the Life cycle Theory

Bazhenova and Krytsun (2013: 73) discuss household savings as the desire for one to ensure that they are financially secure in one's retirement age and to be able to pass on some of that security in the form of an inheritance to children or dependents. This is a major aspect in the theory of the life cycle. Bazhenova and Krytsun (2013: 73) also align their study to the Modigliani-Ando-Brumberg life cycle theory to illustrate how the life cycle theory finds its grounding in the macroeconomic planning of consumption and planned savings over an individual's lifetime. However, Bazhenoa and Krytsun (2013:73) argue that the theory needs to be analysed and studied in a case study since various demographic regions will have their own savings, consumption and investment patterns. Therefore, the question that arises is whether it is possible to apply the model in the South African context.

The theory of life cycle speaks about the human propensity to consume out of income depends on his or her age. Modigliani and Ando received a number of results that were sufficiently encouraging for the development of the theory of the life cycle. But then it turned out that only part of the provisions of this theory were true. The discrepancy is that households save more in adulthood than in younger years. Scientists such as Danziher, Haah, Smolensky, and Taussih have investigated the propensity to consume and found that older people save more of their income than the younger people. This statement contradicts the theory of the life cycle. In studies of other scientists, such as Kotlikofa and Sammers, most individuals save in order to leave an inheritance but not to provide for the level of consumption in the old age.

Sachs (1996:147) pointed out that the life cycle model is the basis for many dynamic models used to study consumption and savings as well as a tool to analyse the different interpretations of the concept of the "burden" of debt, which is regarded as the reduction of utility for life.

Bosch et al. (2010:4) when using a modified gini coefficient to measure inequality in South Africa showed that theGini coefficient for South Africa resides at much lower levels of inequality than generally reported, attributing the Government's redistribution initiatives as the reason for this considerable success over time.

While numerous studies prove that income inequality has a negative effect on the economy, there are also few researchers who argue that it can have a positive effect. For example, Conley (2009:37) pointed out that 'since the Scottish Enlightenment conservatives have argued that inequality is the engine of progress; differential rewards lead to ingenuity, industriousness and innovation'. Similarly, Turok (2010:497) found that income inequality might provide incentives for individuals and firms to take risks which benefit the economy and society as a whole. This raises the issue of the possible trade-off between 'equity' and 'efficiency' or growth/productivity (Morris et al. 2000:885).

Besley and Burgess (2003:3) found a positive relationship between income inequality and poverty in developing countries. This result is not surprising as Honohan (2004:15) suggests, that by holding mean income constant, if the proportion of the income received by the rich increases, poverty is more than likely to increase as well (Apergis et al. 2011:143). Ravallion (2005:31) uses the Gini index as a measure of income inequality to find a positive relationship between rate of change in income inequality and the rate of change in poverty. Kalwij and Verschoor (2007) showed a negative relationship between the income elasticity of poverty and the Gini index of income inequality. Dollar and Kraay (2002:195) showed that growth is necessary for poverty reduction, but growth alone is certainly not sufficient.

Existing studies that have investigated the relationship between poverty and income inequality have assumed the direction of causality running from income inequality to poverty. Nevertheless, it is likely that causality runs from poverty to income inequality.

93

The possibility of causality from poverty to income inequality was first enunciated by Dasgupta (1999:243).

Studies by Kanbur (2005:5), showed a positive relationship between income inequality and poverty. In other words, a policy designed to lead to growth but also to an increase in inequality is not likely to be successful. An increase in inequality is, at the very least, dissipating some of the effects of growth on poverty reduction and in the extreme may be so great as to overturn the beneficial effects of growth altogether (Kanbur 2005:5).

Galor and Moav (2004) linked the relationship between inequality, wealth accumulation and the level of financial development, showing that the level of financial development will affect the rate of human capital accumulation and hence changes in inequality over time. These results and the relationship between finance and changes in inequality also complement work examining the impact of finance on the level income inequality. Clarke et al. (2006) and Li et al. (1998) found that financial development is associated with lower levels of income inequality cited in (Demirguc-Kunt et al., 2009).

The intergenerational effects of poverty cannot be avoided. Roemer (2004:50) argues that equality of opportunity implies that inequities of outcome are indefensible when they are due to differential circumstances, but he recognizes at the same time that parents influence their children through a hierarchy of 'circumstances'. The main findings of Roemer's research as stated by Corak (2015: 181) were that children are firstly influenced through social connections that facilitate access to education and jobs, secondly through family culture and investments that influence skills, beliefs, and motivation, and lastly through the genetic transmission of.

There have been numerous studies, including the Whitehall Studies (Marmot et al. 1978:1109; Marmot et al. 1984:1003; Marmot and Shipley 1996:1177), which have demonstrated a clear link between socio-economic background (such as income or occupation) and health. Marmot (2010: 1), found that in England, people living in the poorest neighbourhoods will, on average, die seven years earlier than people living in the richest neighbourhoods. Morris et al. (2000:885) showed that these health inequalities were not just limited to life expectancy but also infant mortality and mental

and physical health. Financial market imperfections can exert a profound impact on economic welfare by hindering the ability of poor families to develop the human capital of their children, which firstly increases the cross-dynasty persistence of relative incomes, secondly it then reduces the economic opportunities of individuals born into poor dynasties and finally lowers the socially efficient allocation of schooling resources (Demirguc-Kuntand Levine 2009:8).

Many models emphasize information and transactions costs associated with financing education (Becker and Tomes 1979:1153, 1986:1; Galor and Zeira, 1993:35), so that poor families cannot borrow to pay for education, thereby strengthening the connection between parental wealth and human capital accumulation.Other models emphasize the connection between education and the smoothing of adverse income shocks (Jacoby and Skoufias 1997:311; Baland and Robinson, 1998:1).

Booysen et al. (2005:29) analysed trends in poverty in seven African countries using an asset index constructed from data collected from nationally representative demographic and health surveys with the aid of multiple correspondence analysis. Booysen's study found that rural poverty in all cases exceeded urban poverty (Booysen et al. 2005:30). However, limitations in terms of the asset index not containing a complete measure of household wealth meant that the findings of the study need to be cautiously interpreted. "The asset index approach to analysis of poverty is unfortunate as the available income and expenditure data for African countries often are unreliable, patchy and not directly comparable" (Booysen et al. 2005:31).

Research conducted by Marre`(2013:1) identified the differences between life in rural areas versus life in urban areas and links income, employment and poverty as factors in conditioning and determining economic flows. Studies conducted in America found that living in non-metro counties (rural) increases the likelihood of asset poverty (Fisher and Weber 2004:137). Similarly, Marré and Pender (2013:457) showed that differences in net worth and assets are at least in part affected by living in non-metropolitan areas. This emphasises other studies and literature that has shown a "non-metro effect" on a differentiation of other outcomes (Weber et al. 2005:381).

Apergis, Dincer and Payne (2011:132) showed that a bidirectional relationship exists between poverty and income inequality both in the short run and in the long run. With respect to the short-run dynamics associated with poverty, both income inequality and the unemployment rate have a positive and statistically significant impact on poverty, a negative and statistically significant impact for real per capita personal income and level of education, while corruption is insignificant. In terms of the short-run dynamics associated with income inequality, poverty, the unemployment rate, real per capita personal income, and the level of education have a positive and statistically significant impact, while corruption has a statistically insignificant impact on income inequality. With regard to the long-run dynamics, the statistically significant error correction terms indicate the presence of a feedback relationship between poverty and income inequality (Apergis, Dincer and Payne 2011:132).

It is evident from studies conducted by previous scholars that a deeper understanding of the link between household wealth and income inequality and the need to clarify the causality between the two variables was needed. This study also identified the need to look at which of the two variables, between consumption and household income has the highest predictive power for household wealth. The key measures of household wealth, being the dependant variable in this study gave rise to advancing the following hypothesis:

H1: Wealth is a consequent of inheritance and income less consumption during the working period.
H2: There is no difference in the amount of wealth between rural and urban households.
H3: The propensity to consume from wealth is higher in rural households than is the case in urban households, than the propensity to consume from income.

3.6 Conceptual Framework

This study seeks to understand wealth and income differences among South Africans at national level and differences in wealth and income in urban versus rural households. The study distinguishes income from wealth, and acknowledges that while income and wealth are different, the two variables are intertwined. The foregoing

sections of this chapter have shown that by building up and running down assets, working people can make provision for their retirement and tailor their consumption patterns to their needs at different ages independently of their incomes at each age (Modigliani and Brumberg, 1954). In his 1966 paper, Modigliani argued that if income grows at a constant rate, then both aggregate private savings and aggregate private wealth will grow at the same rate and the wealth-income ration will tend to remain constant. Modigliani further argued that the amount allocated to consumption exhausts resources, and in the absence of bequests the relationship between wealth, income, consumption and saving can still account for the existence of a substantial aggregate of wealth.

The lifecycle theory as perceived by Modigliani and Ando is expressed in the following five equations:

Modigliani posit that if income grows at a constant rate, then both saving and wealth will grow at the same rate. Therefore if wealth is rising at the rate – p, we can expect

$$\frac{S}{A} = p \tag{1}$$

$$S = Ap \tag{2}$$

S - Saving; and A – wealth; p – rate of change of wealth

In lifecycle theory, saving is viewed as accumulation of financial resources to purchase real estate, land and durable goods. And as mentioned earlier, assets can be sold to replace lost income during retirement to make-up for income required for consumption. In other words, households can either consume out of income or out of wealth depending on age and savings made during a working life. Depending on the number of years at work (n), savings according to the lifecycle theory is the sum of income accumulated during the period of employment less consumption as expressed in equation 2:

where A - denotes wealth, B_0 stands for initial wealth or inheritance, Y_d - profit, and *n the working period.*

$$s = n * (Y_d - c) + B_0 \qquad\qquad (3)$$

This implies that if households consume more than they save they start to erode their wealth.

Rewriting equation (3) using formula on equation (2):

$$Ap = n * (Y_d - c) + B_0 \qquad\qquad (4)$$

This study tests the implications of the life cycle model by testing the effect of income and consumption on wealth in a rural setting and in an urban setting (Equation 4). The study frames a hypothesis that wealth at constant income growth is a function of income less consumption taking into account the lifecycle effects (that is, period of employment and retirement age). In other words the study makes an assumption that lifecycle effects of income and consumption are evident at constant income growth.

H1: Wealth is a consequent of inheritance and income less consumption during the working period

H2: There is no difference in the amount of wealth between rural and urban households

Intuitively, rural households have little to no debt and consume less that their urban counterparts, and, this fact is likely to even out the maginitude of wealth in rural and urban households even though rural households are likely to have less income than their urban counterparts.

As explained by Modigliani et al. (1954) the hypothesis can be explained by assuming that there is an individual who expects to live for another T years and has wealth, A. The afore mentioned individual also expects to annually earn income Y until he/she retires R years from now. In this situation, the individual's resources over a lifetime consist of initial wealth endowment, A, and of lifetime earnings, RY. Modigliani et al (1954) makes an assumption that interest rate is zero so as not to account for the interest earned on savings. This study makes the same assumption. The individual can distribute the lifetime resources over the remaining T years of his/her life. This means dividing A + RY equally among T years and in each year the individual consumes(Modigliani et al. 1954).

$$c = \frac{A + RY}{T} \qquad (5)$$

The consumption function of this person can be written as

$$C = \frac{1}{T}A + \frac{R}{T}Y \qquad (6)$$

If every individual in the economy plans consumption in this manner, then the aggregate consumption function will be similar to the individual one. Thus, the aggregate consumption function of the economy is:

$$C = yA + zY, \qquad (7)$$

where y is the marginal propensity to consume from wealth and z is the marginal propensity to consume for income.

In accordance with equation 7, this study tests a hypothesis that:

H3: The propensity to consume from wealth is higher in rural households than is the case in urban households, than the propensity to consume from income.

Intuitively, it is reasonable to expect rural households to consume from wealth than from income because of their low income earnings and their dependence on running down assets (for example livestock assets) to generate income for consumption.

3.7 Conclusion

This chapter looked at the Life cycle theory tracing the origins ofthe theory as well as subsequent amendments, evolution and viewpoints of other scholars. Conceptual evidence presented in the above chapter suggests that the income inequality - wealth inequality relationship is complex. Arguments from different researchers were presented and findings of those studies compared. These arguments formed the base of this study and helped shape the approach taken when conducting the research.Significant contributions to the theoretical framework of this study was provided by Adam Smith who illustrated how rational interest in one's self can lead to economic prosperity. The literature review showed how contributions by Smith was ideal in this study given Smith's opposition to inequality and slavery which has a direct relation to South Africa's past. Views on Keynesian economics were interpreted and certain Keynesian ideologies were found to align to the objectives of this study in that government intervention is needed in order to alleviate poverty and grow household

wealth. The life cycle theory, although a counter to Keynesian model formed the foundation of this study's framework.

One of the variables in this study is the average age of head of household which if based on the life cycle theory means that a household's wealth should increase proportionately with an increase in the age of the household head. The lifecycle theory also mentions that in old age, individuals should be able to pass on some of their wealth to dependents through an inheritance. However, the question arises whether it would be possible to apply the model in the South African context.

Income inequality and wealth inequality variables were identified from different perspectives of rural and urban population. It is evident from the literature studied that abundant literature exists on inequality and poverty however, not enough focus and attention is given to the current situation in South Africa. This chapter helped determine how the key variables (income inequality and wealth inequality) will be reviewed in the following Research Methodology chapter. Contributions by various scholars and researchers helped guide the measures of the variables. The Gini index was decided on rather than the Atkinson index to measure inequality and a wealth index was created in order to measure for household wealth. The dependent variable identified in this study is household wealth.

The following Research Methodology chapter provides detailed information on how the data for this study was sourced and analysed. The chapter focuses on measures, variables and description of data as well as the model specification and data analysis protocols.

Chapter Four: Research Methodology

4.1 Introduction

The preceding chapter provided a theoretical and conceptual grounding for addressing the following three hypotheses:

H1: Wealth is a consequent of inheritance and income less consumption during the working period.

H2: There is no difference in the amount of wealth between rural and urban households.

H3: The propensity to consume from wealth is higher in rural households than is the case in urban households, than the propensity to consume from income.

The purpose of this chapter is to show how these hypotheses will be tested in order to generate new knowledge around lifecycle theory in the context of unequal society as pointed out in Chapter 2. This chapter starts off by looking at the epistemological basis of the study followed by a discussion of how the study is designed. Data is then described followed by a section that outlines the variables and *apriority* expectations. Thereafter the chapter discusses how the models expressed in the three hypotheses of the study are specified and how they are estimated.

4.2 Epistemological and Ontological Issues

Ontology and epistemology are the base on which knowledge is constructed and as explained by Marsh and Furlong (2002:17) must form his research as they shape the technique used to address research questions, deal with hypothesis, methods for collecting or for handling data. Marsh and Furlong describe epistemology as a branch of philosophy concerned with what constitutes acceptable knowledge in a field of study. This study is founded in a positivist philosophical approach which applies the principle of natural sciences on a social reality (Bryman, 1990). As explain by Bryman (1990) applying the principles of natural sciences on a social reality means that one works with an observable social reality and that the end product of such research can

be law-like generalizations similar to those produced by the physical and natural scientists. The positivist view of reality is common when testing hypotheses with observable phenomenon, such as income, consumption and wealth as is the case with this study.

According to Marsh and Furlong (2002:18) "positivists usually use quantitative methods as research tools, as these are objective and the results generalizable and replicable". As explained by several authors (Bryman, 1990; Marsh and Furlong, 2002; and Remenyi, 1998), quantitative strategies are generally utilised by positivists as they attempt to deliver causal clarifications or even logical laws. The applied analytical techniques dependably result in numbers, which are then investigated for a legitimate result. The point is to have immediate and correct causations which are irrefutable (Bryman, 1998). The focal points of this approach is that processes for data analysis are simple to replicate, which is an essential consideration for logical common science. Translating and applying the positivism philosophy in this study means that the variables specified in the model must be measured using scientifically valid and reliable measures, and this is covered in section 4.4 below. This also means that the equations specified to test the hypothesis (see section 4.5) must be theoretically grounded. This has been done in section 3.3 of the preceding chapter. These methodological steps are to ensure that when the research is replicated it yields the same findings. Most importantly, translating the positivism in the manner described above makes the truth claims in the form of the outcomes of the hypotheses tested in this study to be generaliseable in similar environments to South Africa. This would enhance external validity.

The ontological position commonly accompanying positivism is objectivism which "portrays the position that social entities exist in reality external to social actors concerned with their existence" (Bryman 2012). This means that reality can be experienced empirically, in the case of this study by testing the three hypotheses that seeks in-depth understanding of the lifecycle theory in the urban and rural settings.

4.3 Research Design

This thesis seeks to test the lifecycle theory in a South African setting by looking at the consequences of inheritance and income less consumption in rural and urban households (Hypotheses 1 and 2). The study also tests the hypothesis that rural households have a higher propensity to consume from wealth than urban households. It therefore becomes natural to apply a deductive research design, where the prescriptions of the lifecycle theory are tested through the creation of three hypotheses as explained above.

Data for the study is not cross sectional, that is, it is not gathered at one point in time from individuals or groups. The data is rather time series data collected at equally spaced time intervals. As will be explained in the section below different time series data sets were used to test each of the three hypotheses of this study. This research design builds on the assumption that a causal relationship is present (Brooks 2008, 88). As such, the goal of research is to obtain a significant amount of variance in order to be able to assess the influence of independent variables.

This design is optimal because the effect of income, consumption and inheritance would add more information on the influence on wealth over a period than would have been the case if cross-sectional data were used. As such replicability and external validity of the research design is greatly enhanced given that variables and measurements are clearly stated as is required in a deductive research design.

4.4 Data Source and Description

TABLE 2: HYPOTHESES, VARIABLES, AND DATA SOURCE

Hypothesis 1	Variables/proxy	Time series period	Data source
Wealth is a consequent of inheritance and income less consumption during the working period	$Wealth_N$ (at a National level)	2000-2016	South African Reserve Bank
	$Income_N$ (at a National level)	2000-2016	South African Reserve Bank
	$Consumption_N$(at a National level)	2000-2016	South African Reserve Bank
Hypothesis 2	Variables/proxy	Time series period	Data source
	$Wealth_r$ (home ownership in	2003-2015	Statistics South Africa

	rural households (hh)		
There is no difference in the amount of wealth between rural and urban households	Wealth$_u$ (home ownership in urban households (hh)	2003-2015	Statistics South Africa
Hypothesis 3	**Variables/proxy**	**Time series period**	**Data source**
The propensity to consume from wealth is higher in rural households than is the case in urban households, than the propensity to consume from income.	Wealth$_r$, consumption$_r$ Income$_r$	2009-2015	Statistics South Africa
	Wealth$_u$ Consumption$_u$ Income$_u$	2009-2015	Statistics South Africa

To empirically examine the relationship between wealth, income, consumption and inheritance (Hypothesis 1) South African data covering the years 1946-2016 was used. However, the years that will be considered are those years where rate of income growth was constant, 1975-2016.

The General Household Survey was selected as it contains information on asset accumulation categorised by urban, rural and metro households. Data for the Eastern Cape and Gauteng provinces were extracted from the General Household surveys as they represented both rural (Eastern Cape) and urban (Gauteng) geographical areas.

There are two critical criteria for inclusion of data for the variables outlined in table 2 above:
1) Uniform time period for each variable in the hypotheses/equations being tested.
2) Time period where there is constant income growth.

4.5 Data Analysis

A multiple OLS regression analysis will be performed by using the statistical package Eviews. The Eviews statistical package was chosen because of its capacity to test hypotheses using time series data that have been collected over a period of time on one or more variables.

4.5.1 Testing Hypothesis 1

H1: Wealth is a consequent of inheritance and income less consumption during the working period

In order to test the effect of income and consumption on wealth, OLS estimation in a linear regression model for time series was used(Nielson, 2005: 1).To build the model to test H1, as pointed out in Nielson (2001:1), the following equation is specified:

$$y_t = x_t\beta + \square \varepsilon_t, \tag{8}$$

Where y_t is a time series of interest, and x_t is a kX 1 dimensional vector of explanatory variablesfor observations t = 1, 2, 3,..., T; where β is a k X 1 vector of parameters to be estimated; and ε_t is an error term.As indicated in the inclusion criteria, the vector of regressors contain k explanatory variables dated at the same point in time as the left hand variable (y_t), in order to model a contemporaneous relationship between exogenous and endogenous variables. Thus

$$y_t = z_t\beta + \square \varepsilon_t, \tag{9}$$

To apply OLS in a regression model for time series datastationarity assumption is made:

As pointed out by Nielson (2005: 2), regression analysis fortime series data means that observations from the past are used to characterise historical relationships. In order to use the historical relationships to explain current and future developments,the future is required to behave like the past; and that is what the stationarity assumption is.

This study specifies the equation of this type

$$\text{WEalth}_t = a_0 + a_1 \text{Income}_{t-1} - a_2 consumption_{t-1} + \epsilon_t \tag{10}$$

4.5.2 Testing Hypotheses 2 and 3

(The propensity to consume from wealth is higher in rural households than is the case in urban households). In other words wealth is a strongest predictor of consumption in rural households, than in the case in urban households.

To test this hypothesis this study followed the same procedure as hypothesis 1. However the following two equationswerespecified:

Hypothesis 2

$$\text{Consumption\_rural}_t = a_0 + a_1 \text{Income\_rural}_{t-1} + a_2 Wealth\_rural_{t-1} + a_3 \text{EC}_{t-1} + \epsilon_{rt}$$

(11)

Hypothesis 3

$$\text{Consumption\_urban}_t = a_0 + a_1 \text{Income\_urban}_{t-1} + a_2 Wealth\_urban_{t-1} + \epsilon_{rt}$$

(12)

4.5.3 Testing for stationarity

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. This was run separately for urban and rural data. The ADF test is based on the following regression:

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

(13)

Where Δ is the first difference operator, X_t, which is the natural logarithm of the series δ_1, δ_2, and δ_i, 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.

$$X_t = \alpha + \rho X_{t-1} + \varepsilon_t$$

(14)

where$|\rho| < 1 \; and \; \varepsilon_t$ is also stationary with a mean of zero and variance σ^2

4.5.4 OLS regression Assumptions

Assumption 1: There is multivariate normality

The most fundamental assumption of OLS regression is normality, which refers to the shape of the data distribution for each variable in an OLS regression equation(Hair, Anderson, Tatham and Black, 1998: 70). A visual check of a histogram is a diagnostic test used to check for normality.

Assumption 2: Homoscedasticity

Homoscedasticity is an assumption that dependent variables exhibit equal levels of variance across the range of predictor variables (Hair, Anderson, Tatham and Black, 1998: 73). There are two ways to diagnostic tests for homoscedasticity: (1) graphical plot of residuals: and (2) the Levene diagnostic test. (Hair, Anderson, Tatham and Black, 1998: 75)

Assumption 3: Linearity

Linearity is the assumption that a linear model predicts values that fall in a straight line by having a constant unit change (slope) of the dependent variable for a constant change of the independent variable (Hair, Anderson, Tatham and Black, 1998: 37).

Assumption 4: There is no multicollinearity.

4.6 Ethical considerations of the study

This study utilized secondary data and a large part of the secondary data was obtained from Statistics South Africa. This study therefore needed to understand what procedures were followed by Statistics South Africa in identifying and recruiting potential respondents as well as how Statistics South Africa ensured that the respondents' information was kept confidential. In doing so, the Statistics Act of 1999 (Act No. 6 of 1999) makes provision for the following:

- Section 17 of the Statistics Act ensures that all individual information remains confidential. All Statistics South Africa officials are legally bound to uphold the confidentiality of collected data even once employment has ceased;

- Section 8 of the Statistics Act prohibits unauthorized access to individual information. This means that personal information which is gathered in terms of the Act cannot be shared with any unauthorized persons including government departments until the data has been aggregated for report purposes and the respondent's personal details have been excluded. Non adherence to the Act will see Stats SA employees facing fines of up to R10 000 and/or imprisonment.

Saunders et al. (2009; 193) state that data collection stage is associated with a range of ethical issues. The following sub-sections provide a summary of the ethical considerations that had to be adhered to while conducting the research.

4.6.1 Ensuring participants have given informed consent

According to Saunders et al. (2009; 193) the concept of informed consent refers to the importance of informing the participants of the nature of the research study. The researcher had to ensure that all participants who were included in the research were provided with all the information pertaining to the study in regard to the objectives, the nature of data or information to be collected, and the intended uses of the research findings. This provided the research participants the opportunity to autonomously give their informed consent to take part in the study. Due to secondary data being used, participants did not have to be interviewed as part of this study. However, the secondary data that was used had been through the review process and published thereby ensuring that the respondents and participants had already provided consent.

4.6.2 Ensuring no harm comes to participants

According to Sanders et al. (2009:194) critical consideration when conducting research is ensuring that no harm is caused to participants of the research project. Since secondary data was used in this study, the risk of harm befalling participants had been mitigated.

4.6.3 Ensuring confidentiality and anonymity

This study ensured that the identity of all participants was protected if applicable. This study ensured that all confidential data was kept securely. Since secondary data was sourced and used, there was no raw data collected from participants. All feedback and information from respondents was obtained from existing literature hence confidentiality and anonymity was addressed by researchers who conducted the initial investigations. Secondary data also varies in the amount of identifying information available for respondents to the original surveys. Most often, secondary data is void of any individual's personal information.

4.6.4 Ensuring that permission is obtained

According to Saunders et al. (2009: 194) "it is important that official channels are cleared by formally requesting permission to carry out a study". The researcher had to ensure that all information was obtained through the correct channels and permission was sought if required. The benefit of using secondary data as was the case with this study, is that the researcher was not required to obtain permission from the individuals who were originally surveyed. However, the correct channels to obtain information was followed and the researcher ensured that any rules or protocols instilled by Statistics South Africa were followed.

4.7 Conclusion

The research design and methodology used in conducting this research has been explained in the chapter above and reasons provided as to why the chosen methodology was used. Chapter four defines how the stated hypotheses will be tested in order to generate new knowledge around the lifecycle theory. This study follows a positivism philosophy since all the variables (Household Wealth, Income and Consumption) specified in the model are measurable using scientifically valid and reliable measures and the equations used to test the hypotheses are theoretically grounded.

This study looks to compare variables in both an urban and rural setting and as such the Eastern Cape was selected as proxy for rural areas and Gauteng as proxy for urban areas. Secondary data was sourced from Statistics South Africa's General Household Survey as well as data made available by the South African Reserve Bank. A deductive research design has been applied where the prescriptions of the lifecycle theory are tested through the creation of the three hypotheses. Rationale for utilising time series data in this study is provided.

The following chapter presents the results derived from conducting this research and the findings from the study will be interpreted and discussed. Chapter five will contain the final results of the research, the analysis of those results and also a sub-conclusion.

Chapter Five: Findings

5.1 Introduction

This chapter is divided into five parts. The first part describes the variables and the expected sign of each variable. The second part reports descriptive statistics of each variable of the study. Section 3 tests the assumptions for normality, linearity and homoscedasticity. Next is the section that reports the unit root test for each of the variables of this study. The last section addresses the three hypotheses of this study by estimating the three equations listed below using OLS regression for time series data:

H1: $\text{Wealth\_National}_t = a_0 + a_1 \text{IncomeN}_{t-1} - a_2 Consumption\_N_{t-1} + \epsilon_t$

H2: $\text{Consumption\_rural}_t = a_0 + a_1 \text{Income\_rural}_{t-1} + a_2 Wealth\_rural_{t-1} + \epsilon_{rt}$

H3: $\text{Consumption\_urban}_t = a_0 + a_1 \text{Income\_urban}_{t-1} + a_2 Wealth\_urban_{t-1} + \epsilon_{rt}$

5.2 Variable description, data and expected signs

As mentioned in Chapter 4 this study has three dependent variables: (1) Wealth$_N$; (2) consumption$_{rural}$; (3) consumption$_{urban}$. The independent variables are: (1) IncomeN,(2) ConsumptionN for time period 1975-2016; (3)Income_rural, (4) income_urban, (5)wealth_rural and (6) wealth_urban for time period 2003-2015 (see Table 3 below).

Wealth$_N$ uses the Net wealth of households at a national level as a proxy to measure national wealth. Disposable income per capita of households was used as a proxy to measure National income (Income_N). Final consumption expenditure by households was used as a proxy to measure average household consumption at a national level (Consumption_N).

Data for the Eastern Cape was used as a proxy to measure rural household wealth, rural household income and rural household consumption. Gauteng is used as a proxy

to measure urban household wealth, urban household income and urban household consumption. These geographical areas were selected based on data and research provided by Statistics South Africa which provided rationale for using these proxies taking the communities and economic landscape into consideration.

Hypotheses	Variables/proxy	Expected sign	Time series period
H1	$Income_N$	+	1975-2016
	$Consumption_N$	-	1975-2016
H2	$Income_r$	+	2003-2015
	$Wealth_r$	+	2003-2015
H3	$Income_u$	+	2003-2015
	$Wealth_u$	+	2003-2015

In line with the lifecycle theory model developed in Chapter 4, income at national level is expected to have a positive sign. Consumption at national level is expected to have an inverse relationship with wealth as argued in chapter four. This means that as wealth increases consumption decreases. Likewise, as discussed in chapter four, wealth is the strongest predictor of consumption in rural households (H2) and income is expected to be the strongest predictor of consumption in urban households; and all the variables in H1 and H2 are expected to have a positive sign.

5.3 Descriptive Statistics of the variables in the study

Table 4 shows that average wealth of households per capita, at national level, in the period under consideration(1975-2016) is R2, 506 million (R2,5 billion).
The median value of Wealth_N as shown in Table 4 indicates that fifty percent of South African's wealth per year over the period under consideration is R1,184 billion. The standard deviation of 2911 is quite high, illustrating that there is high variability of wealth or high wealth inequality in South Africa.

Variable	Series Period	Rmillion				
		Mean	Median	Maximum	Minimum	Std Dev
Wealth_N	1975-2016	2506	1184	9861	72	2911
Income_N	1975-2016	14407	96554	46771	696	13908
Consumption_N	1975-2016	695496	375342	2577869	16058	768305
Wealth_R	2003-2015	66	65	71	61	4
Income_R	2003-2015	66569	77353	90156	32275	20292
Consumption_R	2003-2015	20666	20724	21840	19572	788
Wealth_U	2003-2015	35	34	40	32	3
Income_U	2003-2015	152925	174996	193771	78111	40827
Consumption_U	2003-2015	49214	49836	56280	42372	5215

At a national level, the average income of households between 1975-2016 is R 14,407 million (R 14.4 billion). The median value of Income_N shows that fifty percent of South Africa's yearly income for the period under review is R 46, 771 million (R 46.77 billion). The standard deviation of 13908 illustrates high income inequality in South Africa.

Table 4 shows that average household consumption at a national level (Consumption_N) between 1975-2016 is R 695, 496 million. The median value of Consumption_N indicates that fifty percent of South Africa's yearly consumption for the assessed period is R 375, 342 million. The standard deviation is high illustrating that there is high variability of consumption in South Africa.

Wealth in rural areas (Wealth_R) averaged at R 66 million whereas wealth in urban areas (Wealth_U) averaged at R 35 million in the period under consideration (2003-2015). The median value of Wealth_R indicates that fifty percent of South African's living in rural areas wealth per year over the period under consideration is R 65 million and fifty percent of South African's living in urban areas wealth per year (Wealth_U) is R 34 million for the same period. The standard deviation for both rural and urban wealth shows low variability, a standard deviation of 4 for rural and 3 for urban.

Table 4 shows that average income in rural areas between 2003-2015 is R 66, 569 million with a median value of R 77, 353 million for Income_R. The standard deviation of 20292 is high, illustrating that there is a high variability of income in rural areas.

Average income in urban areas (Income_U) between 2003-2015 is R 152, 925 million with a median value of R 174, 996 million. The standard deviation of 40827 shows high income inequality in urban areas.

The average consumption in rural areas (Consumption_R) between 2003-2015 is R 20, 666 million. The median value of Consumption_R as shown in table 4 indicates that fifty percent of South Africans living in rural areas' consumption per year over the period under consideration is R 20, 724 million. The standard deviation of 788 illustrates that there is low variability of consumption in rural areas in South Africa.

The average consumption in urban households (Consumption_U) between 2003-2015 is R 49, 214. The median value of Consumption_U shows that fifty percent of rural dwelling South African's consumption per year is R 49, 836. The standard deviation of 5215 is high and illustrates high variances in consumption in urban areas.

## 5.4 Testing OLS regression Assumptions

Ordinary least squares results are valid only when the assumptions underlying the statistical technique are holding. Without verifying whether OLS regressions assumptions are met or not may lead to misleading findings. Therefore this section looks at diagnostics test to check the validity of the assumptions underlying OLS regression, and makes necessary transformations to ensure that the assumptions are met. Results are valid only when the OLS regression assumptions made hold. Each of the variables in each hypothesis is looked at.

5.4.1 Testing for OLS regressions for Hypothesis 1

H1: $\text{WEalth\_National}_t = a_0 + a_1 \text{IncomeN}_{t-1} - a_2 Consumption\_N_{t-1} + \epsilon_t$

Figure 4 below shows that there does not indicate any nonlinear relationship between Wealth_Nand the independent variables Income_N, and Consumption_N.
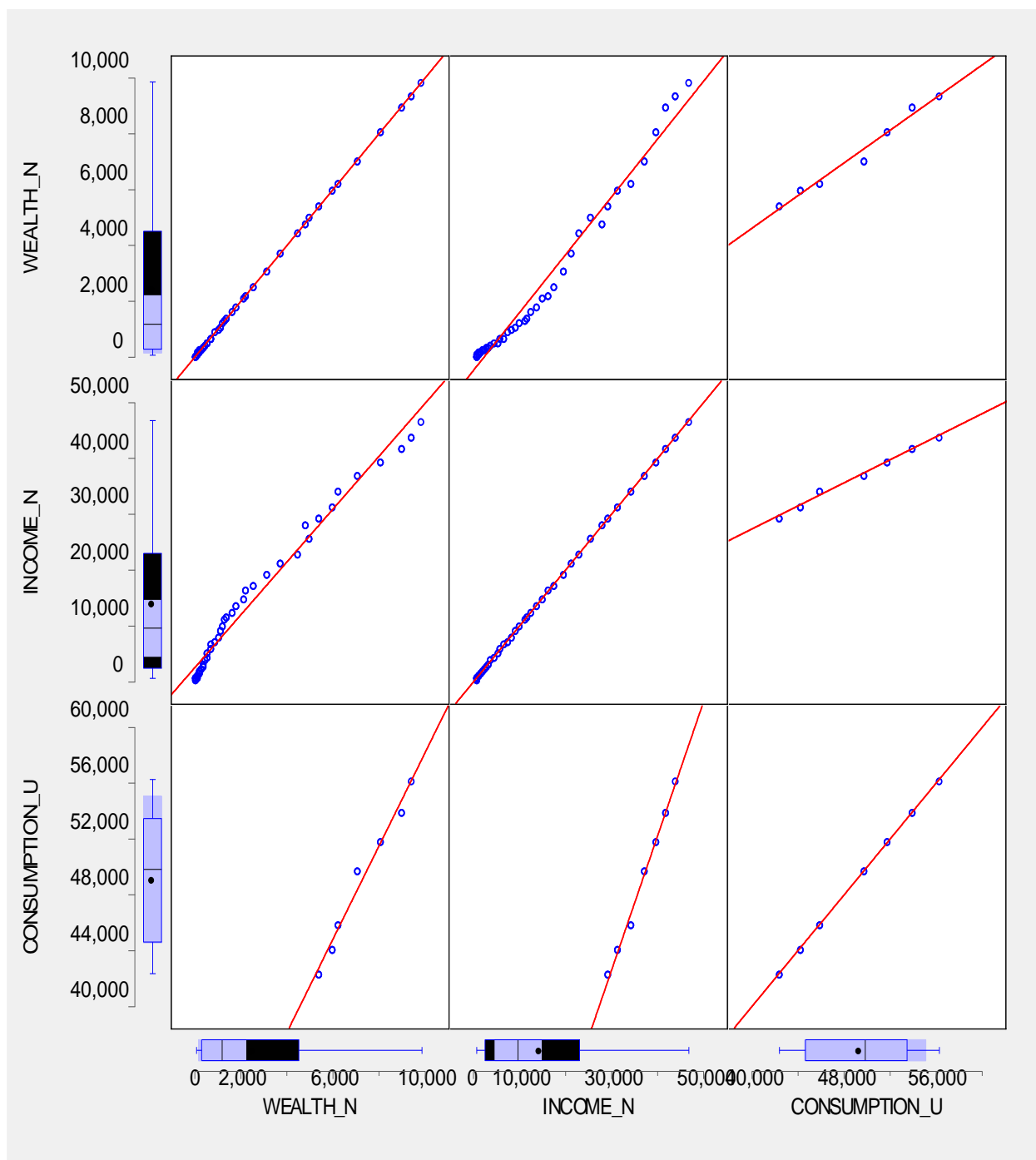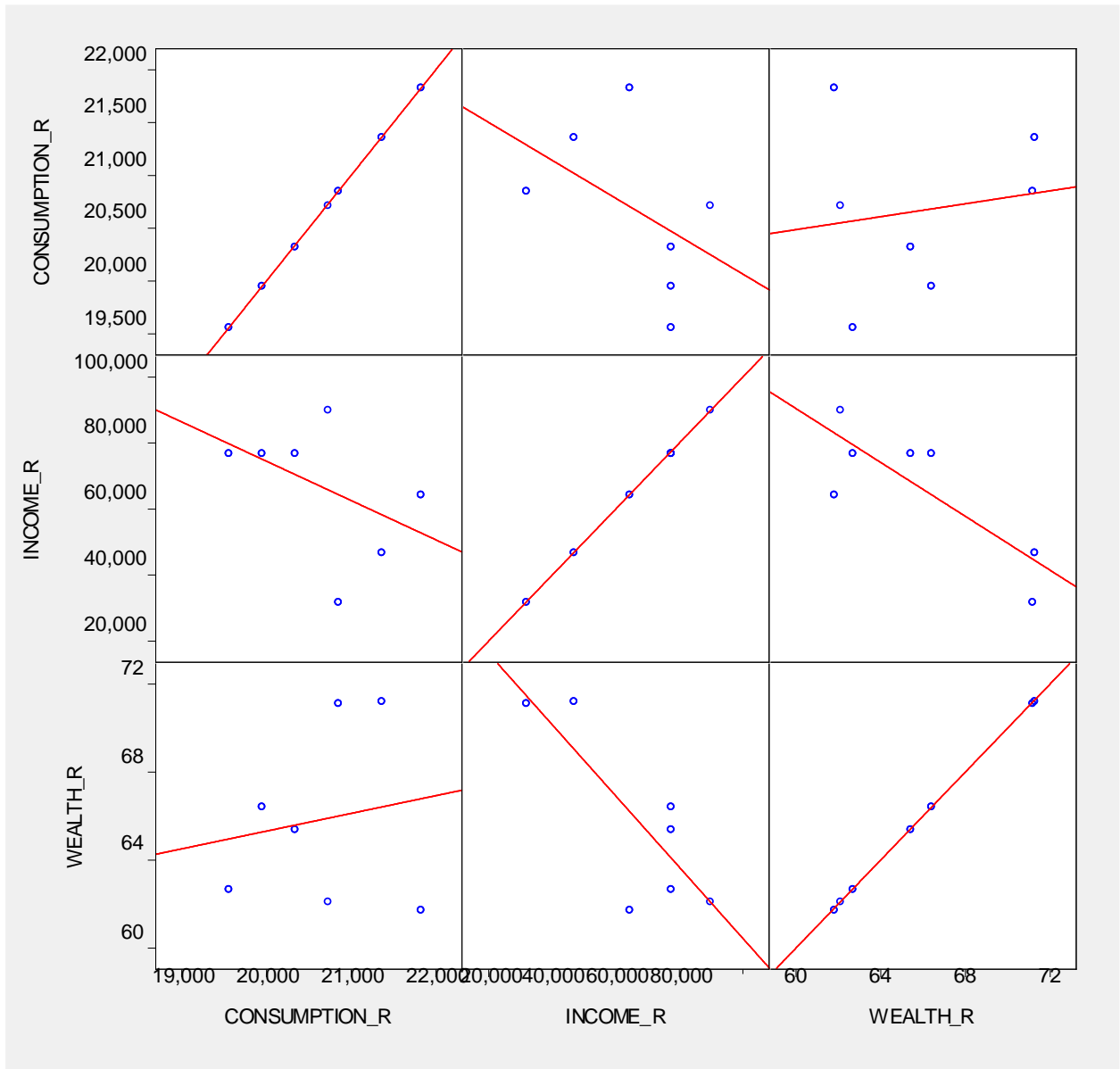
5.4.2 Testing for OLS Assumptions for variables in Hypothesis 2

$$H2: \text{Consumption\_rural}_t = a_0 + a_1 \text{Income\_rural}_{t-1} + a_2 Wealth\_rural_{t-1} + \epsilon_{rt}$$

Figure 5 below shows that most of the variables in Hypothesis 2 (consumption_r and wealth_r; wealth_r and Income_r; consumption_r and Income_r;) exhibit nonlinear relationships.

**FIGURE 5: TESTING FOR OLS ASSUMPTIONS FOR VARIABLES IN HYPOTHESIS 2**

To remedy nonlinearity transformation of the independent data was conducted as suggested by Hair et al (1998:78) by employing a square root transformation of the variables.

5.4.3 Testing for OLS Assumptions for variables in Hypothesis 3

H3: $\text{Consumption\_urban}_t = a_0 + a_1 \text{Income\_urban}_{t-1} + a_2 Wealth\_urban_{t-1} + \epsilon_{rt}$

Figure 6 shows that wealth and income exhibit an unlinear relationship. Similar to the previous case nonlinearity was remedied by transforming Wealth_U and Income_U data by employing a square root transformation of the data.

FIGURE 6: TESTING FOR OLS ASSUMPTIONS FOR VARIABLES IN HYPOTHESIS 3
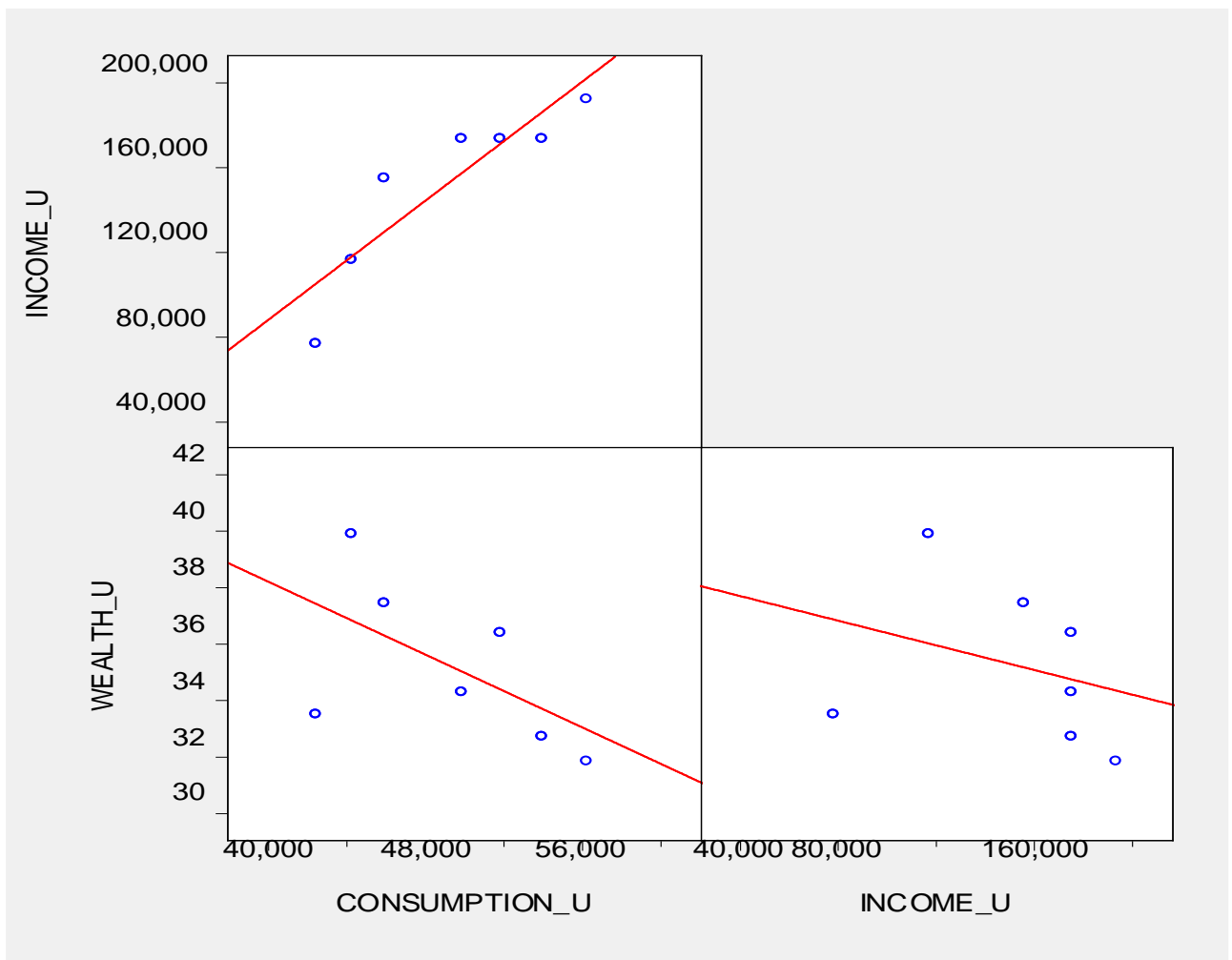
5.5 Unit Root Test Results

The results of the ADF for unit root for the variables are listed below. The null hypothesis is that the exogenous variables have a unit root. The rejection of the null hypothesis for ADF test is based on the Mackimon (1996) critical values and p-values

5% and 1%.

	In level series		1st Difference Series	
	ADF	P value	ADF	P value
Income_N	13.982	0.000	-	-
Consumption_N	3.607	0.001	-	-
Income_r	-1.930	0.1257	-4.208	0.148
Wealth_r	-7.220	0.018	-	-
Income_u	-3.550	0.023	-	-
Wealth_u	-1.588	0.1877	-7.006	0.090

The results in Table 5 show that the null hypothesis of unit root is rejected for in level series for Income_N, Consumption_N (p≤0,001)). In other words, in level series yielded stationary variables at 99% significance level. The null hypothesis of unit is also rejected for in level series for Wealth_r and Income_u (p<0.05), meaning that Wealth_r and Income_u yielded stationary variables. Table 5 above also shows that Wealth_u was stationary at first difference although the significance level is only 90% (p=0.090). Income_r was found to be nonstationary even at 1st difference.

5.6 Testing Hypothesis 1

H1: $\text{WEalth\_National}_t = a_0 + a_1 \text{Income\_N}_{t-1} - a_2 Consumption\_N_{t-1} + \epsilon_t$

Table 6 provides OLS regression outcome using ordinary least squares regression analysis, where Income_N is the dependent, and the time period under consideration is 1975-2016.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
INCOME_N	-0.154772	0.026505	-5.839381	0.0000
CONSUMPTION_N	0.006571	0.000480	13.69485	0.0000
C	165.5899	60.95836	2.716442	0.0098
R-squared	0.996642	Mean dependent var		2505.762

Adjusted R-squared	0.996470	S.D. dependent var		2910.744
S.E. of regression	172.9484	Akaike info criterion		13.21261
Sum squared resid	1166535.	Schwarz criterion		13.33673
Log likelihood	-274.4649	Hannan-Quinn criter.		13.25811
F-statistic	5787.195	Durbin-Watson stat		1.202218
Prob(F-statistic)	0.000000			

Estimation Equation for Hypothesis 1 is:

Wealth_N = C(1)*Income_N + C(2)*Consumption_N + C(3)

Substituted Coefficients:

WEALTH_N = -0.154771667074*INCOME_N + 0.0065707802264 *

CONSUMPTION_N + 165.589869465

The results show that the hypothesis that income and consumption predicts wealth have been supported, and the relationship between wealth, income and consumption is statistically significant at 99% significance level (p< 0.000). The high R-square value of 0.996642 shows that the model specified for hypothesis 1 fits the data parsimoniously. However the direction of the relationship is not as expected IncomeN is negative and Consumption_N is positive.
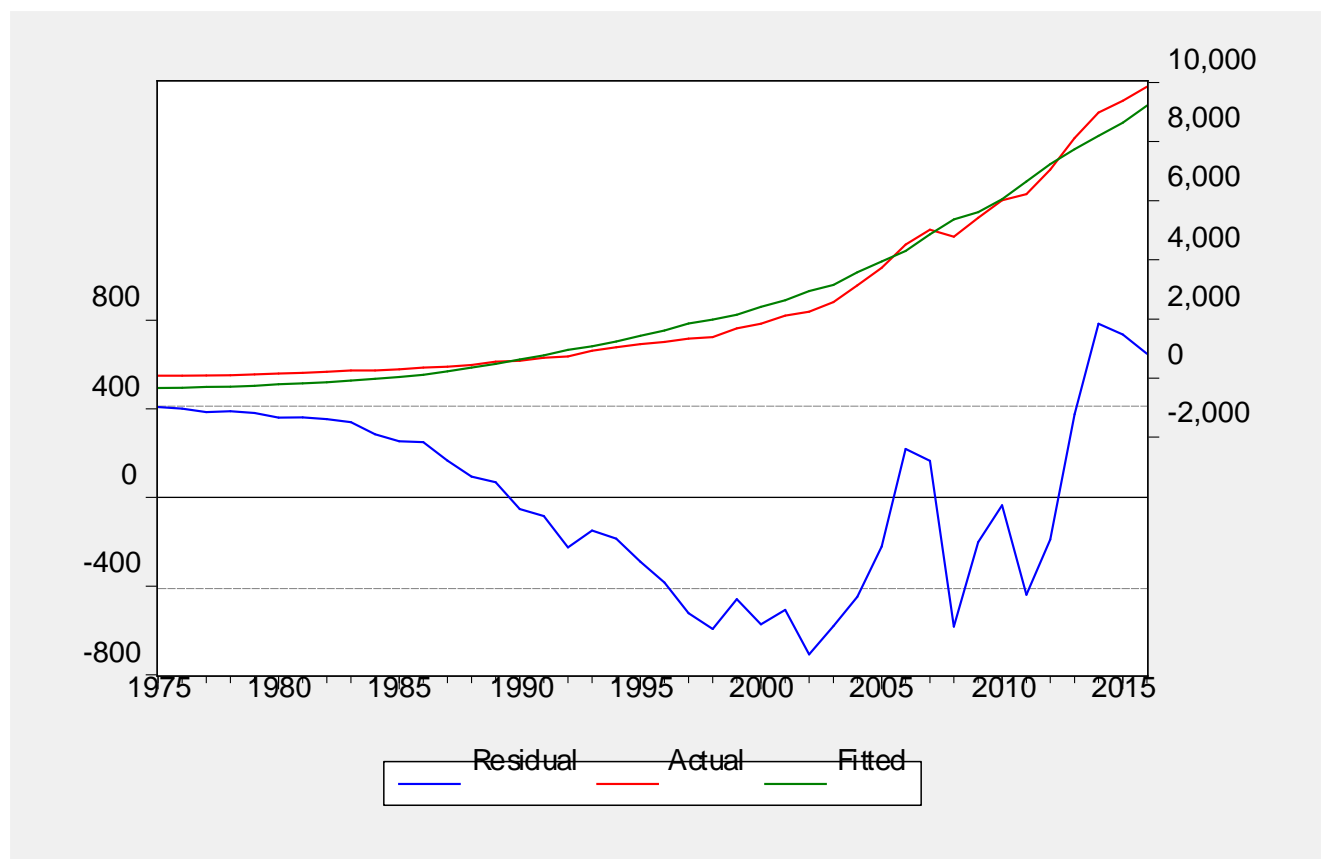
The residual graph above shows that the residuals have been stable from 1975 to about 1983, by highly unstable between 1985-2015. This could be accounted for by the major changes in the political and economic landscape of the country as the period coincides with the time of regime change and economic adjustments.

South Africa's GDP saw a surge during Thabo Mbeki's reign as South African president between 2002-2007. The recession then affected economies between 2008-2009 which resulted in a decline in South Africa's GDP. Between 2010-2015, there has been hardly any growth and a steady decline in GDP under Jacob Zuma's tenure as South Africa's president. Zuma's era as president was clouded by controversy regarding State Capture and misuse of public funds amid other issues which had a direct result on foreign investment in South Africa. A continuously declining GDP and a steadily increasing population resulted in the country growing poorer per person. This is a direct result of the population growth continuously outstripping economic growth.

120

5.7 Testing Hypothesis 2

H2: $\text{Consumption\_rural}_t = a_0 + a_1 \text{Income\_rural}_{t-1} + a_2 Wealth\_rural_{t-1} + \epsilon_{rt}$

Given the limited income and employment opportunities in the rural setting, this study put forward a hypothesis that wealth in a predominantly rural setting, will be a stronger predictor of consumption than income. This assumption holds as illustrated when the coefficients in the estimated equation are substituted in the relationship:

CONSUMPTION_R = -0.0382790986415*INCOME_R - 125.623052562*WEALTH_R + 31486.3676074

The substituted regression equation above shows that wealth is a much stronger predictor of consumption, than income in a rural setting (-125.623052562). However this relationship is not statistically significant and the R-square value is low (0.354691).

TABLE 7: HYPOTHESIS 2 OUTPUT

Dependent Variable: CONSUMPTION_R				
Estimation Method: Least Squares				
Sample (adjusted): 2009 2015				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
INCOME_R	-0.038279	0.026764	-1.430268	0.2259
WEALTH_R	-125.6231	134.4098	-0.934627	0.4029
C	31486.37	10355.42	3.040570	0.0384
R-squared	0.354691	Mean dependent var		20665.71
Prob(F-statistic)	0.416423			

LS CONSUMPTION_R INCOME_R WEALTH_R C
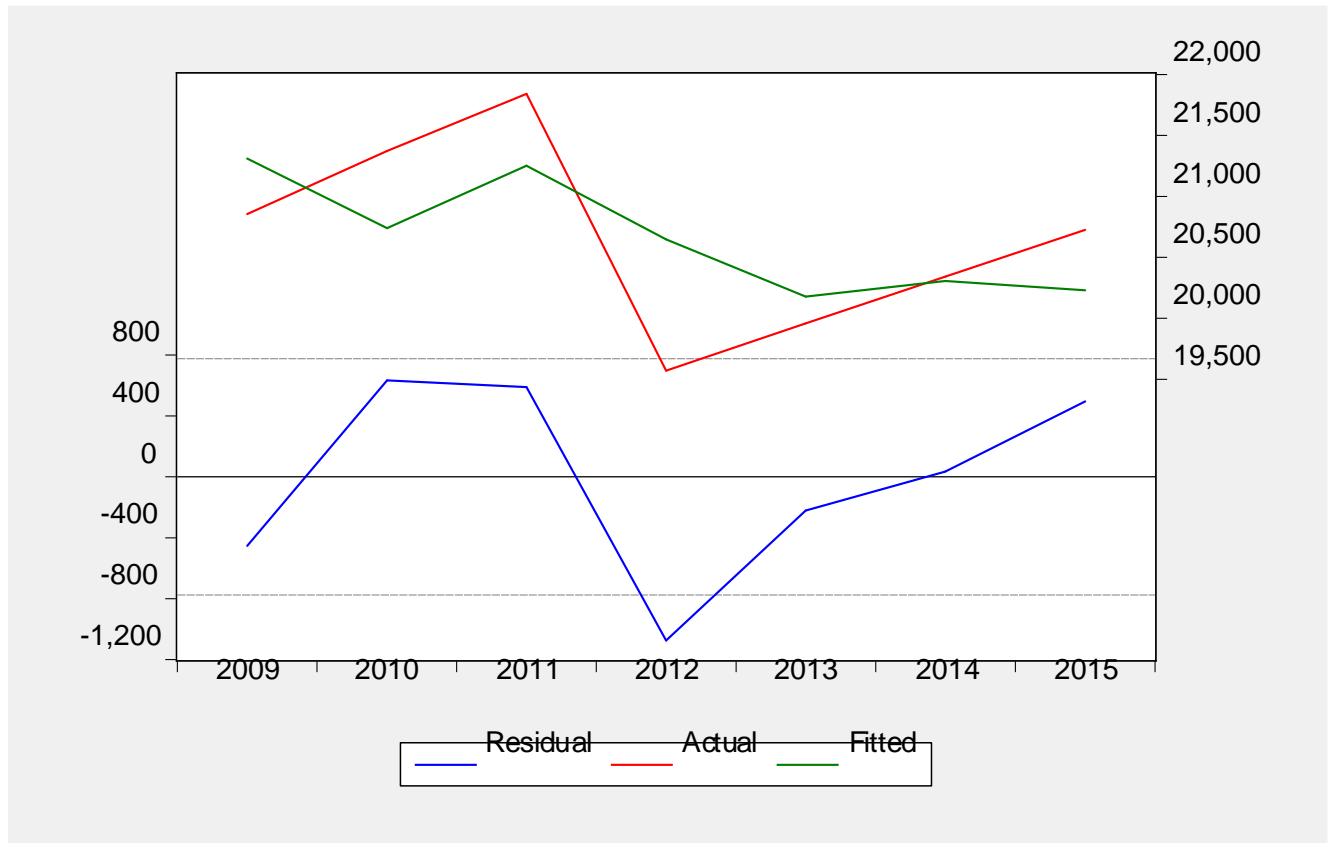
Estimation Equation:

CONSUMPTION_R = C(1)*INCOME_R + C(2)*WEALTH_R + C(3)

Substituted Coefficients:

CONSUMPTION_R = -0.0382790986415*INCOME_R -125.623052562* WEALTH_R
+31486.3676074

The residual values as shown in the figure above are unstable for the periods under review (2009-2016). This can be attributed to regime change, political uncertainty as well as an extended period of economic uncertainty post the 2008 financial crisis which adversely affected global markets and had a direct impact on household income and consumption.

5.8 Testing Hypothesis 3

H3: $\text{Consumption\_urban}_t = a_0 + a_1 \text{Income\_urban}_{t-1} + a_2 Wealth\_urban_{t-1} + \epsilon_{rt}$

Higher income and employment opportunities in urban areas gave rise to Hypothesis 2 which confirmed that wealth rather than income is a stronger predictor of

consumption. H3 aims to confirm if the opposite is true in an urban setting and if income rather than wealth is a stronger predictor of consumption in urban areas.

Dependent Variable: CONSUMPTION_U				
Method: Least Squares				
Sample (adjusted): 2009 2015				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
INCOME_U	0.101351	0.020459	4.953907	0.0077
WEALTH_U	-606.2939	288.4770	-2.101706	0.1035
C	55078.71	11542.38	4.771867	0.0088
R-squared	0.907108	Mean dependent var		49213.71

LS CONSUMPTION_U INCOME_U WEALTH_U C

Estimation Equation:

CONSUMPTION_U = C(1)*INCOME_U + C(2)*WEALTH_U + C(3)

Substituted Coefficients:

CONSUMPTION_U = 0.10135081355*INCOME_U - 606.293901457*WEALTH_U + 55078.7059427

The substituted regression equation shows that income is a much stronger predictor of consumption than wealth in a urban setting. This relationship is significant and the R-value is high (0.907108).
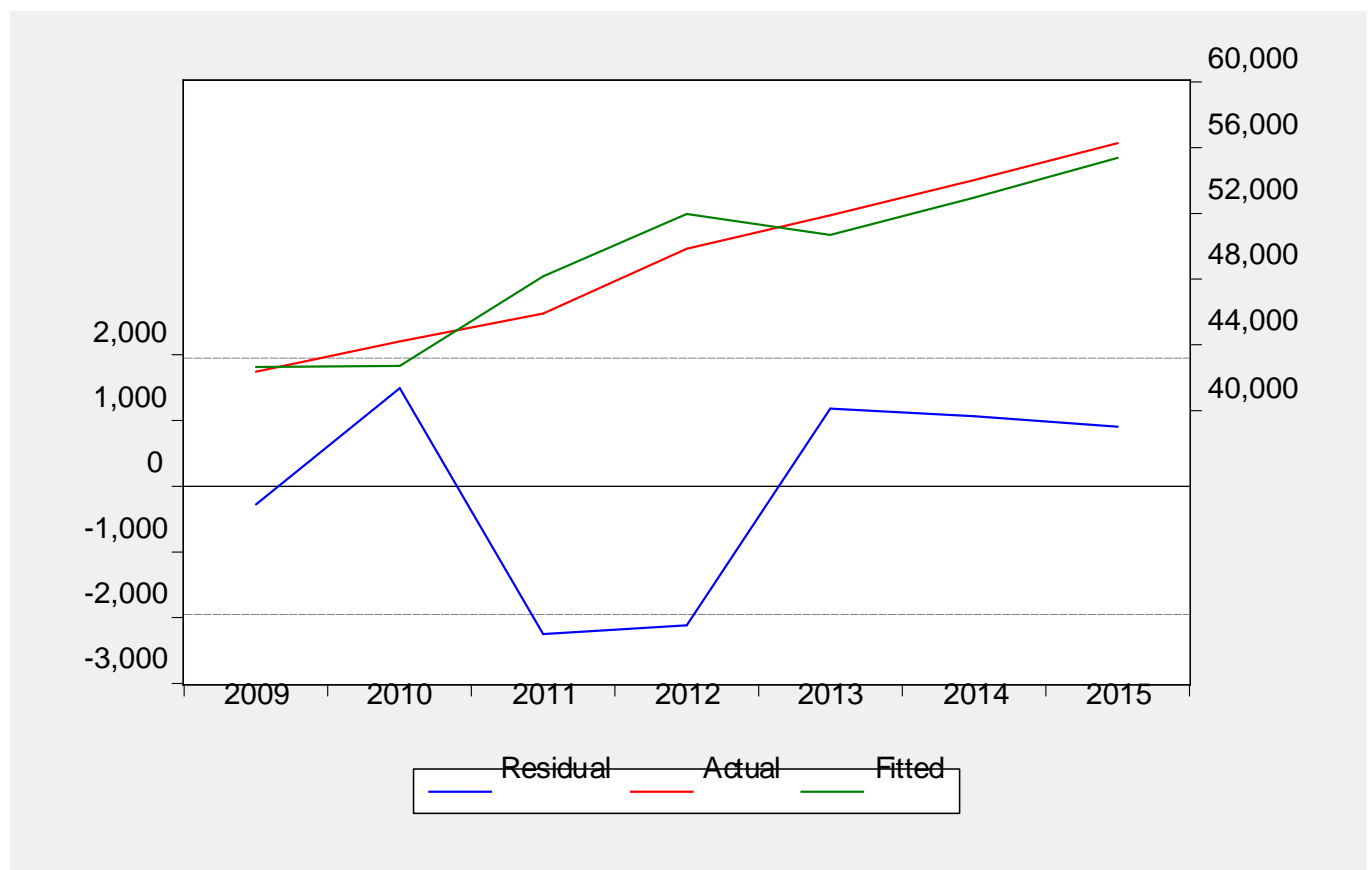
The residual graph above shows that the residuals have been unstable between 2009-2015. This could be accounted for by the major changes in the political and economic landscape of the country. The 2008 financial crisis which was caused by the economic recession could have contributed to an extended period of economic uncertainty in South Africa. This period also coincides with the time of regime change and economic adjustments in South Africa.

5.9 Conclusion

The central purpose of this chapter has been to test the Life cycle theory. Life cycle theory says that people increase their spending as income increases. The theory also argues that when people are young they initiate saving plans and consumes in a manner that allows them to save for retirement. The theory suggests that saving is positive for young households and negative for the retired. The chapter started off by describing the key features of the data (mean, median and standard deviation).

This chapter tested the lifecycle theory in three different ways as captured in hypotheses H1, H2, and H3. Life cycle theory is based on the assumption that wealth is accumulated over generations and is passed on as inheritance to the next generation, either in the form of assets or funds to pay for education. Therefore if the lifecycle theory holds there should be a surplus of income (positive sign of the Income_N variable) after consumption (negative sign of consumption). These assumptions are captured in the first hypothesis specified as follows:

$$H1: \text{WEalth\_National}_t = a_0 + a_1 \text{IncomeN}_{t-1} - a_2 Consumption\_N_{t-1} + \epsilon_t$$

The hypothesis 1 test results show that while income and consumption predicts wealth the direction of the relationship is not as expected IncomeN is negative and Consumption_N is positive. The implication of this finding is that, the assumptions of the lifecycle theory that wealth will be predicted by a positive difference between income and consumption, has not held. This means that in the South African context, wealthier households (at National level) consume more than the income they generate.

Given the limited income and employment opportunities in the rural setting, wealth in the form of (land, farm stock and agricultural produce) is seen to be a stronger predictor of consumption than income. Even though the assumption held and findings showed that wealth is a much stronger predictor of consumption, than income in a rural setting, the relationship between consumption and the predictor variables – wealth and income was not statistically significant.

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 this study endogenous variables include Wealth_N in the period 1975-2016, and Consumption in the rural and urban settings in the period 2003-2015. As explained earlier, unit root test was conducted to test stationarity of data so that if data is non stationary it can be transformed by performing 1st or 2nd level difference. The unit root test found that all variables were stationary except for Income_r and wealth_u. After 1st level difference the data was still not stationary and 2nd level differencing could not be performed because of the few data points (2003-2015). This perhaps explains why both hypothesis 2 and 3 of this study could not be supported.

Chapter Six: Discussion and Conclusion

6.1 Aim of the study

This study sought to understand wealth and income differences among South Africans at a national level and differences in wealth and income in urban versus rural households. Given the different modalities of generating savings in rural areas in comparison to urban areas is it possible that the drivers of savings, wealth and income are different in rural and urban households? Is it even possible that rural households are wealthier than urban areas? These questions are addressed plausibly using lifecycle theory because the theory makes a clear distinction between savings, income, consumption and wealth.

This thesis sought to test the lifecycle theory in a South African setting by looking at the consequences of inheritance and income less consumption in rural and urban households. The study also tested the hypothesis that rural households have a higher propensity to consume from wealth than urban households. The research problem articulated in Chapter 1 shows that there is paucity of data on real income, savings and wealth in rural areas. As such, consumption and expenditure data is used as proxies for measuring household income.

6.2 Theoretical framework

The key theoretical framework that underpins this study is the lifecycle theory which is a multidisciplinary theoretical framework used in management, economics, public administration, development and wellbeing studies. As described by Jappelli and Modigliani (1998:1) lifecycle theory argues that when people are young they make savings and consume in a manner that allows them to save for retirement. The theory as described by Jappelli and Modgliani suggest that saving is positive for young households and negative for the retired.

The history of the lifecycle hypothesis theory can be attributed to the father of modern economics, Adam Smith, who in 1776 paved the way for modern economists since he provided the foundation in trying to understand wealth creation. Following on the work

by Smith, Keynesian economics whose founder was John Maynard Keynes (1936) put forward the notion that individuals allocated savings proportionately to their income. In other words the percentage they allocated towards savings grew as their income increased. Post the Keynesian era, Modigliani and Brumberg (1954), Modigliani and Ando (1957) and Ando and Modigliani (1963) created the Life cycle Hypothesis theory which presumed that people design their spending habits over their lifetimes considering any future income they plan on receiving. The main reason for saving is to accumulate enough of savings so that what has been saved during the working years can be consumed later during retirement. The key thought that the Life cycle Hypothesis puts forward is that savings is positive for young households and negative for the retired.

Literature review revealed other theorists like (Piketty et al., 2010; Japelli and Modgliani 1998, Jappelli, T. and Pistaferri, L. 1999) who argue that wealth is either inherited or accumulated through saving current income. Hefferan (1982:1), found that the decision to save and the level of saving are influenced by income, level of wealth and family characteristics and that saving patterns vary among people in different geological locations. Davis and Schumm (1987:1) investigated savings behaviour and satisfaction with savings of low and high income households between 1977-1978. They found that above the threshold level, savings rose very rapidly as income increased. Jing *et al.* (1994) have shown that since an individual's wealth and income are intertwined, a correlation can be made between an individual's current income and the creation and management of sustainable wealth.

The literature review goes on to show how other scholars, (for example Bhorat, H., van der Westhuizen, C. and Jacobs, T.,2009; and Zucman *et al.*2014); recognized that the magnitude and distribution of wealth plays an important role in the distribution of income. Booysen et al. (2005:1) analysed trends in poverty in seven African countries using an asset index constructed from data collected from nationally representative demographic and health surveys with the aid of multiple correspondence analysis. Booysen's study found that rural poverty in all cases exceeded urban poverty (Booysen, 2005:1).However, limitations in terms of the asset index not containing a complete measure of household wealth meant that the findings of the study need to be cautiously interpreted."The asset index approach to analysis

of poverty is unfortunate as the available income and expenditure data for African countries often are unreliable, patchy and not directly comparable" (Booysen, 2005:1).

Literature review has also shown that information about the financial situation of households in South Africa is mostly expressed in terms of their income, poverty and the impact of price increases on their cash flows. However, this is a very narrow view as it only focuses on household income and expenditure. Households also possess balance sheets which affect and are affected by households' financial decisions and – behaviour (Momentum and UNISA, 2012). Studies have shown that many households are income-poor but rich in assets, indicating the importance of also monitoring household wealth to arrive at a more comprehensive understanding of the true financial health of households in South Africa (All Media and Products Survey, 2012). Despite nominal increases in net wealth, household wealth is not performing well at all – especially against the background of real growth in disposable income over the mentioned period (All Media and Products Survey, 2012). On average, real household wealth per household decreased over the period 1975 – 2012 (Momentum, 2012). Changes in the wealth of the household sector affect final consumption expenditure by households and accordingly, final demand in the economy (Kuhn, 2010:8).

6.3 Gaps in Literature

While there seem to be evidence that income inequality has decreased post 1994, literature does not clearly elucidate whether economic policies post 1994 have increased or decreased wealth in households. Furthermore, it is not clear whether rural households are more or less wealthier than their urban counterparts.

Income inequality and wealth inequality variables were identified from different perspectives of rural and urban population. It is evident from the literature studied that abundant literature exists on inequality and poverty however, not enough focus and attention is given to the current situation in South Africa.

While Gini coefficients can be used to compare income distribution over time (Litchfield, 1999), there are few studies that have measured household wealth

differences amongst rural and urban communities. Authors such as Bhorats, van der Westhuizen and Jacobs (2009); Hodge (2009) and Lebbrandt, Woolard and Woolard (2000), have looked at income inequality. However, these studies did not distinguish between income earned by people living in rural areas versus those living in urban areas. Even Blau and Graham's (1989) wealth model and Booysen, van der Berg, Burger, von Maltitz and du Rands (2005) study that developed a wealth index, did not distinguish between rural and urban household wealth. This study aims to fill this gap, first by distinguishing between wage income and wealth and also by examining urban/rural differences in the magnitude and composition of wealth. Different studies have defined wealth differently. For example Jappelli and Modigliani (1998) define wealth as the sum of pension wealth and private wealth. The authors (Jappelli and Modigliani) point out that except for capital gains and losses the first difference of total wealth is total saving, and the first difference of private wealth is private saving. According to Japelli and Pistaferri (2000) wealth, in the networth in other words the sum of household's financial assets and net real assets. Japelli and Pistaferri (2000) define financial wealth as the sum of transaction and saving accounts, certificates of deposit, government bonds, corporate bonds, stocks, mutual funds and management investment accounts, cash values of life insurance, cash values of defined contribution pension funds, and foreign assets.

Although Japelli and Pistaferri use indicators of financial wealth that are not likely to be used in a rural setting, this study adopts their approach in looking at wealth. However this study sought to identify the key measures of wealth in a rural setting. In line with Jappelli and Pistaferri (2000)'s findings that showed that there are differences between income inequality and wealth inequality, this study seeks to test this notion in the South African context by testing the following hypotheses:

H1: Wealth is a consequent of inheritance and income less consumption during the working period

H2: There is no difference in the amount of wealth between rural and urban households.

H3: The propensity to consume from wealth is higher in rural households than is the case in urban households, than the propensity to consume from income.

6.4 Overview of Chapters

Chapter one introduces the study. It looks at the current economic situation in South Africa and provides rationale as to why the research was worthwhile pursuing. Studies have shown that South Africa's poor are getting poorer although the government has implemented various policies to alleviate poverty. A scarcity in research on rural versus urban wealth and income inequality was a key driver in this study. Three key hypotheses were stated.

Chapter two provides context as to why the selected research topic was chosen. It provides a background to the root causes and effects of wealth and inequality in South Africa as well as the repercussions of these causes on both a micro and macro level. It is prevalent from the historical information uncovered that South Africa's past had a major influence on the current economic situation. Segregation policies like apartheid promoted inequality and was the main cause of the vast discrepancies in the levels between rural and urban wealth.

Chapter three is divided into two sections. The first section is the Literature review which looks at popular theories as well as previous research which was undertaken in order to guide the direction of this study. The Literature review starts off by firstly defining the Life Cycle Hypothesis theory. It then goes on to explain the evolution of the theory by looking at contributions by theorists such as Adam Smith who laid the foundation for modern wealth economists as well as contributions to the Life cycle theory by John Maynard Keynes who is recognised for the creation of Keynesian economics. The Life cycle Hypothesis model as created by Modigliani and Brumberg (1954); Modigliani and Ando (1957); and Ando and Modigliani (1963) is then described. The Literature review is then concluded by looking at contradictions and opposing theories to the Life cycle theory. The Conceptual Framework makes up the second component of chapter three. It begins by showing the relationship between the different variables measured in this study in order to develop a conceptual model and

then goes on to state the 5 Life cycle theory equations as expressed by Modigliani and Ando.

Chapter four describes how the hypotheses were tested in order to create new knowledge around the Life cycle theory. The chapter started off by looking at the epistemological basis of the study followed by a discussion of how the study was designed. Data was then described, detailing the data sources and how the variables are measured. This was then followed by a section that outlines the variables and *apriority* expectations. Thereafter the chapter discusses how the models expressed in the three hypotheses of the study are specified and how they are estimated. Multiple OLS regression analysis was outlined in detail including its uses and how the results are tested for integrity. The Eviews statistical package was chosen because of its capacity to test hypotheses using time series data that have been collected over a period of time on one or more variables.

The focus of chapter 5 was on the study's findings. Chapter 5 also aggregated all the variables and looked at the relationship between independent variables to the dependent variables. Chapter 6 ties all the chapters together. It provides the aim of the study, the theory which helped design the research approach, variables used as well as the results of the research. Most importantly, chapter 6 explains how this research has contributed to knowledge. The impact that this study has in practice as well as limitations of the study conclude the chapter.

6.5 Research Findings

Hypothesis 1: Wealth is a consequent of inheritance and income less consumption during the working period

This study used the Net wealth of households at a national level to measure national wealth (Wealth_N). Disposable income per capita of households was used as a proxy to measure national income (Income_N). Final consumption expenditure by households was used as a proxy to measure average household consumption at a national level.

The results show that the hypothesis that income and consumption predicts wealth have been supported, and the relationship between wealth, income and consumption is statistically significant at 99% significance level.

The results which were obtained for hypothesis 1 showed that although income and consumption predicts wealth, the direction of the relationship is not as expected. National Income (Income_N) is negative and national consumption (Consumption_N) is positive. The implication of this finding is that, the assumptions of the lifecycle theory that wealth will be predicted by a positive difference between income and consumption, has not held. This means that in the South African context, wealthier households (at National level) consume more than the income they generate. This confirms the theory by Bazhenoa and Krytsun (2013:73) who reported that the Life cycle theory needs to be analysed and studied further because various demographic regions will have their own savings, consumption and investment patterns and argued whether or not it would be possible to apply the Life cycle model in the South African context. This study has answered the question in showing that the Life cycle theory does not hold true when applied in the South African context. The study also found that residuals were stable from 1975 to 1983 but were highly unstable between 1985 – 2015 due to major changes in South Africa's political and economic landscape. The period studied coincided with regime changes and economic adjustments in South Africa.

Hypothesis 2: There is no difference in the amount of wealth between rural and urban households; & Hypothesis 3: The propensity to consume from wealth is higher in rural households than is the case in urban households, than the propensity to consume from income.

This study used data for the Eastern Cape as a proxy to measure rural household wealth, rural household income and rural household consumption. Gauteng was used as a proxy to measure urban household wealth, urban household income and urban household consumption.

To test hypotheses 2 and 3 this study needed to firstly determine if there are any differences in the magnitude of wealth between rural and urban areas and secondly

to determine if wealth is indeed the strongest predictor of consumption in rural households than in the case for urban households.

The assumptions have been confirmed and holds true. This study has confirmed that even though rural households are likely to have less income than their urban counterparts, the magnitude of wealth in rural and urban households is almost equal since rural households have little to no debt and consume less than urban households. The substituted regression equation used to test hypothesis 2 shows that wealth is a much stronger predictor of consumption, than income in a rural setting (-125.623052562). However this relationship is not statistically significant and the R-square value is low (0.354691).
The substituted regression equation shows that income is a much stronger predictor of consumption than wealth in an urban setting. This relationship is significant and the R-value is high (0.907108).

Given the limited income and employment opportunities in the rural setting, wealth in the form of (land, farm stock and agricultural produce) is seen to be a stronger predictor of consumption than income. Even though the assumption held and findings showed that wealth is a much stronger predictor of consumption, than income in a rural setting, the relationship between consumption and the predictor variables – wealth and income was not statistically significant. This study has shown that wealth rather than income is a driver of consumption in rural areas in South Africa.

Previous research has shown the important role that living in a rural area plays in conditioning and determining economic flows, such as income, employment and poverty (Marre', 2014). The results from this study contradicts previous findings like that of Fisher and Weber (2004:1) who showed that living in non-metro counties (rural) increases the likelihood of asset poverty. Similarly, Marré and Pender (2013) showed that differences in net worth and assets are at least in part affected by living in non-metropolitan areas. This echoes other literature that has shown a "non-metro effect" on a wide variety of other outcomes (Weber et al., 2005). This study has proven that although income is less in rural areas, wealth in the form of land and livestock is high.

6.6 Contribution to Knowledge

In order to contribute significantly to knowledge, the following objectives were set out at the commencement of this study:

1) To build on Booysen *et al's* work by constructing a composite measure of wealth using General Household data. This will add to literature and knowledge.

2) To examine urban/rural differences in the magnitude and composition of wealth.

3) To test the hypothesis that household income and consumption have an effect on wealth.

Objective 1:

Booysen's study found that rural poverty in all cases exceeded urban poverty (Booysen et al. 2005:30). However, limitations in terms of the asset index not containing a complete measure of household wealth meant that the findings of the study need to be cautiously interpreted. "The asset index approach to analysis of poverty is unfortunate as the available income and expenditure data for African countries often are unreliable, patchy and not directly comparable" (Booysen et al. 2005:31). This study has built on Booysen's research by firstly contributing to literature in addressing the gaps stated in Booysen's work. Secondly, this study utilised General Household data as well as data from The South African Reserve Bank to construct measures of wealth. These wealth measures have been constructed at a national level as well as provincial level to represent both rural and urban economies. Objective 1 has thus been met. The created wealth models will provide further research with the models required to compare the variables (wealth, consumption and income) at a national level. The created models also provide the opportunity to measure urban rural differences in wealth and income inequality.

Objectives 2 & 3:

There are very few studies which compared income and wealth in urban versus rural households in South Africa and therefore this study sought to understand wealth and income differences among South Africans at a national level as well as differences in wealth and income in urban versus rural households.

This is the first study from literature reviewed that develops a time series model in the South African context for a period and trend between 1975-2016 for wealth, income and consumption variables at a national level as well as provincial (Eastern Cape and Gauteng) level . This constitutes a methodological contribution.

The developed models will confirm the effect of independent variables on dependent variables and further determine the strength and direction of the relationship. These models may be used in determining provincial budget spend and prioritization of budgets in future between rural and urban communities.

6.7 Implications of the Findings to Practice

This study envisaged to inspire targeted policy interventions for rural and urban communities.
The model developed in this study will contribute towards policy formulation which will aide economic development. Economic transformation policies will need to be designed by taking both urban and rural areas into account as a blanket approach will not be successful in alleviating poverty and promoting economic inclusion. Measures of wealth and sources of income are different in the different geographical areas and therefore specific policies need to be created to benefit both regions with focused attention.

This study identified variables (Wealth, Consumption and Income) at a national as well as rural and urban levels which needed to be measured in order to test the 3 stated hypotheses. However, there is a scarcity in related research and previous studies did not focus on comparing rural urban differences in income and wealth. This study created models which can be applied to measure income, wealth and consumption at a national level as well as in rural and urban areas. The final contribution of this study is to influence policy by using evidence from this research in policy development that narrows inequality gaps.

6.8 Study Limitations and Avenues for Further Research

The focus of this study was to obtain data for both rural and urban areas and the Eastern Cape was identified as the proxy for rural areas and Gauteng the proxy for urban areas. The major concern with this is that prior to 1994 South Africa consisted of only 4 provinces (Cape Province, Transvaal Province, Natal Province and Orange Free State Province). With the dawn of the 1994 first democratic elections, these 4 provinces were dissolved into 9 provinces with the Eastern Cape and Gauteng making up 2 of the 9 new provinces. This makes it difficult obtaining provincial data prior to 1994. Although institutions were setup post 1994, the systems were only up and running a few years later (post 2000) therefore the availability of applicable data for the period prior 1994 has been a limitation. Therefore all available data sources do not contain the necessary data as these provinces did not exist and there is definitely a need to further research in trying to obtain this missing data.

The General Household survey, although a source of data is continuously evolving to ensure that all data it contains is relevant. This however, causes difficulty as some of the questions are not carried across from year to year which makes it difficult when trying to obtain time series data. Therefore the unavailability of critical data has been a limitation.

It has always been assumed that urban dwellers are wealthier than their counterparts living in rural areas. However, there is dearth in research regarding this concept as the proxies for measuring wealth in rural areas are not the same as in urban areas. This study looked at home ownership as the proxy to measure household wealth. While this may hold true for urban areas, the measure of wealth in rural areas is different. For example, in rural areas, wealth can be measured by ownership of livestock, crops, etc. Existing surveys fail to consider this aspect of asset ownership.

References

Abdu-Raheem, K.A. and Worth, S.H. 2011. *Household food security in South Africa: evaluating extension's paradigm relative to the current food security and development goals.* South African Journal of Agricultural Extension, 39(2): 91–103.

Allison, D. 2000. *Reading the New Nietzsche*. 1st ed. Lanham, Maryland: Rowman & Littlefield Publishing.

Alvaredo, F. and Atkinson, A. B. 2010. Colonial rule, apartheid and natural resources: Top incomes in South Africa, 1903-2007. London: Centre for Economic Policy Research.

Amiel, Y. and Cowell, F.A. 1992. *Measurement of income inequality: Experimental test by questionnaire.* Journal of Public Economics, 47: 3—26.

Amiel, Y. and Cowell, F.A. 1999. *Income transformations and income inequality.* Advances in Econometrics, Income Distribution and Scientific Methodology. Heidelberg: Physica Verlag, 209-232

Apergis, N., Dincer, O. and Payne, J.E. 2011. *On the dynamics of poverty and income inequality in US states.* Journal of Economic Studies 38:132–143

Aron, J. and Muellbauer, J. 2006. Estimates of household sector wealth for South Africa, 1970–2003. *Review of Income and Wealth*, 52(2): 285–307.

Ataguba, J.E., Akazili, J. and McIntyre, D. 2011. Socioeconomic-related health ineqaulity in South Africa: evidence from General Household Surveys. International Journal for Equity in Health. 10(48).

Barrett, C.B. 2005. Rural poverty dynamics: development policy implications. *Reshaping Agriculture's Contributions to Society.*

Basu, S. and Mallick, S. 2008. *When does growth trickle down to the poor? The Indian case.* J. Econ. Cambridge, 32:461-477.

Beinart, W. 2001. Twentieth-century South Africa, Oxford University Press. (231).

Besley, T. and Burgess, R. 2003. Halving Global Poverty. Journal of Economic Perspectives. 17(3): 3-22.

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*? Trade Industrial Policy Strategies (online). Available: http://www.tips.org.za/files/income_and_non-income_inequality_in_post-apartheid_south_africa_-bhorat_van_der_westhuizen_jacobs.pdf Accessed: 12 April 2017

Bhorat, H., Leibbrandt, M., Maziya, M., van der Berg, S. And Woolard, I. 2001. *Fighting Poverty: Labour Markets and Inequality in South Africa*. Cape Town, South Africa: UCT Press.

Bloom, D.E., David, C. and Jaypee, S. 2001. *Economic Growth and the Demographic Transition*. Working Paper 8685. National Bureau of Economic Research, Cambridge: MA. 152.

Booysen, F., van der Berg, S., Burger, R., von Maltitz, M. and du Rand, G. 2005. Using an Asset Index to Assess Trends in Poverty in seven Sub-Saharan African Countries. In: *Conference on Multidimensional Poverty*. Brasilia: UNDP

Brooks, C. 2008. Introductory Econometrics for Finance. The ICMA Centre, University of Reading, Cambridge. 2nd edition

Bruniaux, C., Galtier, B. (2003). L'étude du devenir des enfants de familles défavorisées : l'apport des expériences américaine et britannique. Les Papiers du CERC, 2003-01.

Chaharbaghi, K. and Newman, V. 1997. The crisis of wealth creation. *Management Decision,* 35(7): 527 – 540.

Chetty, R., Friedman, J. N., Hilger, N., Saez, E., Schanzenbach, D. W. And Yagan, D. 2011. How does your kindergarten classroom affect your earnings? Evidence from Project STAR. *The Quarterly Journal of Economics,* 126(4): 1593-1660.

Claessens, S. and Erik, F. 2006. Financial Sector Development and the Millennium Development Goals. World Bank working paper number. 89

Collier, P. 1999. Justice Seeking and Loot-seeking in Civil War. World Bank

Corak, M. 2006. Do Poor Children Become Poor Adults? (online). Bingley, West Yorkshire: Emerald Group Publishing. Available: http://dx.doi.org/10.1016/S1049-2585(06)13006-9. (Accessed 10th July 2015)

Damant, D. 2000. Creating Wealth from thin air. *Balance Sheet,* 8(1): 37-39.

Dasgupta, P. and Maler, K. G. 2001. *Wealth as a Citerion for Sustainable Development.* Stockholm: University of Cambridge and Beijer International Institute of Ecological Economics.

de Janvry, A. and Sadoulet, E. 2000. Growth, poverty, and inequality in Latin America: A causal analysis, 1970–1994. *Review of Income and Wealth*, 46(3): 267–287.

Demirguc-Kunt, A. and Levine, R. 2009. Finance and Inequality: Theory and Evidence. (online) Available:
https://pdfs.semanticscholar.org/20c9/fe5df5935bd4dd07d0c7b0a40041c1d6e32d.pdf
Accessed: 07 March 2017

De Villiers B. 2003. Land reform: Issues and challenges – A comparative overview of experiences in Zimbabwe, Namibia, South Africa and Australia. Konrad Adenauer Foundation: Johannesburg.

Dollar, D. and Kraay, A. 2002. Growth is good for the poor. *Journal of Economic Growth*. Development Research Group. The World Bank.

Easterly, W. and Levine, R. 1997. *Africa's Growth Tragedy: Policies and Ethnic Divisions.* Quarterly Journal of Economics 112 (4) 1203-50

Edmunds, J. C. and Potter, M. E. 1999. Financial wealth and the distribution of income. *Marketing Intelligence & Planning*, 53 - 61.

Eicher, T.S. and Garcia, C. 2001. Inequality and Growth: The Dual Role of Human capital in Development. Journal of Development Economics 66, 173-197.

Enkins, P. and Max-Neff, M. 1992. Development and Human Needs. In: *Real-life Ecocomics: Understanding Wealth Creation.* London: Routledge, 197-213.

Everatt, D. 2003. The politics of poverty. In: Everatt, D. and Maphai, V. ed. *The Real State of the Nation.* Johannesburg: Interfund. 229.

Fabrigar, L. R., Wegener, D. T., MacCallum, R. C. and Strahan, E. J. 1999. Evaluating the use of exploratory factor analysis in psychological research. *Psychological Methods,*4(3): 272–299.

Fagerberg, J. 1994. *Technology and International Differences in Growth Rates*, Journal of Economic Literature, 32: 1147—1175

Hair, J. F., Anderson, R. E.,Tatham, R. L., and Black, W. C. 1998. Multivariate Data Analysis. 5th ed. Upper Seddle River: New Jersey, USA: Prentice-Hall International, Inc.

Hamilton, L. 2014. *Are South Africans Free*? New York: Bloomsbury Publishing Plc.

Harling, G., Ehrlich, R. & Myer, L. 2008. *The social epidemiology of tuberculosis in South Africa: a multilevel analysis.* Social Science and Medicine, 66:492-505.

Hefferan, C. 1982. *Determinants and Patterns of Family saving.* Home Economics Research Journal, 11(1): 47-55.

Herrington, A. 2008. Maslow's hierarchy, societal change and the knowledge worker revolution (online). Available: http://www.pateo.com/art6pf.html . (Accessed 12 September 2015).

Honohan, P. 2004. *Financial Development, Growth and Poverty: How Close are the Links.* Financial Development and Economic Growth: Explaining the Links. London: Palgrave.

Hubbard, R., Skinner, J. and Zeldes, P. 1995. Precautionary Saving and Social Insurance. *The Journal of Political Economy,* 103(2): 360-399.

Jappelli, T. and Modigliani, F.1998. *The age-saving profile and the life-cycle hypothesis.* Departimento di Scienze Economiche, Universita degli Studi di Salerno, CSEF Working Paper No. 9 (online). Available:

http://ojs.uniroma1.it/index.php/PSLQuarterlyReview/article/view/9845

Accessed: 05 March 2017.

Jappelli, T. and Pistaferri, L. 1999. *The Dynamics of Household Wealth Accumulation in Italy.* Italy: Centre for Studies in Economics and Finance (online). Available: http://www.csef.it/WP/wp27.pdf (Accessed 23 September 2015).

Jappelli, T. and Pistaferri, L. 1998. The Age-Saving Profile and the Life-Cycle Hypothesis. Centre for Studies in Economics and Finance (online). Available: http://www.cs.odu.edu/~dlibug/ups/rdf/remo/sef/csefwp/wp9.pdf. (Accessed 23 September 2015)

Jing, J. X. and Noring, F. E. 1994. Perceived saving motives and hierarchical financial needs. *Financial Counseling and Planning*, 5(1): 1-5.

Kanbur, R. 2005. Growth, Inequality and Poverty: Some Hard Questions. *Journal of International Affairs*

Kanbur, R. and Venables, A.J. 2005. *Spatial Inequality and Development Overview of UNU-WIDER Project* (online). Available: http://www.arts.cornell.edu/poverty/kanbur/WIDERProjectOverview.pdf   Accessed: 14 April 2017.

Kelly, S. 2015. Dynamics of Inequality and Poverty. *Wealth Inequality: Lifetime and Cross-Sectional Views,* 123-139.

Khor, M. 2000. Globalization and the South: Some Critical Issues. Available: https://www.researchgate.net/publication/23694137_Globalization_and_the_South_Some_Critical_Issues

(Accessed 23 September 2015)

Klasen, S. and Woolard, I. 2008. *Surviving unemployment without state support: unemployment and household formation in South Africa*. Journal of African Economics 18(1):1-51

Kuhn, K. 2010. *Note on household wealth in South Africa. Quarterly Bulletin, September.* Pretoria: South African Reserve Bank.

Kuznets, S. 1955. Economic Growth and Income Inequality. *American Economic Review*, 45(1)1–28.

Landes, D. 1998. The Wealth and Poverty of Nations: Why are Some so Rich and Others so Poor. California: EH.NET.

Lehohla, P. 2014. *Poverty Trends in South Africa. An examination of absolute poverty between 2006 and 2011*. Pretoria: Statistics South Africa.

Leibbrandt, M., Woolard, I., McEwen, H. and Koep, C. 2009. *Employment and Inequality Outcomes in South Africa.* Cape Town: Southern Africa Labour and Development Research Unit (SALDRU) and School of Economics, University of Cape Town.

Leubolt, B. 2015. One or two nation projects? Discourse on inequalities and equality-related policies in South Africa and Brazil. *Rev.Sociol. Polit.* 23(55).

Levy, D. M. and Peart, S. J. 2006. The fragility of a discipline when a model has monopoly status. *Rev Austrian Econ*, 19: 125-136.

Li, H., & Zou, H. (1998). Income inequality is not harmful to growth: theory and evidence. *Review of Development Economics,* 2(3), 85

Li, H., & Zou, H. (1998). Explaining international and intertemporal variations in income inequality. *Economic Journal,* 108, 26-43*.*

Litchfield, J. 1999. "Inequality Methods and Tools." Suntory and Toyota International Centers for Economics and Related Disciplines, London School of Economics (March), London, England. Available:
http://www.worldbank.org/poverty/inequal/methods/index.htm .
Accessed 13 February 2017.

Loury, G.C. 1981. Intergenerational transfers and the distribution of earnings. *Econometrica*, 49(4):843-67.

Marre', A. and Pender, J. 2013. The Distribution of household new worth within and across rural areas: Are there links to the natural resource base? *American journal of agricultural economics*, 95(2): 457-462.

Marsh, D. and Furlong, P. (2002), 'A Skin, Not a Sweater: Ontology and Epistemology in Political Science' in Marsh, D. and Stoker, G. (eds.), Theories and Methods in Political Science, Basingstoke: Palgrave, pp. 17–44.

Marx, K. 1932. *The Economic & Philosophic Manuscripts of 1844*. Moscow: Progress Publishers.

Maslow, A. H. 1943. A theory of human motivation. Psychological Review, 50(4): 96-370.

McCornac, D. C. and Cullen, A. 2015. Wealth sharing for success in Vietnam: fishing for the net gain. *International Journal of Development Issues,* 14 (1): 26 – 40.

Mellor, J.M. and Milyo, J.J. 2001. Reexamining the evidence of an ecological association between income inequality and health. *Health Polit Policy Law*, 26(3):487-522

Mensah, E., Abor, J., Aboagye, A. Q. Q. and Adjasi, C. K. D. 2012. *Enhancing the Economic Growth of Africa: Does Banking Sector Efficiency Matter?* (online). Bingley, West Yorkshire: Emerald Group Publishing. Available: http://dx.doi.org/10.1108/S1479-563(2012)000012B005. (Accessed 05th July 2015).

Modigliani, F. and Brumberg, R.H. 1954, *Utility analysis and the consumption function: an interpretation of cross-section data.* K.K. Kurihara ed., Post Keynesian Economics, Rutgers University Press, New Brunswick, pp. 388-436.

Modigliani, F. and Brumberg, R.H. .H. 1980. *Utility analysis and aggregate consumption functions: an attempt at integration*, in A. Abel ed., The Collected Papers of Franco Modigliani, volume 2, The Life Cycle Hypothesis of Saving, The MIT Press, Cambridge: Mass.128-97

Mohammad, A. Z., Ramses, H. and Abul, N. 2014. Health and Inequality. *Wealth, Health, and the Measurement of Multidimensional Inequality: Evidence from the Middle East and North Africa,* 421-439.

Momentum. 2012. The Momentum/UNISA South African Household Wealth Index Q4 2012. Pretoria: Momentum.

Morris, J.N., Donkin, A.J.M. and Wonderling, D. 2000. A minimum income for healthy living. *Journal of Epidemiology & Community Health*, 54: 885-889.

Myer, L., Stein, D.J., Grimsrud, A. Seedat, S and Williams, D.R. 2008. *Social determinants of psychological distress in a nationally-representative sample of South African adults.* Social Science Medicine. 66(8):1828-1840

Nielson, H.B. 2005: 1 *Linear Regression with Time Series data* (online). Available: http://www.econ.ku.dk/metrics/Econometrics2_05_II/LectureNotes/regression.pdf (Accessed 02 February 2017).

Norris, M. and Lecavalier, L. 2009. Evaluating the Use of Exploratory Factor Analysis in Developmental Disability Psychological Research. *Journal of Autism and Developmental Disorders,*40 (1): 8–20.

Norusis, M. J. 1998. *Guide to Data Analysis (SPSS 8.0)*. New Jersey: Prentice Hall.

Odhiambo, N. M. 2009. Electricity consumption and economic growth in South Africa: A trivariate causality test. Energy Economics 31: 635-640.

Okojie, C. And Shimeles, A. 2006. *Inequality in sub-Saharan Africa: a synthesis of recent research on the levels, trends, effects and determinants of inequality in its different dimensions.* London: Overseas Development Institute.

Olson, M. Jr. "Big Bills Left on the Sidewalk: Why Some Nations Are Rich and Others Poor. Journal of Economic Perspectives 10. No. 2 3-24.

Piketty, T., Postel-Vinay, G. and Rosenthal, J. 2010*. Inherited vs Self-Made Wealth: Theory & Evidence from a Rentier Society*. Paris: Paris School of Economics.

Prinsloo, J. W. 2002. *Household debt, wealth and saving- Quarterly Bulletin, No. 226*. Pretoria: South African Reserve Bank.

Ravallion, M. and Chen, S. 2003. 'Measuring Pro-Poor Growth,' Economics Letters, 78(1), 93-99.

Reza C., Daniels, A., Partridge, D. and Musundwa, S. 2013. Rural Livelihoods in South Africa. South Africa: Southern Africa Labour and Development Research Unit.

Rioja, F. and N. Valev, 2003. Finance and the sources of growth of various stages of economic development. Economic Inquiry, 42(1):127-140

Rowlingson, K. 2011. *An independent review of the evidence about the impact of inequality.* United Kingdom: Joseph Rowntree Foundation.

Sala-i-Martin, X. and Pinkovskiy, M. 2010. African Poverty is Falling...Much Faster than you think. National Bureau of Economic Research.

Sartorius, K., Sartorius, B. K. D., Collinson, M. A. & Tollman, S. M. (2014). The dynamics of household dissolution and change in socio-economic position: A survival model in a rural South Africa. Development Southern Africa, 31(6):775–795.

Seekings, J. Nattrass, N. 2004. The Post-Apartheid Distributional Regime, CSSR Working Paper no 76, Cape Town: Centre for Social Science Research, University of Cape Town.

Shackleton, C.M., Shackleton, S.E. and Cousins, B. 2001. The role of land-based strategies in rural livelihoods: The contribution of arable production, animal husbandry and natural resource harvesting in communal areas in South Africa, Development Southern Africa, 18(5):581-604

Sharma, S. 2012. *Rising inequality in South Africa: Drivers, trends and policy*. South Africa.

Statistics South Africa. 1999. *October Household Survey*. Pretoria: Statistics South Africa.

Statistics South Africa. 2009. *Living Conditions of Households in South Africa, 2008/2009*. Pretoria: Statistics South Africa.

Statistics South Africa. 2014. *Poverty Trends in South Africa. An examination of absolute poverty between 2006 and 2011*. Pretoria: Statistics South Africa.

Statistics South Africa. 2015. *Quarterly Employment Statistics*. Pretoria: Statistics South Africa.

Statistics South Africa. 2015. *Quarterly Financial Statistics*. Pretoria: Statistics South Africa.

Terreblanche, S. J. 2002. *A History of Inequality in South Africa, 1652 to 2002*. University of Natal Press, Pietermaritzburg.

The World Bank. 2014. *The World Bank GINI Index*. Washington: The World Bank.

The United Nations Development Program. 2010. Human *Development Report 2010*. New York: The United Nations.

The United Nations Development Program. 2012. Human *Development Report 2012*. New York: The United Nations.

The United Nations Development Program. 2013. Human *Development Report 2013*. New York: The United Nations.

The United Nations Development Program. 2014. *Human Development Report - Sustaining Human Progress*. New York: United Nations.

Thorbecke, E. 2013. The Interrelationship Linking Growth, Inequality and Poverty in Sub-Saharan Africa. *Journal of African Economies,* 22(1): pp15–48.

Todaro, M. 1997. Economic Development. 6th edition. London: Longman. Pg 16

Van der Berg, S. et al. 2006. Trends in Poverty and Inequality since the Political Transition. Development Policy Research Unit Working Paper 06/104.

Whiteford, A. and Posel, D. 1995. *A profile of poverty, inequality and human development*. Human Sciences Research Council.

Wilkenson, R.G. and Pickett, K. 2009. The Spirit Level: Why More Equal Societies Almost Always Do Better. Bloomsbury Press.

Woolard, I. and Leibbrandt, M. 2006. *Towards a Poverty Line for South Africa.* Cape Town: Southern Africa Labour and Development Research Unit, University of Cape Town.

Woolard, I., Leibbrandt, M. and McEwen, H. 2009. The Persistence of High Income Inequality in South Africa: Some Recent Evidence. In: Hofmeyr, J. ed. *Transformation Audit: Recession and Recovery.* Cape Town: Institute for Justice and Reconciliation, 98-106.

Zhang, W. B. 2015. Tourism, Trade and Wealth Accumulation with Endogenous Income and Wealth Distribution among Countries. *Ecoforum,* 4(1): 1-14.

Zucman, G. And Piketty, T. 2014. Wealth and Inheritance in the Long Run. Paris: Paris School of Economics.

Appendices

Year	Wealth	Income	Consumption
1975	72	696	16058
1976	76	747	18158
1977	84	859	20120
1978	96	900	22447
1979	121	1056	26062
1980	151	1302	32858
1981	180	1440	40759
1982	216	1652	47901
1983	252	1896	55863
1984	259	2189	64968
1985	291	2493	73693
1986	356	2830	87788
1987	386	3376	105036
1988	442	3997	127716
1989	548	4625	151504
1990	576	5346	183410
1991	688	6038	211708
1992	730	6923	240282
1993	925	7495	269874
1994	1049	8272	308770
1995	1140	9214	353658
1996	1228	10093	397026
1997	1329	11247	445271
1998	1385	11859	484151
1999	1681	12642	529270
2000	1837	13939	597226
2001	2117	14979	657893
2002	2239	16535	739843
2003	2572	17523	802796
2004	3131	19588	913536
2005	3724	21350	1015876
2006	4514	23040	1137717
2007	5026	25769	1296996
2008	4784	28211	1421795
2009	5414	29410	1492269
2010	6013	31503	1621836
2011	6219	34443	1801092
2012	7047	37237	1983604
2013	8119	39686	2144185
2014	8982	41879	2281532

2015	9382	44039	2410401
2016	9861	46771	2577869

Source: South African Reserve Bank (online). Available
https://www.resbank.co.za/Research/Statistics/Pages/OnlineDownloadFacility.aspx. Accessed: 12
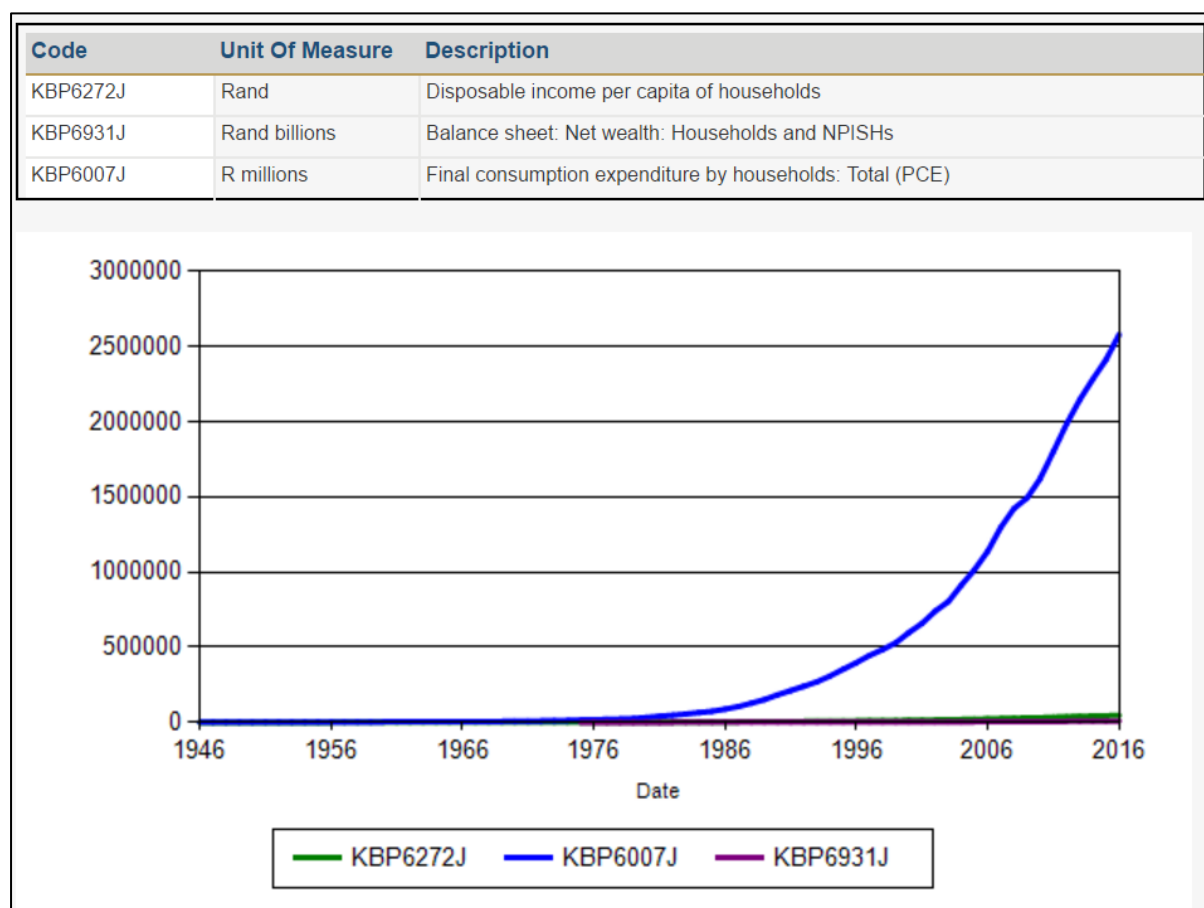December 2017.

**Notes:

Wealth = Balance sheet: Net wealth: Households and NPISHs; Unit of Measure = Rand Billions

Income = Disposable income per capita of households; Unit of measure = Rands.

Consumption = Final consumption expenditure by households; Unit of meaure = Rands Millions.

APPENDIX 2 – HYPOTHESIS 1: VARIABLES COMPARISON GRAPH

Code	Unit Of Measure	Description
KBP6272J	Rand	Disposable income per capita of households
KBP6931J	Rand billions	Balance sheet: Net wealth: Households and NPISHs
KBP6007J	R millions	Final consumption expenditure by households: Total (PCE)

Source: South African Reserve Bank (online). Available
https://www.resbank.co.za/Research/Statistics/Pages/OnlineDownloadFacility.aspx. Accessed: 12
December 2017.

Year	Wealth (Rural)	Income (Rural)	Consumption (Rural)	Wealth (Urban)	Income (Urban)	Consumption (Urban)
2001	-	29334	-	-	78541	-
2009	71,17	-	20856	33,56	-	42372
2010	71,25	-	21372	40,01	-	44208
2011	61,81	64550	21840	37,53	156222	45912
2012	62,72	-	19572	34,41	-	49836
2013	66,45	-	19956	36,48	-	51876
2014	65,43	-	20340	32,77	-	54012
2015	62,13	90156	20724	31,9	193771	56280